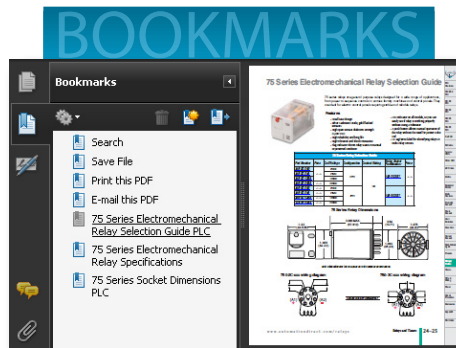


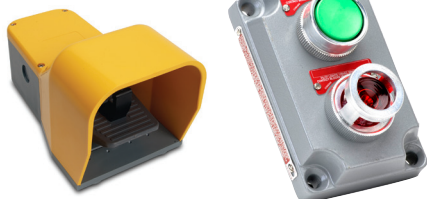


Pilot Devices



In this interactive PDF you can:

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- Use bookmarks to save, search, print or e-mail the catalog section
- Click on part #s to link directly to our online store for current pricing, specs, stocking information and more



Quality pilot devices at incredible prices . . . order today, install tomorrow

Fuji Electric

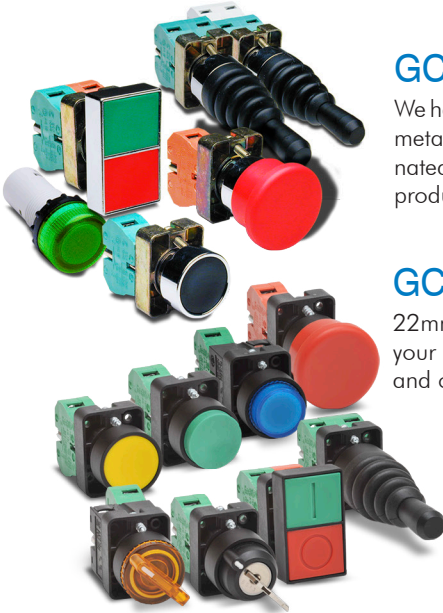
Fuji 22mm and 30mm metal pilot devices

We offer a full line of Fuji 22mm pilot devices such as illuminated and non-illuminated pushbuttons, selector switches, joysticks and buzzers. We also carry Fuji 30mm non-illuminated pushbuttons which include a large 65mm operator for added visibility and easy operation.



GCX series 22mm metal pilot devices

We have teamed up with European partners to offer you even more quality options in 22mm metal operator switches and pushbuttons. The GCX series is a complete line of illuminated or non-illuminated momentary pushbuttons, emergency stop buttons, rotary switch products and LED indicator lights.



GCX series 22mm plastic pilot devices

22mm plastic pushbuttons - a rugged yet economical line of plastic pilot devices for your operator panel designs. These are made with fiberglass reinforced thermoplastic and can be used as a direct replacement for existing 22mm metal pilot devices.

PATLITE Slim Design LED Stacklights

PATLITE's stacklight slim design systems are beautifully designed stacklights that offer a variety of body material choices that include rust-free aluminum, ABS or shock-resistant polycarbonate. All models use LEDs for reliable bright and efficient lighting. Various models available for your specific needs with features that include direct-mounting, stackable, impact and heat resistance, buzzer options, IP69k ratings (LS7 model only), and many more options.

- Modular system allows combination as required
- 25, 30, 40 and 70mm diameter
- Red, green, amber, blue, and white colors available



WERMA modular stack lights

WERMA's modular stack light system offers you total flexibility since it lets you choose for a completely free combination of optical and audible signal elements. The bayonet mechanism allows elements to be mechanically and electrically connected within seconds.

This means that elements can be safely and easily changed (contact-voltage proof) without the need for tools.

- Signal elements in common voltages (24V DC and 115V AC)
- Modular system allows combination as required
- 70 and 50mm diameter (not all features are available on 50mm models)
- Red, green, blue, yellow and clear colors available
- Siren with self adjusting sound output just one of a wide range of audible elements

WERMA 70mm and 50mm stack light components with a variety of incandescent, LED and other visual and audible elements

- Incandescent Permanent
- LED Permanent
- LED Flashing
- Xenon Flashing
- LED Blinking
- LED Rotating

WERMA signaling devices

Signaling devices from WERMA include permanent, flashing and rotating beacons in various diameters, colors and mounting options, as well as audible alarm buzzers.



WERMA
SIGNALTECHNIK



Cutler-Hammer parts are available for sale in North America only.

Cutler-Hammer 30mm NEMA HT800 series

We took advantage of the experience of Cutler-Hammer engineering to take existing product technology and make it better. We proudly offer you the HT8 series of 30mm pilot devices from Cutler-Hammer.

Cutler-Hammer E22 series 22mm non-metal pushbuttons and switches

The 22mm pushbutton line offers an array of functional, smartly-styled illuminated and non-illuminated push buttons, selector switches, and more.



- 22mm non-metal pilot devices
- Flush, extended, illuminated, mushrooms, E-stops, and a full line-up of switches

Killark Hazardous Location Controls

Assemblies: factory sealed and unsealed models available

- Pushbutton Control Station
- Pilot Light Control Station
- Pushbutton/Pilot Light Combo Control Station
- Mushroom Pushbutton Control Station
- Selector Switch Control Station
- Device/Splice Boxes
- Accessories and more



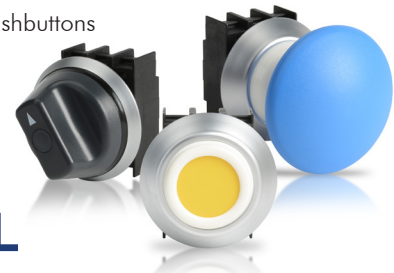
Schmersal control and signalling devices

These devices are specially designed to meet an ingress protection rating of IP69K. Specially designed for food processing, pharmaceutical, and medical applications where special cleaning requirements and prevention of cross-contamination are required.

Schmersal control and signaling devices include:

- Illuminated & Non-illuminated 22mm IP69K Plastic Pushbuttons
- Non-illuminated IP69K Mushroom Pushbuttons
- IP69K Emergency Stop Pushbuttons
- IP69K Indicator Lights
- Non-illuminated 22mm IP69K Plastic Selector Switches

 **SCHMERSAL**



Schmersal contact blocks and light terminal blocks

These contact blocks and light terminal blocks are designed for low voltage applications and include a self-cleaning bridge system known as Elan four-way system. Their quality construction provides high resistance to shock and vibrations. Contact blocks are available for various NO/NC configurations and the light terminal blocks are available in various colors and voltages ranging from 115 - 230 VAC and for 24V AC/DC.



IDEM Emergency Stop Control Stations

IDEM E-Stop control stations are designed to provide emergency stop protection for exposed conveyors, machinery, etc. Both ES and ESL series E-stop switches are available with button protection guard and padlock holes for maintenance lock off.

Double and single foot switches

Choose these switches for foot switch-operated machines such as shearing machines, spinning machines, spinning lathes, machine tools, wrapping machines, riveting machines, and riveting presses. AutomationDirect stocks foot switches in safety anti-trip, free moving and free moving maintained operational formats.



GCX Series 22mm Plastic Pilot Devices

Features

Any combination of contact blocks is allowed, up to a total of six (two blocks wide and three blocks deep)

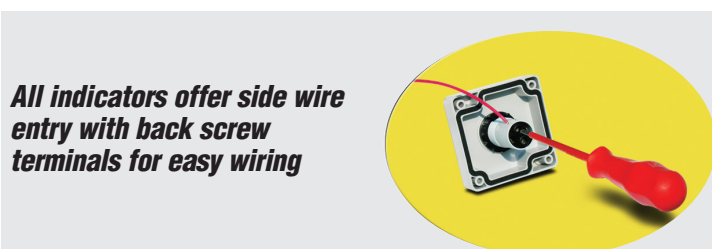
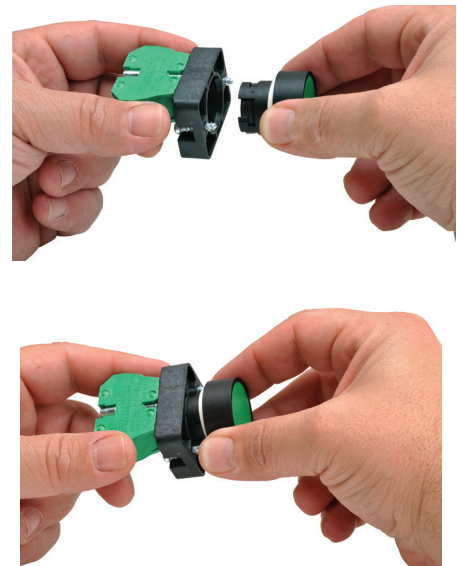
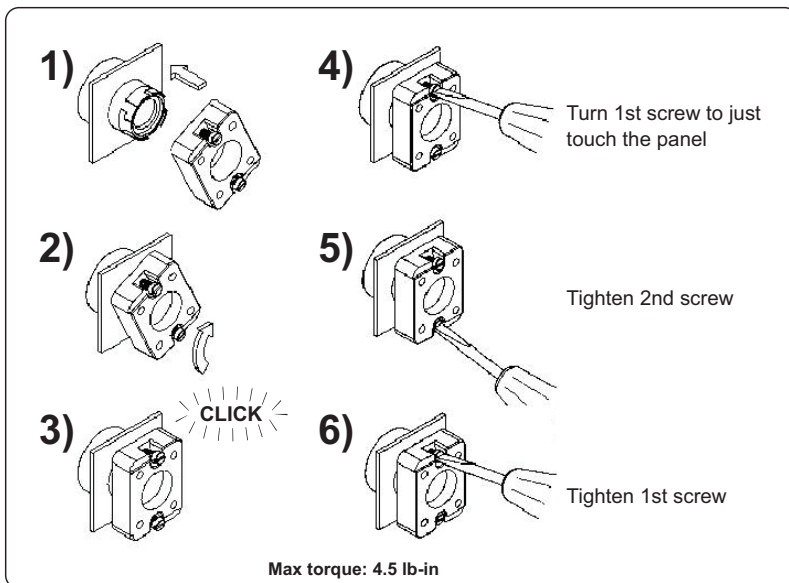
Secure mounting method eliminates twisting in mounting hole

Support base mounts into panels up to 6 mm thick

Operators are protected to IP 40 or IP65 (see specifications below)

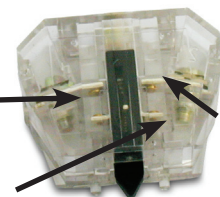
Fiberglass reinforced thermoplastic bezel

Easy installation



Self-cleaning silver contacts provide reliable, low-energy switching

Contacts rated A300
(Refer to E22 Series mounting/contact rating section for details)



Pressure plate wiring terminals for easy, secure wiring, accepting up to 14 AWG wire

Clear contact block for illustration purposes. Clear contact blocks are not available for sale from AutomationDirect.

GCX/ECX Series 22mm Plastic Pilot Devices Selection Guide



Flush

- Momentary 30 mm operators
- Available in six colors: black, red, yellow, blue, white and green
- One contact block included
- ON/OFF models also available



Ours: \$4.75 (GCX3100)



Allen-Bradley: \$55.16* (800F-MX10, 800F-ALM + 800FP-F2)



Extended

- Momentary 30 mm operators
- Available in six colors: black, red, yellow, blue, white and green
- One contact block included



Ours: \$5.00 (GCX3110)



Allen-Bradley: \$58.05* (800F-MX10, 800F-ALM + 800FP-E2)



Two way

- Two way on/off control
- With or without illuminated indicators
- One NO and one NC contact block included



Illuminated

- Available in clear, red, yellow, blue, white and green
- Momentary and push-push styles
- Flush or extended operators available
- 24 and 120-volt models
- Incandescent and LED models
- One contact block included



Ours: \$9.25 (GCX3212-24)



Allen-Bradley: \$62.86* (800F-MX10, 800F-ALM + 800FP-LF3)



Mushroom

- Available in momentary, twist-to-release, and key release models
- One contact block included
- Also available in incandescent and LED illuminated models



Ours: \$9.25 (GCX3131)



Allen-Bradley: \$85.39* (800F-MX10, 800F-ALM + 800FP-MT44)



Selector switches

- Two and three-position in spring return and maintained, non-illuminated and illuminated
- Incandescent and LED models
- Contact block included



Ours: \$7.25 (GCX3300)



Allen-Bradley: \$62.48* (800F-MX10, 800F-ALM + 800FP-SM22)



Key switches

- Two and three-position
- Contact blocks included



Ours: \$13.50 (GCX3420)



Allen-Bradley: \$92.94* (800F-MX10, 800F-ALM + 800FP-KM21)



Joysticks

- Two and four-position, maintained and momentary
- Contact blocks included



Indicator lights

- Available in popular colors
- 24 and 120-volt models
- Frosted diffuser for even lighting
- Incandescent or LED indicators



Ours: \$5.50 (ECX1052-24)



Allen-Bradley: \$53.57* (800FP-P3 + 800F-ALM + 800F-D3C)

Accessories



• One through six-hole enclosures



• Bulbs and LEDs



• Protective actuator caps

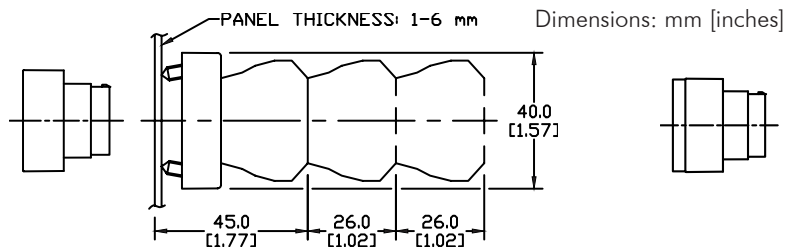
*All prices are U.S. published prices. AutomationDirect's prices are from April 2014 Price List. Prices and specifications may vary by dealer and configuration. Allen-Bradley industrial control component prices from www.rockwellautomation.com/en/e-tools 2/28/2014.

GCX Series 22mm Plastic Pilot Devices Specifications

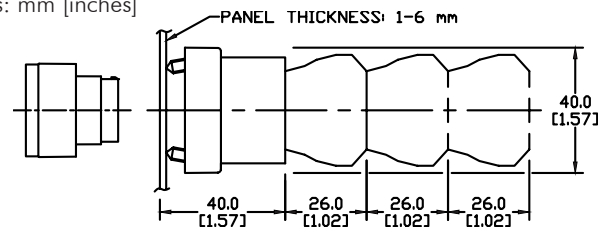
Assembly information

These pushbuttons and indicator lights are supplied with the appropriate contact blocks, unless otherwise indicated. Use these drawings as a guide to make sure there is adequate clearance behind the panel.

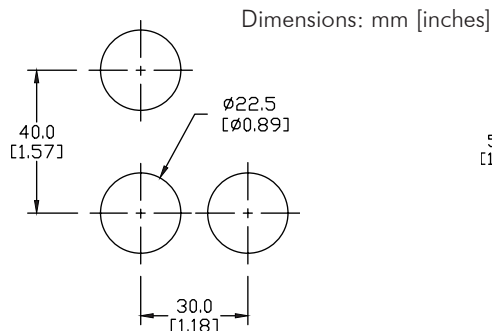
Pushbuttons and selector switches



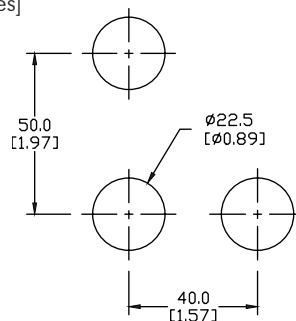
Illuminated pushbuttons and selector switches/indicator lights



Mounting



This layout is suitable if all switches are 230V or less and the same polarity.

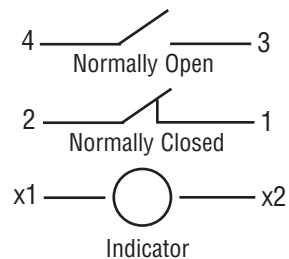


This layout is suitable if all switches are 400V or less and different polarity.

NOTE: Contact blocks can be arranged up to three deep by two wide.



Typical Wiring



Specifications

These specifications apply to all the GCX and ECX 22mm plastic pushbuttons and switches.

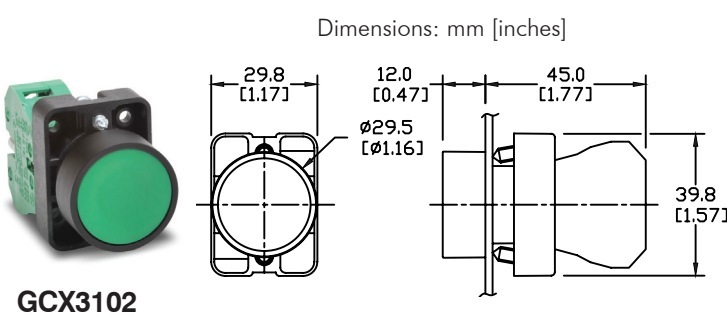
Physical Specifications		Electrical Specifications	
Standards Reference	CEI EN 60947-5-1, CSA C22-2 n.14	Rated Thermal Current (contact block)	A300, Q300 (Refer to E22 Series mounting/contact rating section for details)
Approvals	UL File E189258, IMQ (where specified)	Rated Insulation Voltage	Ui 660V according to CEI EN 60947-5-1, 300V according to CSA C22-2 n.14 and UL 508
Enclosure Material	Fiberglass reinforced thermoplastic	Dielectric Strength	3kV (1 second)
Contacts Material	Silver	Insulation Resistance	2MΩ min. (500VDC)
Protection Degree	IP 40 for GCX3151-24, GCX3151-120, GCX3153-24 and GCX3153-120. IP 65 for all others. (See Appendix of this catalog for explanation of IP ratings according to IEC 144 CEI 70-1.)	Initial Contact Resistance	≤25mΩ
Electric Shock Protection	IEC 536, Class II	Short-Circuit Protection*	Cartridge fuses gl 10 A-500V 10, 3x38/1 100 KA
Temperature Ratings	Storage: -40° to 80°C (-40° to 176° F) Operating: -25° to +70°C (-13° to 158° F)	Terminal Markings	According to CENELEC EN 50013
Working Positions	All working positions are allowed	Connections	Single screw with non-loosening plate clamp, 14AWG max., Tighten to 0.8Nm max
Mechanical Life	Pushbuttons, selector switches, joy stick switches: 1,000,000 operations Emergency mushrooms and push-push pushbuttons: 300,000 operations	Contacts Operation	Self-cleaning types EN01 (N.C.) EN 10 (N.O.) slow action, positive opening
Positive Opening Operation	(according to IEC 947-5-1) All functions incorporating an NC contact are positive opening operation	Operation Frequency	3600 operations per hour max.
		Utilization Category	AC15 (Control of AC electromagnetic loads) 24 volts AC at 10 amps 130 volts AC at 6.5 amps DC13 (Control of DC electromagnetic loads) 24 volts DC at 1.5 amps 110 volts DC at 0.5 amps

*Note: Recommended, not supplied

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

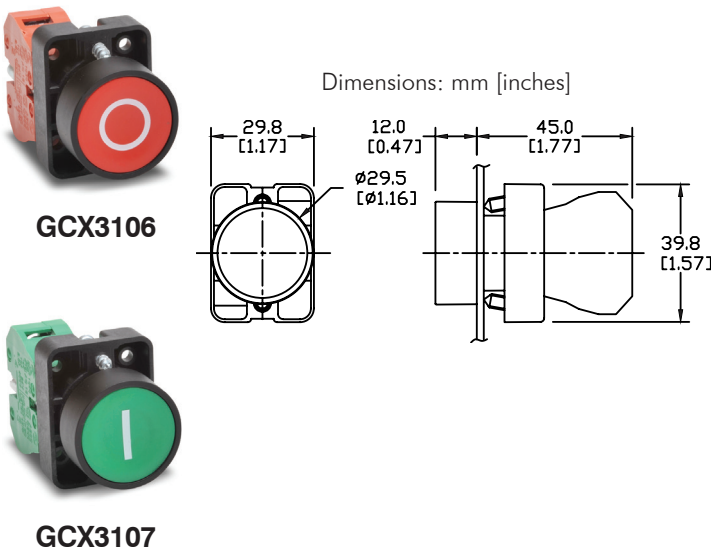
GCX Series 22mm Plastic Pushbuttons

Momentary flush pushbuttons
with protective plastic ring
(30mm dia. actuator)



Part Number	Color	Price	Description
GCX3100	Black	\$4.75	One N.O. contact block, 30mm dia. actuator, mounts in 22mm hole
GCX3101	Red	\$4.75	One N.C. contact block, 30mm dia. actuator, mounts in 22mm hole
GCX3102	Green	\$4.75	One N.O. contact block, 30mm dia. actuator, mounts in 22mm hole
GCX3103	Yellow	\$4.75	
GCX3104	Blue	\$4.75	
GCX3105	White	\$4.75	

Momentary Flush ON/OFF pushbuttons
with protective plastic ring
(30mm dia. actuator)

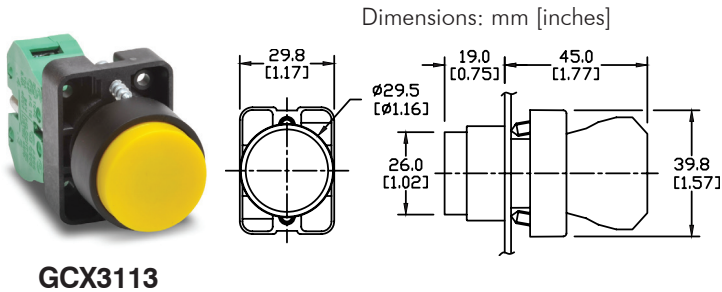


Part Number	Color	Price	Description
GCX3106	Red with OFF symbol (O) on actuator	\$5.00	One N.C. contact block, 30mm dia. actuator, mounts in 22mm hole
GCX3107	Green with ON symbol (I) on actuator	\$5.00	One N.O. contact block, 30mm dia. actuator, mounts in 22mm hole

For accessories, see
22mm Plastic Pilot Device
Accessories in this section.

GCX Series 22mm Plastic Pushbuttons

Momentary extended pushbuttons

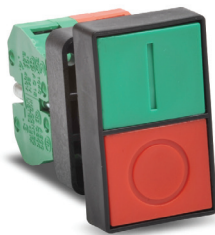


Part Number	Color	Price	Description
GCX3110	Black	\$5.00	One N.O. contact block, extended 30mm dia. actuator, mounts in 22mm hole
GCX3111	Red	\$5.00	One N.C. contact block, extended 30mm dia. actuator, mounts in 22mm hole
GCX3112	Green	\$5.00	One N.O. contact block, extended 30mm dia. actuator, mounts in 22mm hole
GCX3113	Yellow	\$5.00	
GCX3114	Blue	\$5.00	
GCX3115	White	\$5.00	

Double-headed momentary pushbuttons

Part Number	Price	Double-headed Momentary Pushbuttons Description
GCX3150	\$9.50	Double-headed for on/off control, One N.O. and one N.C. contact block, fits in 22mm dia. hole, without symbols
GCX3151-24	\$14.50	24VDC/VAC double-headed with indicator, faces without symbols. One N.O. and one N.C. contact block, fits in 22mm dia. hole
GCX3151-120	\$15.00	120VDC/VAC double-headed with indicator, faces without symbols. One N.O. and one N.C. contact block, fits in 22mm dia. hole
GCX3152	\$10.00	Double-headed for on/off control. One N.O. and one N.C. contact block, fits in 22mm dia. hole. With "ON" (I) and "OFF" (O) symbols
GCX3153-24*	\$15.00	24VDC/VAC double-headed with indicator, with ON (1) and OFF (0) symbols. One N.O. and one N.C. contact block
GCX3153-120*	\$15.50	120VDC/AC double-headed with indicator, with ON (1) and OFF (0) symbols. One N.O. and one N.C. contact block

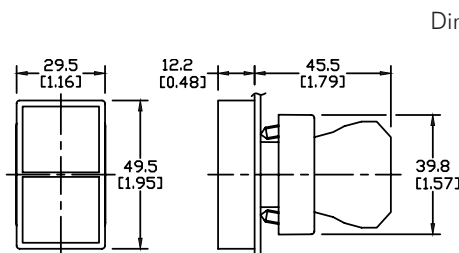
* Note: Lamp data in 22mm Plastic Pilot Device Accessories in this section.



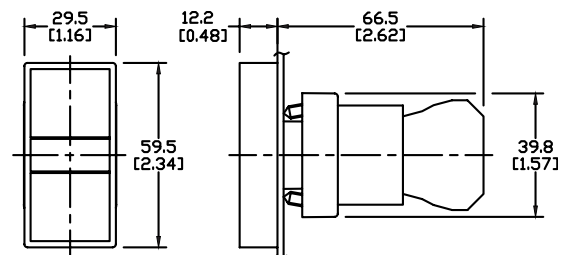
GCX3152 (with on/off symbols)



GCX3151-24



GCX3150, GCX3152 models

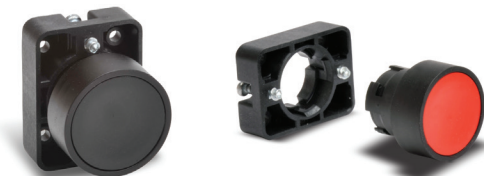


GCX3151-24, GCX3153-24,
GCX3151-120, GCX3153-120 models

For accessories, see 22mm Plastic Pilot Device Accessories in this section.

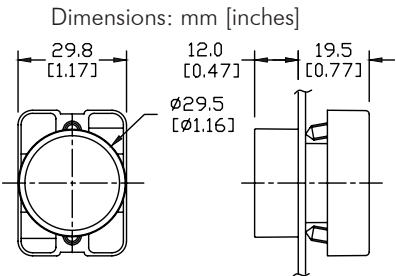
GCX Series 22mm Plastic Pushbuttons without Contact Block

Momentary flush pushbutton operator (without contact block) (30mm dia. actuator)



GCX3100-SC

GCX3101-SC



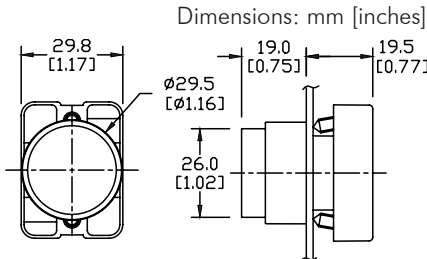
NOTE: Contact block sold separately. See accessories.

Part Number	Color	Price	Description
GCX3100-SC	Black	\$2.50	22mm plastic pushbutton operator, flush, includes 30mm diameter operator and support base ONLY. Contact blocks sold separately. Mounts in 22mm hole.
GCX3101-SC	Red	\$2.50	22mm plastic pushbutton operator, flush, includes 30mm diameter operator and support base ONLY. Contact blocks sold separately. Mounts in 22mm hole.
GCX3102-SC	Green	\$2.50	22mm plastic pushbutton operator, flush, includes 30mm diameter operator and support base ONLY. Contact blocks sold separately. Mounts in 22mm hole.

Momentary extended pushbutton operator (without contact block) (30mm dia. actuator)



GCX3111-SC

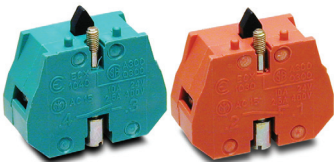


NOTE: Contact block sold separately. See accessories.

Part Number	Color	Price	Description
GCX3110-SC	Black	\$2.50	22mm plastic pushbutton operator, extended, includes 30mm diameter operator and support base ONLY. Contact block sold separately. Mounts in 22mm hole.
GCX3111-SC	Red	\$2.50	22mm plastic pushbutton operator, extended, includes 30mm diameter operator and support base ONLY. Contact block sold separately. Mounts in 22mm hole.
GCX3112-SC	Green	\$2.50	22mm plastic pushbutton operator, extended, includes 30mm diameter operator and support base ONLY. Contact block sold separately. Mounts in 22mm hole.

Contact Blocks

Contact blocks are available for all these products. See accessories.



ECX1040-2

ECX1030-2

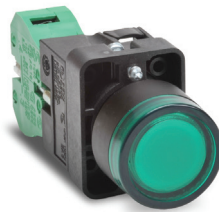
For accessories, see 22mm Plastic Pilot Device Accessories in this section.

GCX Series 22mm Plastic Illuminated Pushbuttons

Momentary pushbuttons with protective plastic ring

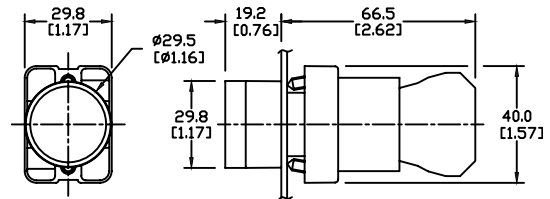
24 models available:

- Protective plastic ring for flush mount pushbutton functionality
- Includes incandescent bulb or LED lamp
- 24V and 120V models
- Available in six colors



GCX3202-24

Dimensions: mm [inches]



All pushbuttons include operator, support base, indicating bulb, and contact block. They are shipped unassembled. Legend plate is not included and must be ordered separately. All switches in this series use replacement contact block ECX1030 (Red, N.C.) or ECX1040 (Green, N.O.), sold separately in packages of two or five.

Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX3201-24	Red	\$9.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.C. contact block	ECX1902-5 5/pk, 80mA	ECX1911-2 2/pk, 26mA
GCX3201-120	Red	\$10.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.C. contact block	ECX1904-5 5/pk, 20mA	ECX1921-2 2/pk, 5mA
GCX3202-24	Green	\$9.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1912-2 2/pk, 26mA
GCX3202-120	Green	\$10.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1922-2 2/pk, 5mA
GCX3203-24	Yellow	\$9.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1913-2 2/pk, 26mA
GCX3203-120	Yellow	\$10.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1923-2 2/pk, 5mA
GCX3204-24	Blue	\$9.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1914-2 2/pk, 26mA
GCX3204-120	Blue	\$10.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1924-2 2/pk, 5mA
GCX3205-24	Clear	\$9.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX3205-120	Clear	\$10.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
GCX3206-24	White	\$9.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX3206-120	White	\$10.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
LED					
GCX3201-24L	Red	\$14.00	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.C. contact block	ECX1902-5 5/pk, 80mA	ECX1911-2 2/pk, 26mA
GCX3201-120L	Red	\$15.00	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.C. contact block	ECX1904-5 5/pk, 20mA	ECX1921-2 2/pk, 5mA
GCX3202-24L	Green	\$17.00	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1912-2 2/pk, 26mA
GCX3202-120L	Green	\$17.00	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1922-2 2/pk, 5mA
GCX3203-24L	Yellow	\$14.00	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1913-2 2/pk, 26mA
GCX3203-120L	Yellow	\$15.00	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1923-2 2/pk, 5mA
GCX3204-24L	Blue	\$17.00	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1914-2 2/pk, 26mA
GCX3204-120L	Blue	\$17.00	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1924-2 2/pk, 5mA
GCX3205-24L	Clear	\$18.00	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX3205-120L	Clear	\$18.50	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
GCX3206-24L	White	\$18.00	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX3206-120L	White	\$18.50	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA

For accessories, see 22mm Plastic Pilot Device Accessories in this section.

GCX Series 22mm Plastic Illuminated Pushbuttons

Momentary pushbuttons with extended actuator

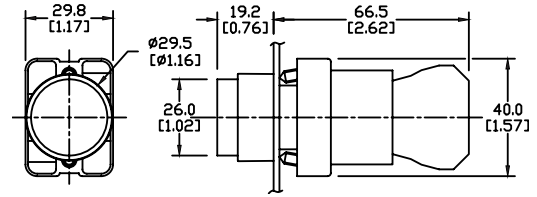
24 models available:

- Illuminated pushbuttons and indicators come complete with bulbs.
- Includes incandescent bulb or LED lamp
- 24V and 120V models
- Available in six colors



GCX3214-120

Dimensions: mm [inches]



All pushbuttons include operator, support base, indicating bulb, and contact block. They are shipped unassembled. Legend plate is not included and must be ordered separately. All switches in this series use replacement contact block ECX1030 (Red, N.C.) or ECX1040 (Green, N.O.), sold separately in packages of two or five.

For accessories, see 22mm Plastic Pilot Device Accessories in this section.

Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX3211-24	Red	\$9.25	22mm plastic extended incandescent illuminated pushbutton, 24VDC/VAC. One N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk, 26mA
GCX3211-120	Red	\$10.00	22mm plastic extended incandescent illuminated pushbutton, 120VDC/VAC. One N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk, 5mA
GCX3212-24	Green	\$9.25	22mm plastic extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk, 26mA
GCX3212-120	Green	\$10.00	22mm plastic extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1922-2, 2/pk, 5mA
GCX3213-24	Yellow	\$9.25	22mm plastic extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk, 26mA
GCX3213-120	Yellow	\$10.00	22mm plastic extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk, 5mA
GCX3214-24	Blue	\$9.25	22mm plastic extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk, 26mA
GCX3214-120	Blue	\$10.00	22mm plastic extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk, 5mA
GCX3215-24	Clear	\$9.25	22mm plastic extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk, 26mA
GCX3215-120	Clear	\$10.00	22mm plastic extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk, 5mA
GCX3216-24	White	\$9.25	22mm plastic extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk, 26mA
GCX3216-120	White	\$10.00	22mm plastic extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk, 5mA
LED					
GCX3211-24L	Red	\$14.00	22mm plastic extended LED illuminated pushbutton, 24VDC/VAC. One N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk, 26mA
GCX3211-120L	Red	\$15.00	22mm plastic extended LED illuminated pushbutton, 120VDC/VAC. One N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2, 2/pk, 5mA
GCX3212-24L	Green	\$17.50	22mm plastic extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk, 26mA
GCX3212-120L	Green	\$17.00	22mm plastic extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk, 5mA
GCX3213-24L	Yellow	\$14.00	22mm plastic extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk, 26mA
GCX3213-120L	Yellow	\$15.00	22mm plastic extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk, 5mA
GCX3214-24L	Blue	\$17.50	22mm plastic extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk, 26mA
GCX3214-120L	Blue	\$17.00	22mm plastic extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk, 5mA
GCX3215-24L	Clear	\$19.00	22mm plastic extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk, 26mA
GCX3215-120L	Clear	\$20.00	22mm plastic extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk, 5mA
GCX3216-24L	White	\$19.00	22mm plastic extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk, 26mA
GCX3216-120L	White	\$20.00	22mm plastic extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk, 5mA

GCX Series 22mm Plastic Illuminated Pushbuttons

Push-push style pushbuttons with protective plastic ring

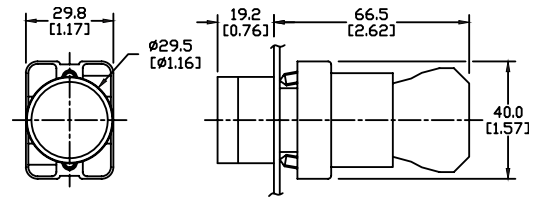
24 models available:

- Latching Push-ON, Push-OFF actuator
- Includes incandescent bulb or LED lamp
- 24V and 120V models
- Available in six colors
- These switches are supplied with a special N.O. contact block designed for use with this actuator, but they also work with standard N.C. contacts.



GCX3194-24

Dimensions: mm [inches]



All switches in this series use replacement contact block ECX1042-2 (Brown, N.O.) or ECX1030-5 or ECX1030-2 (Red, N.C.), sold separately.

Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX3191-24	Red	\$10.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1911-2 2/pk, 26mA
GCX3191-120	Red	\$11.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1921-2 2/pk, 5mA
GCX3192-24	Green	\$10.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1912-2 2/pk, 26mA
GCX3192-120	Green	\$11.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1922-2 2/pk, 5mA
GCX3193-24	Yellow	\$10.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1913-2 2/pk, 26mA
GCX3193-120	Yellow	\$11.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1923-2 2/pk, 5mA
GCX3194-24	Blue	\$10.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1914-2 2/pk, 26mA
GCX3194-120	Blue	\$11.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1924-2 2/pk, 5mA
GCX3195-24	Clear	\$10.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX3195-120	Clear	\$11.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
GCX3196-24	White	\$10.50	22mm plastic incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX3196-120	White	\$11.50	22mm plastic incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
LED					
GCX3191-24L	Red	\$16.50	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1911-2 2/pk, 26mA
GCX3191-120L	Red	\$17.00	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1921-2 2/pk, 5mA
GCX3192-24L	Green	\$19.00	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1912-2 2/pk, 26mA
GCX3192-120L	Green	\$20.00	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1922-2 2/pk, 5mA
GCX3193-24L	Yellow	\$16.50	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1913-2 2/pk, 26mA
GCX3193-120L	Yellow	\$17.00	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1923-2 2/pk, 5mA
GCX3194-24L	Blue	\$19.00	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1914-2 2/pk, 26mA
GCX3194-120L	Blue	\$20.00	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1924-2 2/pk, 5mA
GCX3195-24L	Clear	\$20.50	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX3195-120L	Clear	\$21.50	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
GCX3196-24L	White	\$20.50	22mm plastic LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX3196-120L	White	\$21.50	22mm plastic LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA

For accessories, see 22mm Plastic Pilot Device Accessories in this section.

GCX Series 22mm Plastic Illuminated Pushbuttons

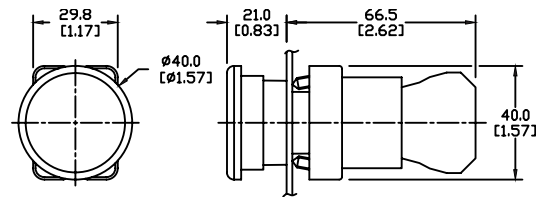
Mushroom-style illuminated pushbuttons

All pushbuttons include operator, support base, indicating bulb (if applicable) and contact block. They are shipped unassembled. Legend plate is not included and must be ordered separately. All switches in this series use replacement contact block ECX1030 (Red, NC) or ECX1040 (Green, N.O.), sold separately in packages of two or five.



GCX3221-24

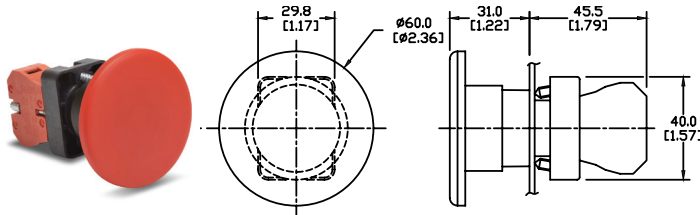
Dimensions: mm [inches]



Part Number	Lamp Color	Price	Mushroom-style Illuminated Pushbuttons Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX3221-24	Red	\$11.00	22mm plastic momentary pushbutton with incandescent illuminated 40mm mushroom actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk, 26mA
GCX3221-120	Red	\$12.50	22mm plastic momentary pushbutton with incandescent illuminated 40mm mushroom actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk, 5mA
GCX3226-24	Red	\$12.50	22mm plastic pushbutton with incandescent illuminated 40mm mushroom twist-to-release actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk, 26mA
GCX3226-120	Red	\$14.00	22mm plastic pushbutton with incandescent illuminated 40mm mushroom twist-to-release actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk, 5mA
LED					
GCX3221-24L	Red	\$15.50	22mm plastic momentary pushbutton with LED illuminated 40mm mushroom actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3221-120L	Red	\$17.00	22mm plastic momentary pushbutton with LED illuminated 40mm mushroom actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX3226-24L	Red	\$17.50	22mm plastic pushbutton with LED illuminated 40mm mushroom twist-to-release actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3226-120L	Red	\$18.50	22mm plastic pushbutton with LED illuminated 40mm mushroom twist-to-release actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA

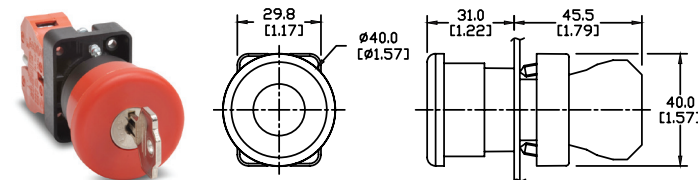
Non-illuminated mushroom pushbuttons

Feature large 60mm dia. actuator and mount in standard 22mm hole.



GCX3137

Dimensions: mm [inches]



GCX3141
(key operated)



Note: Keyed switches come with two keys. All plastic 22mm keyed switches are keyed alike. Replacement keys are available. Order part no. ECX1067-2 (pkg. of 2).

Part Number	Color	Price	Description
GCX3131	Red	\$9.25	Twist-to-release actuator with one N.C. contact block, fits in 22mm dia. hole. Has large 40mm dia. mushroom-style actuator.
GCX3134	Black	\$7.50	Momentary action with one N.O. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator.
GCX3135	Red	\$7.50	Momentary action with one N.C. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator. EMERGENCY legend plate available (see Accessories).
GCX3136	Red	\$11.50	Twist-to-release actuator with one N.C. contact block, fits in 22mm dia. hole. 60mm dia. mushroom-style actuator.
GCX3137	Red	\$9.25	Momentary action with one N.C. contact block, fits in 22mm dia. hole, has large 60mm dia. mushroom-style. EMERGENCY legend plate available (see Accessories).
GCX3139	Yellow	\$7.50	Momentary action with one N.O. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator.
GCX3141	Red	\$13.50	Key operated release with one N.C. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator. EMERGENCY legend plate available (see Accessories).

For accessories, see 22mm Plastic Pilot Device Accessories in this section.

GCX Series 22mm Plastic Key Switches and Selector Switches

Key-operated selector switches



GCX3420 (2-position maintained)

- Keyed switches come with two keys.

Part Number	Price	Description
GCX3420	\$13.50	22mm plastic selector switch, key-operated, two-position maintained , key can be removed in all positions. One N.O. contact block. Replacement keys available
GCX3430	\$13.50	22mm plastic selector switch, key-operated, two-position spring-return from right . One N.O. contact block. Replacement keys available
GCX3470-22	\$20.00	22mm plastic selector switch, key-operated, three-position maintained , key can be removed in all positions. Two N.O. and two N.C. contact blocks. Replacement keys available

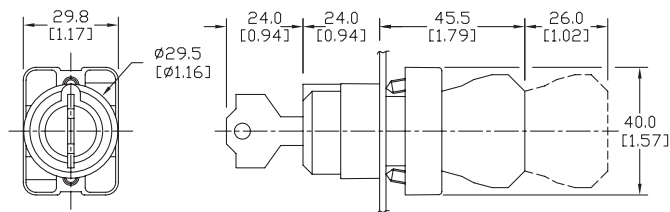


Note: Keyed switches come with two keys. All plastic 22mm keyed switches are keyed the same. Replacement keys are available. Order part no. ECX1067-2 (pkg. of 2). Keys for plastic 22mm keyed switches are not compatible with Cutler-Hammer key switches.



Note: When using switches having two-deep contact blocks (such as, Model GCX3470-22) with the 22mm plastic enclosures, be sure to use enclosures that are 74mm deep. 51 mm-deep enclosures are too shallow and the switch body will not fit.

Dimensions: mm [inches]



Two-position selector switches

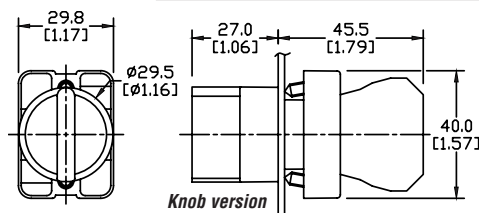


GCX3300
Knob version

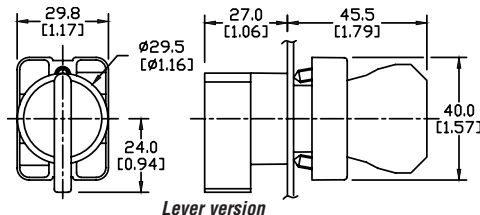


GCX3350
Lever version

Part Number	Price	Description - 2-Position Switches
GCX3300	\$7.25	22mm plastic selector switch, two-position maintained , black knob. One N.O. contact block
GCX3310	\$8.00	22mm plastic selector switch, two-position spring-return from right , black knob. One N.O. contact block
GCX3350	\$8.00	22mm plastic selector switch, two-position maintained , black lever. One N.O. contact block
GCX3360	\$8.50	22mm plastic selector switch, two-position spring-return from right , black lever. One N.O. contact block



Dimensions: mm [inches]



Contact Closure Sequence for Two-Position Switch

Contact Closure Sequence - 2-Position Switch

Contact Blocks	Contact Arrangement (viewed from front)		Switch Position (viewed from front)	
	Left	Right	Left (Note 1)	Right (Note 2)
1 x NC	NC		X	
		NC	X	
1 x NO	NO			X
		NO		X
2 x NC	NC	NC	XX	
2 x NO	NO	NO		XX

Note 1: Left switch position deactivates all contacts.

Note 2: Right switch position activates all contacts.

For accessories, see 22mm Plastic Pilot Device Accessories in this section.

GCX Series 22mm Plastic Selector Switches

Three-position selector switches



GCX3330-22 Knob version



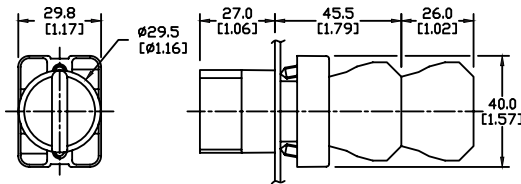
GCX3370-22 Lever version

Part Number	Price	Description - 3-Position Switches
GCX3320-22	\$14.00	22mm plastic selector switch, three-position maintained , black knob, Two N.O. and two N.C. contact blocks
GCX3330-22	\$14.50	22mm plastic selector switch, three-position spring-return to center , black knob, Two N.O. and two N.C. contact blocks
GCX3370-22	\$14.50	22mm plastic selector switch, three-position, maintained , black lever, Two N.O. and two N.C. contact blocks
GCX3380-22	\$15.00	22mm plastic selector switch, three-position spring-return to center , black lever, Two N.O. and two N.C. contact blocks

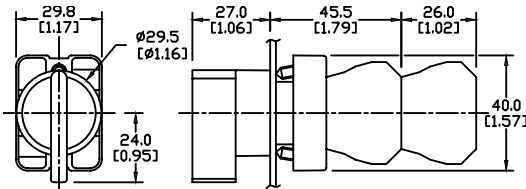


Note: When using switches having two-deep contact blocks with the 22mm plastic enclosures, be sure to use enclosures that are 74 mm deep; 51 mm-deep enclosures are too shallow and the switch body will not fit.

Dimensions: mm [inches]



Knob version



Lever version

Contact Closure Sequence for Three-Position Switch

Contact Closure Sequence - 3-Position Switch					
Contact Blocks	Contact Arrangement (viewed from front)		Switch Position (viewed from front)		
	Left	Right	Left (Note 1)	Center (Note 2)	Right (Note 3)
1 x NC	NC			X ——— X	
		NC	X ——— X		
1 x NO	NO		X		
		NO			X
2 x NC	NC	NC	X ——— XX ——— X		
2 x NO	NO	NO	X		X

Note 1: Left switch position activates left side contacts (viewed from front).
Note 2: Center switch position deactivates all contacts.
Note 3: Right switch position activates right side contacts (viewed from front).

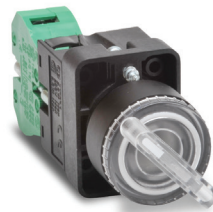
For accessories, see 22mm Plastic Pilot Device Accessories in this section.

GCX Series 22mm Plastic Illuminated Selector Switches

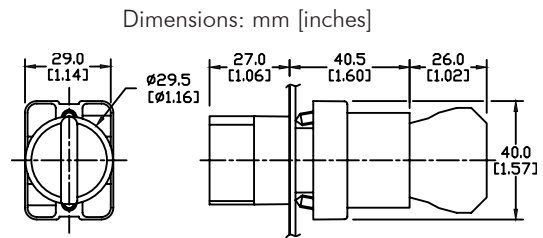
Illuminated two-position selector switches

20 models available:

- Available in five colors
- 24V and 120V models
- Available in spring-return and maintained styles
- Replacement knobs are available



GCX3245-24



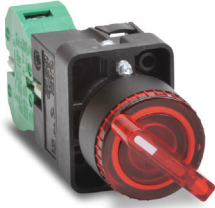
Note: For contact closure sequence, refer to preceding pages.

Spring Return

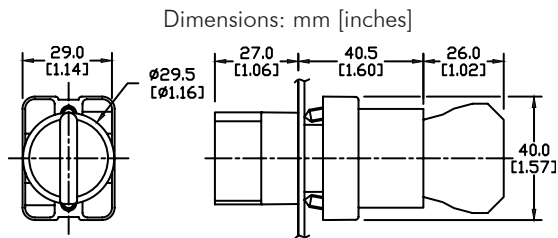
Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX3241-24	Red	\$11.00	22mm plastic incandescent illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3241-120	Red	\$11.50	22mm plastic incandescent illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX3242-24	Green	\$11.00	22mm plastic incandescent illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX3242-120	Green	\$11.50	22mm plastic incandescent illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX3243-24	Yellow	\$11.00	22mm plastic incandescent illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX3243-120	Yellow	\$11.50	22mm plastic incandescent illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX3244-24	Blue	\$11.00	22mm plastic incandescent illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX3244-120	Blue	\$11.50	22mm plastic incandescent illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX3245-24	Clear	\$11.00	22mm plastic incandescent illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX3245-120	Clear	\$11.50	22mm plastic incandescent illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA
LED					
GCX3241-24L	Red	\$15.50	22mm plastic LED illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3241-120L	Red	\$15.50	22mm plastic LED illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX3242-24L	Green	\$18.00	22mm plastic LED illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX3242-120L	Green	\$18.00	22mm plastic LED illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX3243-24L	Yellow	\$15.50	22mm plastic LED illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX3243-120L	Yellow	\$15.50	22mm plastic LED illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX3244-24L	Blue	\$18.00	22mm plastic LED illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX3244-120L	Blue	\$18.00	22mm plastic LED illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX3245-24L	Clear	\$19.00	22mm plastic LED illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX3245-120L	Clear	\$20.00	22mm plastic LED illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA

For accessories, see 22mm Plastic Pilot Device Accessories in this section.

GCX Series 22mm Plastic Illuminated Selector Switches



GCX3251-24



Dimensions: mm [inches]

Illuminated two-position selector switches

20 models available:

- Available in five colors
- 24V and 120V models
- Available in spring-return and maintained styles
- Replacement knobs are available

*Note: For contact closure sequence,
refer to preceding pages.*

Maintained

Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX3251-24	Red	\$11.00	22mm plastic incandescent illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3251-120	Red	\$11.50	22mm plastic incandescent illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX3252-24	Green	\$11.00	22mm plastic incandescent illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX3252-120	Green	\$11.50	22mm plastic incandescent illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX3253-24	Yellow	\$11.00	22mm plastic incandescent illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX3253-120	Yellow	\$11.50	22mm plastic incandescent illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX3254-24	Blue	\$11.00	22mm plastic incandescent illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX3254-120	Blue	\$11.50	22mm plastic incandescent illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX3255-24	Clear	\$11.00	22mm plastic incandescent illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX3255-120	Clear	\$11.50	22mm plastic incandescent illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA
LED					
GCX3251-24L	Red	\$15.50	22mm plastic LED illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3251-120L	Red	\$16.00	22mm plastic LED illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX3252-24L	Green	\$17.50	22mm plastic LED illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX3252-120L	Green	\$18.00	22mm plastic LED illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX3253-24L	Yellow	\$15.50	22mm plastic LED illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX3253-120L	Yellow	\$16.00	22mm plastic LED illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX3254-24L	Blue	\$17.50	22mm plastic LED illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX3254-120L	Blue	\$18.00	22mm plastic LED illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX3255-24L	Clear	\$19.00	22mm plastic LED illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX3255-120L	Clear	\$20.00	22mm plastic LED illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA

For accessories, see 22mm Plastic Pilot Device Accessories in this section.

GCX Series 22mm Plastic Illuminated Selector Switches

Illuminated three-position selector switches

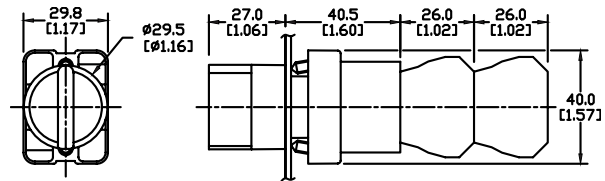
20 models available:

- Available in five colors
- 24V and 120V models
- Available in spring-return and maintained styles
- Replacement knobs are available



GCX3263-24

Dimensions: mm [inches]



Note: For contact closure sequence, refer to preceding pages.

Maintained

Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Bulb
Incandescent					
GCX3261-24	Red	\$18.00	22mm plastic incandescent illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3261-120	Red	\$18.50	22mm plastic incandescent illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX3262-24	Green	\$18.00	22mm plastic incandescent illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX3262-120	Green	\$18.50	22mm plastic incandescent illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX3263-24	Yellow	\$18.00	22mm plastic incandescent illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX3263-120	Yellow	\$18.50	22mm plastic incandescent illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX3264-24	Blue	\$18.00	22mm plastic incandescent illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX3264-120	Blue	\$18.50	22mm plastic incandescent illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX3265-24	Clear	\$18.00	22mm plastic incandescent illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX3265-120	Clear	\$18.50	22mm plastic incandescent illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA
LED					
GCX3261-24L	Red	\$22.00	22mm plastic LED illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3261-120L	Red	\$22.50	22mm plastic LED illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX3262-24L	Green	\$24.00	22mm plastic LED illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX3262-120L	Green	\$25.00	22mm plastic LED illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX3263-24L	Yellow	\$22.00	22mm plastic LED illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX3263-120L	Yellow	\$22.50	22mm plastic LED illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX3264-24L	Blue	\$24.00	22mm plastic LED illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX3264-120L	Blue	\$25.00	22mm plastic LED illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX3265-24L	Clear	\$25.50	22mm plastic LED illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX3265-120L	Clear	\$26.00	22mm plastic LED illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA

For accessories, see 22mm Plastic Pilot Device Accessories in this section.

GCX Series 22mm Plastic Illuminated Selector Switches

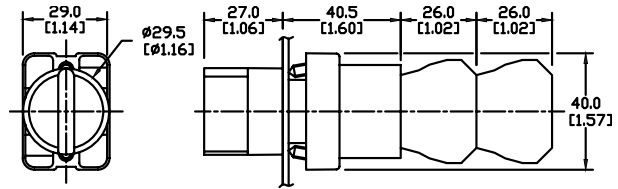
Illuminated three-position selector switches

20 models available:

- Available in five colors
- 24V and 120V models
- Available in spring-return and maintained styles
- Replacement knobs are available



GCX3283-120



Note: For contact closure sequence, refer to preceding pages.

Spring Return

Part Number	Lamp Color	Price	Description	Standard Incandescent Bulb	Standard LED Bulb
Incandescent					
GCX3281-24	Red	\$18.00	22mm plastic incandescent illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3281-120	Red	\$18.50	22mm plastic incandescent illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX3282-24	Green	\$18.00	22mm plastic incandescent illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX3282-120	Green	\$18.50	22mm plastic incandescent illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX3283-24	Yellow	\$18.00	22mm plastic incandescent illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX3283-120	Yellow	\$18.50	22mm plastic incandescent illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX3284-24	Blue	\$18.00	22mm plastic incandescent illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX3284-120	Blue	\$18.50	22mm plastic incandescent illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX3285-24	Clear	\$18.00	22mm plastic incandescent illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX3285-120	Clear	\$18.50	22mm plastic incandescent illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA
LED					
GCX3281-24L	Red	\$22.00	22mm plastic LED illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3281-120L	Red	\$22.50	22mm plastic LED illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX3282-24L	Green	\$24.50	22mm plastic LED illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX3282-120L	Green	\$25.00	22mm plastic LED illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX3283-24L	Yellow	\$22.00	22mm plastic LED illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX3283-120L	Yellow	\$22.50	22mm plastic LED illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX3284-24L	Blue	\$24.50	22mm plastic LED illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX3284-120L	Blue	\$25.00	22mm plastic LED illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX3285-24L	Clear	\$25.50	22mm plastic LED illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX3285-120L	Clear	\$26.50	22mm plastic LED illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA

For accessories, see 22mm Plastic Pilot Device Accessories in this section.

ECX Series 22mm Plastic Joystick Selector Switches

Joystick selector switches

Four models available



Part Number	Price	Description
ECX3510	\$20.50	22mm plastic joystick-style selector switch, two-position momentary , two N.O. contact blocks
ECX3512	\$20.50	22mm plastic joystick-style selector switch, two-position maintained , two N.O. contact blocks
ECX3520	\$27.50	22mm plastic joystick-style selector switch, four-position momentary , four N.O. contact blocks
ECX3524	\$27.50	22mm plastic joystick-style selector switch, four-position maintained , four N.O. contact blocks

Note: Four-position switches use two special contact blocks which are not replaceable.

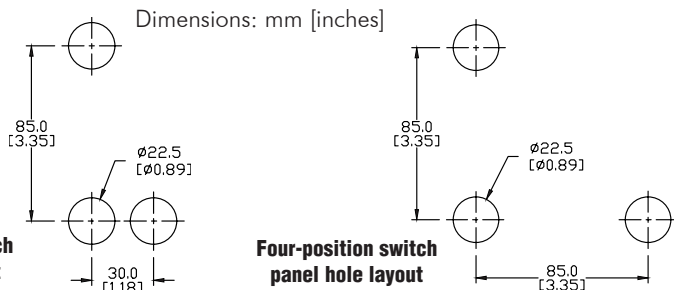
Note: When using switches having two-deep contact blocks (4-position joysticks) with the 22mm plastic enclosures, use enclosures that are 74mm deep; 51mm-deep enclosures are too shallow.

Mounting

ECX3510 (Two-position momentary)

ECX3512 (Two-position maintained)

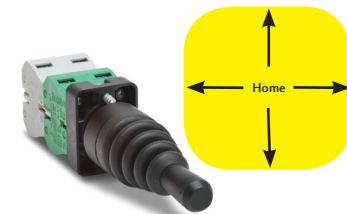
Moving the joystick UP will close contact on one side. Moving it DOWN will close contact on other side.



Two-position switch panel hole layout

Four-position switch panel hole layout

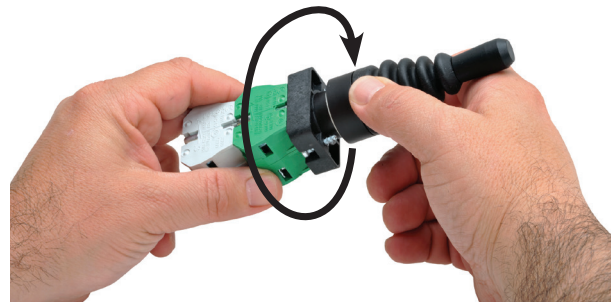
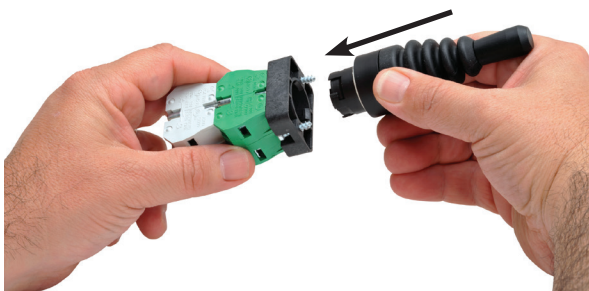
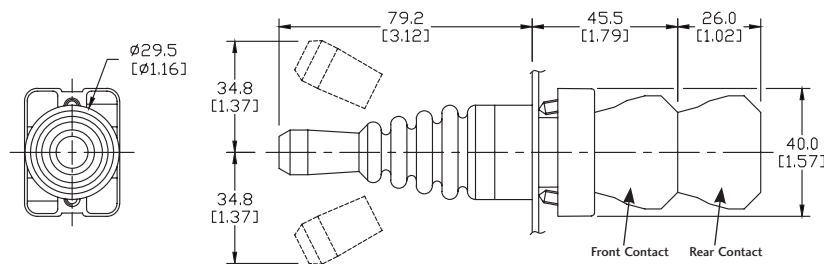
Dimensions



ECX3520 (Four-position momentary)

ECX3524 (Four-position maintained)

- Moving the joystick UP will close Green contact on one side and moving it DOWN will close Gray contact located behind it.
- Moving the joystick RIGHT will close Green contact on other side and moving it LEFT will close Gray contact located behind it.



For accessories, see 22mm Plastic Pilot Device Accessories in this section.

ECX Series 22mm Plastic Indicator Lights

Plastic incandescent indicator lights



ECX1051-24

These indicators have a key to prevent rotation when mounted.

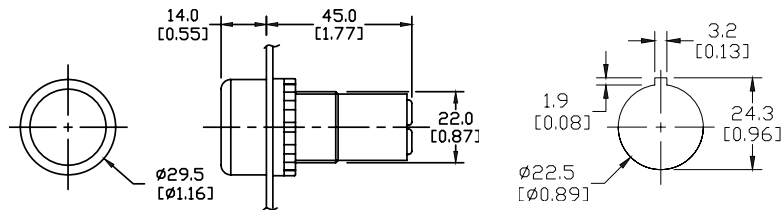
12 models available:

- Available in six colors
- 24V and 120V models
- Incandescent bulbs included
- Accepts LED replacement lamps
- Monoblock design for easy mounting
- Side wire entry with back screw terminals for easy wiring and maintenance
- IP20 rated before installation
- IP65 rated after installation

Note: When using LED replacement lamps with these indicators, it may be necessary to remove the frosted diffuser for enhanced illumination.

Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement Lamp
ECX1051-24	Red	\$5.50	22mm monoblock incandescent indicator light, 24VDC/VAC	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
ECX1051-120	Red	\$6.50	22mm monoblock incandescent indicator light, 120VDC/VAC	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
ECX1052-24	Green	\$5.50	22mm monoblock incandescent indicator light, 24VDC/VAC	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
ECX1052-120	Green	\$6.50	22mm monoblock incandescent indicator light, 120VDC/VAC	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
ECX1053-24	Yellow	\$5.50	22mm monoblock incandescent indicator light, 24VDC/VAC	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
ECX1053-120	Yellow	\$6.50	22mm monoblock incandescent indicator light, 120VDC/VAC	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
ECX1054-24	Blue	\$5.50	22mm monoblock incandescent indicator light, 24VDC/VAC	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
ECX1054-120	Blue	\$6.50	22mm monoblock incandescent indicator light, 120VDC/VAC	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
ECX1055-24	Clear	\$5.50	22mm monoblock incandescent indicator light, 24VDC/VAC	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
ECX1055-120	Clear	\$6.50	22mm monoblock incandescent indicator light, 120VDC/VAC	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA
ECX1056-24	White	\$5.50	22mm monoblock incandescent indicator light, 24VDC/VAC	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
ECX1056-120	White	\$6.50	22mm monoblock incandescent indicator light, 120VDC/VAC	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA

Dimensions: mm [inches]



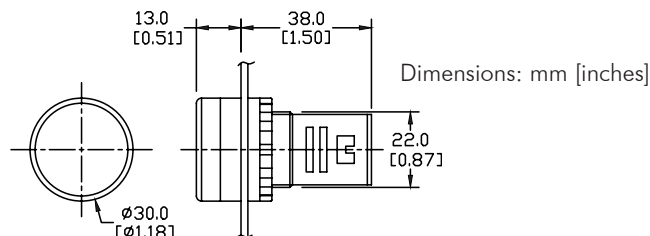
Plastic LED indicator lights



10 models available:

- Available in five colors
- 24V and 120V models
- Non-replaceable LEDs
- Side wire entry with back screw terminals for easy wiring and maintenance
- IP20 rated before installation
- IP65 rated after installation
- 12mA @ 120V, 65mA @ 24V

Part Number	Lamp Color	Price	Description
ECX2051-24L	Red	\$5.00	22mm non-metal monoblock LED indicator light, 24VDC/VAC
ECX2051-127L	Red	\$6.00	22mm non-metal monoblock LED indicator light, 120VDC/VAC
ECX2052-24L	Green	\$5.00	22mm non-metal monoblock LED indicator light, 24VDC/VAC
ECX2052-127L	Green	\$6.00	22mm non-metal monoblock LED indicator light, 120VDC/VAC
ECX2053-24L	Yellow	\$5.00	22mm non-metal monoblock LED indicator light, 24VDC/VAC
ECX2053-127L	Yellow	\$6.00	22mm non-metal monoblock LED indicator light, 120VDC/VAC
ECX2054-24L	Blue	\$8.50	22mm non-metal monoblock LED indicator light, 24VDC/VAC
ECX2054-127L	Blue	\$8.50	22mm non-metal monoblock LED indicator light, 120VDC/VAC
ECX2055-24L	Clear	\$8.50	22mm non-metal monoblock LED indicator light, 24VDC/VAC
ECX2055-127L	Clear	\$8.50	22mm non-metal monoblock LED indicator light, 120VDC/VAC



Dimensions: mm [inches]

For accessories, see 22mm Plastic Pilot Device Accessories in this section.

22mm Plastic Pilot Device Accessories

Replacement incandescent bulbs



ECX1902-5

Replacement Incandescent Bulbs				
Part Number	Quantity	Price	Rating	Description
ECX1900-5	Pkg of 5 bulbs	\$8.50	6V@ 200mA 1.2 watts	6V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4
ECX1902-5	Pkg of 5 bulbs	\$8.50	24V@ 80mA 2 watts	24V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4
ECX1904-5	Pkg of 5 bulbs	\$17.50	120V@20mA 2.6 watts	120V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4

Note: Bulb removal tool available. Order part number HT8LAMP TOOL.

Replacement LED lamps



ECX1915-2

Replacement LED Lamps					
Part Number	Color	Quantity	Price	Rating	Description
ECX1911-2	Red	Pkg of 2 LED lamps	\$15.50	24V@26mA 0.6 watts	LED replacement lamp for miniature bayonet bases Works with 22mm switches and indicators, but illumination will not be as even when used with the ECX 22mm indicators Note: Will not replace sealed Cutler-Hammer monoblock LED indicators.
ECX1912-2	Green		\$19.50		
ECX1913-2	Yellow		\$15.50		
ECX1914-2	Blue		\$21.00		
ECX1915-2	White		\$25.00		
ECX1921-2	Red		\$15.50	120V@5mA 0.6 watts	
ECX1922-2	Green		\$19.50		
ECX1923-2	Yellow		\$15.50		
ECX1924-2	Blue		\$21.00		
ECX1925-2	White		\$25.00		

Note: LED modules have very low current draw and should not be used with triac output devices like PLC triac output modules. It is recommended that dry contact outputs be used to switch 120 volt AC LED modules.

Hole plug



ECX1490

Hole Plug			
Part Number	Color	Price	Description
ECX1490	Black	\$2.75	Plastic hole plug for 22.5 mm openings in panels and enclosures; supplied with O-ring and mounting screw. Two plugs per package.

Protective covers for pushbuttons



ECX1703-5

Protective Covers for Pushbuttons				
Part Number	Color	Quantity	Price	Description
ECX1700-5	Black	Pkg of 5 protective caps	\$6.50	Silicone protective covers for use with 22mm standard-size flush pushbuttons. Will not work with Cutler-Hammer pushbuttons, 22mm plastic illuminated or extended pushbuttons, or 22mm plastic pushbuttons with 40mm actuator face.
ECX1701-5	Red		\$6.50	
ECX1702-5	Green		\$6.50	
ECX1703-5	Yellow		\$6.50	
ECX1704-5	Blue		\$6.50	
ECX1705-5	Clear		\$6.50	
ECX1706-5	Clear		\$11.50	Clear silicone protective covers for use with 22mm illuminated and extended pushbuttons only . Will not work with Cutler-Hammer pushbuttons or 22mm mushroom pushbuttons.

Knockout Punches



109225

Ruko's knockout punch hole-cutting tool includes punch, die and draw bolt (without ball bearing). Use for sheet steel, stainless-steel sheets, non-ferrous and light metals, and plastics up to 0.16" (8 ga.) thick. Replacement bolts are offered in three of the most popular sizes. See the Tools section of the catalog for details.

Note: Part number 109225 is recommended when punching holes for 22mm pilot devices.

Replacement keys



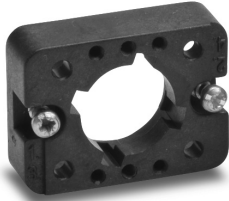
ECX1067-2

Replacement Keys			
Part Number	Quantity	Price	Description
ECX1067-2	Pkg of 2	\$5.75	Replacement key for GCX series key-actuated selector switches, pack of 2 sets (2 keys each). NOTE: Will not work with Cutler-Hammer 22mm switches.

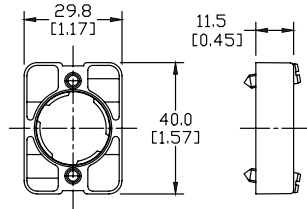
Note: All key-actuated 22mm plastic selector switches are keyed alike.

22mm Plastic Pilot Device Accessories

Replacement 22mm support base



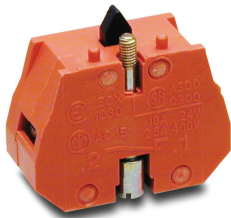
ECX3029-2



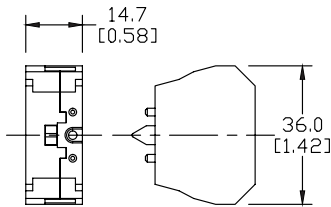
Dimensions: mm [inches]

Replacement 22mm Support Base			
Part Number	Quantity	Price	Description
ECX3029-2	Pkg of 1	\$1.75	22mm plastic support base Note: This item is supplied as a replacement part and is not required with any switch assembly. Will not work with Cutler-Hammer 22mm switches sold by AUTOMATIONDIRECT

Replacement contact blocks



ECX1030-2



Dimensions: mm [inches]

Replacement Contact Blocks				
Part Number	Quantity	Price	Contacts	Description
ECX1030-2	Pkg of 2	\$6.25	Red, normally-closed (N.C.)	Replacement contact block for 22mm pushbuttons and selector switches.
ECX1030-5	Pkg of 5	\$15.00		Tightening Torque, terminal screw: 0.8 N-m max
ECX1040-2	Pkg of 2	\$6.25	Green, normally-open (N.O.)	Note: Will not work with Cutler-Hammer 22mm switches sold by AUTOMATIONDIRECT
ECX1040-5	Pkg of 5	\$15.00		
ECX1042-2	Pkg of 2	\$6.25	Brown, normally-open (N.O.), push-push	Use on lighted Push-push button only

Note: See electrical specifications on GCX Series 22mm Plastic Pilot Devices Specifications page at beginning of this section.

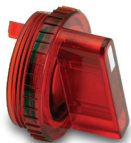
EMERGENCY STOP legend plate



ECX1651

EMERGENCY STOP Legend Plate			
Part Number	Quantity	Price	Description
ECX1651	pkg. of 1	\$2.75	Oversize yellow circular EMERGENCY STOP legend plate for 22mm E-stop type mushroom pushbuttons, 60mm outside diameter.

Two-position short lever operator

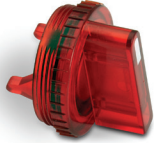


GR1172PR-5

Short Lever Replacement Operator				
Part Number	Lamp Color	Price	2-Position	Use with
GR1172PR-5	Red	\$14.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX124, GCX125, GCX324, GCX325
GR1172PV-5	Green	\$14.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
GR1172PG-5	Yellow	\$14.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
GR1172PB-5	Blue	\$14.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
GR1172PN-5	Clear	\$14.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	

22mm Plastic Pilot Device Accessories

Three-position short lever operator



GR1288PR-5

Short Lever Replacement Operator				
Part Number	Lamp Color	Price	3-Position	Use with
GR1288PR-5	Red	\$14.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX126, GCX128, GCX326, GVX328
GR1288PV-5	Green	\$14.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
GR1288PG-5	Yellow	\$14.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
GR1288PB-5	Blue	\$14.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
GR1288PN-5	Clear	\$14.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	

Mushroom switch replacement operator



PL1298P-5

Mushroom Switch Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
PL1171PR-5	Red	\$6.25	22mm, illuminated momentary Mushroom switch replacement operator, red, 5/pk	Part numbers starting with GCX1221, GCX3221 mushroom-style illuminated pushbuttons
PL1298P-5	Red	\$6.25	22mm illuminated twist-to-release mushroom switch replacement operator, red, 5/pk	Part numbers starting with GCX1226, GCX3226 mushroom-style illuminated pushbuttons

Flush pushbutton replacement operator



GR1168PR-5

Flush Pushbutton Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
GR1168PR-5	Red	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	Part numbers starting with GCX119, GCX120, GCX319, GCX320
GR1168PV-5	Green	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
GR1168PG-5	Yellow	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
GR1168PB-5	Blue	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
GR1168PN-5	Clear	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
GR1168PW-5	White	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	

Extended pushbutton replacement operator



PL1308PR-5

Extended Pushbutton Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
PL1308PR-5	Red	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	Part numbers starting with GCX121, GCX321
PL1308PV-5	Green	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
PL1308PG-5	Yellow	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
PL1308PB-5	Blue	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
PL1308PN-5	Clear	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
PL1308PW-5	White	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	

Note: All dimensions are in inches [millimeters].

GCX Series 22mm Metal Pilot Devices

Features

Any combination of contact blocks is allowed, up to a total of six (two blocks wide and three blocks deep)

Secure mounting method eliminates twisting in mounting hole

Operators are protected to IP65

Support base mounts into panels up to 6mm thick

Chrome-plated alloy bezel is not only corrosion-resistant, but also attractive

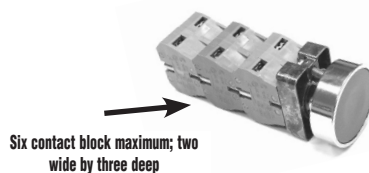
Easy installation



To remove operator, press toward support base and twist counterclockwise.



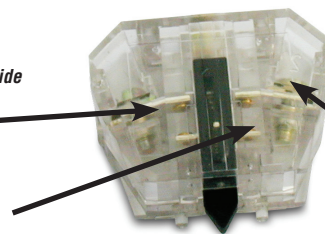
To install switch, place support base against rear of panel (not shown here), insert the operator and twist clockwise until it clicks into place. Carefully tighten the securing screws. Do not over-tighten.



Six contact block maximum; two wide by three deep

Self-cleaning silver contacts provide reliable, low-energy switching

Contacts rated A300
(Refer to E22 Series mounting/contact rating section for details)

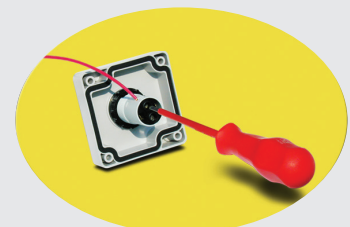


Pressure plate wiring terminals for easy, secure wiring, accepting up to 14 AWG wire

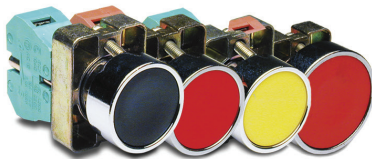
Clear contact block for illustration purposes. Clear contact blocks are not available for sale from AutomationDirect.

Minimum current rating
15mA @ 24vdc

All indicators offer side wire entry with back screw terminals for easy wiring



GCX/ECX Series 22mm Metal Pilot Devices Selection Guide

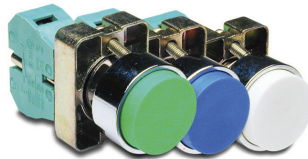


Flush

- Momentary 30 or 40mm operators
- Available in six colors: black, red, yellow, blue, white and green
- One contact block included
- ON/OFF models also available

Ours: \$6.50 (GCX1100)

Allen-Bradley: \$56.88* (800F-MX10, 800F-ALM + 800FM-F2)

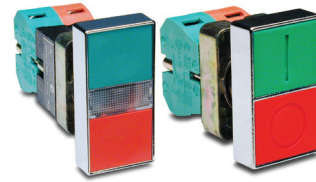


Extended

- Momentary 30mm operators
- Available in six colors: black, red, yellow, blue, white and green
- One contact block included

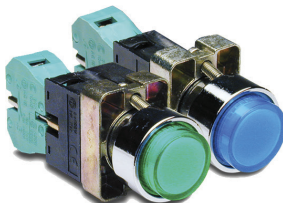
Ours: \$7.25 (GCX1110)

Allen-Bradley: \$59.77* (800F-MX01, 800F-ALM + 800FM-E2)



Two way

- Two way on/off control
- With or without illuminated indicators
- One NO and one NC contact block included

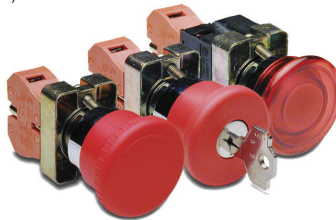


Illuminated

- Available in clear, red, yellow, blue, white and green; 24 and 120-volt models
- Momentary and push-push styles
- Flush or extended operators available
- Incandescent and LED models
- One contact block included

Ours: \$12.00 (GCX1212-24)

Allen-Bradley: \$21.12* (800FM-LE3 + 800F-ALM, D3C)



Mushroom

- Available in momentary, twist-to-release, and key release models
- One contact block included
- Also available in incandescent and LED illuminated models

Ours: \$12.50 (GCX1131)

Allen-Bradley: \$89.75* (800FM-MT44 + 800F-MX01 + 800F-ALM)



Audible annunciators and potentiometers

- Audible annunciators with or without LED indicator
- 5 and 10 K Ω potentiometers

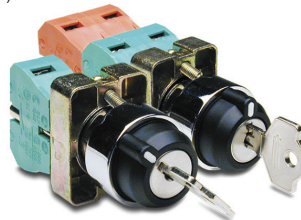


Selector switches

- Two and three-position in spring return and maintained, non-illuminated and illuminated; incandescent and LED models
- Contact block included

Ours: \$9.75 (GCX1300)

Allen-Bradley: \$64.20* (800FM-SM22 + 800F-MX10 + 800F-ALM)

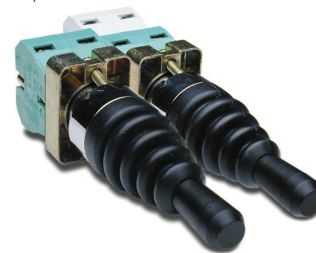


Key switches

- Two and three-position
- Contact blocks included

Ours: \$18.00 (GCX1420)

Allen-Bradley: \$94.66* (800FM-KM21 + 800F-MX10 + 800F-ALM)



Joysticks

- Two and four-position, maintained and momentary
- Contact blocks included

Ours: \$26.50 (ECX1510)

Allen-Bradley: \$176.85* (800FM-JR2 + 800F-MX20 + 800F-ALM)



Pilot lights

- Available in six colors: red, green, white, clear, yellow and blue
- 24 and 120-volt models with LED
- Frosted diffuser for even lighting
- Incandescent or LED indicators

Ours: \$5.50 (ECX1052-24)

Allen-Bradley: \$70.55* (800FM-P3 + 800F-ALM + 800F-D3C)

Accessories



• One to six-hole enclosures

• Bulbs and LEDs

• Protective actuator caps

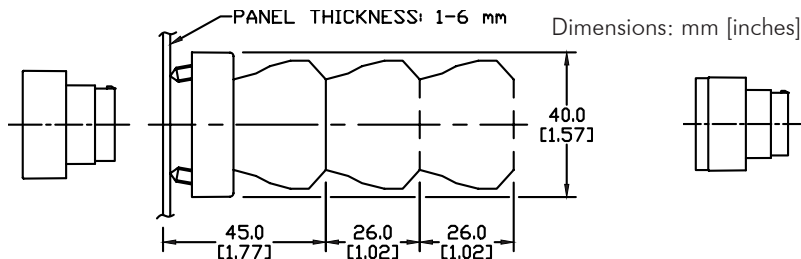
*All prices are U.S. published prices. AutomationDirect's prices are from April 2014 Price List. Prices and specifications may vary by dealer and configuration. Allen-Bradley industrial control component prices from www.rockwellautomation.com/en/e-tools 2/28/2014.

GCX Series 22mm Metal Pilot Devices Specifications

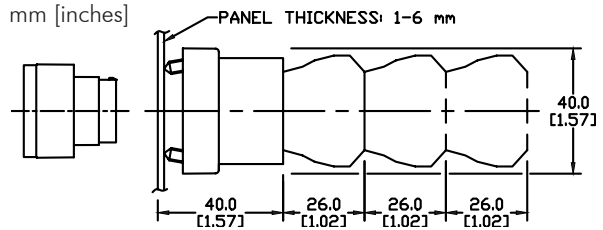
Assembly information

These pushbuttons and indicator lights are supplied with the appropriate contact blocks, unless otherwise indicated. Use these drawings as a guide to make sure there is adequate clearance behind the panel.

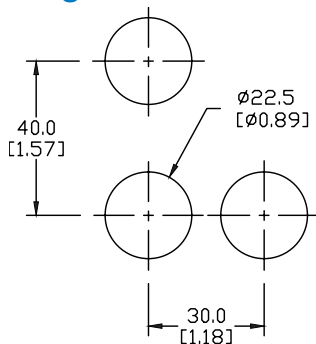
Pushbuttons and selector switches



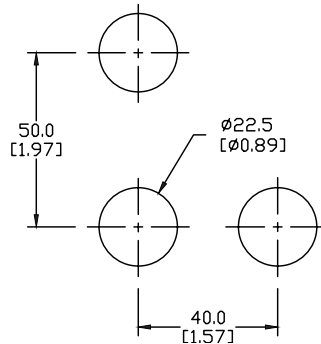
Illuminated pushbuttons and selector switches/pilot lights



Mounting



This layout is suitable if all switches are 230V or less and the same polarity.

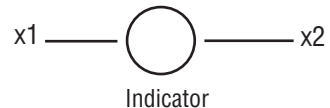
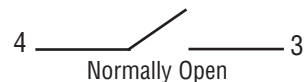


This layout is suitable if all switches are 400V or less and different polarity.

NOTE: Contact blocks can be arranged up to three deep by two wide.



Typical Wiring



Specifications

These specifications apply to all GCX and ECX 22 mm metal pushbuttons and switches.

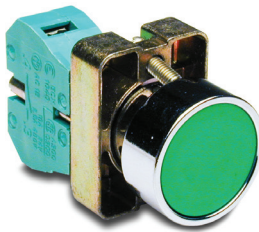
Physical Specifications	
Standards Reference	CEI EN 60947-5-1, CSA C22-2 n.14
Approvals	CSA, IMQ (where specified), UL File E189258
Enclosure Material	Zn + Al + Mg alloy, chromium plated
Contacts Material	Silver
Protection Degree	IP 40 for GCX3151-24, GCX3151-120, GCX3153-24 and GCX3153-120. IP 65 for all others. (See Appendix of this catalog for explanation of IP ratings according to IEC 144 CEI 70-1.)
Temperature Ratings	Storage: -40° to 80°C (-40° to 176° F) Operating: -25° to +70°C (-13° to 158° F)
Working Positions	All working positions are allowed
Mechanical Life	Pushbuttons, selector switches: Joy stick switches: 1,000,000 operations Mushroom pushbuttons: 300,000 operations

Electrical Specifications	
Rated Thermal Current (contact block)	A300, Q300 (Refer to E22 Series mounting/contact rating section for details)
Rated Insulation Voltage	Ui 660V according to CEI EN 60947-5-1, 300V according to CSA C22-2 n.14
Dielectric Strength	3kV (1 second)
Insulation Resistance	2MΩ min. (500VDC)
Initial Contact Resistance	≤25mΩ
Short-Circuit Protection*	Cartridge fuses gl 10A - 500V 10,3x38l1 100kA
Terminal Markings	According to CENELEC EN 50013
Connections	Single screw with non-loosening plate clamp, 14AWG max.
Contacts Operation	Self-cleaning types EN01 (N.C.) EN 10 (N.O.) slow action, positive opening
Operation Frequency	3600 operations per hour max.
Utilization Category	AC15 (Control of AC electromagnetic loads) 24 volts AC at 10 amps 130 volts AC at 6.5 amps DC13 (Control of DC electromagnetic loads) 24 volts DC at 1.5 amps 110 volts DC at 0.5 amps

*Note: Recommended, not supplied

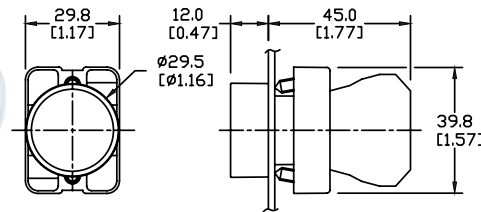
GCX Series 22mm Metal Pushbuttons

Momentary flush pushbuttons
with protective metal ring
(30mm dia. actuator)



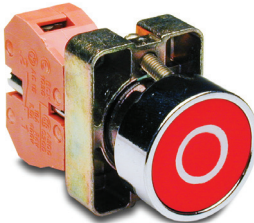
GCX1102

Dimensions: mm [inches]



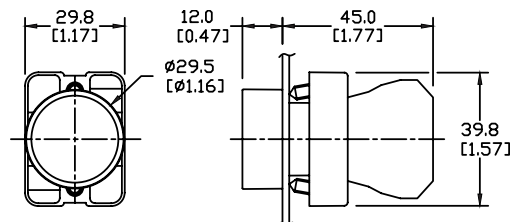
Part Number	Color	Price	Description
GCX1100	Black	\$6.50	One N.O. contact block, 30mm dia. actuator, mounts in 22mm hole
GCX1101	Red	\$6.50	One N.C. contact block, 30mm dia. actuator, mounts in 22mm hole
GCX1102	Green	\$6.50	One N.O. contact block, 30mm dia. actuator, mounts in 22mm hole
GCX1103	Yellow	\$6.50	
GCX1104	Blue	\$6.50	
GCX1105	White	\$6.50	

Momentary Flush ON/OFF
pushbuttons with protective metal
ring (30mm dia. actuator)

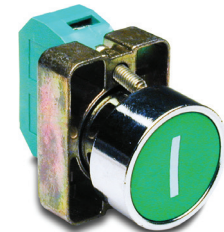


GCX1106

Dimensions: mm [inches]

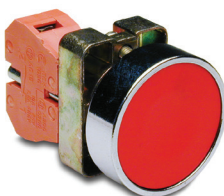


Part Number	Color	Price	Description
GCX1106	Red with "Off" symbol (O) on actuator	\$7.25	One N.C. contact block, 30mm dia. actuator, mounts in 22mm hole
GCX1107	Green with "On" symbol (I) on actuator	\$7.25	One N.O. contact block, 30mm dia. actuator, mounts in 22mm hole



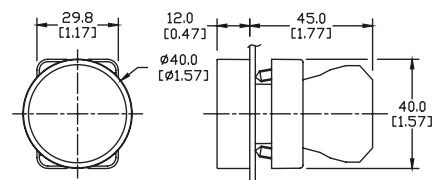
GCX1107

Momentary Pushbuttons
with protective metal ring
(40mm dia. actuator)



GCX1121

Dimensions: mm [inches]



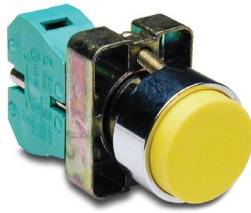
Part Number	Color	Price	Description
GCX1120	Black	\$7.75	One N.O. contact block, 40mm dia. actuator, mounts in 22mm hole
GCX1121	Red	\$7.75	One N.C. contact block, 40mm dia. actuator, mounts in 22mm hole
GCX1122	Green	\$7.75	One N.O. contact block, 40mm dia. actuator, mounts in 22mm hole
GCX1123	Yellow	\$7.75	
GCX1124	Blue	\$7.75	
GCX1125	White	\$7.75	

Note: Protective silicone covers are not available for this pushbutton.

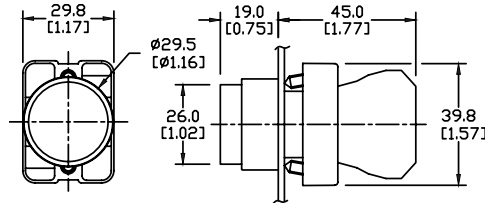
For accessories, see 22mm Metal Pilot Device Accessories in this section.

GCX Series 22mm Metal Pushbuttons

Momentary extended pushbuttons



Dimensions: mm [inches]



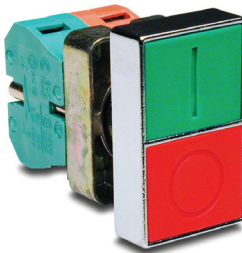
Part Number	Color	Price	Description
GCX1110	Black	\$7.25	One N.O. contact block, extended 30mm dia. actuator, mounts in 22mm hole
GCX1111	Red	\$7.25	One N.C. contact block, extended 30mm dia. actuator, mounts in 22mm hole
GCX1112	Green	\$7.25	One N.O. contact block, extended 30mm dia. actuator, mounts in 22mm hole
GCX1113	Yellow	\$7.25	
GCX1114	Blue	\$7.25	
GCX1115	White	\$7.25	

GCX1113

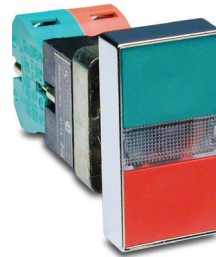
Double-headed momentary pushbuttons

Part Number	Price	Double-headed Momentary Pushbuttons Description
GCX1150	\$12.50	Double-headed for on/off control, One N.O. and one N.C. contact block, fits in 22mm dia. hole, without symbols
GCX1151-24	\$19.00	24VDC/VAC double-headed with indicator, faces without symbols. One N.O. and one N.C. contact block, fits in 22mm dia. hole
GCX1151-120	\$20.00	120VDC/VAC double-headed with indicator, faces without symbols. One N.O. and one N.C. contact block, fits in 22mm dia. hole
GCX1152	\$13.50	Double-headed for on/off control. One N.O. and one N.C. contact block, fits in 22mm dia. hole. With ON(I) and OFF (O) symbols
GCX1153-24*	\$20.00	24VDC/VAC double-headed with indicator, with ON (1) and OFF (0) symbols. One N.O. and one N.C. contact block
GCX1153-120*	\$21.00	120VDC/AC double-headed with indicator, with ON (1) and OFF (0) symbols. One N.O. and one N.C. contact block

* Note: Lamp data in 22 mm Metal Pilot Accessories in this section.

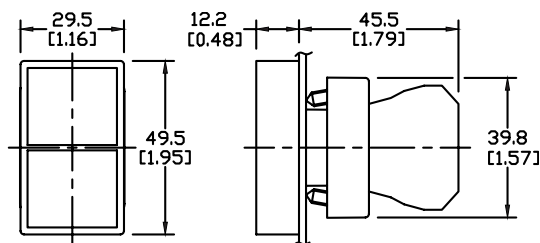


GCX1152 (with on/off symbols)

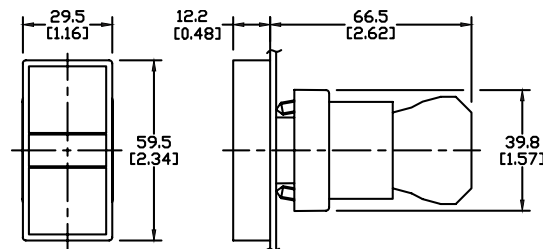


GCX1151-24

Dimensions: mm [inches]



GCX1150, GCX1152 models

GCX1151-24, GCX1153-24,
GCX1151-120, GCX1153-120 models

For accessories, see 22mm Metal Pilot Device Accessories in this section.

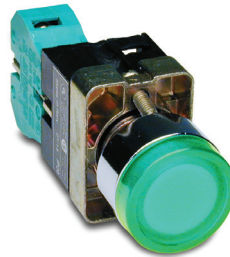
GCX Series 22mm Metal Illuminated Pushbuttons

Momentary pushbuttons with protective plastic ring

24 models available:

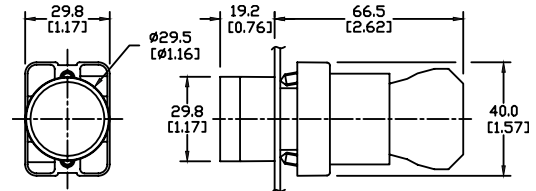
- Protective plastic ring for flush mount pushbutton functionality
- Includes incandescent bulb or LED lamp
- 24V and 120V models
- Available in six colors

All pushbuttons include operator, mounting adapter, chrome plated alloy bezel, indicating bulb (if applicable), and contact block. They are shipped unassembled. Legend plate is not included and must be ordered separately. All switches in this series use replacement contact block ECX1030 (Red, N.C.) or ECX1040 (Green, N.O.), sold separately in packages of two or five.



GCX1202-24

Dimensions: mm [inches]



Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX1201-24	Red	\$12.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.C. contact block	ECX1902-5 5/pk, 80mA	ECX1911-2 2/pk, 26mA
GCX1201-120	Red	\$14.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.C. contact block	ECX1904-5 5/pk, 20mA	ECX1921-2 2/pk, 5mA
GCX1202-24	Green	\$12.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1912-2 2/pk, 26mA
GCX1202-120	Green	\$14.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1922-2 2/pk, 5mA
GCX1203-24	Yellow	\$12.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1913-2 2/pk, 26mA
GCX1203-120	Yellow	\$14.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1923-2 2/pk, 5mA
GCX1204-24	Blue	\$12.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1914-2 2/pk, 26mA
GCX1204-120	Blue	\$14.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1924-2 2/pk, 5mA
GCX1205-24	Clear	\$12.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX1205-120	Clear	\$14.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
GCX1206-24	White	\$12.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX1206-120	White	\$14.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
LED					
GCX1201-24L	Red	\$19.50	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.C. contact block	ECX1902-5 5/pk, 80mA	ECX1911-2 2/pk, 26mA
GCX1201-120L	Red	\$24.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.C. contact block	ECX1904-5 5/pk, 20mA	ECX1921-2 2/pk, 5mA
GCX1202-24L	Green	\$19.50	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1912-2 2/pk, 26mA
GCX1202-120L	Green	\$24.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1922-2 2/pk, 5mA
GCX1203-24L	Yellow	\$19.50	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1913-2 2/pk, 26mA
GCX1203-120L	Yellow	\$24.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1923-2 2/pk, 5mA
GCX1204-24L	Blue	\$19.50	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1914-2 2/pk, 26mA
GCX1204-120L	Blue	\$24.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1924-2 2/pk, 5mA
GCX1205-24L	Clear	\$23.00	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX1205-120L	Clear	\$25.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
GCX1206-24L	White	\$23.00	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX1206-120L	White	\$25.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA

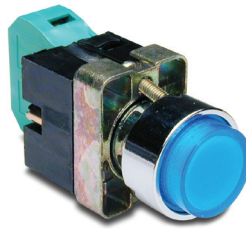
For accessories, see 22mm Metal Pilot Device Accessories in this section.

GCX Series 22mm Metal Illuminated Pushbuttons

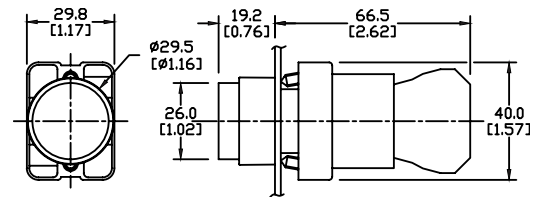
Momentary pushbuttons with extended actuator

25 models available:

- Protective plastic ring for flush mount pushbutton functionality
- Includes incandescent bulb or LED lamp
- 24V and 120V models
- Available in six colors



Dimensions: mm [inches]



All pushbuttons include operator, mounting adapter, chrome plated alloy bezel, indicating bulb (if applicable), and contact block. They are shipped unassembled. Legend plate is not included and must be ordered separately. All switches in this series use replacement contact block ECX1030 (Red, N.C.) or ECX1040 (Green, N.O.), sold separately in packages of two or five.

GCX1214-24

Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX1211-24	Red	\$12.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk, 26mA
GCX1211-120	Red	\$13.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk, 5mA
GCX1212-24	Green	\$12.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk, 26mA
GCX1212-120	Green	\$13.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk, 5mA
GCX1213-24	Yellow	\$12.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk, 26mA
GCX1213-120	Yellow	\$13.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk, 5mA
GCX1214-24	Blue	\$12.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk, 26mA
GCX1214-120	Blue	\$13.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk, 5mA
GCX1215-24	Clear	\$12.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk, 26mA
GCX1215-120	Clear	\$13.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk, 5mA
GCX1216-24	White	\$12.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk, 26mA
GCX1216-120	White	\$13.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk, 5mA
LED					
GCX1211-24L	Red	\$16.50	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk, 26mA
GCX1211-120L	Red	\$17.50	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk, 5mA
GCX1211-120LA	Red	\$17.50	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1921-2 2/pk, 5mA
GCX1212-24L	Green	\$18.50	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1912-2 2/pk, 26mA
GCX1212-120L	Green	\$12.50	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1922-2 2/pk, 5mA
GCX1213-24L	Yellow	\$16.50	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1913-2 2/pk, 26mA
GCX1213-120L	Yellow	\$17.50	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1923-2 2/pk, 5mA
GCX1214-24L	Blue	\$19.00	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1914-2 2/pk, 26mA
GCX1214-120L	Blue	\$20.00	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1924-2 2/pk, 5mA
GCX1215-24L	Clear	\$21.00	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1915-2 2/pk, 26mA
GCX1215-120L	Clear	\$22.00	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1902-5 5/pk 80mA	ECX1925-2 2/pk, 5mA
GCX1216-24L	White	\$21.00	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1904-5 5/pk 20mA	ECX1915-2 2/pk, 26mA
GCX1216-120L	White	\$22.00	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1925-2 2/pk 5mA	ECX1925-2 2/pk, 5mA

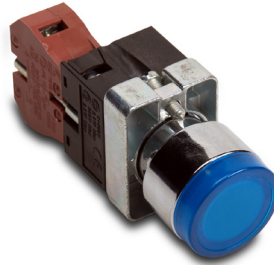
For accessories, see 22mm Metal Pilot Device Accessories in this section.

GCX Series 22mm Metal Illuminated Pushbuttons

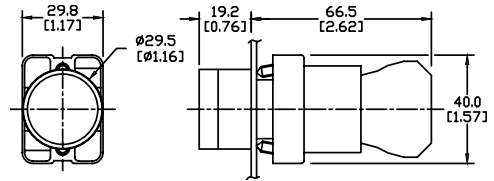
Push-push style pushbuttons with protective plastic ring

24 models available:

- Protective plastic ring for flush mount pushbutton functionality
- Includes incandescent bulb or LED lamp
- 24V and 120V models
- Available in six colors
- These switches are supplied with a special N.O. contact block designed for use with this actuator, but they also work with standard N.C. contacts



Dimensions: mm [inches]



GCX1194-24

All switches in this series use replacement contact block ECX1042-2 (Brown, N.O.) or ECX1030-5 or ECX1030-2 (Red, N.C.), sold separately.

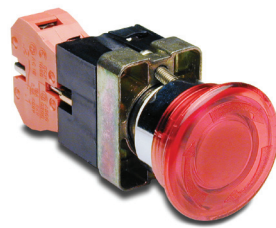
Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX1191-24	Red	\$14.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1911-2 2/pk, 26mA
GCX1191-120	Red	\$15.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1921-2 2/pk, 5mA
GCX1192-24	Green	\$14.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1912-2 2/pk, 26mA
GCX1192-120	Green	\$15.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1922-2 2/pk, 5mA
GCX1193-24	Yellow	\$14.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1913-2 2/pk, 26mA
GCX1193-120	Yellow	\$15.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1923-2 2/pk, 5mA
GCX1194-24	Blue	\$14.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1914-2 2/pk, 26mA
GCX1194-120	Blue	\$15.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1924-2 2/pk, 5mA
GCX1195-24	Clear	\$14.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX1195-120	Clear	\$15.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
GCX1196-24	White	\$14.50	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX1196-120	White	\$15.00	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
LED					
GCX1191-24L	Red	\$23.50	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5 5/pk, 80mA	ECX1911-2 2/pk, 26mA
GCX1191-120L	Red	\$25.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5 5/pk, 20mA	ECX1921-2 2/pk, 5mA
GCX1192-24L	Green	\$23.50	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5 5/pk, 80mA	ECX1912-2 2/pk, 26mA
GCX1192-120L	Green	\$25.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5 5/pk, 20mA	ECX1922-2 2/pk, 5mA
GCX1193-24L	Yellow	\$23.50	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5 5/pk, 80mA	ECX1913-2 2/pk, 26mA
GCX1193-120L	Yellow	\$25.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5 5/pk, 20mA	ECX1923-2 2/pk, 5mA
GCX1194-24L	Blue	\$23.50	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5 5/pk, 80mA	ECX1914-2 2/pk, 26mA
GCX1194-120L	Blue	\$25.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5 5/pk, 20mA	ECX1924-2 2/pk, 5mA
GCX1195-24L	Clear	\$23.50	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX1195-120L	Clear	\$25.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
GCX1196-24L	White	\$23.50	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX1196-120L	White	\$25.00	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA

For accessories, see 22mm Metal Pilot Device Accessories in this section.

GCX Series 22mm Metal Illuminated Pushbuttons

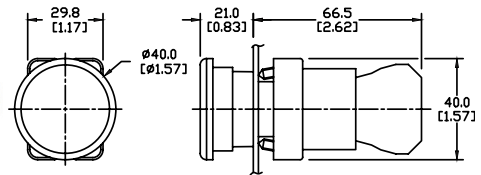
Mushroom-style illuminated pushbuttons

All pushbuttons include operator, mounting adapter, chrome plated alloy bezel, indicating bulb (if applicable), and contact block. They are shipped unassembled. Legend plate is not included and must be ordered separately. All switches in this series use replacement contact block ECX1030 (Red, N.C.) or ECX1040 (Green, N.O.), sold separately in packages of two or five.



GCX1221-24

Dimensions: mm [inches]



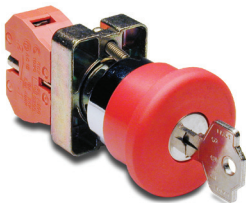
Part Number	Lamp Color	Price	Mushroom-style Illuminated Pushbuttons Description	Replacement Bulbs
Incandescent				
GCX1221-24	Red	\$14.50	22mm metal incandescent momentary pushbutton with incandescent illuminated 40mm mushroom actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA
GCX1221-120	Red	\$16.00	22mm metal incandescent momentary pushbutton with incandescent illuminated 40mm mushroom actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5 5/pk 20mA
GCX1226-24	Red	\$16.50	22mm metal incandescent pushbutton with incandescent illuminated 40mm mushroom twist-to-release actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA
GCX1226-120	Red	\$18.00	22mm metal incandescent pushbutton with incandescent illuminated 40mm mushroom twist-to-release actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5 5/pk 20mA
LED				
GCX1221-24L	Red	\$18.50	22 mm metal momentary pushbutton with LED illuminated 40 mm mushroom actuator, 24VDC/VAC, one N.C. contact block	ECX1911-2 2/pk 26mA
GCX1221-120L	Red	\$20.00	22 mm metal momentary pushbutton with LED illuminated 40 mm mushroom actuator, 120VDC/VAC, one N.C. contact block	ECX1921-2 2/pk 5mA
GCX1226-24L	Red	\$20.50	22 mm metal pushbutton with LED illuminated 40 mm mushroom twist-to-release actuator, 24VDC/VAC, one N.C. contact block	ECX1911-2 2/pk 26mA
GCX1226-120L	Red	\$22.50	22 mm metal pushbutton with LED illuminated 40 mm mushroom twist-to-release actuator, 120VDC/VAC, one N.C. contact block	ECX1921-2 2/pk 5mA

Non-Illuminated Mushroom pushbuttons

Has large 60mm dia. actuator and mounts in standard 22mm hole



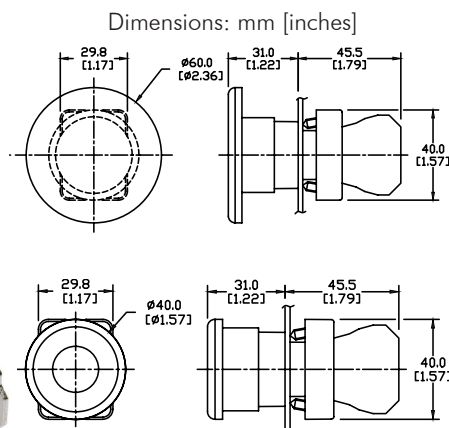
GCX1137



GCX1141
(key operated)



Note: Keyed switches come with two keys. All metal 22mm keyed switches are keyed alike. Replacement keys are available. Order part no. ECX1067-2 (pkg. of 2).

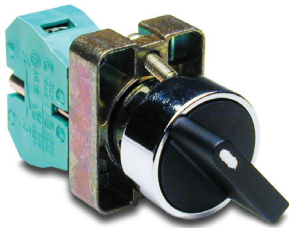


Part Number	Color	Price	Description
GCX1131	Red	\$12.50	Twist-to-release actuator with one N.C. contact block, fits in 22mm dia. hole. Has large 40mm dia. mushroom-style actuator.
GCX1134	Black	\$10.50	Momentary action with one N.O. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator.
GCX1135	Red	\$10.50	Momentary action with one N.C. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator. "Emergency" legend plate available (see Accessories).
GCX1136	Red	\$15.50	Twist-to-release actuator with one N.C. contact block, fits in 22mm dia. hole. 60mm mushroom-style actuator.
GCX1137	Red	\$12.50	Momentary action with one N.C. contact block, fits in 22mm dia. hole, has large 60mm dia. mushroom-style "Emergency" legend plate available (see Accessories).
GCX1139	Yellow	\$10.50	Momentary action with one N.O. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator.
GCX1141	Red	\$17.50	Key operated release with one N.C. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator. "Emergency" legend plate available (see Accessories).

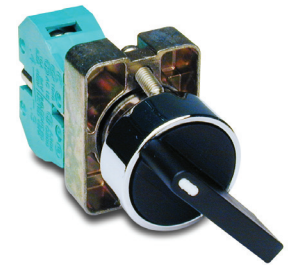
For accessories, see 22mm Metal Pilot Device Accessories in this section.

GCX Series 22mm Metal Selector Switches

Two-position selector switches



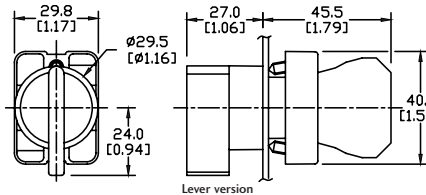
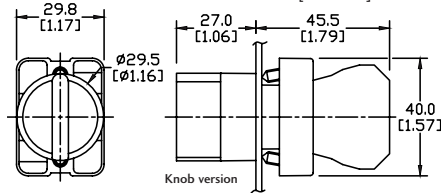
GCX1300 Knob version



GCX1350 Lever version

Part Number	Price	Description - 2-Position Switches
GCX1300	\$9.75	22mm metal selector switch, two-position maintained , black knob. One N.O. contact block
GCX1310	\$11.00	22mm metal selector switch, two-position spring-return from right , black knob. One N.O. contact block
GCX1350	\$11.00	22mm metal selector switch, two-position maintained , black lever. One N.O. contact block
GCX1360	\$11.50	22mm metal selector switch, two-position spring-return from right , black lever. One N.O. contact block

Dimensions: mm [inches]

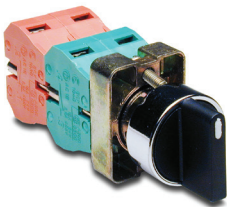


Contact Closure Sequence - 2-Position Switch

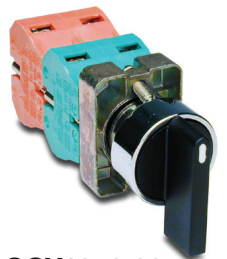
Contact Blocks	Contact Arrangement (viewed from front)		Switch Position (viewed from front)	
	Left	Right	Left (Note 1)	Right (Note 2)
1 x NC	NC		X	
		NC	X	
1 x NO	NO			X
		NO		X
2 x NC	NC	NC	XX	
2 x NO	NO	NO		XX

Note 1: Left switch position deactivates all contacts.
Note 2: Right switch position activates all contacts.

Three-position selector switches



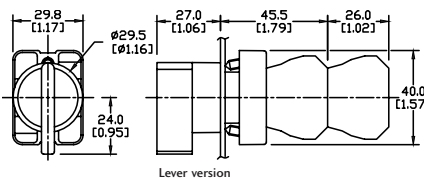
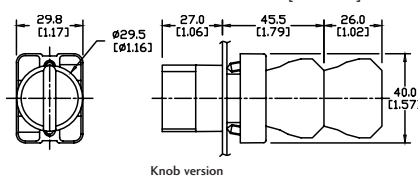
GCX1320-22 Knob version



GCX1370-22 Lever version

Part Number	Price	Description - 3-Position Switches
GCX1320-22	\$19.00	22mm metal selector switch, three-position maintained , black knob, Two N.O. and two N.C. contact blocks
GCX1330-22	\$19.50	22mm metal selector switch, three-position spring-return to center , black knob, Two N.O. and two N.C. contact blocks
GCX1370-22	\$19.50	22mm metal selector switch, three-position maintained , black lever, Two N.O. and two N.C. contact blocks
GCX1380-22	\$20.00	22mm metal selector switch, three-position spring-return to center , black lever, Two N.O. and two N.C. contact blocks

Dimensions: mm [inches]



Contact Closure Sequence - 3-Position Switch

Contact Blocks	Contact Arrangement (viewed from front)		Switch Position (viewed from front)		
	Left	Right	Left (Note 1)	Center (Note 2)	Right (Note 3)
1 x NC	NC			X	X
		NC	X	X	
1 x NO	NO		X		
		NO			X
2 x NC	NC	NC	X	XX	X
2 x NO	NO	NO	X		X

Note 1: Left switch position activates left side contacts (viewed from front).
Note 2: Center switch position deactivates all contacts.
Note 3: Right switch position activates right side contacts (viewed from front).

Note: When using switches having two-deep contact blocks with the 22mm plastic enclosures, be sure to use enclosures that are 74mm deep; 51mm-deep enclosures are too shallow and the switch body will not fit.



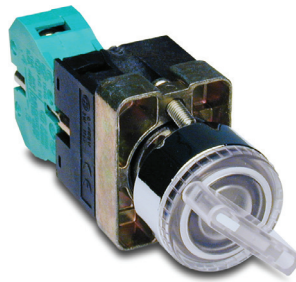
For accessories, see 22mm Metal Pilot Device Accessories in this section.

GCX Series 22mm Metal Illuminated Selector Switches

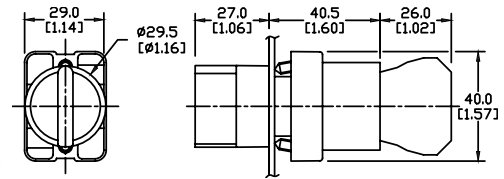
Illuminated two-position selector switches

20 models available:

- Available in five colors
- 24V and 120V models
- Available in spring-return and maintained styles
- Replacement knobs are available



Dimensions: mm [inches]



GCX1245-24

Note: For contact closure sequence, refer to preceding page.

Spring Return

Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX1241-24	Red	\$14.50	22mm metal incandescent illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX1241-120	Red	\$15.50	22mm metal incandescent illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX1242-24	Green	\$14.50	22mm metal incandescent illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX1242-120	Green	\$15.50	22mm metal incandescent illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX1243-24	Yellow	\$14.50	22mm metal incandescent illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX1243-120	Yellow	\$15.50	22mm metal incandescent illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX1244-24	Blue	\$14.50	22mm metal incandescent illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX1244-120	Blue	\$15.50	22mm metal incandescent illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX1245-24	Clear	\$14.50	22mm metal incandescent illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX1245-120	Clear	\$15.50	22mm metal incandescent illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA
LED					
GCX1241-24L	Red	\$18.50	22mm metal LED illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX1241-120L	Red	\$18.50	22mm metal LED illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX1242-24L	Green	\$20.50	22mm metal LED illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX1242-120L	Green	\$20.50	22mm metal LED illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX1243-24L	Yellow	\$18.50	22mm metal LED illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX1243-120L	Yellow	\$18.50	22mm metal LED illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX1244-24L	Blue	\$20.50	22mm metal LED illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX1244-120L	Blue	\$23.00	22mm metal LED illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX1245-24L	Clear	\$23.00	22mm metal LED illuminated 2-position selector switch. Spring-return from right. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX1245-120L	Clear	\$23.00	22mm metal LED illuminated 2-position selector switch. Spring-return from right. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA

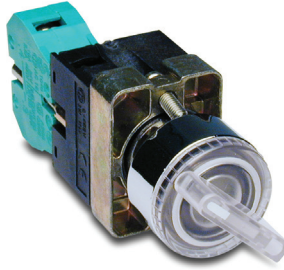
For accessories, see 22mm Metal Pilot Device Accessories in this section.

GCX Series 22mm Metal Illuminated Selector Switches

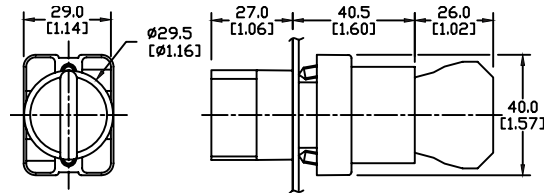
Illuminated two-position maintained selector switches

20 models available:

- Available in five colors
- 24V and 120V models
- Available in spring-return and maintained styles
- Replacement knobs are available



Dimensions: mm [inches]



Note: For contact closure sequence, refer to preceding pages.

GCX1251-24

Maintained

Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX1251-24	Red	\$14.50	22mm metal incandescent illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX1251-120	Red	\$15.50	22mm metal incandescent illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX1252-24	Green	\$14.50	22mm metal incandescent illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX1252-120	Green	\$15.50	22mm metal incandescent illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX1253-24	Yellow	\$14.50	22mm metal incandescent illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX1253-120	Yellow	\$15.50	22mm metal incandescent illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX1254-24	Blue	\$14.50	22mm metal incandescent illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX1254-120	Blue	\$15.50	22mm metal incandescent illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX1255-24	Clear	\$14.50	22mm metal incandescent illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX1255-120	Clear	\$15.50	22mm metal incandescent illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA
LED					
GCX1251-24L	Red	\$18.50	22mm metal LED illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX1251-120L	Red	\$18.50	22mm metal LED illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX1252-24L	Green	\$20.50	22mm metal LED illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX1252-120L	Green	\$20.50	22mm metal LED illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX1253-24L	Yellow	\$18.50	22mm metal LED illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX1253-120L	Yellow	\$18.50	22mm metal LED illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX1254-24L	Blue	\$20.50	22mm metal LED illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX1254-120L	Blue	\$23.00	22mm metal LED illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX1255-24L	Clear	\$23.00	22mm metal LED illuminated 2-position selector switch. Maintained. 24VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX1255-120L	Clear	\$24.00	22mm metal LED illuminated 2-position selector switch. Maintained. 120VDC/VAC. One N.O. contact block. Illuminated colored knob.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA

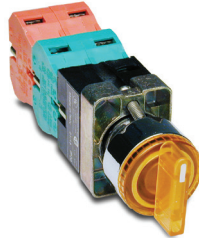
For accessories, see 22mm Metal Pilot Device Accessories in this section.

GCX Series 22mm Metal Illuminated Selector Switches

Illuminated three-position maintained selector switch

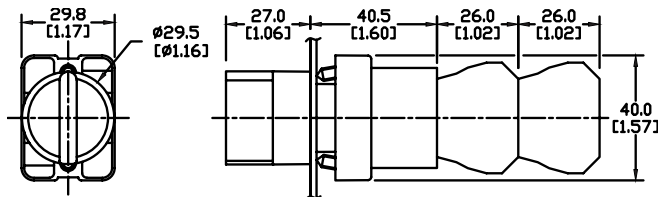
20 models available:

- Available in five colors
- 24V and 120V models
- Available in spring-return and maintained styles
- Replacement knobs are available



GCX1263-24

Dimensions: mm [inches]



Note: For contact closure sequence, refer to preceding pages.

Maintained

Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
Incandescent					
GCX1261-24	Red	\$24.00	22mm metal incandescent illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX1261-120	Red	\$24.50	22mm metal incandescent illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX1262-24	Green	\$24.00	22mm metal incandescent illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX1262-120	Green	\$24.50	22mm metal incandescent illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX1263-24	Yellow	\$24.00	22mm metal incandescent illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX1263-120	Yellow	\$24.50	22mm metal incandescent illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX1264-24	Blue	\$24.00	22mm metal incandescent illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX1264-120	Blue	\$24.50	22mm metal incandescent illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX1265-24	Clear	\$24.00	22mm metal incandescent illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX1265-120	Clear	\$24.50	22mm metal incandescent illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA
LED					
GCX1261-24L	Red	\$28.00	22mm metal LED illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX1261-120L	Red	\$30.00	22mm metal LED illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX1262-24L	Green	\$30.00	22mm metal LED illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX1262-120L	Green	\$30.00	22mm metal LED illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX1263-24L	Yellow	\$28.00	22mm metal LED illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX1263-120L	Yellow	\$30.00	22mm metal LED illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX1264-24L	Blue	\$30.00	22mm metal LED illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX1264-120L	Blue	\$30.00	22mm metal LED illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX1265-24L	Clear	\$30.00	22mm metal LED illuminated 3-position selector switch. Maintained. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX1265-120L	Clear	\$31.00	22mm metal LED illuminated 3-position selector switch. Maintained. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA

For accessories, see 22mm Metal Pilot Device Accessories in this section.

GCX Series 22mm Metal Illuminated Selector Switches

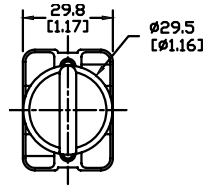
Illuminated three-position spring return selector switches

20 models available:

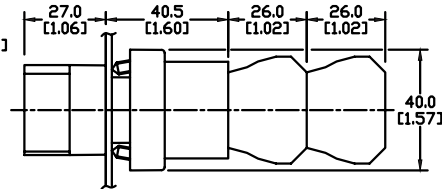
- Available in five colors
- 24V and 120V models
- Available in spring-return and maintained styles
- Replacement knobs are available



GCX1283-24



Dimensions: mm [inches]



For contact closure sequence, refer to preceding pages.

Spring Return

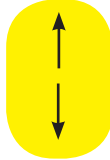
Part Number	Lamp Color	Price	Description	Standard Incandescent Bulb	Standard LED Lamp
Incandescent					
GCX1281-24	Red	\$24.00	22mm metal incandescent illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX1281-120	Red	\$24.50	22mm metal incandescent illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX1282-24	Green	\$24.00	22mm metal incandescent illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX1282-120	Green	\$24.50	22mm metal incandescent illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX1283-24	Yellow	\$24.00	22mm metal incandescent illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX1283-120	Yellow	\$24.50	22mm metal incandescent illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX1284-24	Blue	\$24.00	22mm metal incandescent illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX1284-120	Blue	\$24.50	22mm metal incandescent illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX1285-24	Clear	\$24.00	22mm metal incandescent illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX1285-120	Clear	\$24.50	22mm metal incandescent illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA
LED					
GCX1281-24L	Red	\$28.00	22mm metal LED illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX1281-120L	Red	\$29.00	22mm metal LED illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX1282-24L	Green	\$30.00	22mm metal LED illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1912-2 2/pk 26mA
GCX1282-120L	Green	\$30.00	22mm metal LED illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1922-2 2/pk 5mA
GCX1283-24L	Yellow	\$28.00	22mm metal LED illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1913-2 2/pk 26mA
GCX1283-120L	Yellow	\$25.00	22mm metal LED illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1923-2 2/pk 5mA
GCX1284-24L	Blue	\$30.00	22mm metal LED illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1914-2 2/pk 26mA
GCX1284-120L	Blue	\$30.00	22mm metal LED illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1924-2 2/pk 5mA
GCX1285-24L	Clear	\$31.00	22mm metal LED illuminated 3-position selector switch. Spring-return to Center. 24VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1902-5 5/pk 80mA	ECX1915-2 2/pk 26mA
GCX1285-120L	Clear	\$30.00	22mm metal LED illuminated 3-position selector switch. Spring-return to Center. 120VDC/VAC. Two N.O. and Two N.C. contact blocks.	ECX1904-5 5/pk 20mA	ECX1925-2 2/pk 5mA

For accessories, see 22mm Metal Pilot Device Accessories in this section.

ECX Series 22mm Metal Joystick Selector Switches

Joystick selector switches

Four models available



Part Number	Price	Description
ECX1510	\$26.50	22mm metal joystick-style selector switch, two-position momentary, two N.O. contact blocks
ECX1512	\$26.50	22mm metal joystick-style selector switch, two-position maintained, two N.O. contact blocks
ECX1520	\$34.50	22mm metal joystick-style selector switch, four-position momentary, four N.O. contact blocks
ECX1524	\$34.50	22mm metal joystick-style selector switch, four-position maintained, four N.O. contact blocks

Note: Four-position switches use two special contact blocks which are not replaceable.

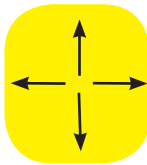
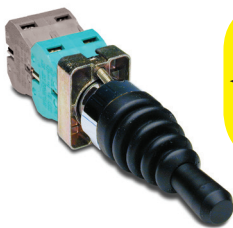
Note: When using switches having two-deep contact blocks (4-position joysticks) with the 22mm plastic enclosures, use enclosures that are 74mm deep; 51mm-deep enclosures are too shallow.

Mounting

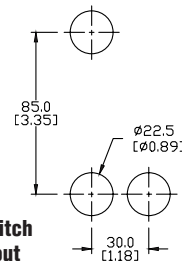
Dimensions: mm [inches]

ECX1510 (Two-position momentary) ECX1512 (Two-position maintained)

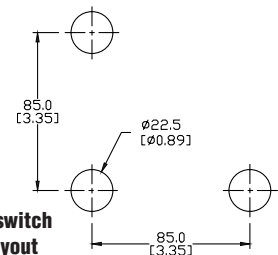
- Moving the joystick UP will close contact on one side.
- Moving the joystick DOWN will close contact on other side.



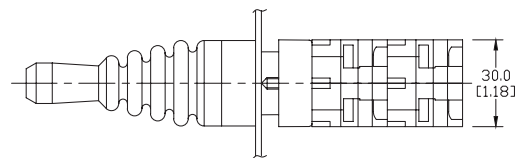
Two-position switch
panel hole layout



Four-position switch
panel hole layout

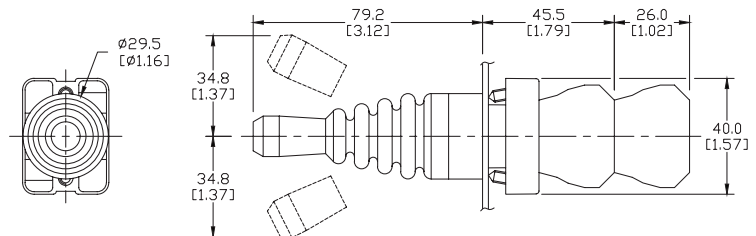


Dimensions



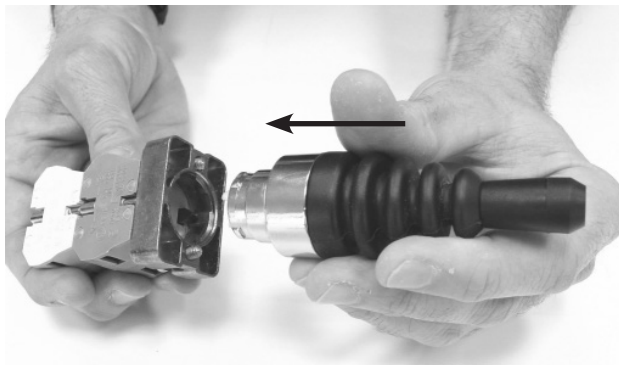
ECX1520 (Four-position momentary) ECX1524 (Four-position maintained)

- Moving the joystick UP will close Green contact on one side and moving it DOWN will close Gray contact located behind it.
- Moving the joystick RIGHT will close Green contact on other side and moving it LEFT will close Gray contact located behind it.



Important installation note

It is very important that the joystick be assembled correctly to ensure proper operation.



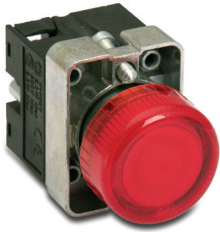
Insert operator into support base (panel is not shown).



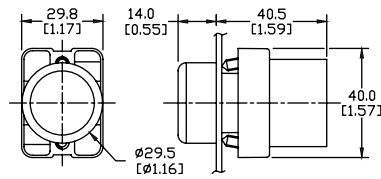
Twist clockwise until it clicks into place. Carefully tighten the securing screws. Do not over-tighten. (4.5 lb·in) If the operator is not "clicked" into position before the screws are tightened, the switch will not work properly.

For accessories, see 22mm Metal Pilot Device Accessories in this section.

GCX Series 22mm Metal Pilot Lights and Key Switches



Dimensions: mm [inches]



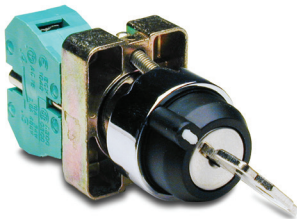
LED Pilot Light

12 models available

- Available in six colors
- 24V and 120V models
- LED lamps are included
- Accepts incandescent replacement bulbs

Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb	Replacement LED Lamp
LED					
GCX1231-24L	Red	\$14.50	22mm metal LED illuminated pilot light. 24VDC/VAC	ECX1902-5 5/pk, 80mA	ECX1911-2 2/pk, 26mA
GCX1231-120L	Red	\$15.50	22mm metal LED illuminated pilot light. 120VDC/VAC	ECX1904-5 5/pk, 20mA	ECX1921-2 2/pk, 5mA
GCX1232-24L	Green	\$14.50	22mm metal LED illuminated pilot light. 24VDC/VAC	ECX1902-5 5/pk, 80mA	ECX1912-2 2/pk, 26mA
GCX1232-120L	Green	\$15.50	22mm metal LED illuminated pilot light. 120VDC/VAC	ECX1904-5 5/pk, 20mA	ECX1922-2 2/pk, 5mA
GCX1233-24L	Yellow	\$14.50	22mm metal LED illuminated pilot light. 24VDC/VAC	ECX1902-5 5/pk, 80mA	ECX1913-2 2/pk, 26mA
GCX1233-120L	Yellow	\$15.50	22mm metal LED illuminated pilot light. 120VDC/VAC	ECX1904-5 5/pk, 20mA	ECX1923-2 2/pk, 5mA
GCX1234-24L	Blue	\$14.50	22mm metal LED illuminated pilot light. 24VDC/VAC	ECX1902-5 5/pk, 80mA	ECX1914-2 2/pk, 26mA
GCX1234-120L	Blue	\$15.50	22mm metal LED illuminated pilot light. 120VDC/VAC	ECX1904-5 5/pk, 20mA	ECX1924-2 2/pk, 5mA
GCX1235-24L	Clear	\$16.50	22mm metal LED illuminated pilot light. 24VDC/VAC	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX1235-120L	Clear	\$17.50	22mm metal LED illuminated pilot light. 120VDC/VAC	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA
GCX1236-24L	White	\$16.50	22mm metal LED illuminated pilot light. 24VDC/VAC	ECX1902-5 5/pk, 80mA	ECX1915-2 2/pk, 26mA
GCX1236-120L	White	\$17.50	22mm metal LED illuminated pilot light. 120VDC/VAC	ECX1904-5 5/pk, 20mA	ECX1925-2 2/pk, 5mA

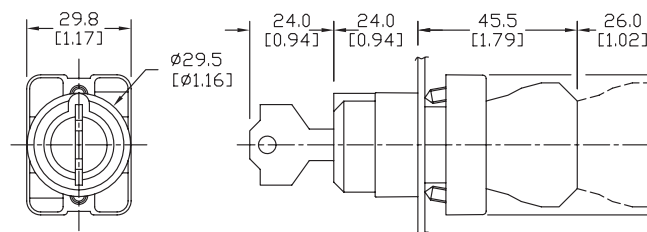
Key-operated selector switches

**GCX1420**

(2-position maintained)

Part Number	Price	Description
GCX1420	\$18.00	22mm metal selector switch, key-operated, two-position maintained , key can be removed in all positions. One N.O. contact block. Replacement keys available
GCX1430	\$18.00	22mm metal selector switch, key-operated, two-position spring-return from right . One N.O. contact block. Replacement keys available
GCX1470-22	\$26.50	22mm metal selector switch, key-operated, three-position maintained , key can be removed in all positions. Two N.O. and two N.C. contact blocks. Replacement keys available

Dimensions: mm [inches]



Note: Keyed switches come with two keys. All metal 22mm keyed switches are keyed the same. Replacement keys are available. Order part no. ECX1067-2 (pkg. of 2). Keys for metal 22mm keyed switches are not compatible with Cutler-Hammer key switches.



Note: When using switches having two-deep contact blocks (such as, Model GCX1470-22) with the 22mm plastic enclosures, be sure to use enclosures that are 74mm deep. 51mm-deep enclosures are too shallow and the switch body will not fit.

Note: For contact closure sequence, refer to beginning of selector switches in this section.

For accessories, see 22mm Metal Pilot Device Accessories in this section.

ECX Series 22mm Metal Pilot Devices

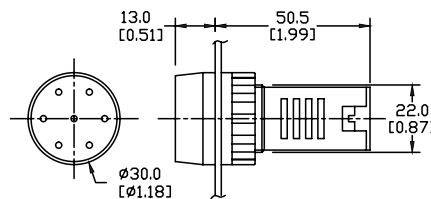
Audible annunciator



- 80dB @ 10cm
- 25mA @ 24V
- Intermittent sound when energized
- IP20 before installation
- IP65 after installation

Part Number	Color	Price	Description
ECX2070-24	Black	\$6.50	22mm, 25mA audible (80dB at 10cm) buzzer annunciator. 24VAC/DC
ECX2070-127	Black	\$6.50	22mm, 25mA audible (80dB at 10cm) buzzer annunciator. 120VAC/DC
ECX2071-24R	Red	\$8.50	22mm, 25mA audible (80dB at 10cm) buzzer annunciator with non-replaceable LED indicator. 24VAC/DC
ECX2071-127R	Red	\$8.50	22mm, 25mA audible (80dB at 10cm) buzzer annunciator with non-replaceable LED indicator. 120VAC/DC

Dimensions: mm [inches]

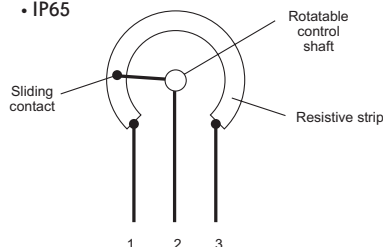


22mm potentiometer

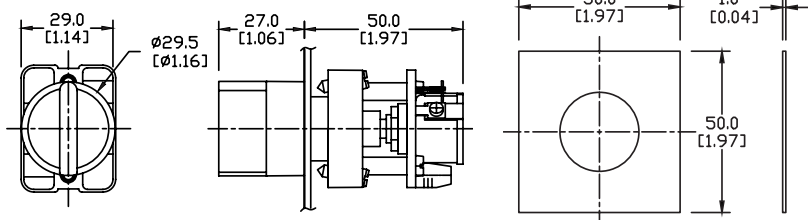


Part Number	Quantity	Price	Description
ECX2300-5K	pkg. of 1	\$36.50	22mm potentiometer with 5k Ω resistance, $\pm 10\%$. Nominal voltage: 250V. Rated dissipation: 2W at 25°C. Temperature range -40°C to 70°C. Black handle. Connection type is screw terminal, 3-pole, 22-14 AWG.
ECX2300-10K	pkg. of 1	\$36.50	22mm potentiometer with 10k Ω resistance, $\pm 10\%$. Nominal voltage: 250V. Rated dissipation: 2W at 25°C. Temperature range -40°C to 70°C. Black handle. Connection type is screw terminal, 3-pole, 22-14 AWG.
ECX2640	pkg. of 1	\$3.50	22mm legend plate for potentiometer with 0% to 100% marking, 50mm square. 50 x 50 x 1mm with 24.5 mm cutout.

- IP65



Dimensions: mm [inches]



For accessories, see 22mm Metal Pilot Device Accessories in this section.

22mm Metal Pilot Device Accessories

Replacement incandescent bulbs



ECX1902-5

Replacement Incandescent Bulbs				
Part Number	Quantity	Price	Rating	Description
ECX1900-5	Pkg of 5 bulbs	\$8.50	6V@ 200mA , 1.2 watts	6V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4
ECX1902-5	Pkg of 5 bulbs	\$8.50	24V@ 80mA 2 watts	24V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4
ECX1904-5	Pkg of 5 bulbs	\$17.50	120V@20mA 2.6 watts	120V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4

Note: Bulb removal tool available. Order part number HT8LAMP TOOL.

Replacement LED lamps



ECX1915-2

Replacement LED Lamps					
Part Number	Color	Quantity	Price	Rating	Description
ECX1911-2	Red	Pkg of 2 LED lamps	\$15.50	24V@26mA 0.6 watts	LED replacement lamp for miniature bayonet bases Works with 22mm switches and indicators, but illumination will not be as even when used with the ECX 22mm indicators Note: Will not replace sealed Cutler-Hammer monoblock LED indicators.
ECX1912-2	Green		\$19.50		
ECX1913-2	Yellow		\$15.50		
ECX1914-2	Blue		\$21.00		
ECX1915-2	White		\$25.00	120V@5mA 0.6 watts	
ECX1921-2	Red		\$15.50		
ECX1922-2	Green		\$19.50		
ECX1923-2	Yellow		\$15.50		
ECX1924-2	Blue		\$21.00		
ECX1925-2	White		\$25.00		

Hole plug



ECX1490

Hole Plug			
Part Number	Color	Price	Description
ECX1490	Black	\$2.75	Plastic hole plug for 22.5 mm openings in panels and enclosures; supplied with O-ring and mounting screw. Two plugs per package.

Pilot Light replacement lens



PL1170PR-5

Pilot Light Replacement Lens				
Part Number	Lamp Color	Price	Description	Use with
PL1170PR-5	Red	\$6.00	22mm metallic series pilot light replacement lens, 5/pk	Part numbers starting with GCX123
PL1170PV-5	Green	\$6.00	22mm metallic series pilot light replacement lens, 5/pk	
PL1170PG-5	Yellow	\$6.00	22mm metallic series pilot light replacement lens, 5/pk	
PL1170PB-5	Blue	\$6.00	22mm metallic series pilot light replacement lens, 5/pk	
PL1170PN-5	Clear	\$6.00	22mm metallic series pilot light replacement lens, 5/pk	
PL1170PW-5	White	\$6.00	22mm metallic series pilot light replacement lens, 5/pk	

22mm Metal Pilot Device Accessories

Protective covers for pushbuttons



ECX1703-5

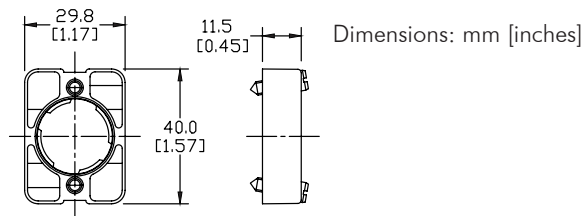
Protective Covers for Pushbuttons				
Part Number	Color	Quantity	Price	Description
ECX1700-5	Black	Pkg of 5 Protective caps	\$6.50	Silicone protective covers for use with 22mm standard-size flush pushbuttons.
ECX1701-5	Red		\$6.50	
ECX1702-5	Green		\$6.50	
ECX1703-5	Yellow		\$6.50	
ECX1704-5	Blue		\$6.50	
ECX1705-5	Clear		\$6.50	Will not work with Cutler-Hammer pushbuttons, 22mm plastic illuminated or extended pushbuttons, or 22mm plastic pushbuttons with 40mm actuator face.
ECX1706-5	Clear		\$11.50	Clear silicone protective covers for use with 2 mm illuminated and extended pushbuttons only. Will not work with Cutler-Hammer pushbuttons or 22mm mushroom pushbuttons.

Replacement 22mm support base

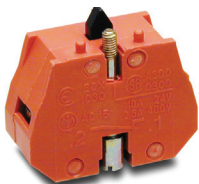


ECX1029-2

Replacement 22mm Support Base			
Part Number	Quantity	Price	Description
ECX1029-2	Pkg of 1	\$6.00	22mm metal support base Note: This item is supplied as a replacement part and is not required with any switch assembly. Will not work with Cutler-Hammer 22mm switches sold by AUTOMATIONDIRECT



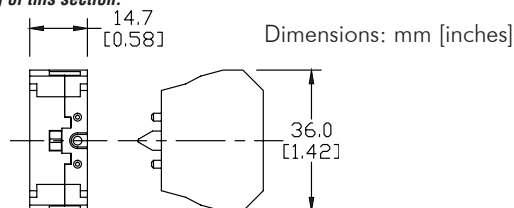
Replacement contact blocks



ECX1030-2

Replacement Contact Blocks				
Part Number	Quantity	Price	Contacts	Description
ECX1030-2	Pkg of 2	\$6.25	Red, normally-closed (N.C.)	Replacement contact block for 22mm pushbuttons and selector switches.
ECX1030-5	Pkg of 5	\$15.00		Tightening Torque, terminal screw: 0.8Nm max mounting screw: 0.5Nm max
ECX1040-2	Pkg of 2	\$6.25	Green, normally-open (N.O.)	Note: Will not work with Cutler-Hammer 22mm switches.
ECX1040-5	Pkg of 5	\$15.00		
ECX1042-2	Pkg of 2	\$6.25	Brown, normally-open (N.O.), push-push	Replacement normally open push-push contact blocks for 22mm pushbutton and selector switches, pack of 2. Note: Will not work with Cutler-Hammer 22mm switches.

Note: See electrical specifications on ECX Series 22mm Metal Pilot Devices Specifications page at beginning of this section.



Replacement keys



ECX1067-2

Replacement Keys			
Part Number	Quantity	Price	Description
ECX1067-2	Pkg of 2 sets (2 keys per set)	\$5.75	Replacement key for GCX series key-actuated selector switches, pack of 2 sets (2 keys each). NOTE: Will not work with Cutler-Hammer 22mm switches.

Note: All key-actuated 22mm metal selector switches are keyed alike.

22mm Metal Pilot Device Accessories

EMERGENCY STOP legend plate



ECX1651

EMERGENCY STOP Legend Plate			
Part Number	Quantity	Price	Description
ECX1651	Pkg of 1	\$2.75	Oversize yellow circular EMERGENCY STOP legend plate for 22mm E-stop type mushroom pushbuttons, 60mm outside diameter.

Knockout Punches



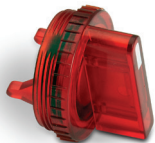
109225

Ruko's knockout punch hole-cutting tool includes punch, die and draw bolt (without ball bearing). Use for sheet steel, stainless-steel sheets, non-ferrous and light metals, and plastics up to 0.16" (8 ga.) thick.

Replacement bolts are offered in three of the most popular sizes.

Note: Part number 109225 is recommended when punching holes for 22mm pilot devices.

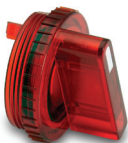
Two-position short lever operator



GR1172PR-5

Short Lever Replacement Operator				
Part Number	Lamp Color	Price	2-Position	Use with
GR1172PR-5	Red	\$14.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX124, GCX125 GCX324, GCX325
GR1172PV-5	Green	\$14.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
GR1172PG-5	Yellow	\$14.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
GR1172PB-5	Blue	\$14.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
GR1172PN-5	Clear	\$14.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	

Three-position short lever operator



GR1288PR-5

Short Lever Replacement Operator				
Part Number	Lamp Color	Price	3-Position	Use with
GR1288PR-5	Red	\$14.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX126, GCX128 GCX326, GCX328
GR1288PV-5	Green	\$14.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
GR1288PG-5	Yellow	\$14.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
GR1288PB-5	Blue	\$14.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
GR1288PN-5	Clear	\$14.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	

22mm Metal Pilot Device Accessories

Mushroom switch replacement operator



PL1298P-5

Mushroom Switch Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
PL1171PR-5	Red	\$6.25	22mm, illuminated momentary Mushroom switch replacement operator, red, 5/pk	Part numbers starting with GCX1221, GCX3221 mushroom-style illuminated pushbuttons
PL1298P-5	Red	\$6.25	22mm illuminated twist-to-release mushroom switch replacement operator, red, 5/pk	Part numbers starting with GCX1226, GCX3226 mushroom-style illuminated pushbuttons

Flush pushbutton replacement operator



GR1168PR-5

Flush Pushbutton Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
GR1168PR-5	Red	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	Part numbers starting with GCX119, GCX120 GCX319, GCX320
GR1168PV-5	Green	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
GR1168PG-5	Yellow	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
GR1168PB-5	Blue	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
GR1168PN-5	Clear	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
GR1168PW-5	White	\$8.00	22mm illuminated flush pushbutton replacement operator, 5/pk	

Extended pushbutton replacement operator



PL1308PR-5

Extended Pushbutton Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
PL1308PR-5	Red	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	Part numbers starting with GCX121, GCX321
PL1308PV-5	Green	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
PL1308PG-5	Yellow	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
PL1308PB-5	Blue	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
PL1308PN-5	Clear	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
PL1308PW-5	White	\$6.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	



Emergency Stop Control Stations

Features

- 3-pole positive guided contacts
- Plastic housings (IP67) or stainless steel 316 housings (IP69K/NEMA 6)
- 40mm twist-to-release mushroom head operator
- Conformance to ISO 13850, IEC 60947-5-1 and IEC 60947-5-5
- 2 conduit entries (all entries sealed)
- UL File E365665
- Lid safety trip mechanism ensures that safety contacts will open if the lid is removed
- Models available with button protection guard and padlock holes
- Includes one tamper-proof T20 Torx bit for stainless steel versions



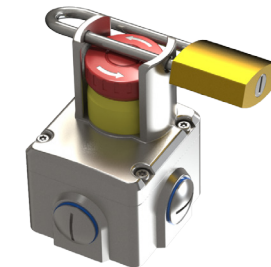
ES-P-230001



ES-SS-231002



ES-SSP-231006



Type ES-SSP with button protection guard and padlock holes

(Padlock hole diameter 1/4". Padlock shaft must exceed 2" closed)

3-Pole Emergency Stop Control Stations					
Part Number	Housing Type	Contacts	Wiring Diagram	Conduit Entry	Price
ES-P-230001	Plastic	2NC 1NO	Figure 1	Knockout (2) M20	\$29.00
ES-P-230002		3NC	Figure 2	(2) 1/2" NPT	\$29.00
ES-SS-231002	Stainless steel 316	2NC 1NO	Figure 1	(2) 1/2" NPT	\$128.00
ES-SS-231004		3NC	Figure 2		\$128.00
ES-SSP-231006	Stainless steel 316 with button protection guard and padlock holes	2NC 1NO	Figure 1	(2) 1/2" NPT	\$130.00
ES-SSP-231008		3NC	Figure 2		\$130.00

Safety Classification and Reliability Data	
Mechanical Reliability B10d	1.5 x 10 ⁶ operations at 100mA load
ISO 13849-1	Up to PLe depending upon system architecture
EN 62061	Up to SIL3 depending upon system architecture
Safety Data - Annual Usage	8 cycles per hour / 24 hours per day / 365 days
PFHd	< 1.0 x 10 ⁻⁷
Proof Test Interval (Life)	21 years
MTTFd	214 years
Electrical and General Specifications	
Enclosure / Cover	Polyester or Stainless Steel 316
IP Rating / NEMA	IP67 Plastic / IP69K Stainless Steel / NEMA 6
Mounting	(4) M4
Mounting Position	Any
Conduit Entries	(2) 1/2" NPT for Stainless Steel housing Knockout (2) M20 / (2) 1/2" for Plastic housing
Torque Settings	Mounting: M4 4.0 N-m Lid: T20 Torx M4 1.5 N-m Terminals: 1.0 N-m
Ambient Temperature	-25°C to +80°C (-13°F to +176°F)
Vibration Resistance	0.35 mm @ 10-500 Hz
Shock Resistance	15g @ 11ms
Weight	Plastic: 250g (0.55 lb) Stainless Steel: 1000g (2.20 lb)
Contact Type	IEC 947-5-1 double break type Zb Snap action up to 3NC (positive break) 1NO (Auxiliary)
Contact Material	Silver
Termination	Clamp up to 2.5 mm ² conductors
IEC / NEMA Contact Rating	Utilization category: AC15 / A300
Operational Rating	240VAC 3A / 120VAC 6A
Thermal Current (I_{th})	10A
Rated Insulation Voltage (U_i)	500V
Withstand Voltage (U_{imp})	2500V
Short Circuit Overload Protection	Fuse externally 10A (fuse type FF)
Approvals	IEC 60947-5-1, IEC 60947-5-5, EN62061, UL508, ISO13850, ISO13849-1

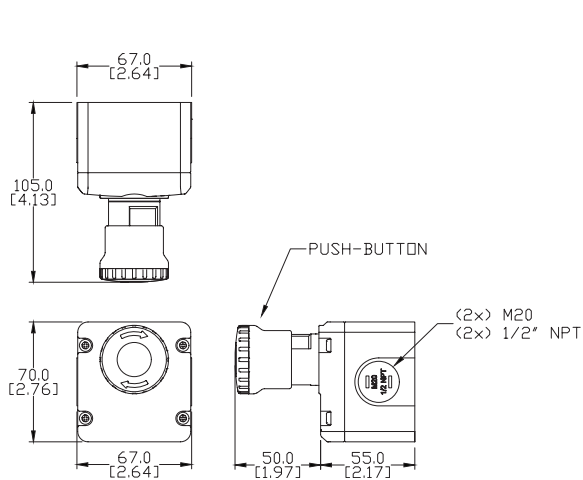
Note: To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.



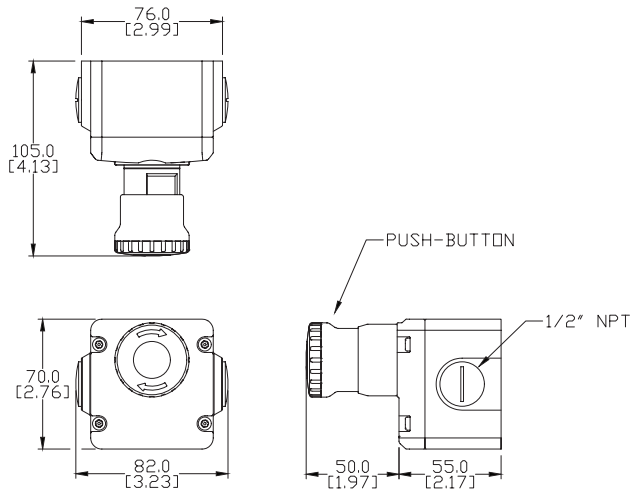
Emergency Stop Control Stations

Dimensions

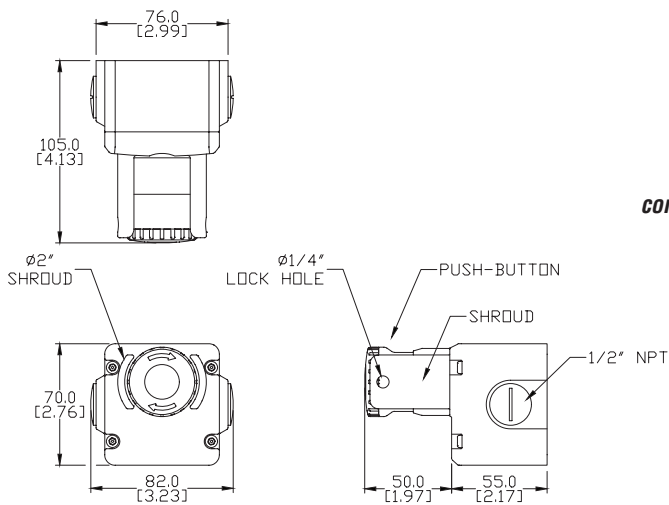
mm [inches]



ES-P



ES-SS



ES-SSP

Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.

Wiring Diagrams

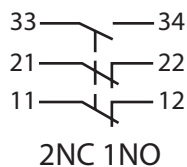


Figure 1

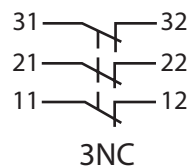


Figure 2



Emergency Stop Control Stations

Features

- 4-pole positive guided contacts
- Stainless Steel 316 housings (IP69K/NEMA 6)
- 40mm twist-to-release mushroom head operator
- Conformance to ISO 13850, IEC 60947-5-1 and IEC 60947-5-5
- 3 conduit entries (all entries sealed)
- Emergency stop legend plate included
- UL File E365665
- Lid safety trip mechanism ensures that safety contacts will open if the lid is removed
- Models available with button protection guard and padlock holes
- Models available with 2-color LED
- Includes one tamper-proof T20 Torx bit for stainless steel versions



ESL-SS-232002

4-Pole Emergency Stop Control Stations					
Part Numbers	Housing Type	Contacts	Wiring Diagram	Conduit Entry	Price
ESL-SS-232002	Stainless steel 316	2NC 2NO	Figure 1	(3) ½" NPT	\$130.00
ESL-SS-232004		3NC 1NO	Figure 2		\$130.00
ESL-SS-232006		4NC	Figure 3		\$130.00
ESL-SSP-232010	Stainless steel 316 with protection guard and padlock holes	2NC 2NO	Figure 1		\$135.00
ESL-SSP-232012		3NC 1NO	Figure 2		\$135.00
ESL-SSP-232014		4NC	Figure 3		\$135.00
ESL-SSL-232018-AS	Stainless steel 316 with 2-color 24VDC LED (steady green, steady red)	2NC 2NO	Figure 1		\$155.00
ESL-SSL-232020-AS		3NC 1NO	Figure 2		\$155.00
ESL-SSL-232018-BS	Stainless steel 316 with 2-color 110VAC LED (steady green, steady red)	2NC 2NO	Figure 1		\$159.00
ESL-SSL-232020-BS		3NC 1NO	Figure 2		\$159.00
ESL-SSLP-232024-AS	Stainless steel 316 with 2-color 24VDC LED and protection guard with padlock holes	2NC 2NO	Figure 1		\$165.00
ESL-SSLP-232026-AS		3NC 1NO	Figure 2		\$165.00
ESL-SSLP-232024-BS	Stainless 316 steel with 2-color 110VAC LED and protection guard with padlock holes	2NC 2NO	Figure 1		\$169.00
ESL-SSLP-232026-BS		3NC 1NO	Figure 2		\$169.00



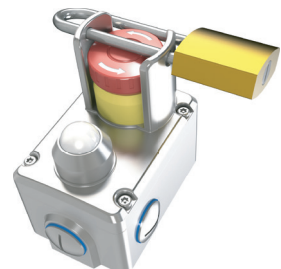
ESL-SSP-232010



ESL-SSL-232018-AS



ESL-SSLP-232024-AS



Type ESL-SSLP with button protection guard and padlock holes

(Padlock hole diameter 1/4". Padlock shaft must exceed 2" closed)

Safety Classification and Reliability Data

Mechanical Reliability B10d	1.5 x 10 ⁶ operations at 100mA load
ISO 13849-1	Up to PLe depending upon system architecture
EN 62061	Up to SIL3 depending upon system architecture
Safety Data - Annual Usage	8 cycles per hour / 24 hours per day / 365 days
PFHd	< 1.0 x 10 ⁻⁷
Proof Test Interval (Life)	21 years
MTTFd	214 years

Electrical and General Specifications

Enclosure / Cover	Stainless Steel 316
IP Rating / NEMA	IP69K / NEMA 6
Mounting	(4) M4
Mounting Position	Any
Conduit Entries	(3) ½" NPT
Torque Settings	Mounting: M4 4.0 N-m Lid: T20 Torx M4 1.5 N-m Terminals: 1.0 N-m
Ambient Temperature	-25°C to +80°C (-13°F to +176°F)
Vibration Resistance	0.35 mm @ 10-500 Hz
Shock Resistance	15g @ 11ms
Weight	820g (1.81 lb)
Contact Type	IEC 947-5-1 double break type Zb Snap action up to 4NC (positive break) 2NO (Auxiliary)
Contact Material	Silver
Termination	Clamp up to 2.5 mm ² conductors
IEC / NEMA Contact Rating	Utilization category: AC15 / A300
Operational Rating	240VAC 3A / 120VAC 6A
Thermal Current (I_{th})	10A
Rated Insulation Voltage (U_i)	500V
Withstand Voltage (U_{imp})	2500V
Short Circuit Overload Protection	Fuse externally 10A (fuse type FF)
Approvals	IEC 60947-5-1, IEC 60947-5-5, EN62061, UL508, ISO13850, ISO13849-1

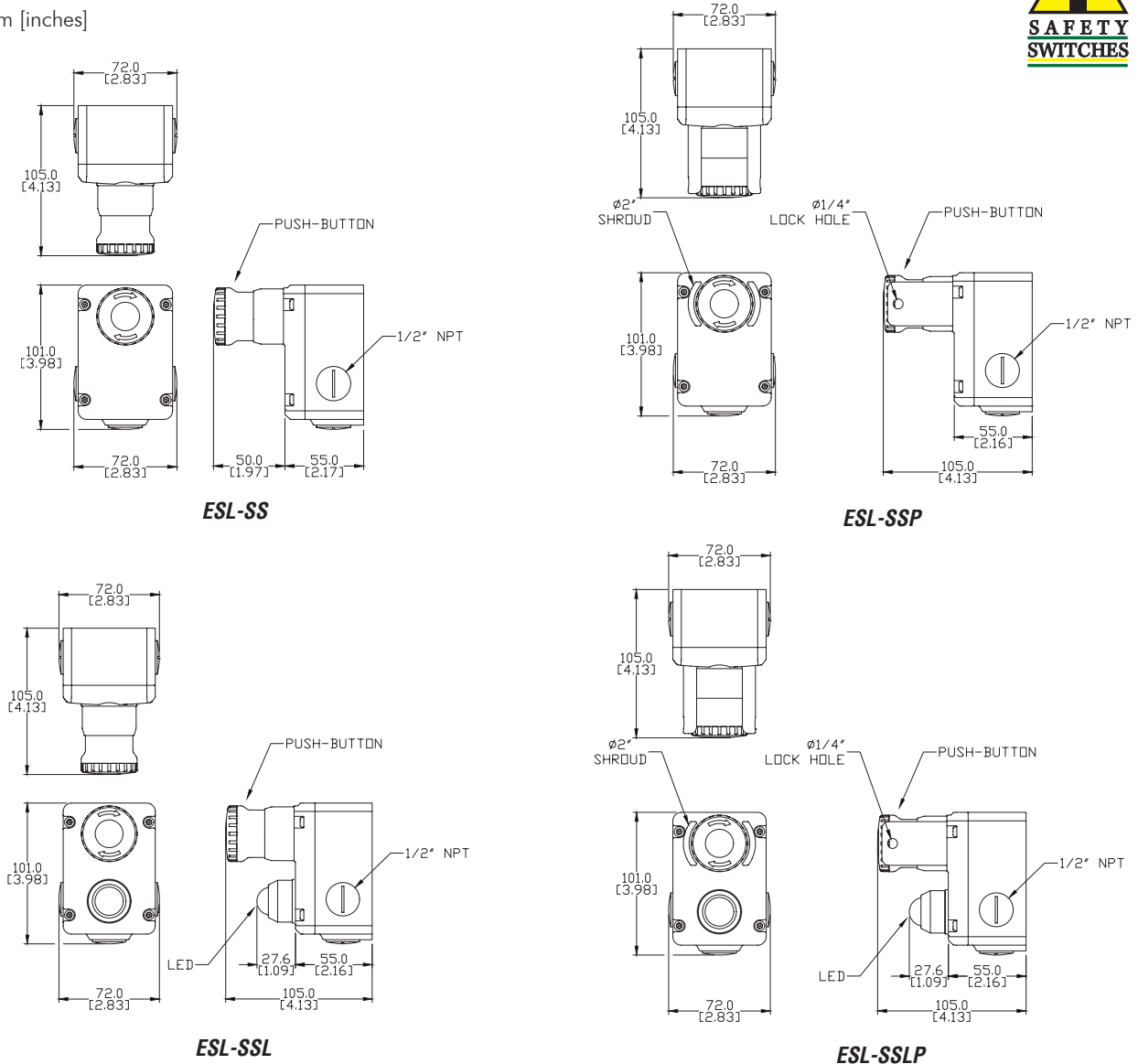
Note: To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.



Emergency Stop Control Stations

Dimensions

mm [inches]



Please see our website www.AutomationDirect.com for complete engineering drawings.
Dimensions are approximate. Not for construction purposes.

Wiring Diagrams

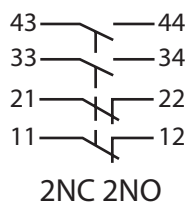


Figure 1

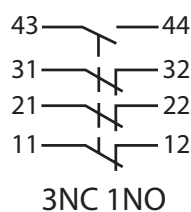


Figure 2

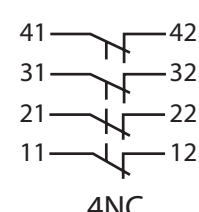
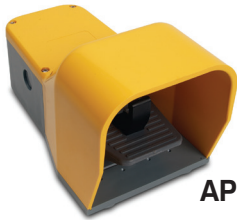


Figure 3

LED Wiring Note: Black (or Terminal 2) is 0V (or Neutral for 110V AC versions). When power is applied to the Red wire (or Terminal 1), the LED will illuminate Red. When power is applied to the Green wire (or Terminal 3), the LED will illuminate Green.

Foot Switches



APS1211-V0

Applications

Choose these switches for foot switch-operated machines such as shearing machines, spinning machines, spinning lathes, machine tools, wrapping machines, riveting machines, and riveting presses.

AutomationDirect stocks foot switches in these operational formats:

- **Free movement (momentary):**
Contact position follows pedal movement; actuated when the pedal is pushed down, released when pedal is in state of rest.
- **Foot switch locked in neutral position (safety anti-trip momentary):**
Same operation as above, after unlocking the pedal with the foot.
- **Foot switch latched in low position (maintained):**
Same operation as free movement, except that a state of rest is obtained only after pedal is unlatched.



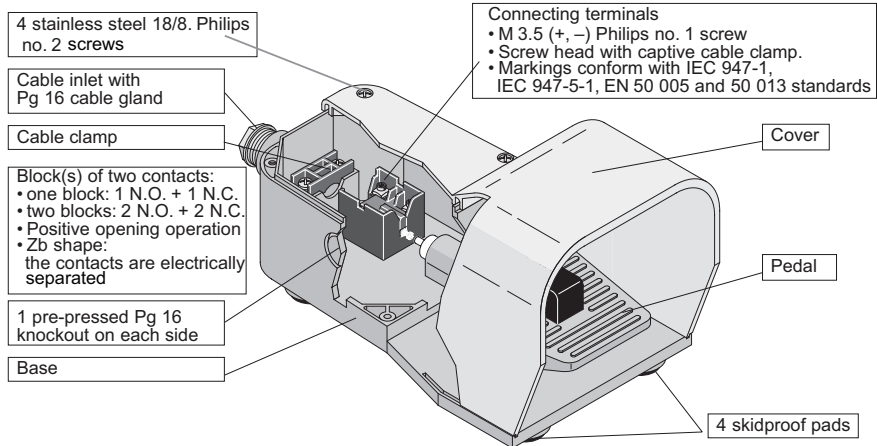
APD1231-V0



APS1151-V0

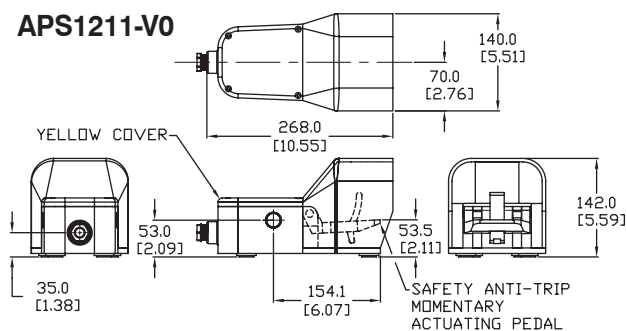
Description

- **Plastic Unit Material**
Base, cover and pedal of shock-resistant ABS plastic material
- **Aluminum Unit Materials**
Base and pedal of shock-resistant ABS plastic material; cover of die-cast aluminum
- Double switches include a 16" carrying rod

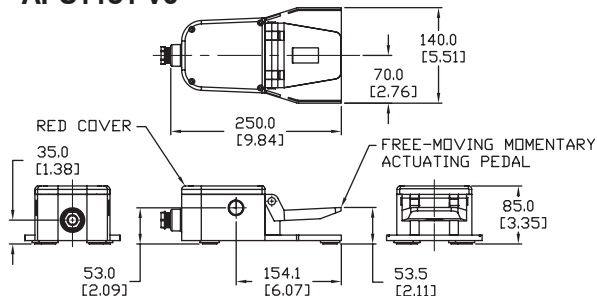


Dimensions mm [inches]

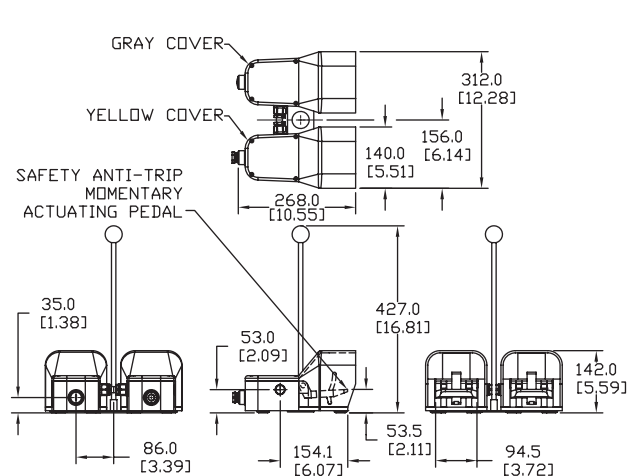
APS1211-V0



APS1151-V0

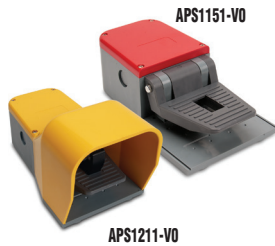


APD1231-V0



Foot Switches

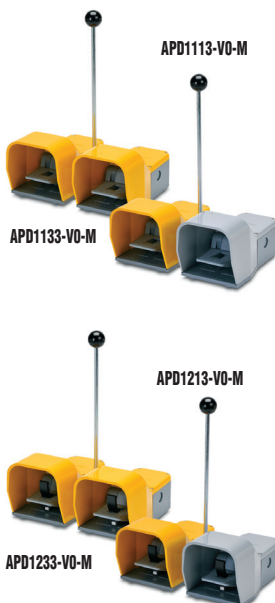
All footswitches have heavy duty ABS plastic bases.




ABS Plastic Foot Switch Selection			
Part Number	Cover Color	Price	Description
APS1211-V0	Yellow	\$39.50	Single, ABS plastic, safety actuating lever, 1 N.O. and 1 N.C. snap action contacts
APS1213-V0	Yellow	\$44.50	Single, ABS plastic, safety actuating lever, 2 N.O. and 2 N.C. snap action contacts
APS1151-V0	Half Red	\$39.50	Single, ABS plastic, free-moving mounting, 1 N.O. and 1 N.C. snap action contacts
APD1231-V0	One Yellow One Gray	\$86.00	Double, ABS plastic, safety actuating lever, 1 N.O. and 1 N.C. snap action contacts for each switch



Die-cast Aluminum Foot Switch Selection			
Part Number	Cover Color	Price	Description
APS1113-V0-M	Yellow	\$59.00	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1114-V0-M	Yellow	\$59.00	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1123-V0-M	Gray	\$59.00	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1124-V0-M	Gray	\$59.00	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1143-V0-M	Red	\$59.00	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1144-V0-M	Red	\$59.00	Single, die-cast aluminum, free moving momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1213-V0-M	Yellow	\$65.00	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1214-V0-M	Yellow	\$65.00	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1223-V0-M	Gray	\$65.00	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1224-V0-M	Gray	\$65.00	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1243-V0-M	Red	\$65.00	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1244-V0-M	Red	\$65.00	Single, die-cast aluminum, safety anti-trip momentary actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1313-V0-M	Yellow	\$65.00	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1314-V0-M	Yellow	\$65.00	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1323-V0-M	Gray	\$65.00	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1324-V0-M	Gray	\$65.00	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APS1343-V0-M	Red	\$65.00	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. snap action contacts
APS1344-V0-M	Red	\$65.00	Single, die-cast aluminum, free moving maintained actuating pedal, 2 N.O. and 2 N.C. slow action contacts
APD1113-V0-M	Yellow	\$139.00	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1114-V0-M	Yellow	\$139.00	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts
APD1123-V0-M	Gray	\$139.00	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1124-V0-M	Gray	\$139.00	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts
APD1133-V0-M	One Yellow One Gray	\$139.00	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1134-V0-M	One Yellow One Gray	\$139.00	Double, die-cast aluminum, 2 free moving momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts
APD1213-V0-M	Yellow	\$143.00	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1214-V0-M	Yellow	\$143.00	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts
APD1223-V0-M	Gray	\$143.00	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1224-V0-M	Gray	\$98.25	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts
APD1233-V0-M	One Yellow One Gray	\$143.00	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. snap action contacts
APD1234-V0-M	One Yellow One Gray	\$143.00	Double, die-cast aluminum, 2 safety anti-trip momentary actuating pedals, each with 2 N.O. and 2 N.C. slow action contacts



Foot Switches Technical Specifications

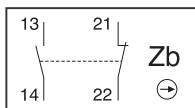
Foot Switch General Technical Data	
Standards	IEC 947-5-1
Certifications - Approvals	UL/CUL file E191072, CE, RoHS
Temperature	Operating (ambient) air temperature: -10 to +70°C (14°F to 158°F) Storage (non-operating) air temperature: -30 to +80°C (-22°F to 176°F)
Environmental	According to IEC 68-2-3 and salty mist according to IEC 68-2-11
Shock (according to IEC 68-2-27 and EN 60 068-2-27)	50g (1/2 sinusoidal shock for 11 ms) no change in contact position
Degree of Protection (according to IEC 529 and EN 60 529)	IP 65
Operating Torque	0.25 N-m (2.2 lb-in)
Torque - Terminal Screw	Recommended: 0.8 N-m (7.0 lb-in); Maximum 0.9 N-m (8.0 lb-in)
Torque - Cover Screw	Recommended: 5.0 N-m (4.3 lb-in); Maximum 0.8 N-m (7.0 lb-in)
Operating Angle	15 Degree
Cable Inlet	Pg 16 x 1.41 knockout
Foot Switch Electrical Data	
Rated Insulation voltage U_i	690V (according to IEC 947-1 and EN 60-947-1) Degree of pollution 3
Rated Impulse Withstand Voltage U_{imp}	6kV (according to IEC 947-1 and EN 60 947-1)
Conventional Free Air Thermal Current I_{th} $\Theta < 40^\circ\text{C}$	10A (according to IEC 947-1)
Short-circuit Protection $U_g < 500\text{V}$ AC. - gG (gl) type fuses	10A
Rated Operational Current AC-15 (according to IEC 947-5-1) DC-13 (according to IEC 947-5-1)	A 600 (according to UL 508 and CSA C22-2 n° 14) Q 600 (according to UL 508 and CSA C22-2 n° 14) 10A 6A 3.1 A 3A 1.8 A 2.8 A 0.55 A 0.27 A
Resistance Between Contacts	25m Ω
Connecting Terminals	M3.5 (±) Philips head #1 with cable clamp
Positive Opening Operation (according to IEC 947-5-1)	Yes. Marked by 
Connecting Capacity	(1 or 2 x mm ²) 0.75 to 2.5
Terminal Marking	According to EN 50 013
Life Expectancy	Mechanical: 30 million operations Electrical Operations: Utilization categories AC-15 and DC-13 (Load factor of 0.5 according to curves)

Wiring

Snap-action contact: A contact element in which the contact motion is independent of the speed of the actuator. This feature ensures reliable electrical performance even in applications involving very slow moving actuators.

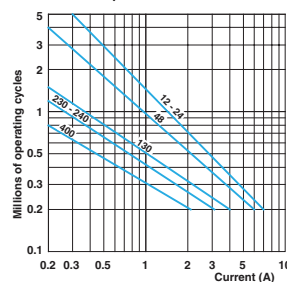
Slow-make/slow-break contact: A contact element in which the contact motion is dependent on the actuator speed.

Snap Action or
Slow Action
1 N.O. and 1 N.C.

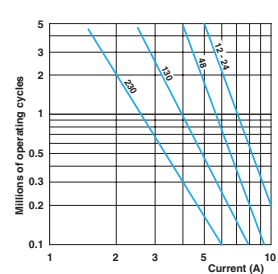


Note: See contact block accessories for AGZ11-SWITCH and AGX11-SWITCH replacement contact block (contact blocks have adjustable screw actuator).

AC-15 - Snap Action



AC-15 - Slow Action



DC-13	Snap Action	Slow Action
Power breaking for a durability of 5 million operating cycles		
Voltage 24V	9.5 W	12W
Voltage 48V	6.8 W	9W
Voltage 110V	3.6 W	6W

Plastic Enclosures for 22mm Pilot Devices

Switch enclosures



SA107-40SL SA105-40SL SA100SL

Specification Standard	Enclosure Material	Gasket Material	Degree of Protection
CEI EN 60947-5-1	Thermoplastic ABS, conforms to UL94/HB	Caoutchouc (rubber) foam	IP65 according to CEI EN 60529

Also check out our metal pushbutton enclosures in the Enclosures section.

Enclosures have molded knock-outs for 1/2" conduit fittings.

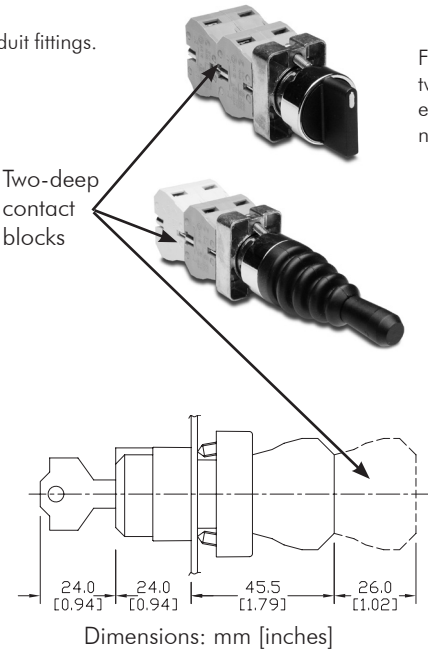
Important notes about enclosure depth and over-tightening

Switches with two-deep contact blocks require enclosures that are 74mm deep: 51mm-deep enclosures are too shallow and the switch contact block will not fit.

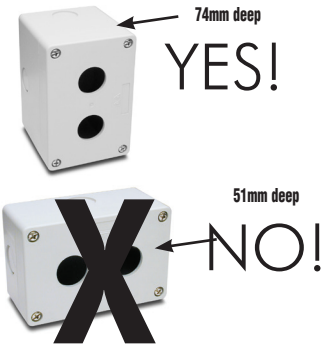
For switches with one-deep contact blocks, either 51mm-deep or 74mm-deep enclosures can be used.

Also, do not over-tighten when securing switch in the enclosure body. Over-tightening will crack the plastic body of the enclosure.

When installing pushbutton, switches, and joysticks with securing screws, ensure that they have good purchase on area away from the perforated keyway slots made for other switch types. Securing screws should be tightened to 4.5 lb-in or less.



For example: If using a switch having a two-deep contact block with a two-hole enclosure, order a 74mm-deep SA106-40SL, not a 51mm-deep SA105-40SL.



No-hole model

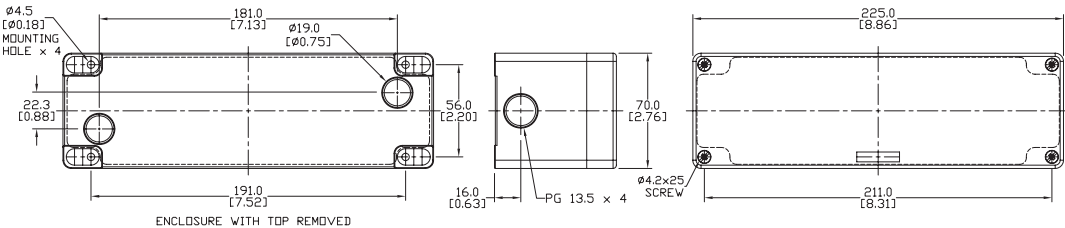


74mm deep:
SA111-00

Part Number	Color	Price	Dimensions (HxWxD)	Hole Size/Depth	Mounting Instructions
SA111-00	Gray	\$12.00	225x70x74	No Holes	Tighten 22mm devices only as needed to provide proper sealing. Over-tightening will crack plastic body.

Note: This enclosure works with most 22mm pushbuttons but may not work with Cutler-Hammer E22 series pushbuttons. Check your pushbutton dimensions before ordering.

Dimensions: mm [inches]



Plastic Enclosures for 22mm Pilot Devices

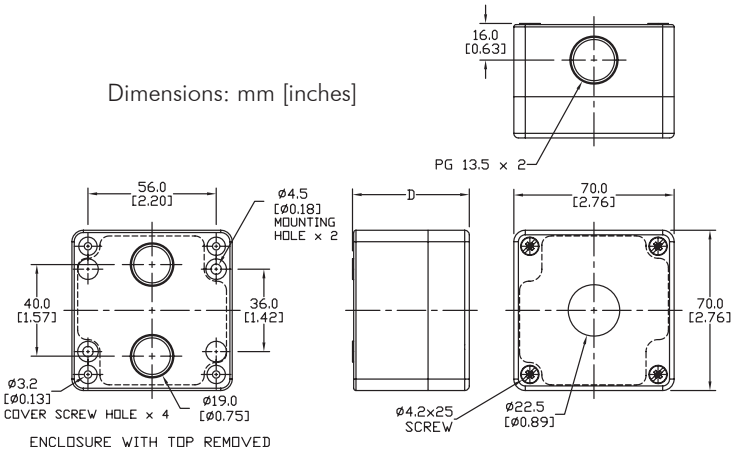
Single-hole models



51mm deep: SA100SL
74mm deep: SA103SL
SA101SL SA104SL

Part Number	Color	Price	Dimensions (HxWxD)	Hole Size/Depth	Mounting Instructions
SA100SL	Gray	\$6.50	70x70x51	Hole size fits 22mm devices, 51mm depth accommodates single-deep contact block switches	Tighten 22mm devices only as needed to provide proper sealing. Over-tightening will crack plastic body.
SA101SL	Gray body/yellow top	\$7.00	70x70x51		
SA103SL	Gray	\$7.50	70x70x74	Hole size fits 22mm devices, 74mm depth accommodates two-deep contact block switches	
SA104SL	Gray body/yellow top	\$7.75	70x70x74		

Dimensions: mm [inches]



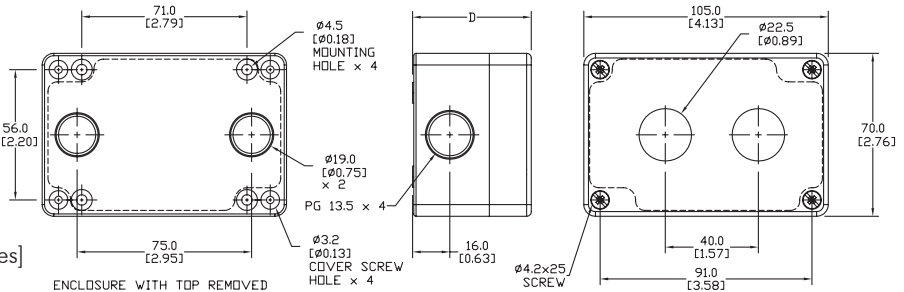
Two-hole models



51mm deep: SA105-40SL

Part Number	Color	Price	Dimensions (HxWxD)	Hole Size/Depth	Mounting Instructions
SA105-40SL	Gray	\$8.25	105x70x51 (40mm between hole centers)	Hole size fits 22mm devices, 51mm depth accommodates single-deep contact block switches	Tighten 22mm devices only as needed to provide proper sealing. Over-tightening will crack plastic body.
SA106-40SL	Gray	\$9.00	105x70x74 (40mm between hole centers)	Hole size fits 22mm devices, 74mm depth accommodates two-deep contact block switches	

Dimensions: mm [inches]



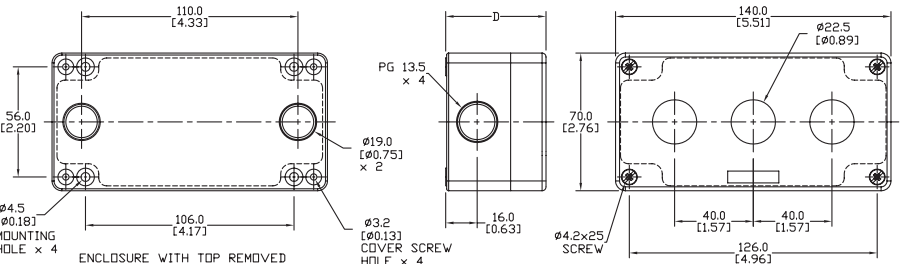
Three-hole models



51mm deep: SA107-40SL

Part Number	Color	Price	Dimensions (HxWxD)	Hole Size/Depth	Mounting Instructions
SA107-40SL	Gray	\$10.00	140x70x51 (40mm between hole centers)	Hole size fits 22mm devices, 51mm depth accommodates single-deep contact block switches	Tighten 22mm devices only as needed to provide proper sealing. Over-tightening will crack plastic body.
SA108-40SL		\$11.50	140x70x74 (40mm between hole centers)	Hole size fits 22mm devices, 74mm depth accommodates two-deep contact block switches	

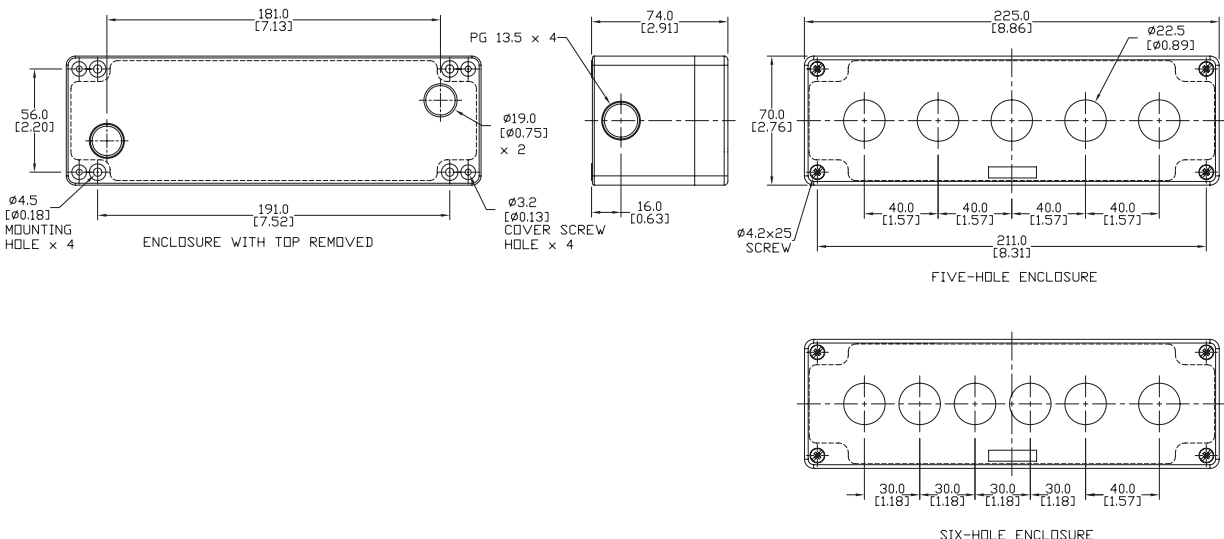
Dimensions: mm [inches]



Part Number	Color	Price	Dimensions (HxWxD)	Hole Size/Depth	Mounting Instructions
SA109-40SL	Gray	\$11.50	185x70x51 (40mm between hole centers)	Hole size fits 22mm devices, 51mm depth accommodates single-deep contact block switches	Tighten 22mm devices only as needed to provide proper sealing.
SA110-40SL		\$13.50	185x70x74 (40mm between hole centers)	Hole size fits 22mm devices, 74mm depth accommodates two-deep contact block switches	Over-tightening will crack plastic body.

Part Number	Color	Price	Dimensions (HxWxD)	Hole Size/Depth	Mounting Instructions
SA111	Gray	\$12.00	225x70x74 (40mm between hole centers)	Hole size fits 22mm devices, 74mm depth accommodates two-deep contact block switches	Tighten 22mm devices only as needed to provide proper sealing. Over-tightening will crack plastic body.
SA112		\$12.50	225x70x74 (30mm between hole centers, except 40mm for 6th hole)	Hole size fits 22mm devices, 74mm depth accommodates two-deep contact block switches	

Dimensions: mm [inches]





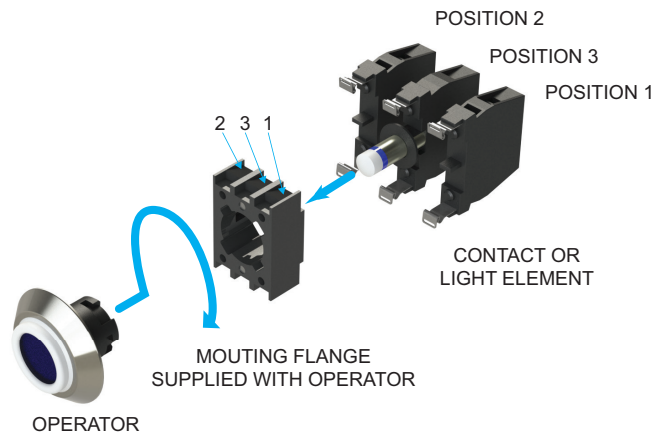
SCHMERSAL

Control and Signaling Devices

Schmersal control and signaling devices have a number of special design features that make the devices suitable for food processing, pharmaceutical, and medical applications. When utilized in food processing machines, these devices comply with the special cleaning requirements of the industry to prevent cross-contamination, particularly when used in machines that process raw goods. With an ingress protection rating of IP69K, Schmersal control and signaling devices are also suitable for marine applications, traffic systems, commercial vehicles, and in dusty and dirty environments.

Features

- Special seals prevent product residue from penetrating in the gaps between the fixed and moving device parts, thus preventing the collection of dirt and bacteria in places that are not easily accessible for cleaning.
- Smooth designs make the devices easy to clean.
- Modular contact and light terminal blocks make the devices easy to install.



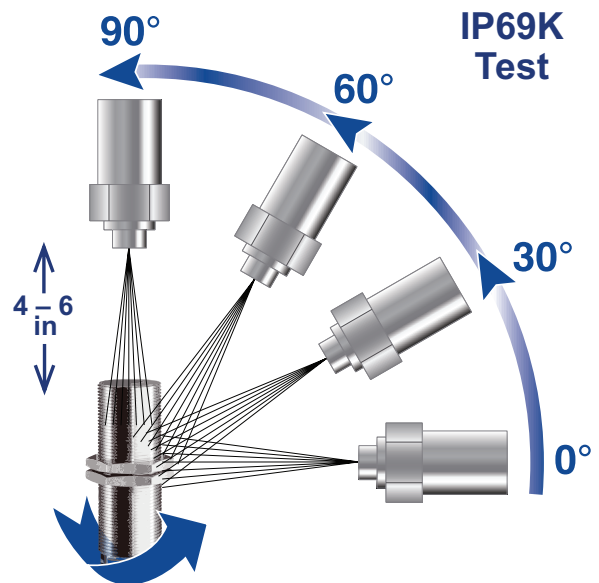
IP69K Ingress Protection Rating Overview

IP69K high-pressure cleaning test

This rating applies to devices tested in accordance with DIN 40050-9. The goal of this test is to duplicate pressure cleaning conditions on a plant floor. In the test fixture, the devices are exposed to a 1450psi spray of water at a temperature of 175°F. The duration of each cleaning cycle is 30 seconds. The test is performed at specified angles using a spray nozzle located at a distance of 4" from the devices. Devices with this rating must withstand test conditions and still be operable. This rating ensures water proofing protection that exceeds NEMA 4X rating.

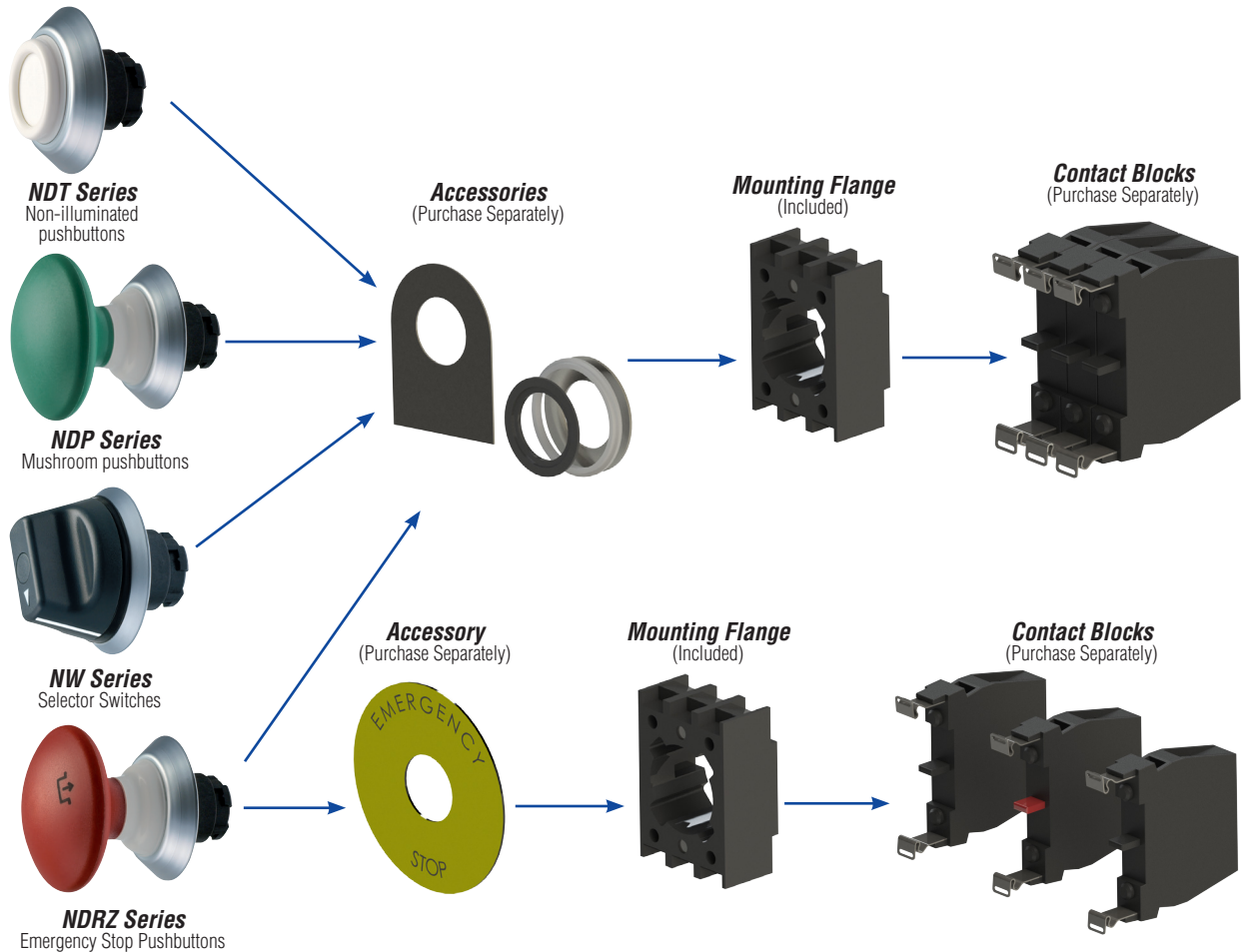
Thermal endurance

In pressure environments, controls and signaling devices can be exposed to extreme temperature conditions. To meet the criteria for IP69K rating, devices must undergo a thermal shock test by cycling the environmental temperature to ensure consistent high reliability.

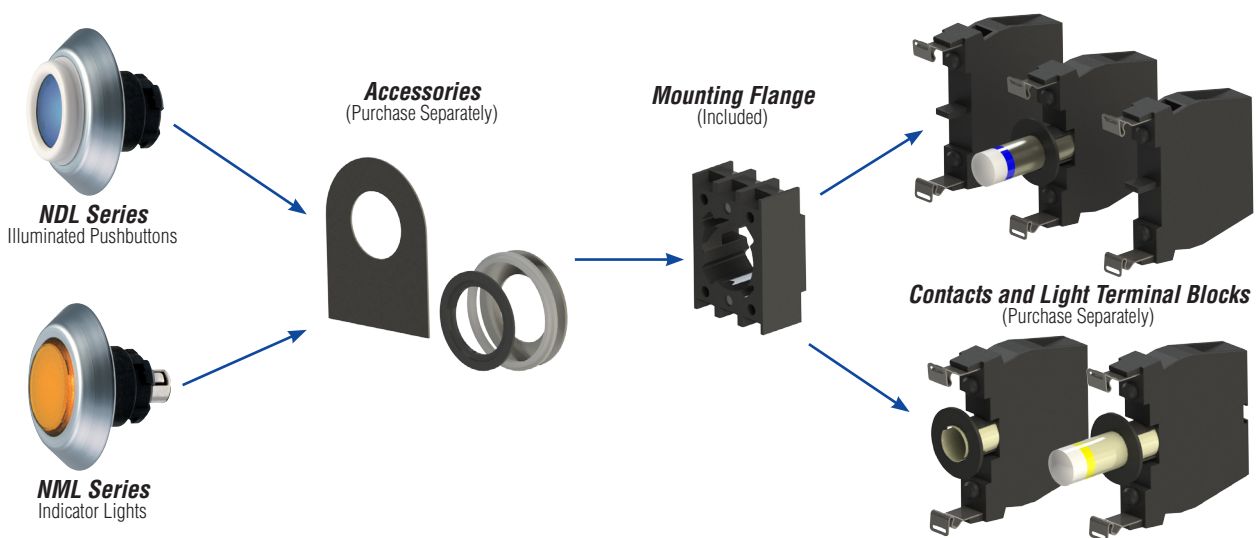


SCHMERSAL Modular Design Flexibility

NON-ILLUMINATED DEVICES

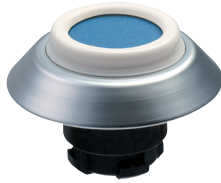


ILLUMINATED DEVICES

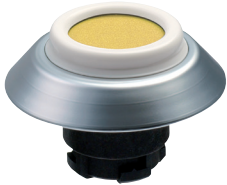




SCHMERSAL Non-Illuminated 22mm IP69K Plastic Pushbuttons



NDTBL



NDTGB



NDTGN



NDTGR



NDTRT



NDTSW



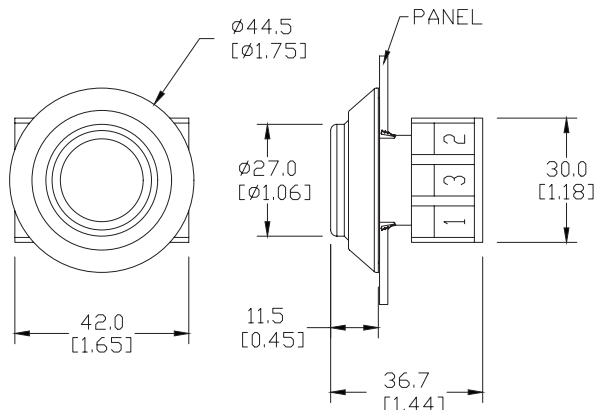
NDTWS

Non-Illuminated 22mm IP69K Plastic Pushbuttons*							
Part Number	NDTBL	NDTGB	NDTGN	NDTGR	NDTRT	NDTSW	NDTWS
Color	Blue	Yellow	Green	Gray	Red	Black	White
Price	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00
Description	Momentary action non-illuminated IP69K pushbuttons with mounting flange						
Mounting diameter	22.3 mm [0.88 in]						
Actuating stroke	5mm						
Dome material	ABS						
Front ring material	ABS, chromium-plated						
Front panel thickness	1.5 to 6 mm						
Weight	25g [0.88 oz]						
Mounting screws tightening torque	0.6 N·m [0.44 lb·ft]						
Ambient temperature	-25°C to +80°C [-13°F to +176°F]						
Shock resistance	<50g						
Vibration resistance	5g						
Ingress protection rating	IP67 and IP69K						
Standards	EN 60947-5-1; IEC/EN 60947-1; UL File E57648						

*Operator only. Purchase contact blocks separately.



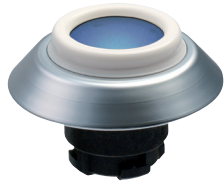
Dimensions mm [in]



Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.



SCHMERSAL Illuminated 22mm IP69K Plastic Pushbuttons



NDLBL



NDLGB



NDLGN



NDLRT



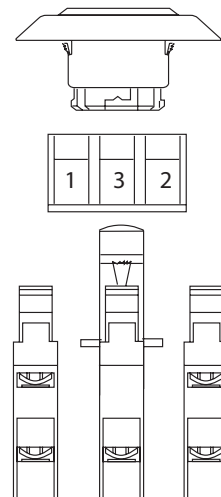
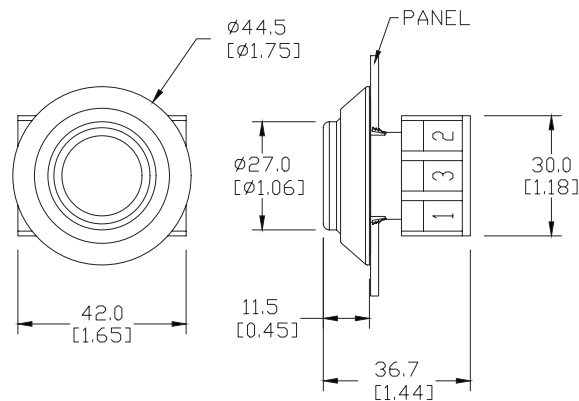
NDLWS

Illuminated 22mm IP69K Plastic Pushbuttons*					
Part Number	NDLBL	NDLGB	NDLGN	NDLRT	NDLWS
Color	Blue	Yellow	Green	Red	White
Price	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00
Description	Momentary action illuminated IP69K pushbuttons with mounting flange				
Mounting diameter	22.3 mm [0.88 in]				
Actuating stroke	5mm				
Dome material	ABS				
Front ring material	ABS, chromium-plated				
Front panel thickness	1.5 to 6 mm				
Weight	30g [1.06 oz]				
Mounting screws tightening torque	0.6 N·m [0.44 lb·ft]				
Ambient temperature	-25°C to +80°C [-13°F to +176°F]				
Shock resistance	<50g				
Vibration resistance	5g				
Ingress protection	IP67 and IP69K				
Standards	EN 60947-5-1; IEC/EN 60947-1; UL File E57648				

*Operator only. Purchase contact and light blocks separately.



Dimensions mm [in]



Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.



SCHMERSAL Non-Illuminated IP69K Mushroom Pushbuttons



NDP50BL



NDP50GB



NDP50GN



NDP50SW



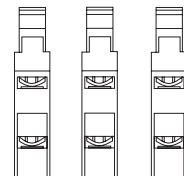
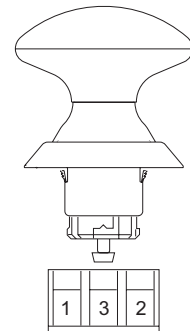
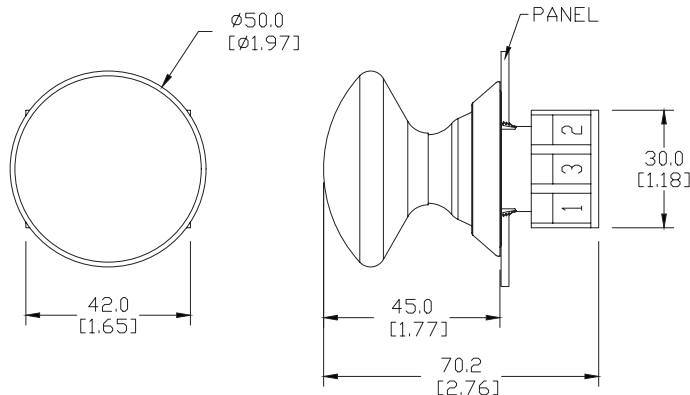
NDP50WS

Non-Illuminated IP69K Mushroom Pushbuttons*					
Part Number	NDP50BL	NDP50GB	NDP50GN	NDP50SW	NDP50WS
Color	Blue	Yellow	Green	Black	White
Price	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00
Description	Momentary action non-illuminated IP69K mushroom pushbuttons with mounting flange				
Mounting diameter	22.3 mm [0.88 in]				
Actuating stroke	5mm				
Dome material	ABS				
Front ring material	ABS, chromium-plated				
Front panel thickness	1.5 to 6 mm				
Weight	50g [1.76 oz]				
Mounting screws tightening torque	0.6 N-m [0.44 lb-ft]				
Ambient temperature	-25°C to +80°C [-13°F to +176°F]				
Shock resistance	<50g				
Vibration resistance	5g				
Ingress protection rating	IP67 and IP69K				
Standards	EN 60947-5-1; IEC/EN 60947-1; UL File E57648				

*Operator only. Purchase contact blocks separately.



Dimensions mm [in]



Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.



SCHMERSAL IP69K Emergency Stop Pushbuttons



NDRZ50RT



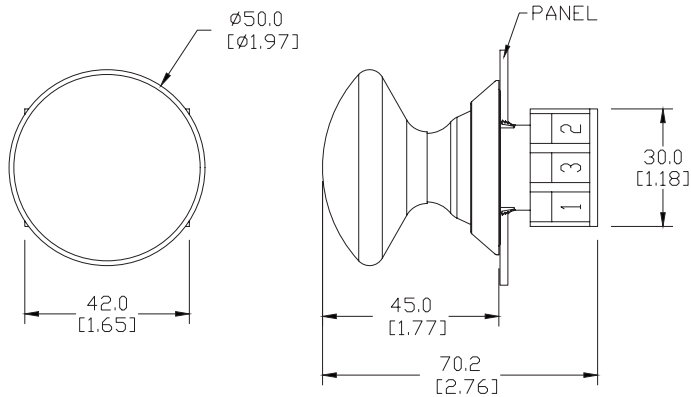
NDRZ50RT-2905-1

IP69K Emergency Stop Pushbuttons*		
Part Number	NDRZ50RT	NDRZ50RT-2905-1
Front ring color	Silver	Yellow
Price	\$25.00	\$25.00
Description	IP69K emergency pushbuttons with mounting flange, push to latch and pull to unlatch, front plate mounting	
Mounting	22.3 mm [0.88 in]	
Actuating stroke	5mm	
Dome material	ABS	
Front ring material	ABS, chromium-plated	
Front panel thickness	1.5 to 6 mm	
Weight	50g [1.76 oz]	
Mounting screws tightening torque	0.6 N·m [0.44 lb·ft]	
Ambient temperature	-25°C to +80°C [-13°F to +176°F]	
Shock resistance	30g / 18ms	
Ingress protection rating	IP67 and IP69K	
Mechanical life	100,000 operations	
Standards	EN 60947-5-1; IEC/EN 60947-1; UL File E57648	

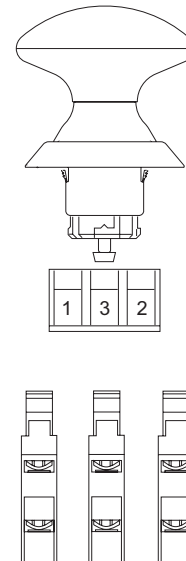
*Operator only. Purchase contact blocks separately.



Dimensions mm [in]



Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.





SCHMERSAL IP69K Indicator Lights



NMLBL



NMLGB



NMLGN



NMLRT



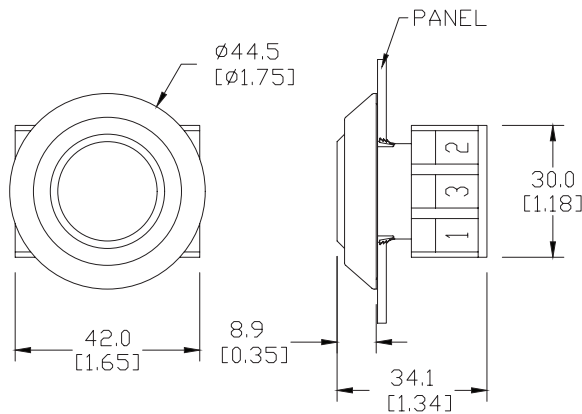
NMLWS

IP69K Indicator Lights*					
Part Number	NMLBL	NMLGB	NMLGN	NMLRT	NMLWS
Dome color	Blue	Yellow	Green	Red	White
Price	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00
Description	Indicator light (purchase light block and LED or bulb separately)				
Mounting diameter	22.3 mm [0.88 in]				
Dome material	Polyamide-12				
Front ring material	ABS, chromium-plated				
Front panel thickness	1.5 to 6 mm				
Weight	30g [1.06 oz]				
Mounting screws tightening torque	0.6 N·m [0.44 lb·ft]				
Ambient temperature	-25°C to +80°C [-13°F to +176°F]				
Shock resistance	<50g				
Vibration resistance	5g				
Ingress protection rating	IP67 and IP69K				
Standards	IEC 60947-5-1; IEC 60947-1; UL File E57648				

*Operator only. Purchase contact and light blocks separately.









Dimensions mm [in]



Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.

SCHMERSAL Non-Illuminated 22mm IP69k Plastic Selector Switches

**Black****White**

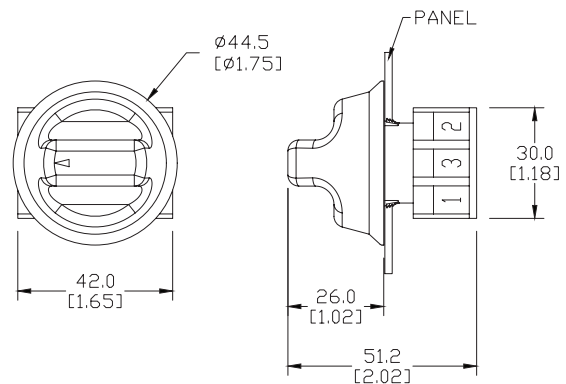
Non-Illuminated 22mm Selector Switches*				
Part Number	Price	Color	Operation	
NWS21GR	\$19.00	Black	2-position maintained	
NWS21WS	\$19.00	White		
NWT21	\$19.00	Black	2-position, spring return from right	
NWT21WS	\$19.00	White		
NWS32	\$25.00	Black	3-position maintained	
NWS32WS	\$25.00	White		
NWT32	\$25.00	Black	3-position, spring return to center from right or left	
NWT32WS	\$25.00	White		
NWTS32	\$25.00	Black	3-position, spring return to center from right, maintained left	
NWTS32WS	\$25.00	White		
NWTS321	\$25.00	Black	3-position, spring return to center from left, maintained right	
NWTS321WS	\$25.00	White		

*Operator only. Purchase contact blocks separately.



Selector Switches Specifications	
Toggle material	ABS
Front ring material	ABS, chrome-plated
Front panel thickness	1.5 to 6 mm
Mechanical operations	300,000
Mounting screws tightening torque	0.6 N·m [0.44 lb·ft]
Ambient temperature	0°C to +80°C [32°F to +176°F]
Shock resistance	<50g
Vibration resistance	5g
Ingress protection rating	IP67 and IP69K
Standards	IEC 60947-5-1; IEC 60947-1; UL File E57648

Dimensions mm [in]

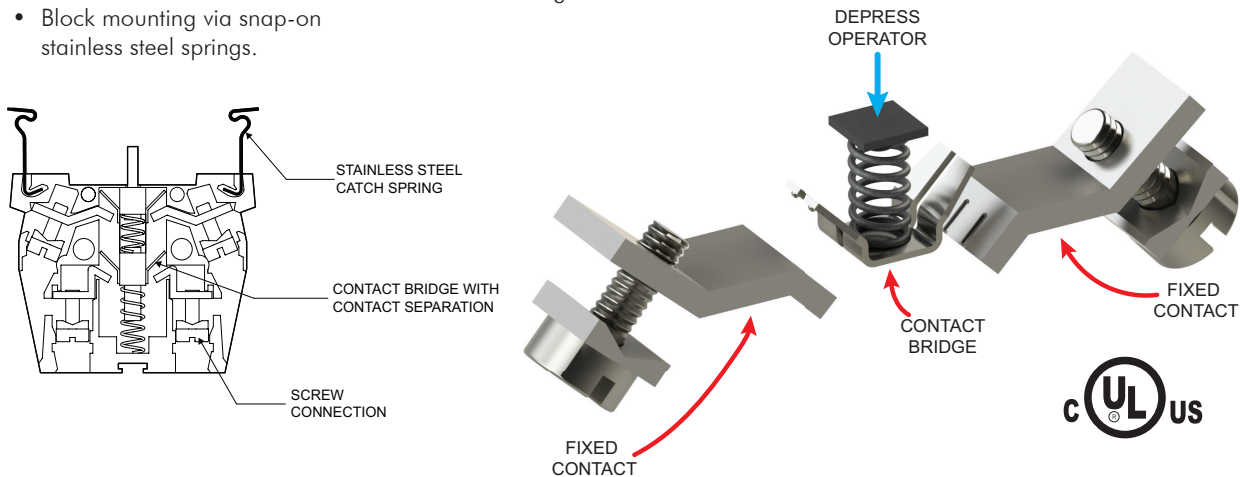
Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.


SCHMERSAL

Contact Blocks and Light Terminal Blocks Overview

Features

- A self-cleaning contact bridge system, known as Elan four-way system, which is particularly suitable for low voltage applications and has a lower switching capacity of 5VDC/3.2 mA (max. 400VAC/8A). It is designed in the form of a bent twin contact bridge, with parallel and also diagonal operation.
- Block mounting via snap-on stainless steel springs.
- Complete terminal designations visible at a glance in compliance with IEC 60 947-1 (VDE 0660, Part 100) with a complete function and sequence number (refer also to product ranges). The function number identifies the NC and NO contact. The sequence number specifies the number and the order of the contacts on the complete switching device.
- NC contacts with positive opening in compliance with IEC EN 60 947-5-1 (VDE 0660 Part 200).
- Galvanically isolated contact circuits in 2-pole blocks.
- High resistance to shock and vibrations.



Technical Specifications			
	Contact Blocks	Light Blocks (ELE)	Light Blocks (ELDE)
General description	Contact element	Light terminal block w/Ba9S base	Light terminal block w/LED
Enclosure material	Plastic, glass fiber reinforced	Plastic, glass fiber reinforced	Plastic, glass fiber reinforced
Contact material	Fine-silver, phosphor bronze or brass carrier	—	—
Utilization category	AC-15: 230 V / 8 A DC-13: 24 V / 5 A	—	—
Suitability for low voltages	≥ 5VDC / 3.2 mA	—	—
Rated insulation voltage U_i	400V	440V	440V
Rated impulse withstand voltage U_{imp}	4kV	—	—
Thermal test current I_{the}	10A	—	—
Max. fuse rating	10A gG D-fuse slow blow	10A gG T-slow blow	10A gG T-slow blow
Wire size	0.5 mm ² to 2.5 mm ² (20 - 14 AWG)		
Tightening torque wire connection	Maximum 1 N·m (0.74 lb·ft)		
NEMA contact rating	A300 / P300	—	—
Switching frequency	1200 s/h	—	—
Switching capacity	5VDC / 3.2 mA (max 400VAC / 8A)	—	—
Mechanical life	10,000,000 operation	—	—
Resistance to shock	110 g/4ms to 30 g/18ms no bouncing	—	—
Resistance to vibration	> 20 g/10ms to 200Hz	—	—
Ambient temperature	-25°C to +80°C [-13°F to +176°F]		
Ingress protection rating	IP20 terminals / IP40 switching compartment	IP20 terminals	IP20 terminals
Standards	IEC 60947-5-1; IEC 60947-1; UL File E57648		



SCHMERSAL

Contact Blocks



EF03.2



EF10.1



EF103.2



EF220.2



EF303.2

Contact Blocks							
Part Number	Price	Qty.	Contacts	Mounting Position	Travel Diagram (mm)	Wiring Diagram	Application
EF10.1*	\$7.00	1	1 NC	1			Standard
EF10.2*	\$7.00	1		2			
EF10.3*	\$7.00	1		3			
EF03.1	\$7.00	1	1 NO	1			
EF03.2	\$7.00	1		2			
EF03.3	\$7.00	1		3			
EF110.1*	\$11.00	1	2 NC	1			
EF110.2*	\$11.00	1		2			
EF110.3*	\$11.00	1		3			
EF033.1	\$11.00	1	2 NO	1			
EF033.2	\$11.00	1		2			
EF033.3	\$11.00	1		3			
EF103.1*	\$9.00	1	1 NC / 1 NO	1			
EF103.2*	\$9.00	1		2			
EF103.3*	\$9.00	1		3			
EF220.1**	\$11.00	1	2 NC	1			Emergency Stop
EF220.2**	\$11.00	1		2			
EF220.3**	\$11.00	1		3			
EF303.1**	\$9.00	1	1 NC / 1 NO	1			
EF303.2**	\$9.00	1		2			
EF303.3**	\$9.00	1		3			

***Not suitable for Emergency Stop devices**
****Not suitable for maintained selector switches NWS/NWT**

*Not suitable for Emergency Stop devices

**Not suitable for maintained selector switches NWS/NWT

Travel Diagram Legend

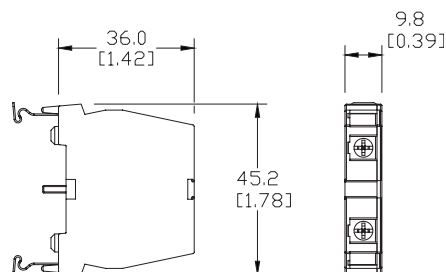
= contact closed

= contact open

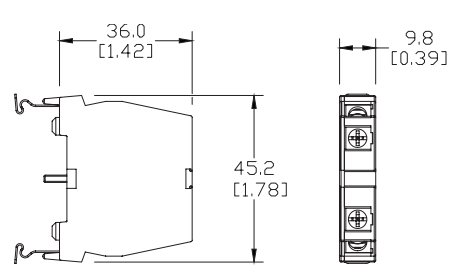
Numbers indicate distance in mm

Dimensions mm [in]

EF 1-Pole



EF 2-Pole



Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.



SCHMERSAL Light Terminal Blocks



ELDE.Nxx230



ELDE.Nxx24



ELE



ELE230

Light Terminal Blocks								
Part Number	Color	Price	Qty.	Voltage	Wattage	Diagram	Function	Use With
ELDE.NBL230	Blue	\$35.00	1	115 - 230 VAC	4		Integrated LED	NDL Series Pushbuttons
ELDE.NBL24		\$19.00		24V AC/DC	0.4			
ELDE.NGB230	Yellow	\$35.00		115 - 230 VAC	4			
ELDE.NGB24		\$19.00		24V AC/DC	0.4			
ELDE.NGN230	Green	\$35.00		115 - 230 VAC	4			
ELDE.NGN24		\$19.00		24V AC/DC	0.4			
ELDE.NRT230	Red	\$35.00		115 - 230 VAC	4			
ELDE.NRT24		\$19.00		24V AC/DC	0.4			
ELDE.NWS230	White	\$35.00		115 - 230 VAC	4			
ELDE.NWS24		\$19.00		24V AC/DC	0.4			
ELE	—	\$8.00		24V AC/DC	1		Ba9S Lamp holder	NML Series Indicator Lights
ELE230	—	\$22.00		115 - 230 VAC	1			

Ba9S Bulbs for ELE and ELE230 Light Terminal Blocks							
Part Number	Color	Qty	Price	Lamp Voltage	Current Consumption	Power Consumption	Lamp Durability
APX510-24R	Red	2	\$13.00	24V AC/DC	12mA AC 11mA DC	0.8 W	30,000h
APX510-24G	Green		\$13.00				
APX510-24Y	Yellow		\$13.00				
APX510-24S	Blue		\$50.00				
APX510-24O	Orange		\$13.00				



APX510-24R

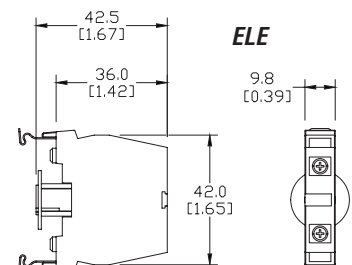
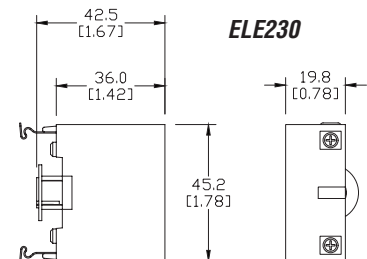
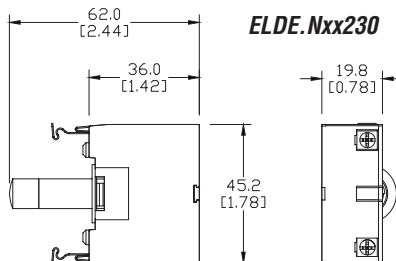
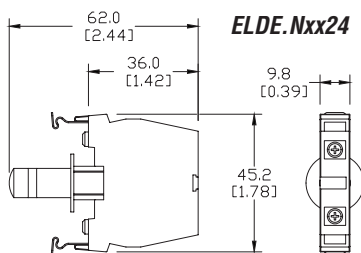
Replacement LED Lamps for ELE and ELE230 Light Terminal Blocks							
Part Number	Color	Qty	Price	Lamp Voltage	Current Consumption	Power Consumption	Lamp Durability
ECX1911-2	Red	2	\$15.50	24V AC/DC	14mA	0.6 W	100,000h
ECX1912-2	Green		\$19.50		13mA		
ECX1913-2	Yellow		\$15.50		13.3 mA		
ECX1914-2	Blue		\$21.00		13mA		
ECX1915-2	White		\$25.00		19mA		



ECX1915-2

NOTE: ELE230 has transformer to step down to 24V

Dimensions mm [in]

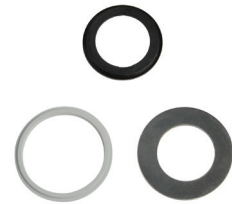
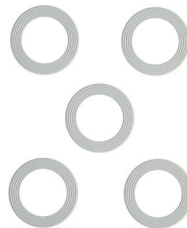
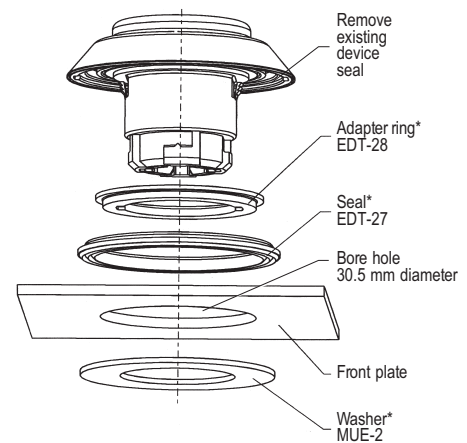


Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.

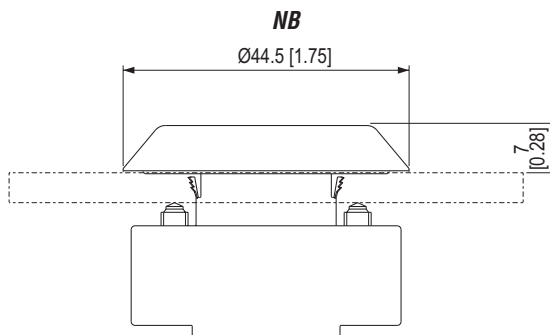
SCHMERSAL Accessories

**NB**

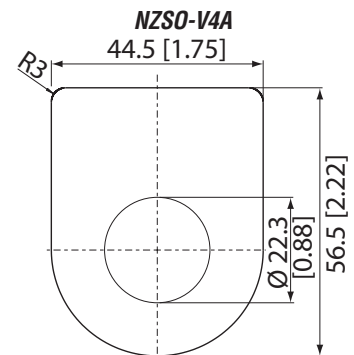
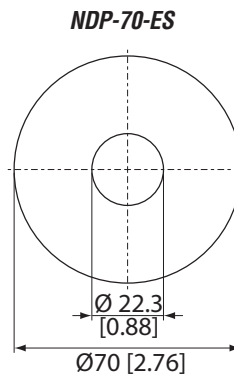
IP69K Accessories		
Part Number	Price	Description
NB	\$9.00	Hole seal/blanking plug, silver, 44.5 mm diameter, ABS/chrome-plated, 1/ea
NDP-70-ES	\$7.00	Legend plate, metallic, round, yellow field, yellow background, black engraved text, legend plate text "Emergency Stop". For use with 22mm pushbuttons. 1/ea
NUE	\$5.00	Pilot device hole adapter, reduces from 30.5 mm to 22.3 mm. Adapter ring, seal and washer included. 1/ea
EDT-25-5ST	\$6.00	Spare seals, 5/bag
NZSO-V4A	\$3.00	Legend plate - blank, stainless steel, 1/ea

**NUE****NDP-70-ES****NZSO-V4A****EDT-25-5ST**

Dimensions mm [in]



Front plate thickness 1.5 mm to max 6mm, mounting flange supplied

Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.



E22 Series 22mm Pilot Devices

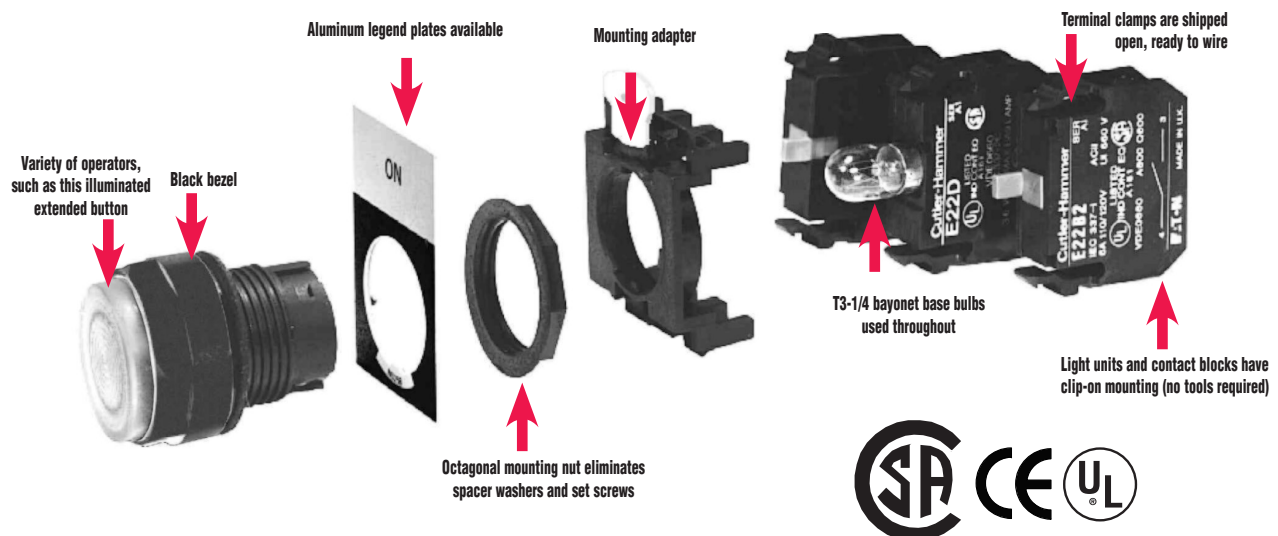
Overview*

22mm non-metal operator and pilot devices

Cutler-Hammer's 22mm industrial push-button line offers a wide array of functional, smartly-styled illuminated and non-illuminated pushbuttons, selector switches, and more. We offer transformer, full voltage, resistor, or LED light units. The operators feature a matte black bezel. The space-saving design and modular construction of the E22 line makes on-the-job installation fast and easy.

Complete assembled devices

The devices listed are shipped complete with operator, contact blocks and light (if applicable).



* Cutler-Hammer products are available for sale to North America locations only.



E22 Series Selection Guide



Indicating lights

Complete assembly includes:

- Illuminated operator, including optically enhanced lens
- Incandescent or LED light units (Order legend plate separately)



Selector switches

Complete assembly includes:

- Selector operator
- Contact block(s) - one or two normally open or normally closed
- Black bezel (Order legend plate separately)



Pushbuttons

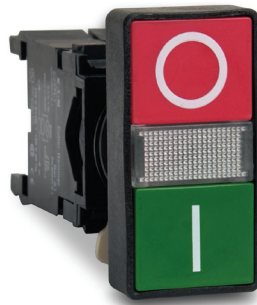
Complete assembly includes:

- Flush or extended momentary operators
- One normally open or normally closed contact
- Push-push models also available
- 120VAC light (if illuminated) (Order legend plate separately)



40 and 50mm mushroom pushbuttons

- Push-Pull trigger action
- Illuminated or non-illuminated (Order legend plate separately)



Double headed pushbutton

- On/Off control



Control station

- For Start/Stop applications



Illuminated pushbuttons

- Red, green or amber
- 120VAC or 24 VAC/DC
- Order legend plate separately



Push-to-test indicating lights

- Red, green or amber
- Order legend plate separately
 - Red, green or amber
 - Order legend plate separately



Tools and Accessories

- Legend plates
- Hole plugs
- Bulb tools
- Replacement bulbs



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E22 Series Technical Specifications

Ingress Protection (IP) Rating	
(IP65, IP66 ratings to IEC 529) UL Listed (NEMA) Types 1, 2, 3, 3R, 4, 4X, 12, and 13 when mounted in an enclosure rated for those same applications. See pages 30-9 and 30-10 for descriptions.	
Electrical Specifications	
Electrical Rating	UL508; UL File E131568. CSA certified class 3211 03, LR 68551. NEMA ICS5-2000: A600, Q600 (refer to page 68). IEC 60947-5-1: AC15, DC13.
Maximum Frequency of Operation	
22mm Pushbuttons	6,000 operations/hour IEC 60947-5-1: AC15, DC13.
Key and Lever Selector Switches	3,000 operations/hour
Twist-to-Release Devices	1,200 operations/hour
Push-Pull Operators	3,000 operations/hour
Mechanical Life	
Pushbutton	5 million operations
Selector Switches	500,000 operations
Push-Pull and Twist-to-Release	300,000 operations
Contact Block	3 million operations
Environmental Specifications	
Operating Temperature	Maximum 60°C at 95% RH, -20° to 60°C (-14° to 140°F), altitude 2000 meters
Storage Temperature	Maximum 60°C at 95% RH, -40° to 80°C (-40° to 176°F)
Vibration	
Vibration	5G/0.7 mm peak-to-peak 10 sweeps, 10-500 Hz
Shock	18G, 18ms
Bump	25G, 6ms for 1,000 cycles
Construction	
Components	Materials
Housing, Bezel, Mounting Rings	Glass-filled nylon
Internal Seal	Nitrile rubber
Panel Gasket	Nitrile rubber
Illuminated Lenses	Polycarbonate
Buttons	Polyester or polycarbonate
Springs	Stainless steel
Contacts	Silver
Terminal Screws/Terminals	Brass
Panel Thickness - mm (inches)	
Nominal	6.8 (0.2) ¹
Aluminum Legend Plates	1.3 (0.05)
Large Yellow Round Legend Plates	1.0 (0.04)
Minimum	1.0 (0.04)
¹ Installation of certain accessories will increase the total (overall) panel thickness by the amount shown. The total panel thickness with all accessories installed cannot exceed the maximum allowable nominal dimensions of 6.8 mm (0.27 in.).	
Wire Specifications	
Minimum/Maximum	18AWG (0.75 mm ²) / 12AWG (2.5 mm ²)
Tightening Torque	7 lb-in

Electrical life

- AC15 durability:
120V, 6A 1 X 10⁶ operations
- DC13 durability:
24V, 8A 0.15 X 10⁶ operations
660V, .1A 0.5 X 10⁶

Logic-level operation

5 VDC, 1 mA (minimum recommended)

Contacts feature a pointed surface called "Reliability Nib." The projection penetrates through any oxidation providing unmatched low-level operation without using exotic metals or sealed contacts.

Standards and approvals

- UL listed – UL 508 electrical/environmental;
UL 486E terminal secureness, File E131568
- CSA Certified – CSA 22.2 #14
- NEMA ICS-1, ICS-2
- IEC 144, 337, 529, 947
- IP65 when mounted in enclosure
- Lloyds No. 4 and 5
- M.T.T.A.
- CE

IEC utilization categories & ratings

AC15

(Control of AC electromagnetic loads)

- 24 volts AC at 10 amps
- 130 volts AC at 6.5 amps

DC13

(Control of DC electromagnetic loads)

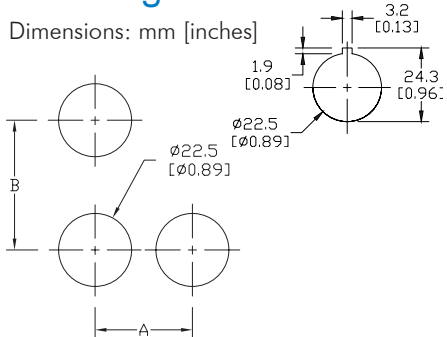
- 24 volts DC at 1.5 amps
- 110 volts DC at .5 amps

E22 Mounting / NEMA

Aux Contact Ratings

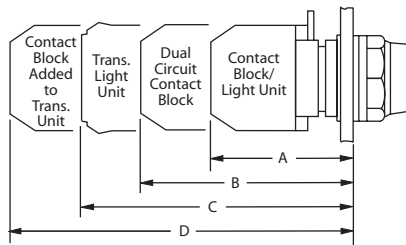
Mounting

Dimensions: mm [inches]



Back-of-panel extensions

Note: This view is to show dimensions only.
Contact blocks are not stackable.



Minimum Spacing — mm [inches]

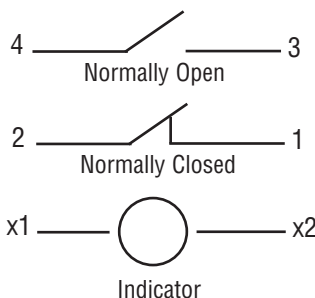
Size/Type of Operator	Dimensions	
	A	B
All types up to 30 (1.18) dia. including knob and key operated selector switches — except those listed below	30 (1.18)	50 (1.97)
Three-way adapter		
50 (1.97) dia. operators	55 (2.16)	55 (2.16)
Large yellow round legend plate - 70 (2.76) diameter	75 (2.95)	50 (1.97)

Approximate Dimensions — mm [inches]

A	B	C	D
Single circuit block — full voltage and resistor units	Dual circuit contact block	Transformer light unit	Transformer light unit and single circuit contact block
Pushbuttons (All Types and Push-Pull)			
51 (2.0)	66 (2.6)	74 (2.91)	94 (3.7)
Key and Knob Selector Switches			
57 (2.2)	72 (2.83)	80 (3.15)	99 (3.9)

Control Circuit Contact Electrical Ratings and Wiring

Typical Wiring



NEMA Mechanical Switching Ratings and Test Values for DC Control Circuit Contacts

Contact Rating Designation	Thermal Continuous Test Current (A)	Maximum Make or Break DC Current (A)			Volt amperes
		125 Volts	250 Volts	301 to 600 Volts	
P300	5.0	1.1	0.55	---	138
P600	5.0	1.1	0.55	0.20	138
Q300	2.5	0.55	0.27	---	69
Q600	2.5	0.55	0.27	0.10	69
R300	1.0	0.22	0.11	---	28

This chart is provided as a guideline only, and the ratings and values are not guaranteed to be accurate. It is the users' responsibility to properly size their control circuit devices. The chart values are from NEMA Standard ICS 5-2000, Table 1-4-2.

NEMA Mechanical Switching Ratings and Test Values for AC Control Circuit Contacts

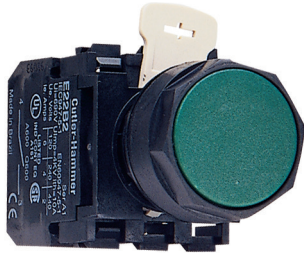
Contact Rating Designation	Thermal Continuous Test Current (A)	Maximum AC Current, 50/60Hz (A)								Volt amperes	
		120 Volts		240 Volts		480 Volts		600 Volts			
		Make	Break	Make	Break	Make	Break	Make	Break	Make	Break
A300	10	60	6.00	30	3.00	---	---	---	---	7200	720
A600	10	60	6.00	30	3.00	15	1.50	12	1.20	7200	720
B300	5	30	3.00	15	1.50	---	---	---	---	3600	360
B600	5	30	3.00	15	1.50	7.5	0.75	6	0.60	3600	360
C600	2.5	15	1.5	7.5	0.75	3.75	0.375	3.00	0.30	1800	180

This chart is provided as a guideline only, and the ratings and values are not guaranteed to be accurate. It is the users' responsibility to properly size their control circuit devices. The chart values are from NEMA Standard ICS 5-2000, Table 1-4-1.

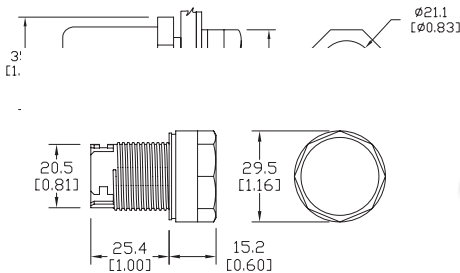
E22 Non-Illuminated Pushbuttons

Flush pushbuttons

Approximate dimensions in mm (in). See dimensions for "back-of-panel extensions" at the beginning of the E22 series section.

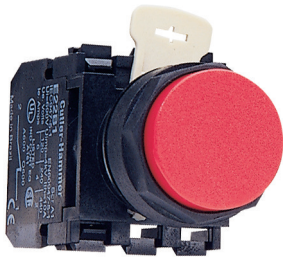


Dimensions: mm [inches]

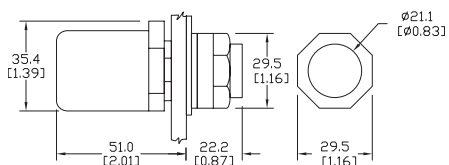


Extended pushbuttons

Approximate dimensions in mm (in). See dimensions for "back-of-panel extensions" at the beginning of the E22 series section.



Dimensions: mm [inches]



Push-Push flush pushbuttons

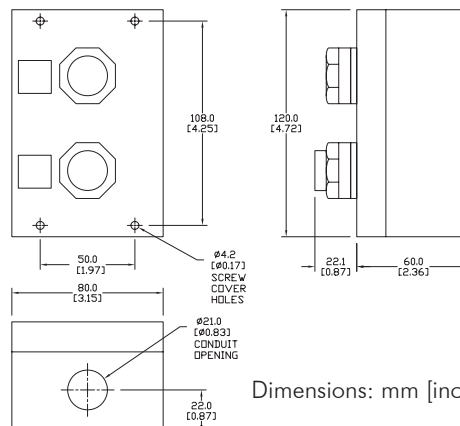


Dimensions: mm [inches]

Control station



Note: Contact blocks sold separately, see E22 accessories section.



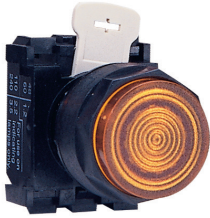
Dimensions: mm [inches]

EAT•N

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E22 Illuminated Pushbuttons

Illuminated pushbuttons



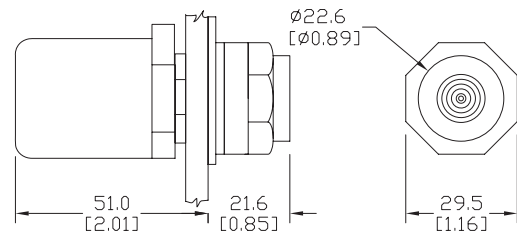
Note: Bulb removal tool available.
See replacement bulbs on
the accessories page.

Illuminated Pushbuttons			
24V AC/DC Full Voltage			Price
Red	E22TB2X4B	Momentary illuminated pushbutton, black bezel, extended red button with one N.C. contact, 24V full voltage light unit	\$48.00
Green	E22TB3X4A	Momentary illuminated pushbutton, black bezel, extended green button with one N.O. contact 24V full voltage light unit	\$47.00
Amber	E22TB9X4A	Momentary illuminated pushbutton, black bezel, extended amber button with one N.O. contact, 24V full voltage light unit	\$47.00
120V AC Resistor *			
Red	E22TB2X10B	Momentary illuminated pushbutton, black bezel, extended red button with one N.C. contact, 120V resistor light unit	\$54.00
Green	E22TB3X10A	Momentary illuminated pushbutton, black bezel, extended green button with one N.O. contact, 120V resistor light unit	\$54.00
Amber	E22TB9X10A	Momentary illuminated pushbutton, black bezel, extended amber button with one N.O. contact, 120V resistor light unit	\$51.50
See specifications and mounting data at the beginning of this E22 series section.			

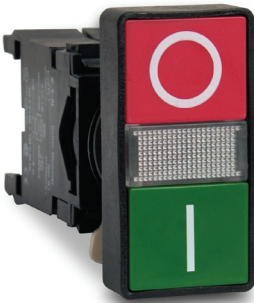
* Use 60V replacement lamp
(W1226) for 120 VAC resistor
models

Dimensions: mm [inches]

See dimensions for "back-of-panel
extensions" at the beginning of
this section.



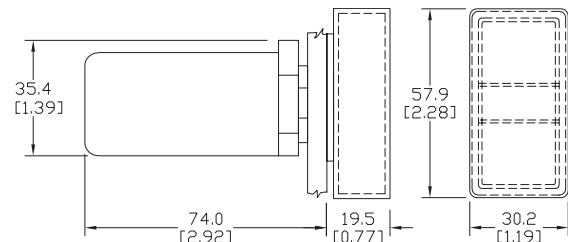
Illuminated double-headed pushbutton



Illuminated Pushbutton			Price
Double-headed Pushbutton **			
Green-Red	E22DB1B20X11C	Momentary illuminated double-headed pushbutton with clear lens, 0 and I legend markings, 120V transformer light unit, one N.O. and one N.C. contact	\$91.50
See specifications and mounting data at the beginning of this section.			
Note: This IP65 or UL (NEMA) Type 3, 3R, 4, 4X, 12, 13 pushbutton includes a protective clear silicone boot.			

** Use 6V replacement
lamp (ECX1900-5)

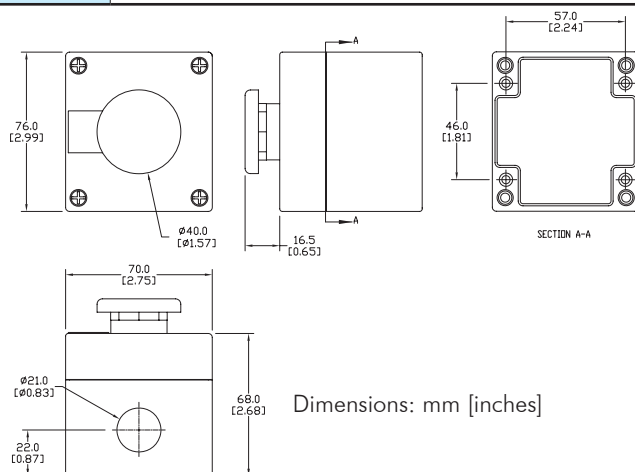
Dimensions: mm [inches]



Mushroom pushbutton station



Mushroom Pushbutton Station			Price
Emergency Stop Station			
Red/Yellow	E22ASB106	Latch in, twist-to-release 40mm red mushroom pushbutton, black bezel, with one N.C. contact.	\$104.50



Dimensions: mm [inches]

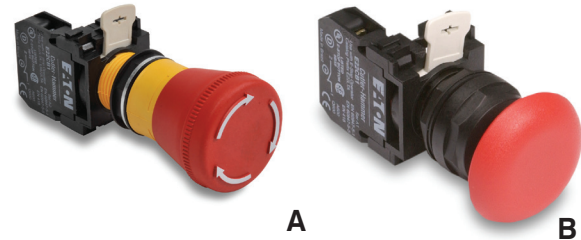


E22 Emergency Stop Mushroom Pushbuttons

The European Machinery Safety Directive EN 418 requires all emergency OFF devices to be self-latching types and to have positive (direct) opening operation. Devices have to be manually reset. EN 418 states that actuators shall be mushroom head type and colored **RED**. The background immediately around the device actuator should be colored **YELLOW** (see the E22 accessories in this section to order legend plate part number E22VA8 or guard part number E22MGTA).



E22LTA2QB Emergency Stop pushbutton, in conjunction with direct-opening action contact blocks and either a yellow nameplate or yellow guard, is fully compliant with this safety directive, and is third-party certified by DEMKO.

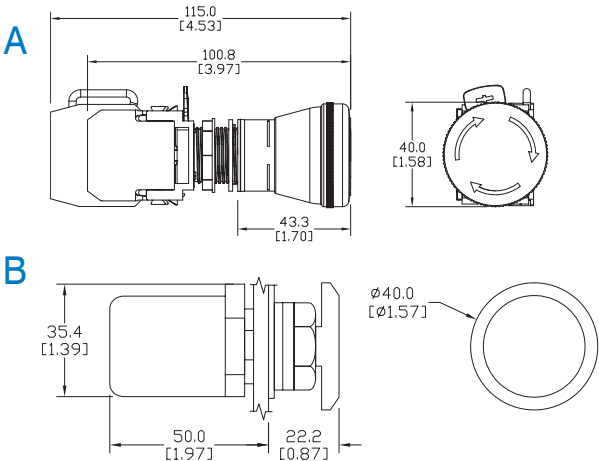


CE EN 418 Compliant Non-illuminated Emergency Stop Mushroom Pushbuttons			
(A) Red	E22LTA2QB	Trigger action twist-to-release Maintained 40mm red mushroom pushbutton, Emergency Stop. black bezel, with one N.C. contact	\$40.50
(B) Red	E22LPB2B	Push-Pull Maintained 40mm red mushroom pushbutton, Emergency Stop. black bezel, with one N.C. contact	\$26.50
(C) Red	E22JLB2N8B	Push-Pull Maintained 50 mm red aluminum mushroom pushbutton, Emergency Stop engraved, black bezel, with one N.C. contact	\$45.50
(D) Red	E22JPLB2B	Push-Pull Maintained 50 mm red mushroom pushbutton, not engraved, black bezel, with one N.C. contact	\$34.50
See specifications and mounting data at the beginning of this E22 series section.			

Note: E22MGTA fits E22LTA2QB.
It is not recommended for use with devices that are not EN-418 compliant .

Non-illuminated Mushroom Pushbuttons (NOT CE EN 418 Compliant)			
(E) Red	E22JPB2B	Momentary 50 mm red mushroom pushbutton, black bezel, with one N.C. contact	\$28.50
(F) Red	E22LB2B	Momentary 40 mm red mushroom pushbutton, black bezel, with one N.C. contact	\$27.00
(G) Red	E22LLB2B	Twist release Maintained 40mm red mushroom pushbutton, black bezel, with one N.C. contact	\$29.50
See specifications and mounting data at the beginning of this E22 series section.			

Dimensions A, B



Dimensions C, D, E



Dimensions F, G





Cutler-Hammer

E22 Monoblock Indicating Lights

Monoblock Indicating Lights			
24V AC/DC Full Voltage Incandescent			Price
Red	E22HV2X4	Monoblock indicating light, red optically enhanced lens, 24V full voltage incandescent	\$20.00
Green	E22HV3X4	Monoblock indicating light, green optically enhanced lens, 24V full voltage incandescent	\$20.00
Amber	E22HV9X4	Monoblock indicating light, amber optically enhanced lens, 24V full voltage incandescent	\$20.00
120V AC Full Voltage Incandescent			
Red	E22HV2X8	Monoblock indicating light, red optically enhanced lens, 120V full voltage incandescent	\$20.00
Green	E22HV3X8	Monoblock indicating light, green optically enhanced lens, 120V full voltage incandescent	\$20.00
Amber	E22HV9X8	Monoblock indicating light, amber optically enhanced lens, 120V full voltage incandescent	\$20.00
24V AC/DC Full Voltage LED*			
Red	E22HL2X4	Monoblock indicating light, red optically enhanced lens, 24V full voltage LED	\$25.00
Green	E22HL3X4	Monoblock indicating light, green optically enhanced lens, 24V full voltage LED	\$25.00
Amber	E22HL9X4	Monoblock indicating light, amber optically enhanced lens, 24V full voltage LED	\$25.00
120V AC Full Voltage LED*			
Red	E22HL2X8	Monoblock indicating light, red optically enhanced lens, 120V full voltage LED	\$25.00
Green	E22HL3X8	Monoblock indicating light, green optically enhanced lens, 120V full voltage LED	\$25.00
Amber	E22HL9X8	Monoblock indicating light, amber optically Enhanced lens, 120V full voltage LED	\$25.00
120V AC Transformer Incandescent**			
Red	E22H2X11	Monoblock Indicating light, red optically enhanced lens, 120V transformer incandescent	\$51.50
Green	E22H3X11	Monoblock indicating light, green optically enhanced lens, 120V transformer incandescent	\$51.50
Amber	E22H9X11	Monoblock indicating light, amber optically enhanced lens, 120V transformer incandescent	\$51.50

See also specifications and mounting data at the beginning of this E22 series section.

Note: * Cutler-Hammer 22mm LED indicators feature an LED cluster module.
The LED clusters are permanently installed and are non-replaceable.

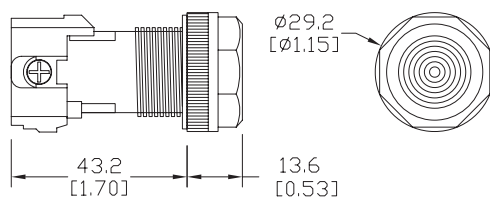
**Use 6V replacement lamp (ECX1900-5) for 120VAC transformer models.
See the E22 accessories in this section for replacement lamp information.



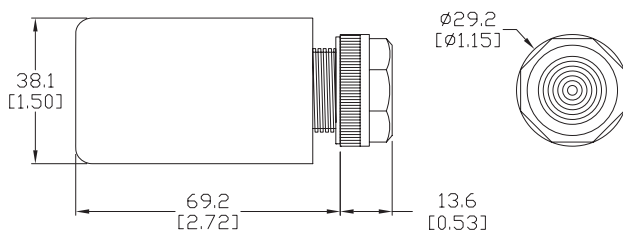
Dimensions

Dimensions: mm [inches]

E22HVxxx and E22HLxxx (Full voltage)



E22Hxxx (Transformer)



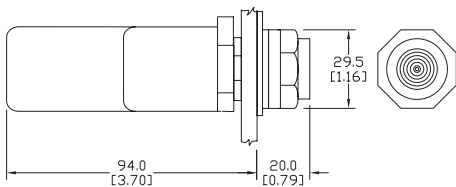


E22 Lights and Selector Switches

Push-to-test indicating lights



Dimensions: mm [inches]



See dimensions for "back-of-panel extensions" at the beginning of this E22 series section.

Push-to-Test Indicating Lights			
These are designed to illuminate for bulb test when operator is pressed. Otherwise, they function as indicator lights.			
120V AC Resistor *			Price
Amber	E22TB9X26	Push-to-Test indicating light, amber optically enhanced lens, 120V resistor incandescent	\$61.50
120V AC Transformer **			
Red	E22TB2X27	Push-to-Test indicating light, red optically enhanced lens, 120V transformer incandescent	\$69.00
Amber	E22TB9X27	Push-to-Test indicating light, amber optically enhanced lens, 120V transformer incandescent	No Match!
See specifications and mounting data at the beginning of this E22 series section.			

Notes: Bulb removal tool available. See replacement bulbs on the E22 accessories page in this section.
* Use 60V replacement lamp (W1226) for 120 VAC resistor models.
** Use 6V replacement lamp (ECX1900-5) for 120 VAC transformer models.

Selector switches

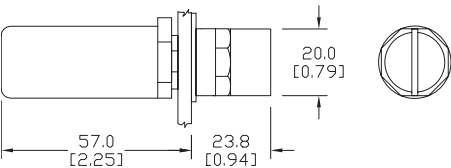


Two-position



Three-position

Dimensions: mm [inches]



See dimensions for "back-of-panel extensions" at the beginning of this E22 series section.

Selector Switches			
Two-Position	Part Number	Description	Price
<div>Left</div> <div></div> <div>Right</div> <div></div> <div>M — M</div> <div>Maintained Left</div> <div>Maintained Right</div>	E22XB51A	Selector switch, black bezel, two position, black knob, "OFF ON" with one N.O. contact block	\$23.00
	E22XB51C	Selector switch, black bezel, two-position, black knob, "ON ON" with one N.O. and one N.C. contact block	\$32.50
Three-Position			
<div>Left</div> <div></div> <div>Center</div> <div></div> <div>Right</div> <div></div> <div>M M M</div> <div>Maintained Left</div> <div>Maintained Center</div> <div>Maintained Right</div>	E22XBG1RR	Selector switch, black bezel, 3-position, black knob, "ON ON ON" with two contact blocks, each having one N.O. and one N.C. contact. (Contact part number E22B11)	\$50.00
Three-Position Spring-Return to Center Position			
<div>Left</div> <div></div> <div>Center</div> <div></div> <div>Right</div> <div></div> <div>S M S</div> <div>Spring return Left</div> <div>Maintained Center</div> <div>Spring return Right</div>	E22XBL1D	Selector switch, black bezel, 3-position, black knob, "ON OFF ON", spring return to center, with two N.O. contact blocks	\$36.50
See specifications and mounting data at the beginning of this E22 series section.			



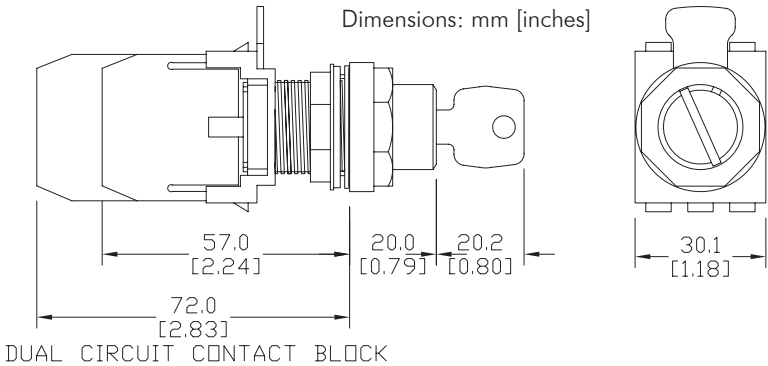
E22 Key Switches and Accessories

Two-position key switches



Key Switches		
Two-position Key Switch		Price
E22KB53A	Selector switch, black bezel, 2-position key, "OFF ON" with one N.O. contact block	\$59.50
E22KB62A	Selector switch, black bezel, 2-position key, spring from right "OFF ON" with one N.O. contact block	\$59.50
See specifications and mounting data at the beginning of this E22 series section.		

Notes:
All E22 series key switches are keyed alike. The key is not compatible with the metal 22mm key switches.
All E22 series key switches will hold only one single row of (2) contacts (non-stackable).
Key can be removed in all positions.



Spare keys available: part no. E22KS2

See dimensions for "back-of-panel extensions" at the beginning of this E22 series section.

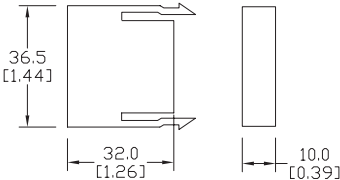
Accessories — replacement contact blocks

Replacement Contact Blocks		
Contact Blocks	One block contains:	Price
E22B1*	One N.C. contact (Direct Opening Action)	\$11.50
E22B2	One N.O. contact	\$11.50
E22B11*	One N.O., One N.C. contact (N.C. Direct Opening Action)	\$21.00
E22B20	Two N.O. contacts	\$21.00
E22CB1M*	Self-monitoring contact block (N.C. Direct Opening Action)	\$26.50

Note: See contact electrical ratings on E22 series mounting and contact ratings page in this E22 series section.
*All N.C. contact blocks are EN 418 compliant when used with compliant operators.

E22B1

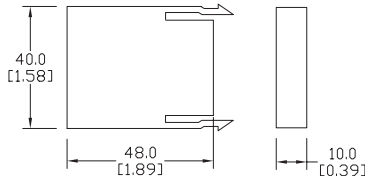
E22B2



E22CB1M

E22B11

E22B20



Dimensions: mm [inches]

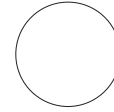
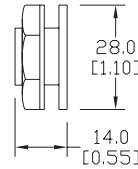


E22 Accessories

Octagonal wrench



Hole plug

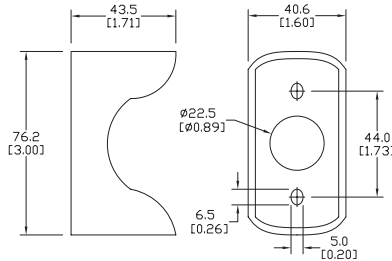


Dimensions: mm [inches]

Bulb removal tool



Guard for E22 E-stop



Dimensions: mm [inches]

Replacement incandescent bulbs



Replacement Incandescent Bulbs				
Part Number	Rating	Description	Quantity	Price
ECX1900-5	6V, 1.2 watts	6V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4.	pkg. of 5 bulbs	\$8.50
ECX1902-5	24V@ 80mA	24V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4.	pkg. of 5 bulbs	\$8.50
ECX1904-5	130V@20mA	120V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4.	pkg. of 5 bulbs	\$17.50
W1121	120V@20mA	Replacement bulb for Cutler-Hammer E22 full voltage indicators and switches. Does not replace the LED monoblock indicators.	pkg. of 4 bulbs	\$21.50
W1226	60V@20mA	Replacement bulb for Cutler-Hammer E22 resistor indicators, switches and pushbuttons. Does not replace the LED monoblock indicators.	pkg. of 4 bulbs	\$21.50
W1819	24V@20mA	Replacement bulb for Cutler-Hammer E22 indicators and pushbuttons. Does not replace the LED monoblock indicators.	pkg. of 4 bulbs	\$21.50

Replacement LED lamps

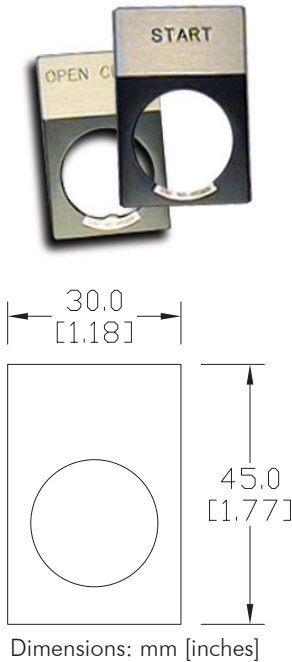


Replacement LED Lamps					
Part Number	Color	Rating	Description	Quantity	Price
ECX1911-2	Red	24V@26mA	LED replacement lamp for miniature bayonet bases Works with 22mm switches and indicators, but illumination will not be as even when used with the ECX 22mm indicators Note: Will not replace sealed Cutler-Hammer monoblock LED indicators.	pkg. of 2 LED bulbs	\$15.50
ECX1912-2	Green				\$19.50
ECX1913-2	Yellow				\$15.50
ECX1914-2	Blue				\$21.00
ECX1915-2	White				\$25.00
ECX1921-2	Red	120V@5mA			\$15.50
ECX1922-2	Green				\$19.50
ECX1923-2	Yellow				\$15.50
ECX1924-2	Blue				\$21.00
ECX1925-2	White				\$25.00

E22 Legend Plates

Legend plates

Aluminum legend plates feature a plastisol backing to help prevent rotation of the operator.



E22VA8



Legend Plates			
Color	Part Number	Legend	Price
Black	E22NS11	"CLOSE"	\$4.50
Black	E22NS12	"DOWN"	\$4.50
Red	E22NS13	"EMERG. STOP"	\$4.50
Black	E22NS15	"FORWARD"	\$4.50
Black	E22NS19	"JOG"	\$4.50
Black	E22NS25	"ON"	\$4.50
Black	E22NS26	"OPEN"	\$4.50
Black	E22NS30	"REVERSE"	\$4.50
Black	E22NS31	"RUN"	\$4.50
Black	E22NS33	"START"	\$4.50
Red	E22NS34	"STOP"	\$4.50
Black	E22NS35	"UP"	\$4.50
Black	E22NS36	Blank plate	\$4.50
Red	E22NS37	Blank plate	\$4.50
Black	E22NS38	"FOR-REV"	\$4.50
Black	E22NS39	"HAND-AUTO"	\$4.50
Black	E22NS41	"JOG-RUN"	\$4.50
Black	E22NS42	"OFF-ON"	\$4.50
Black	E22NS43	"OPEN-CLOSE"	\$4.50
Black	E22NS48	"UP-DOWN"	\$4.50
Black	E22NS50	"FOR-OFF-REV"	\$4.50
Black	E22NS51	"HAND-OFF-AUTO"	\$4.50
Black	E22NS80	"POWER ON"	\$4.50
Black	E22NS81	"MOTOR RUN"	\$4.50
Black	E22NS82	"MOTOR STOP"	\$4.50
Black	E22NL36	Jumbo alum. blank plate (1.57 in wide x 1.85 in tall)	\$4.50
Red	E22NL37	Jumbo alum. blank plate (1.57 in wide x 1.85 in tall)	\$4.50
Red /black	E22NSP77	Plastic blank plate; red on one side, black on other side; either side can have letters engraved down into white plastic	\$4.50
Yellow	E22VA8	"EMERGENCY STOP" oversize yellow legend plate, 2.76" (70mm), printed	\$7.00

NOTE: Legend plates also work with the GCX/ECX series 22mm metal switches. The removal of the locator tab on the legend plate is required. This is easily accomplished with a round file or small grinder.

E22 Series Cross-reference Tables

Pushbutton, Indicator Light, and Selector Switch Cross Reference				
Cutler-Hammer	Allen-Bradley	Telemecanique XB2B (chrome bezel) XA2B (black bezel)	GE C-2000	Siemens
Non-Illuminated Pushbuttons				
E22PB1A	800EPF2 800E3LX10	ZA2BA2 ZA2BZ101	P9XPNG10N0	3SB1000-0AB01 3SB02-CBH 3SB1400-0B
E22PB3A	800EPF3 800E3LX10	ZA2BA3 ZA2BZ101	P9XPNVG10N0	3SB1000-0AE01 3SB02-CBH 3SB1400-0B
E22EB2B	800EPE4 800E3LX01	ZA2BL4 ZA2BZ102	P9XPNRS20N0	3SB1000-0LC01 3SB02-CBH 3SB1400-0B
E22ASB204	ENCLSR: 800E-2P 800EP-F3 800E-2LX10 800EP-E4 800E-2LX01 800E-34BE208 800E-34R212	XALB211 Both flush - stop is not extended	P9CPNRSN20N0 P9CPNVGN10N0 P9EPB02 P9AEPN201 P9AEPN202	3SB02-S21
Illuminated Pushbuttons				
E22TB2X4B	800EPL4 800E3DL3 800E3X01	ZA2BW14 ZA2BW06224	P9XPLRSDN12NADI	3SB1001-0LC01 3SB02-CBH 3SB1400-0C 3SB1400-2H
E22TB3X4A	800EPL3 800E3DL3 800E3X10	ZA2B213 AZ2B206124	P9XPLVSDN12NADI	3SB1001-0LE01 3SB02-CBH 3SB1400-0B 3SB1440-2H
E22TB9X4A	800EPL5 800E3DL3 800E3X10	ZA2BW15 ZA2BW06124	P9XPLASDN12NADI	3SB1001-0LD01 3SB02-CBH 3SB1400-0B 3SB1400-2H
E22TB2X10B	800EPL4 800E2RL5 800E3X01	ZA2BW14 ZA2BW062120	P9XPLRSB P9PRNVJ P9PDNVD	3SB1001-0LC01 3SB02-CBH 3SB1400-0C
E22TB3X10A	800EPL3 800E2RL5 800E3X10	ZA2BW13 ZA2BW061120	P9XPLVSD P9PRNVJ P9PDNVD	3SB02-UPR1P 3SB1910-0DE 3SB1400-0B
E22TB9X10A	800DPLE5 800E2RL5 800E3X10	ZA2BW15 ZA2B2061120	P9XPLASD P9PRNVJ P9PDNVD	3SB02-UPR1P 3SB1910-0DD 3SB1400-0B

E22 Series Cross-reference Tables

Pushbutton, Indicator Light, and Selector Switch Cross Reference (cont'd)				
Cutler-Hammer	Allen-Bradley	Telemecanique XB2B (chrome bezel) XA2B (black bezel)	GE C-2000	Siemens
Non-Illuminated Mushroom Pushbuttons				
E22LB2B	800EPM4 800E3LX01	ZA2BC4 ZA2BZ102	P9XEM4RNN20N0	3SB1000-1RC01 3SB02-CBH 3SB1400-0C
E22LLB2B	800EPM4 800E3LX01	ZA2BS54 ZA2BZ102	P9XER4RAN20N0	3SB1000-1AC01 3SB02-CBH 3SB1400-0C
E22JPB2B	800EPMJ4 800E3LX01	ZA2BR4 ZA2BZ102	P9XEMGRN (60mm) P9B01VN	3SB1000-1VC01 (70MM) 3SB1400-0C
E22JLB2N8B	800EPMJP28 800E3LX01	NO EQUAL	NO EQUAL	NO EQUAL
E22JPLB2B	800EPMJP24 800E3LX01	ZA2BX4 ZA2BZ102	P9XET4RN1200	3SB1000-0KC01 (40mm) 3SB1400-0C
E22ASB106	800EP-MT4 800E-2LX01 800E-1P 800E-15YE112	XALJ174 No Nameplate +Yellow Cover	P9XER4RAN20N0 P9EPB01 P9AEPNEN	3SB02-S13 No Nameplate + Yellow Cover
Indicating Lights				
		Use ZA2 or ZB2 for these indicating lights		
E22HV2X4	800EPPL4 800E3DL3	ZA2BV04 ZA2BV624	P9XURRD0 BA9S24	N/A
E22HV3X4	800EPPL3 800E3DL3	ZA2BV03 ZA2BV624	P9XUGRD0 BA9S24	N/A
E22HV9X4	800EPPL5 800E3DL3	ZA2BV05 ZA2BV624	P9XUARD0 BA9S24	N/A
E22HV2X8	800EPPL4 800E3DL5	ZA2BV04 ZA2BV6120	B9XURRD0 BA9S130	N/A
E22HV3X8	800EPPL3 800E3DL5	ZA2BV03 ZA2BV6120	B9XUGRD0 BA9S130	N/A
E22HV9X8	800EPPL5 800E3DL5	ZA2BV05 ZA2BV6120	B9XUARD0 BA9S130	N/A
E22HL2X4	800EPPL4 800E3DL3R	ZA2BV043 ZA2BV624 DL1CJUS0244	B9XURRD0 080BA9S24LR	N/A
E22HL3X4	800EPPL3 800E3DL3G	ZA2BV033 ZA2BV624 DL1CJUS0243	B9XUGRD0 080BA9S24LG	N/A
E22HL9X4	800EPPL5 800E3DL3A	ZA2BV053 ZA2BV624 DL1CJUS0245	B9XUARD0 080BA9S24LA	N/A
E22HL2X8	800EPPL4 800E3DL5R	ZA2BV043 ZA2BV620 DL1CJUS1204	B9XURRD0 080BA9S120LR	N/A
E22HL3X8	800EPPL3 800E3DL5G	ZA2BV033 ZA2BV6120 DL1CJUS1203	B9XUGRD0 080BA9S120LG	N/A
E22HL9X8	800EPPL5 800E3DL5A	ZA2BV053 ZA2BV6120 DL1CJUS1205	B9XUARD0 080BA9S120LA	N/A

E22 Series Cross-reference Tables

Pushbutton, Indicator Light, and Selector Switch Cross Reference (cont'd)				
Cutler-Hammer	Allen-Bradley	Telemecanique XB2B (chrome bezel) XA2B (black bezel)	GE C-2000	Siemens
Indicating Lights (cont'd)				
		Use ZA2 or ZB2 for these indicating lights		
E22H2X11	800EPPL4 800E3TL5	ZA2BV04 ZA2BV3	P9XLRGJI	3SB1001-6CC06 3SB02-CBH 3SB1400-5M
E22H3X11	800EPPL3 800E3TL5	ZA2BV03 ZA2BV03	P9XLGGJI	3SB1001-6CE06 3SB02-CBH 3SB1400-5M
E22H9X1	800EPPL5 800E3TL5	ZA2BV05 ZA2BV3	P9XLAGJI	3SB1001-6CD06 3SB02-CBH 3SB1400-5M
E22TB9X26	800DPLE5 800ETLT5X11	ZA2B215 ZA2BW065120	P9XPLASDN30NKJI	3SB02-UPR1P 3SB1910-0DD 3SB1400-0B
E22TB2X27	800EPLE4 800E3TLT5X11	ZA2BW14 ZA2BW035	P9XPLRSDN30NHJI	3SB100-0QC01 3SB02-CBH 3SB1400-5M
E22TB9X27	800EPLE5 800E3TLT5X11	ZA2BW15 ZA2BW035	P9XPLASDN30NHJI	3SB1001-0QA01 3SB02-CBH 3SB1400-5M
Selector Switches				
E22XB51A	800EPSM22 800E3LX10	ZA2BD2 ZA2BZ101	P9XSMD0N P9B10VN	3SB02-2MKBP 3SB1400-0B
E22XB51C	800EPSM22 800E3LX11	ZA2BD2 ZA2BZ105	P9XSMD0N P9B11VN	3SB02-2MKBP 3SB1400-0C
E22XBG1RR	800EPSM32 800E3LX20 800E3LX02	ZA2BD3 ZA2BZ103 ZA2BZ104	P9XSMZ0N P9B11VN	3SB02-3MKBP 3SB1400-0G 3SB1400-0H
E22KB53A	800EPM2Z1 800E3LX11	ZA2BG4 ZA2BZ101	P9XSCD0K95 P9B10VN	3XB02-2MHC1P 3SB1400-0B
E22KB62A	800EPM2Z1 800E3LX10	ZA2BG6 ZA2BZ101	P9XSCD0K95 P9B10VN	3SB02-2LHC1P 3SB1400-0B
E22KBG7RR	800EPM3R1 800E3 800E3LX11	ZA2BG0 ZA2BZ103 ZA2BZ104	P9XSCZ0T95 (2) P9B11VN	3SB02-3MHC6P 3SB1400-0G 3SB1440-0H
E22KBG7D	800EPM3R1 800E3LX10	ZA2BG0 ZA2BZ103	P9XSCU0K95	3SB02-3MHC2P 3SB1400-0G

E22 Series Cross-reference Tables

Pushbutton, Indicator Light, and Selector Switch Cross Reference (cont'd)				
<i>Cutler-Hammer</i>	<i>Allen-Bradley</i>	<i>Telemecanique XB2B (chrome bezel) XA2B (black bezel)</i>	<i>GE C-2000</i>	<i>Siemens</i>
Accessories				
E22B1	800E3X01	ZA2BZ102	P9B01VN	3SB1400-0C
E22B2	800E3X10	ZA2BZ101	P9B10VN	3SB1400-0B
E22NS33	800E13BE208	ZA2BZ32303	P9ACP2N202	P22MPS03
E22NS34	800E13BE212	ZA2BZ32304	P9ACP2N201	P22MPS04
E22NS19	800E13BE138	ZA2BZ32101 + custom text	P9ACP2N210	P22MPS28
E22NS11	800E13BE107	ZA2BZ32314	P9ACP2N205	P22MPS19
E22NS12	800E13BE110	ZA2BZ32308	P9ACP2N203	P22MPS17
E22NS50	800E13BE261	ZA2BZ32101+ custom text	P9ACP2N239	P22MPS81
E22NS15	800E13BE120	ZA2BZ32305	P9ACP2N214	P22MPS07
E22NS38	800E1BE253	ZA2BZ32101+ custom text	P9ACP2N231	P22MPS57
E22NS39	800E13BE127	ZA2BZ32101 + custom text	P9ACP2N243	P22MPS52
E22NS51	800E13BE128	ZA2BZ32387	P9ACP2N261	P22MPS80
E22NS41	800E13BE142	ZA2BZ32101 + custom text	P9ACP2N245	P22MPS65
E22NS81	800E13B	ZA2BZ32101 + custom text	P9ACP2NFEN	P22MPS38
E22NS82	800E13B	ZA2BZ32101 + custom text	P9ACP2NFEN	P22MPSBB + custom text
E22NS25	800E13BE166	ZA2BZ32311	P9ACP2R212	P22MPS01
E22NS26	800E13BE170	ZA2BZ32313	P9ACP2N206	P22MPS18
E22NS43	800E13BE171	ZA2BZ32101 + custom text	P9ACP2N234	P22MPS60
E22NS30	80013BE188	ZA2BZ32306	P9ACP2N215	P22MPS08
E22NS31	800E13BE193	ZA2BZ32334	P9ACP2N211	P22MPS06
E22NS35	800E13BE22	ZA2BZ32307	P9ACP2N204	P22MPS16
E22NS48	80013BE224	ZA2BZ32101 + custom text	P9ACP2N256	P22MPS61
E22NS13	800E13BE112	ZA2BZ32330	P9ACP2R229	P22MPS27
E22VA8	800E16Y	ZB2BY9303	080XTG802	3SX1348



Cutler-Hammer

NEMA Ruggedness at IEC Prices

You asked for them

We took advantage of the experience of Cutler-Hammer engineering to take existing product technology and make it better. From the corrosion-resistant anodized mounting rings to the optically-enhanced lenses on our indicators, the HT800 30mm line finishes out your control panel in style. Extended lamps and LEDs provide better side illumination in our indicators and illuminated pushbuttons. Watertight double V gaskets stand between the environment and your control system. Use them indoors or out. They're protected to NEMA 1, 2, 3, 3R, 4, 4X, 12, and 13.

30mm pushbuttons



**Available in
green, black,
and red**

**Flush and
Extended**



**Illuminated
(in seven colors)**



**Guarded illuminated
(in seven colors)**

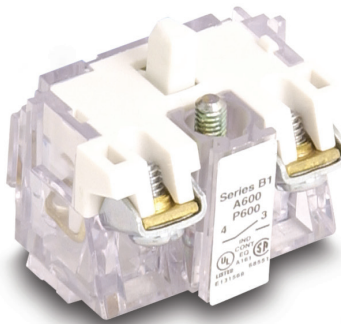


**Push-pull
illuminated**



Mushroom

Check out the features



**Color-coded
contact blocks**

Double V Gasket Seals

**Anodized aluminum
mounting ring**

**Grounding kits included
with each device**

**Stack contact blocks up to six deep
by two wide on pushbutton operators.
Contact capacity varies with operator.**

Ours:
 Allen-Bradley:

\$25.00 (HT8AAGA - operator + 1 N.O. contact block)
\$51.50 (800T-A1D1)

30mm selector switches



(in knob or lever versions)

30mm indicating lights



(in seven colors)

30mm push-to-test indicators



*** Cutler-Hammer products are available for sale to North America locations only.**

*All prices are U.S. published prices. AutomationDirect's prices are from April 2014 Price List. Prices and specifications may vary by dealer and configuration. Allen-Bradley industrial control component prices from www.rockwellautomation.com/en/e-tools 2/28/2014. Prices may vary by dealer. Prices subject to change without notice.

Ours:
 Allen-Bradley:

\$52.50 (HT8HFV7)
\$106.70 (800T-Q10G)



HT800 30mm Pushbuttons Specifications

The HT800 family of 30.5 mm push-button devices includes momentary, illuminated and mushroom-head push-buttons, selector switches, indicating lights and push-pull switches.

Features

- Anodized aluminum mounting rings
- Watertight double V-gasket seals
- Extended height bulbs
- Transparent housing contact blocks
- Color-coded contact blocks
- Gold-plated contacts (on low voltage contact block)
- Reliability ridge on movable contact
- Stackable screw-mounted contact blocks
- Contact blocks can be mounted in left/right or top/bottom positions
- Standard N.C. contact opens before N.O. contact closes (break before make operation)
- Bright and long lasting LED indicating lights in six colors
- Field convertible maintained selector switches from two-position to three-position and vice versa
- Field selectable knob/lever mounting positions – at any 22.5° increment

Benefits

- Corrosion resistant NEMA 4X finish
- Watertight and oil-tight NEMA 4, 13 ingress protection
- Increased side illumination of indicating lights and illuminated pushbuttons
- Easy visual inspection of contact conditions
- Easily identifiable N.O. (white) or N.C. (black) contact blocks
- Gold-plated contacts suitable for logic level circuits
- Reliability ridge penetrates contamination buildup on stationary contacts
- Left/right or top/bottom mounted contact blocks allow correct positioning in retrofit applications
- All-purpose selector switches are convertible and can rotate in 22.5° increments to suit panel layouts

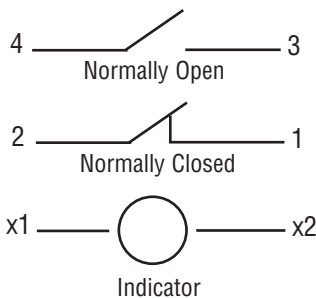
Standards and Certifications

- UL508, File No. E131568
- CSA C22.2 No. 14, File No. LR68551

Ingress Protection

- UL (NEMA) 1, 2, 3, 3R, 4, 4X, 12 and 13 when mounted in similarly rated enclosures

Typical Wiring





HT800 30mm Pushbuttons Specifications

HT800 — Specifications	
Mechanical Ratings	
Frequency of Operation	
Pushbuttons	6,000 Operations per hour
Selector Switches	3,000 Operations per hour
Push-Pull Operators	3,000 Operations per hour
Mechanical Endurance/Life	
Pushbuttons	10 x 10 ⁶ Operations 6K Ops/Hr with 6 NO on left and 6 NC on right
Selector Switches	250 x 10 ³ Operations 3K Ops/Hr with 2 NO on left and 2 NC on right
Push-Pull Operators	250 x 10 ³ Operations 3K Ops/Hr with 6 NO on left and 6 NC on right
Environmental Specifications	
Operating Temperature	10° to 140°F (-12° to 60°C)
Storage Temperature	-40° to 176°F (-40° to 80°C)
Altitude	6,562 ft. (2,000m)
Humidity	95% RH @ 60°C
Terminals	
Contact Blocks	#6-32 posi-drive saddle clamp type, 1 x 16 AWG to 2 x 14 AWG, 12 in-lbs max.
Light Units	#6-32 posi-drive saddle clamp type, 1 x 22 AWG to 2 x 14 AWG, 7 in-lbs max.

HT800 Standard Contact Blocks UL (NEMA) Rating				
Electrical Ratings Description/Function	Contact Type	Catalog Number	AC	DC
Standard N ormally O pen contact	NO	HT8A	A600	P600
Standard N ormally C losed contact	NC	HT8B	A600	P600
N ormally O pen E arly M ake Contact will make circuit before standard NO contact. DC ratings do not apply.	NOEM	HT8C	A600	—
N ormally C losed L ate B reak contact will open after standard NC contact. DC ratings do not apply.	NCLB	HT8D	A600	—
Logic level, low voltage NO contact. Gold plated contacts.	NO	HT8E	5V 1mA (minimum) 28V 500mA (maximum)	

UL (NEMA) A600 and P600 Ratings							
Description	Volts AC 50/60 Hz				Volts DC ¹		
	120	240	480	600	125	250	600
Make and Emerg. Interrupting Capacity (Amp)	60	30	15	12	1.1	0.55	0.2
Normal Load Break (Amp)	6	3	1.5	1.2	1.1	0.55	0.2
Thermal Current (Amp)	10	10	10	10	5	5	5
Voltamperes							
Make and Emerg. Interrupting Capacity	7200	7200	7200	7200	138 ²	138 ²	138 ²
Normal Load Break	720	720	720	720	138	138	138

Note: 1: DC ratings do not apply to NOEM (Normally Open Early Make) and NCLB (Normally Closed Late Break) contact blocks HT8C and HT8D.

2: Maximum make or break volt-amperes at 300V or less

EAT•N HT800 30mm Momentary Pushbuttons

Cutler-Hammer



HT8AAG



HT8ABR



HT8AEH

Contact Type	Button Color	Flush Head Momentary		Extended Head Momentary		Mushroom Head Momentary	
		Catalog Number	Price	Catalog Number	Price	Catalog Number	Price
Operator Only, No Contacts	Black	HT8AAH	\$16.00	HT8ABH	\$16.00	HT8AEH	\$34.00
	Red	HT8AAR	\$16.00	HT8ABR	\$16.00	HT8AER	\$34.00
	Green	HT8AAG	\$16.00	HT8ABG	\$16.00	HT8AEG	\$34.00
1 N.O.	Black	*HT8AAHA	\$25.50	*HT8ABHA	\$25.50	*HT8AEHA	\$44.00
	Red	*HT8AARA	\$25.50	*HT8ABRA	\$25.50	*HT8AERA	\$44.00
	Green	*HT8AAGA	\$25.00	*HT8ABGA	\$25.50	*HT8AEGA	\$44.00
1 N.C.	Black	*HT8AAHB	\$25.50	*HT8ABHB	\$25.50	*HT8AEHB	\$44.00
	Red	*HT8AARB	\$25.50	*HT8ABRB	\$25.50	*HT8AERB	\$44.00
	Green	*HT8AAGB	\$25.50	*HT8ABGB	\$25.50	*HT8AEGB	\$44.00
1 N.O. and 1 N.C.	Black	*HT8AAHAB	\$33.50	*HT8ABHAB	\$33.50	*HT8AEHAB	\$53.00
	Red	*HT8AARAB	\$33.50	*HT8ABRAB	\$33.50	*HT8AERAB	\$53.00
	Green	*HT8AAGAB	\$33.50	*HT8ABGAB	\$33.50	*HT8AEGAB	\$53.00
2 N.O. and 2 N.C.	Black	*HT8AAHF1Q1	\$53.00	*HT8ABHF1Q1	\$53.00	*HT8AEHF1Q1	\$70.50
	Red	*HT8AARF1Q1	\$53.00	*HT8ABRF1Q1	\$53.00	*HT8AERF1Q1	\$70.50
	Green	*HT8AAGF1Q1	\$53.00	*HT8ABGF1Q1	\$53.00	*HT8AEGF1Q1	\$70.50

Notes: A grounding kit is included with each operator or switch assembly.

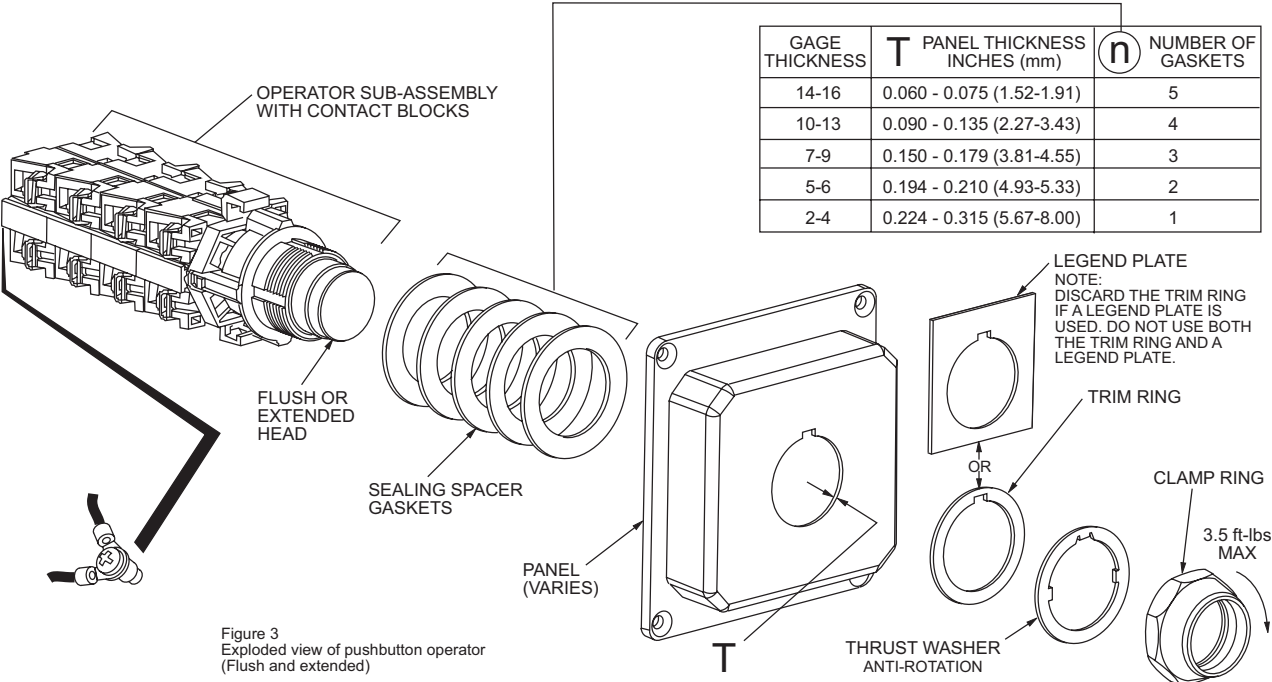
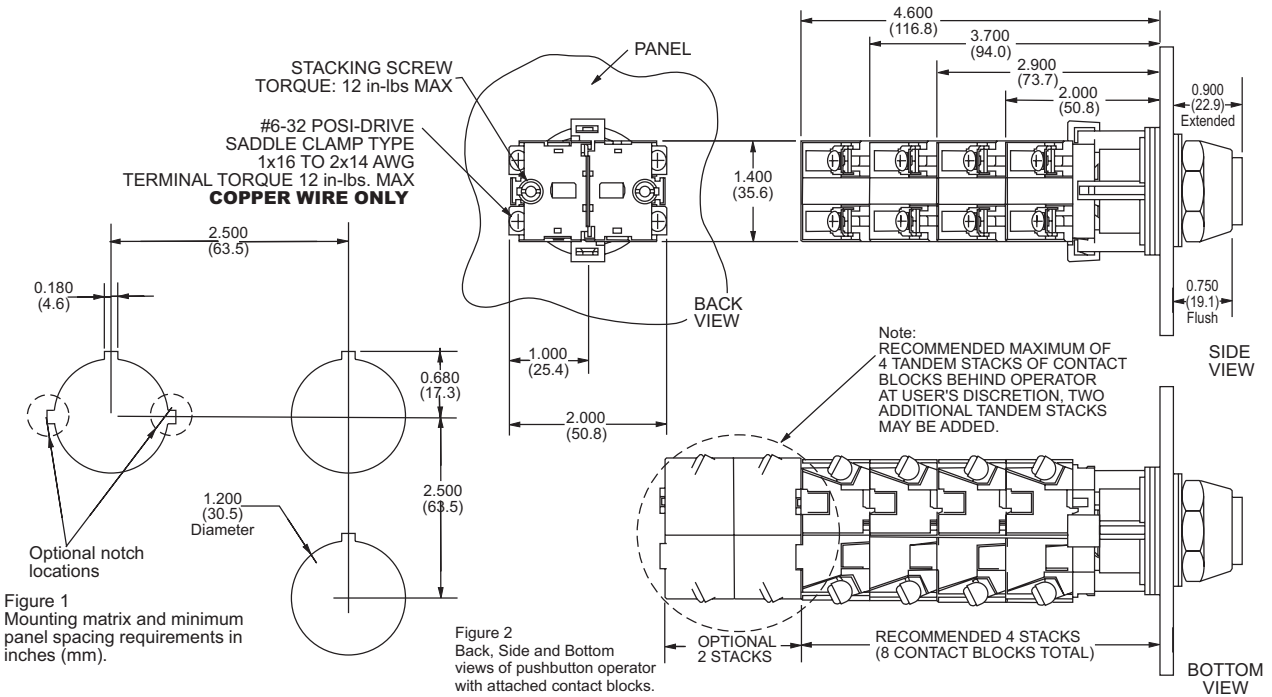
Part numbers with an * are kitted from individual components at AUTOMATIONDIRECT. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer.

EAT•N

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HT800 30mm Momentary Pushbuttons

30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)



EAT•N HT800 30mm Two-position Push-pull Button

Cutler-Hammer



HT8CBR

Contact Configuration	Operator Position		Two-position Maintained Push-Pull		
	Out	In	Color	Catalog Number	Price
Operator Only	-----		Red	HT8CBR	\$52.50
1 N.C.	X	0	Red	*HT8CBRB	\$62.00
1 N.O. and 1 N.C.	"0" X"	"X" 0"	Red	*HT8CBRAB	\$70.50

Notes: A grounding kit is included with each operator or switch assembly.

Part numbers with an * are kitted from individual components at AUTOMATIONDIRECT. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer.

30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)

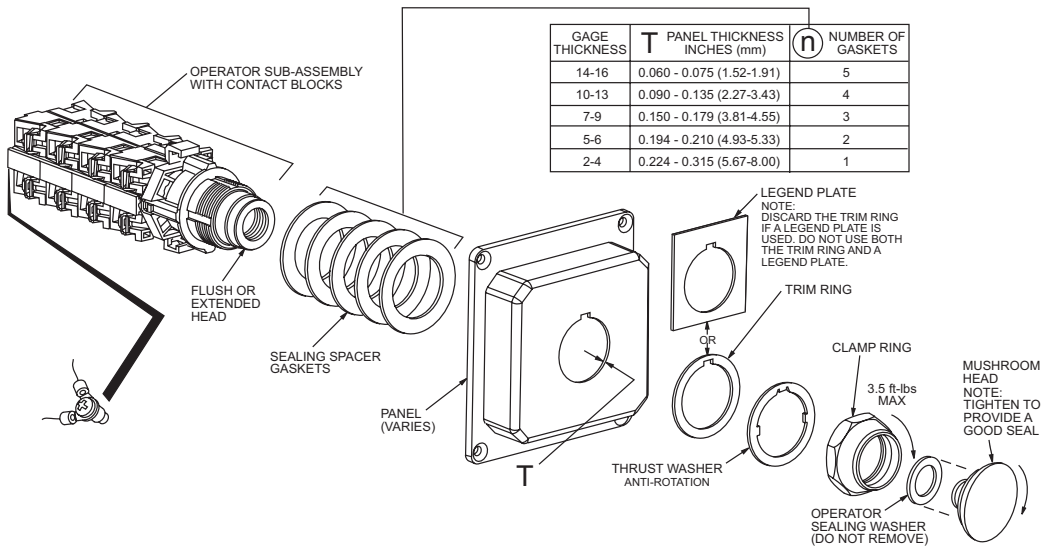
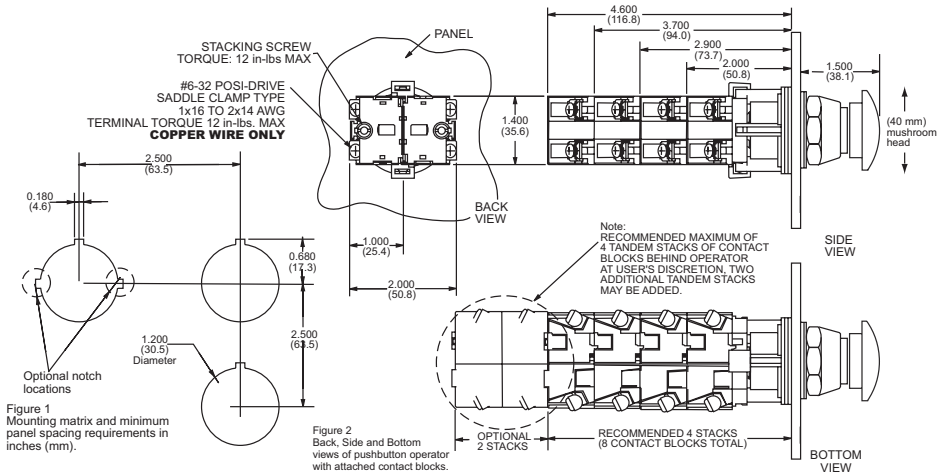


Figure 3
Exploded view of mushroom head operator



HT800 30mm Push-Pull Illuminated Pushbutton

Contact Configuration	24 Volt Incandescent full Voltage Lamp 50mA @ 24 Volts	Price	120 Volt Incandescent Full Voltage Lamp 19mA @ 120 Volts	Price	24 Volt LED full Voltage Lamp	Price	120 Volt LED full Voltage Lamp	Price
Red Lens								
Operator only	HT8FBRV3	\$91.50	HT8FBRV7	\$91.50	HT8FBRF3	\$101.00	HT8FBRF7	\$101.00
1 N.O.	*HT8FBRAV3	\$89.00	*HT8FBRAV7	\$89.00	*HT8FBRAF3	\$97.00	*HT8FBRAF7	\$97.00
1 N.C.	*HT8FBRBV3	\$89.00	*HT8FBRBV7	\$89.00	*HT8FBRBF3	\$97.00	*HT8FBRBF7	\$97.00
Green Lens								
Operator only	HT8FBGV3	\$91.50	HT8FBGV7	\$91.50	HT8FBGF3	\$101.00	HT8FBGF7	\$101.00
1 N.O.	*HT8FBGAV3	\$89.00	*HT8FBGAV7	\$89.00	*HT8FBGAF3	\$97.00	*HT8FBGAF7	\$97.00
1 N.C.	*HT8FBGBV3	\$89.00	*HT8FBGBV7	\$89.00	*HT8FBGBF3	\$97.00	*HT8FBGBF7	\$97.00

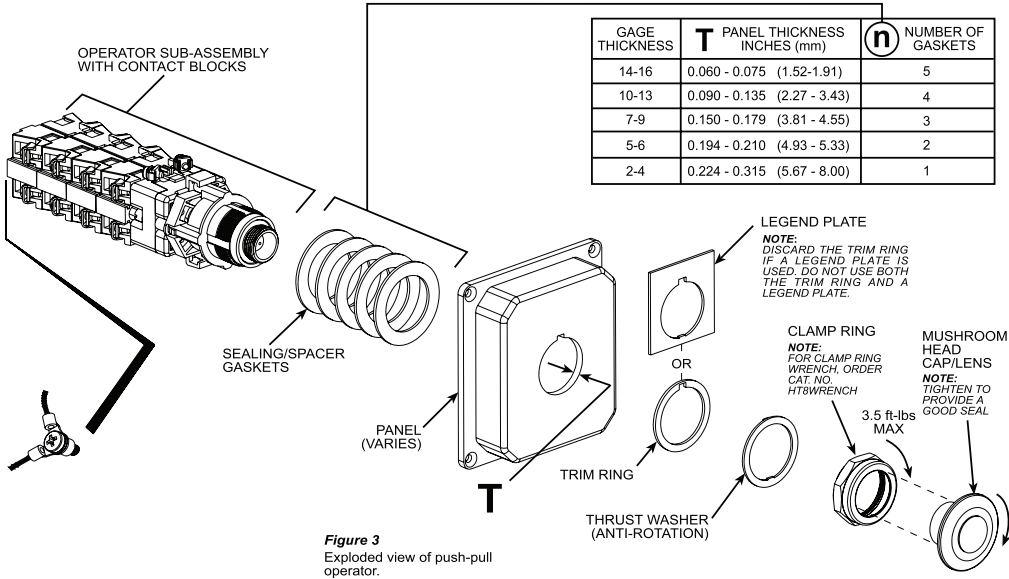
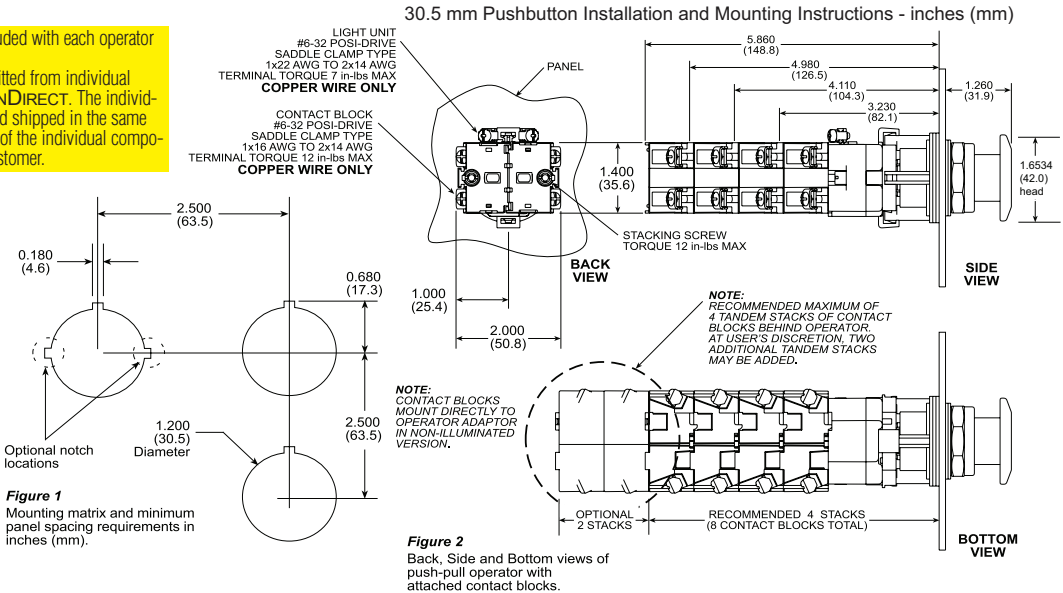


HT8FBRV3



HT8FBGF3

Notes: A grounding kit is included with each operator or switch assembly.
*Part numbers with an * are kitted from individual components at AUTOMATIONDIRECT. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer.





Cutler-Hammer

HT800 30mm Two-position Selector Switches



HT8JAH3A knob version



HT8JDH3A lever version

Contact Type	Operator Type M=Maintained S=Spring Return	Standard Black Knob Operator		Standard Black Lever Operator	
		Catalog Number	Price	Catalog Number	Price
No Contacts	M M	HT8JAH3A	\$22.00	HT8JDH3A	\$22.00
	M<S	HT8JNH3A	\$34.50	HT8JPH3A	\$34.50
1 N.O.	M M	*HT8JAH3AA5	\$30.50	*HT8JDH3AA5	\$30.50
	M<S	*HT8JNH3AA5	\$44.00	*HT8JPH3AA5	\$44.00

Switch Part Numbers	Contact Blocks		Cam Code 3A	
HT8JAH3A, HT8JNH3A, HT8JAH3AA5, HT8JNH3AA5, HT8JDH3A, HT8JPH3A, HT8JDH3AA5, HT8JPH3AA5 (Contact block configuration varies with part number)	Left	Right	Switch Position	
Two-position Selector Switch	N.O.	-----	X	0
	N.C.	-----	0	X
	-----	N.O.	0	X
	-----	N.C.	X	0
Note: AUTOMATIONDIRECT only offers cam code 3A for two position selector switches.			X = On	0 = Off

Notes: A grounding kit is included with each operator or switch assembly. Part numbers with an * are kitted from individual components at AUTOMATIONDIRECT. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer.



Cutler-Hammer

HT800 30mm Three-position Selector Switches



HT8JBH1D knob version



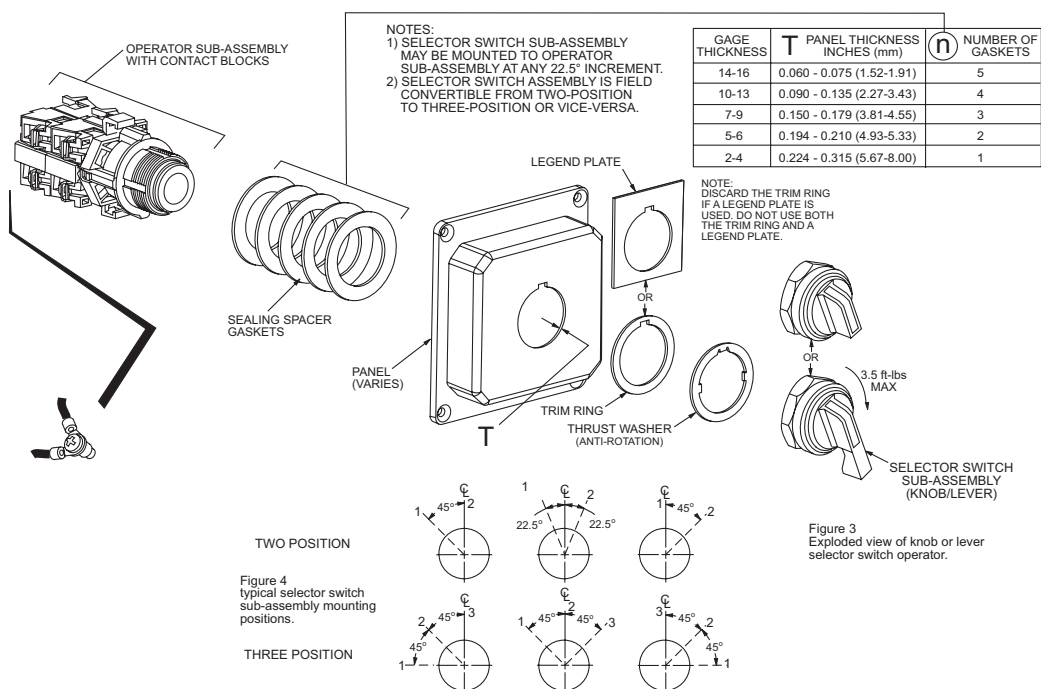
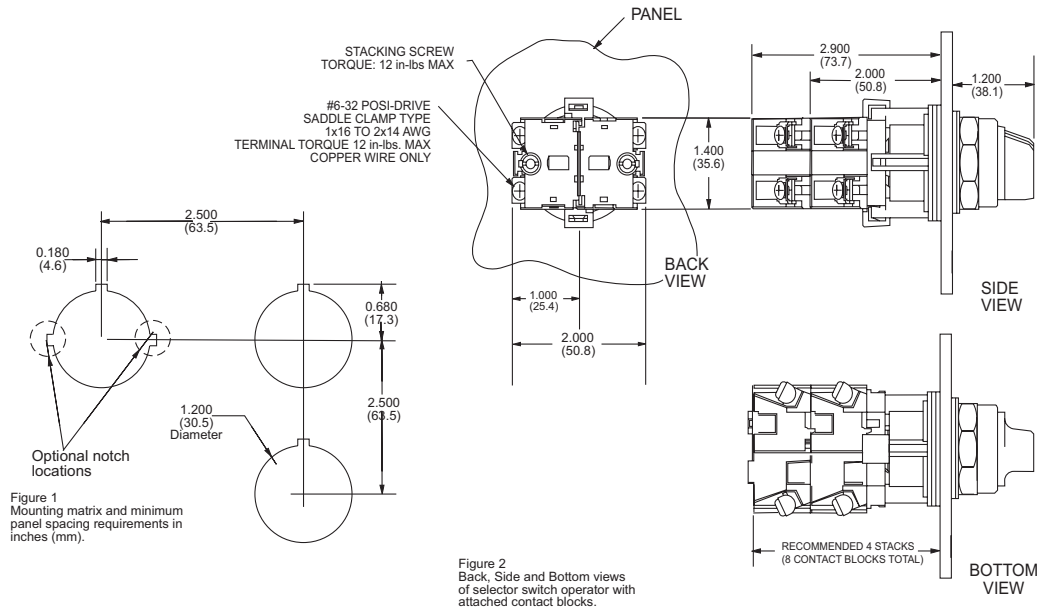
HT8JEH1D lever version

Contact Type	Operator Type M=Maintained S=Spring Return	Standard Black Knob Operator		Standard Black Lever Operator	
		Catalog Number	Price	Catalog Number	Price
No Contacts	M M M	HT8JBH1D	\$22.00	HT8JEH1D	\$22.00
	M M < S	HT8JUH1D	\$34.50	HT8JVH1D	\$34.50
	S > M < S	HT8JXH1D	\$34.50	HT8JYH1D	\$34.50
2 N.O.	M M M	*HT8JBH1DAA5	\$40.00	*HT8JEH1DAA5	\$40.00
	M M < S	*HT8JUH1DAA5	\$53.00	*HT8JVH1DAA5	\$53.00
	S > M < S	*HT8JXH1DAA5	\$53.00	*HT8JYH1DAA5	\$53.00

Switch Part Numbers	Contact Blocks		Cam Code 1D		
HT8JBH1D, HT8JUH1D, HT8JXH1D, HT8JBH1DAAD, HT8JUH1DAA5, HT8JXH1DAA5, HT8JEH1D, HT8JVH1D, HT8JYH1D, HT8JEH1DAA5, HT8JVH1DAA5, HT8JYH1DAA5 (contact block configuration varies with part number)	Left	Right	Switch Position		
Three-position Selector Switch	NO	-----	X	0	0
	NC	-----	0	X	X
	-----	NO	0	0	X
	-----	NC	X	X	0
	*NO-----	-----NO	X	0	X
	**NC-----	-----NC	0	X	0
* Indicates contact blocks wired in parallel ** Indicates contact blocks wired in series			X = On	0 = Off	
Note: AUTOMATIONDIRECT only offers cam code 1D for three-position selector switches.					
Note: For additional contact blocks, see HT800 accessories in this section.					

HT800 30mm Three-position Selector Switches

30.5 mm Selector Switch Installation and Mounting Instructions - inches (mm)





Cutler-Hammer

HT800 30mm Extended Illuminated Pushbuttons



HT8GBRV7

Red

HT8GBGV7

Green

HT8GBAV7

Amber

HT8GBCV7

Clear

HT8GBWV7

White

HT8GBYV7

Yellow

HT8GBBV7

Blue

Contact Configuration	24 Volt Incandescent full Voltage Lamp 50mA @ 24 Volts	Price	120 Volt Incandescent Full Voltage Lamp 19mA @ 120 Volts	Price
Red Lens				
Operator only	HT8GBRV3	\$52.50	HT8GBRV7	\$52.50
1 N.O.	*HT8GBRAV3	\$62.00	*HT8GBRAV7	\$62.00
1 N.C.	*HT8GBRBV3	\$62.00	*HT8GBRBV7	\$62.00
Green Lens				
Operator only	HT8GBGV3	\$52.50	HT8GBGV7	\$52.50
1 N.O.	*HT8GBGAV3	\$62.00	*HT8GBGAV7	\$62.00
1 N.C.	*HT8GBGBV3	\$62.00	*HT8GBGBV7	\$62.00
Amber Lens				
Operator only	HT8GBAV3	\$52.50	HT8GBAV7	\$52.50
1 N.O.	*HT8GBAAV3	\$62.00	*HT8GBAAV7	\$62.00
1 N.C.	*HT8GBABV3	\$62.00	*HT8GBABV7	\$62.00
Clear Lens				
Operator only	HT8GBCV3	\$52.50	HT8GBCV7	\$52.50
1 N.O.	*HT8GBCAV3	\$62.00	*HT8GBCAV7	\$62.00
1 N.C.	*HT8GBCBV3	\$62.00	*HT8GBCBV7	\$62.00
White Lens				
Operator only	HT8GBWV3	\$52.50	HT8GBWV7	\$52.50
1 N.O.	*HT8GBWAV3	\$62.00	*HT8GBWAV7	\$62.00
1 N.C.	*HT8GBWBV3	\$62.00	*HT8GBWBV7	\$62.00
Yellow Lens				
Operator only	HT8GBYV3	\$52.50	HT8GBYV7	\$52.50
1 N.O.	*HT8GBYAV3	\$62.00	*HT8GBYAV7	\$62.00
1 N.C.	*HT8GBYBV3	\$62.00	*HT8GBYBV7	\$62.00
Blue Lens				
Operator only	HT8GBBV3	\$52.50	HT8GBBV7	\$52.50
1 N.O.	*HT8GBBAV3	\$62.00	*HT8GBBAV7	\$62.00
1 N.C.	*HT8GBBBV3	\$62.00	*HT8GBBBV7	\$62.00
Spare Incandescent Lamps For HT8 Series				
Spare lamp	HT8BULBV3	\$7.50	HT8BULBV7	\$7.50

See HT800 accessories in this section.

Notes: A grounding kit is included with each operator or switch assembly.

Part numbers with an * are kitted from individual components at AUTOMATIONDIRECT. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer. Lens not sold separately.



HT800 30mm Extended Illuminated Pushbuttons

30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)

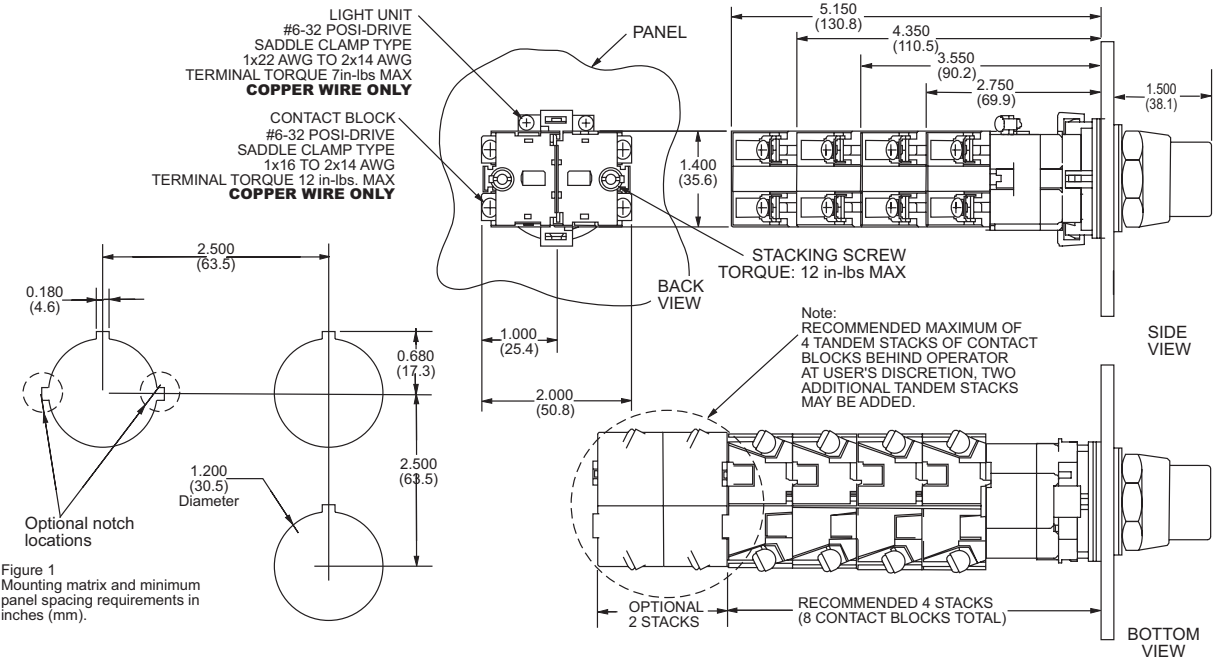


Figure 2
Back, Side and Bottom
views of pushbutton operator
with attached contact blocks.

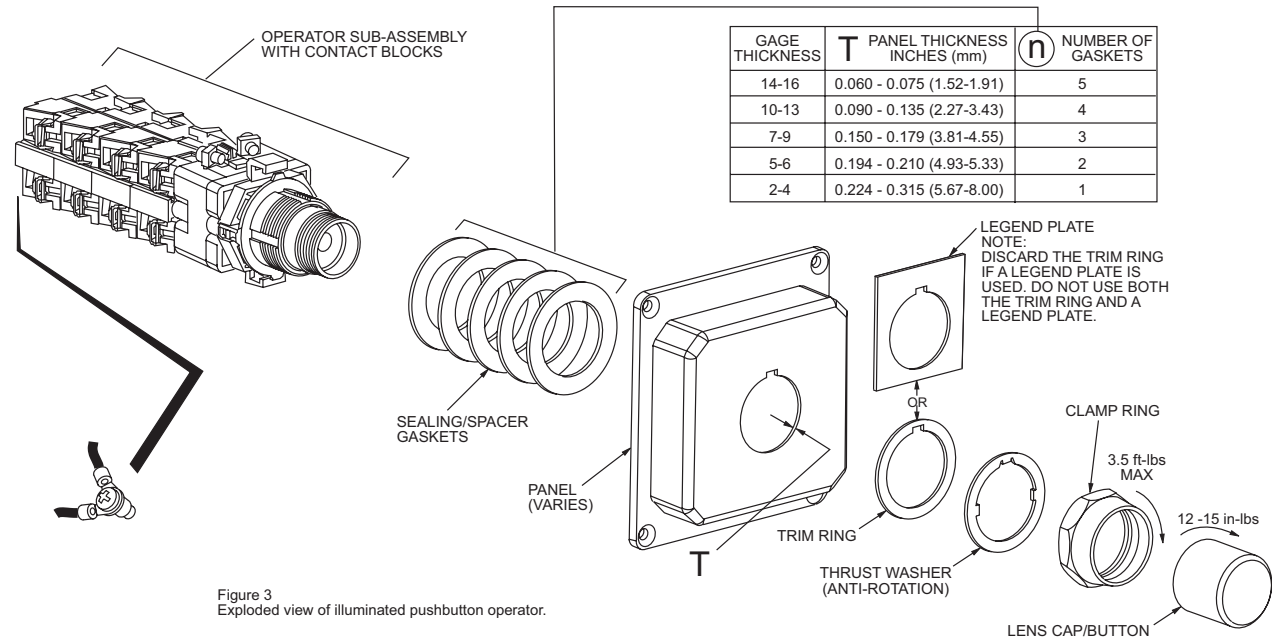


Figure 3
Exploded view of illuminated pushbutton operator.



HT800 30mm Push-to-Test Indicators



Red

HT8GVRV7



Green

HT8GVGV7



Amber

HT8GVAV7



Clear

HT8GVCV7



White

HT8GVVW7



Yellow

HT8GVYV7



Blue

HT8GVBV7

Push-To-Test Indicator	24 Volt AC/DC Incandescent Full Voltage Lamp 50mA @ 24 Volts	Price	120 Volt AC/DC Incandescent Full Voltage Lamp 19mA @ 120 Volts	Price
Red Lens				
PTT indicator assembly	HT8GVRV3	\$70.50	HT8GVRV7	\$70.50
Green Lens				
PTT indicator assembly	HT8GVGV3	\$70.50	HT8GVGV7	\$70.50
Amber Lens				
PTT indicator assembly	HT8GVAV3	\$70.50	HT8GVAV7	\$70.50
Clear Lens				
PTT indicator assembly	HT8GVCV3	\$70.50	HT8GVCV7	\$70.50
White Lens				
PTT indicator assembly	HT8GVVW3	\$70.50	HT8GVVW7	\$70.50
Yellow Lens				
PTT indicator assembly	HT8GVYV3	\$70.50	HT8GVYV7	\$70.50
Blue Lens				
PTT indicator assembly	HT8GVBV3	\$70.50	HT8GVBV7	\$70.50
Spare Incandescent Lamps For HT8 Series				
Spare lamp	HT8BULBV3	\$7.50	HT8BULBV7	\$7.50

See HT800 accessories in this section.

Notes: A grounding kit is included with each operator or switch assembly.

Part numbers with an * are kitted from individual components at AUTOMATIONDIRECT. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer. Lens not sold separately.



HT800 30mm Push-to-Test Indicators

30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)

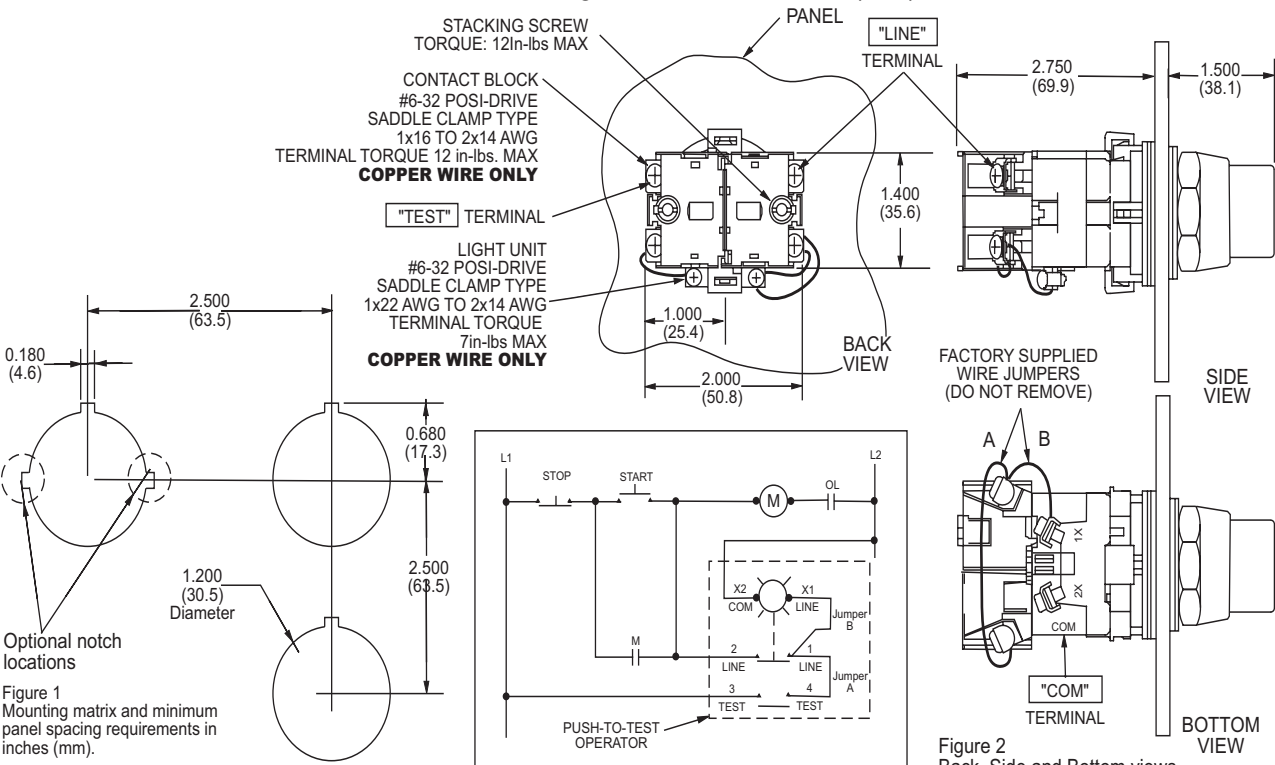


Figure 3 Typical Connection Diagram

Figure 2 Back, Side and Bottom views of Push-To-Test operator

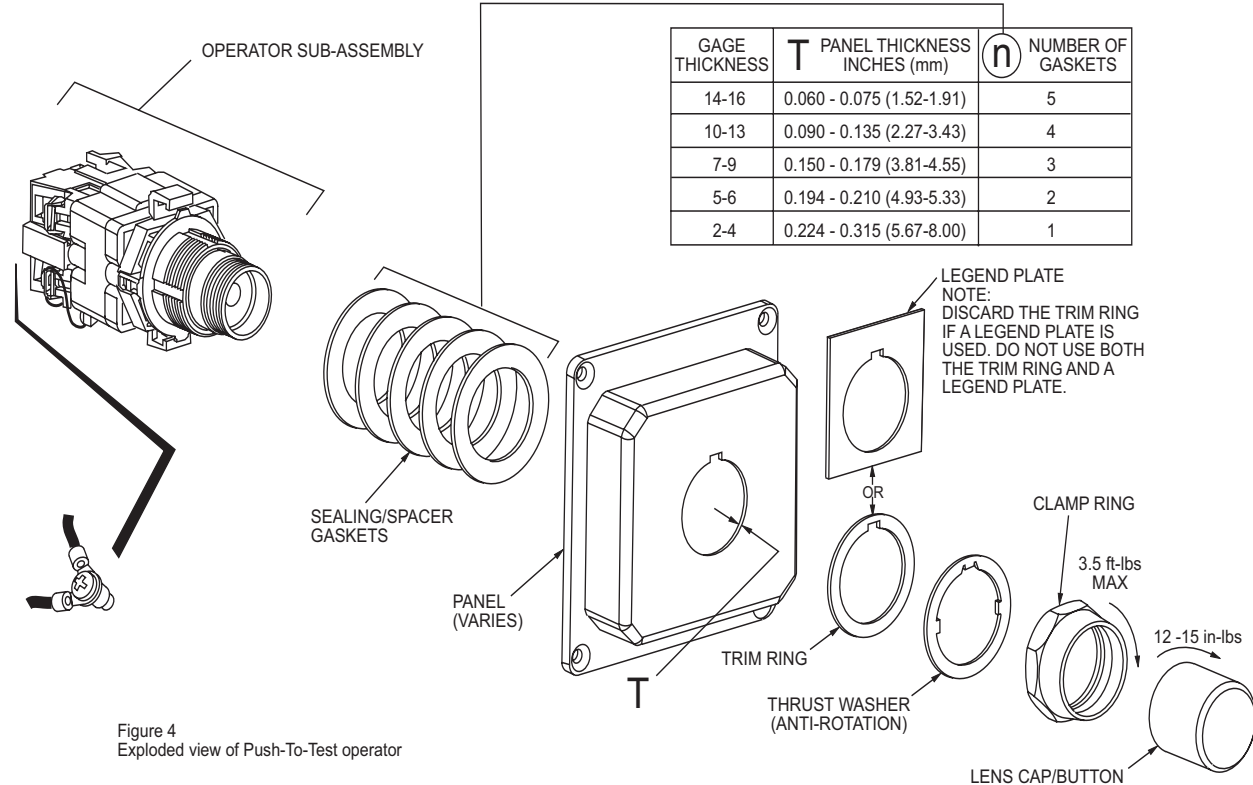


Figure 4 Exploded view of Push-To-Test operator



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HT800 30mm Incandescent Indicators



HT8HFRV7 *Red*



HT8HFGV7 *Green*



HT8HFAV7 *Amber*



HT8HFCV7 *Clear*



HT8HFWV7 *White*



HT8HFYV7 *Yellow*



HT8HFBV7 *Blue*

Incandescent Indicator	24 Volt Incandescent Full Voltage Lamp 50mA @ 24 Volts	Price	120 Volt Incandescent Full Voltage Lamp 19mA @ 120 Volts	Price
Red Lens				
Indicator assembly	HT8HFRV3	\$52.50	HT8HFRV7	\$52.50
Green Lens				
Indicator assembly	HT8HFGV3	\$52.50	HT8HFGV7	\$52.50
Amber Lens				
Indicator assembly	HT8HFAV3	\$52.50	HT8HFAV7	\$52.50
Clear Lens				
Indicator assembly	HT8HFCV3	\$52.50	HT8HFCV7	\$52.50
White Lens				
Indicator assembly	HT8HFWV3	\$52.50	HT8HFWV7	\$52.50
Yellow Lens				
Indicator assembly	HT8HFYV3	\$52.50	HT8HFYV7	\$52.50
Blue Lens				
Indicator assembly	HT8HFBV3	\$52.50	HT8HFBV7	\$52.50
Spare Incandescent Lamps For HT8 Series				
Spare lamp	HT8BULBV3	\$7.50	HT8BULBV7	\$7.50

See HT800 accessories in this section.

Notes: A grounding kit is included with each operator or switch assembly.

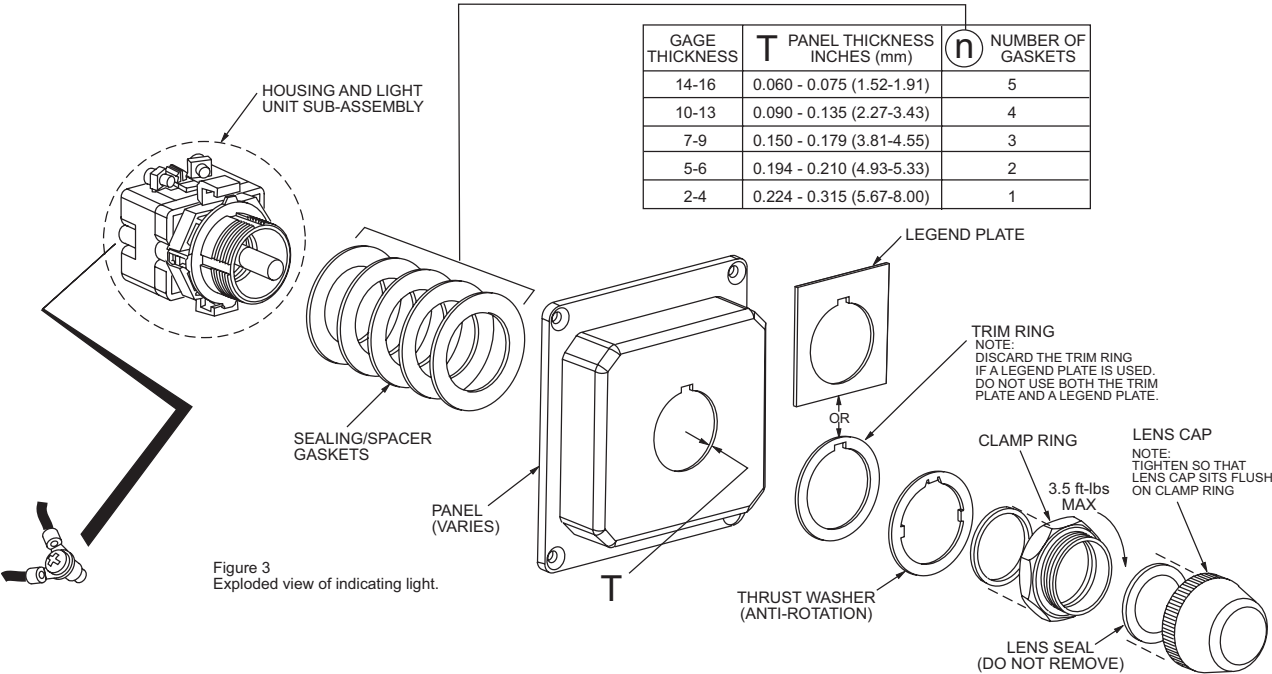
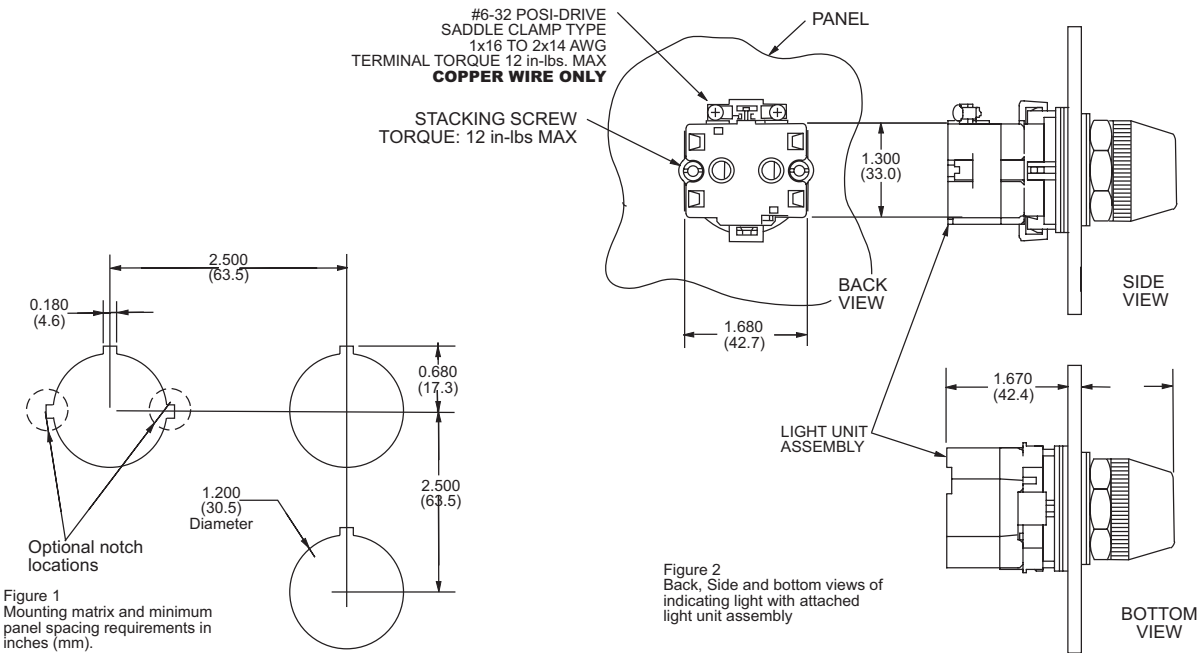
Part numbers with an * are kitted from individual components at AUTOMATIONDIRECT. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer. Lens not sold separately.

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HT800 30mm Incandescent Indicators

30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)





HT800 30mm Guarded Flush Pushbuttons



HT8GDRV3



HT8GDGV3



HT8GDAV3



HT8GDCV3



HT8GDWV3



HT8GDYV3



HT8GDBV3

Contact Configuration	24 Volt AC/DC Incandescent Full Voltage Lamp 50mA @ 24 Volts	Price	120 Volt AC/DC Incandescent Full Voltage Lamp 19mA @ 120 Volts	Price	24 Volt LED Full Voltage Lamp	Price	120 Volt LED Full Voltage Lamp	Price
Red Lens								
Operator only	HT8GDRV3	\$58.50	HT8GDRV7	\$58.50	HT8GDRF3	\$68.00	HT8GDRF7	\$68.00
1 N.O.	*HT8GDRAV3	\$62.00	*HT8GDRAV7	\$62.00	*HT8GDRAF3	\$72.00	HT8GDRAF7	\$72.00
1 N.C.	*HT8GDRBV3	\$62.00	*HT8GDRBV7	\$62.00	*HT8GDRBF3	\$72.00	HT8GDRBF7	\$72.00
Green Lens								
Operator only	HT8GDGV3	\$58.50	HT8GDGV7	\$58.50	HT8GDGF3	\$68.00	HT8GDGF7	\$68.00
1 N.O.	*HT8GDGAV3	\$62.00	*HT8GDGAV7	\$62.00	*HT8GDGAF3	\$72.00	HT8GDGAF7	\$72.00
1 N.C.	*HT8GDGBV3	\$62.00	*HT8GDGBV7	\$62.00	*HT8GDGBF3	\$72.00	HT8GDGBF7	\$72.00
Amber Lens								
Operator only	HT8GDAV3	\$58.50	HT8GDAV7	\$58.50	HT8GDAF3	\$68.00	HT8GDAF7	\$68.00
1 N.O.	*HT8GDAAV3	\$62.00	*HT8GDAAV7	\$62.00	*HT8GDAAF3	\$72.00	*HT8GDAAF7	\$72.00
1 N.C.	*HT8GDABV3	\$62.00	*HT8GDABV7	\$62.00	*HT8GDABF3	\$72.00	*HT8GDABF7	\$72.00
Clear Lens								
Operator only	HT8GDCV3	\$58.50	HT8GDCV7	\$58.50	HT8GDCF3	\$68.00	HT8GDCF7	\$68.00
1 N.O.	*HT8GDCAV3	\$62.00	*HT8GDCAV7	\$62.00	*HT8GDCAF3	\$72.00	*HT8GDCAF7	\$72.00
1 N.C.	*HT8GDCBV3	\$62.00	*HT8GDCBV7	\$62.00	*HT8GDCBF3	\$72.00	*HT8GDCBF7	\$72.00
White Lens								
Operator only	HT8GDWV3	\$58.50	HT8GDWV7	\$58.50	HT8GDWF3	\$68.00	HT8GDWF7	\$68.00
1 N.O.	*HT8GDWAV3	\$62.00	*HT8GDWAV7	\$62.00	*HT8GDWAF3	\$72.00	*HT8GDWAF7	\$72.00
1 N.C.	*HT8GDWBV3	\$62.00	*HT8GDWBV7	\$62.00	*HT8GDWBF3	\$72.00	*HT8GDWBF7	\$72.00
Yellow Lens								
Operator only	HT8GDYV3	\$58.50	HT8GDYV7	\$58.50	HT8GDYF3	\$68.00	HT8GDYF7	\$68.00
1 N.O.	*HT8GDYAV3	\$62.00	*HT8GDYAV7	\$62.00	*HT8GDYAF3	\$72.00	*HT8GDYAF7	\$72.00
1 N.C.	*HT8GDYBV3	\$62.00	*HT8GDYBV7	\$62.00	*HT8GDYBF3	\$72.00	*HT8GDYBF7	\$72.00
Blue Lens								
Operator only	HT8GDBV3	\$58.50	HT8GDBV7	\$58.50	HT8GDBF3	\$68.00	HT8GDBF7	\$68.00
1 N.O.	*HT8GDBAV3	\$62.00	*HT8GDBAV7	\$62.00	*HT8GDBAF3	\$72.00	*HT8GDBAF7	\$72.00
1 N.C.	*HT8GDBBV3	\$62.00	*HT8GDBBV7	\$62.00	*HT8GDBBF3	\$72.00	*HT8GDBBF7	\$72.00
Spare Incandescent and LED Lamps For HT8 Series - starting prices								
	HT8BULBV3	\$7.50	HT8BULBV7	\$7.50	HT8LED**F3	\$21.50	HT8LED**F7	\$21.50
30mm Guard for Illuminated Pushbuttons								
HT8A15								\$9.50

See HT800 accessories in this section.

Notes: A grounding kit is included with each operator or switch assembly.

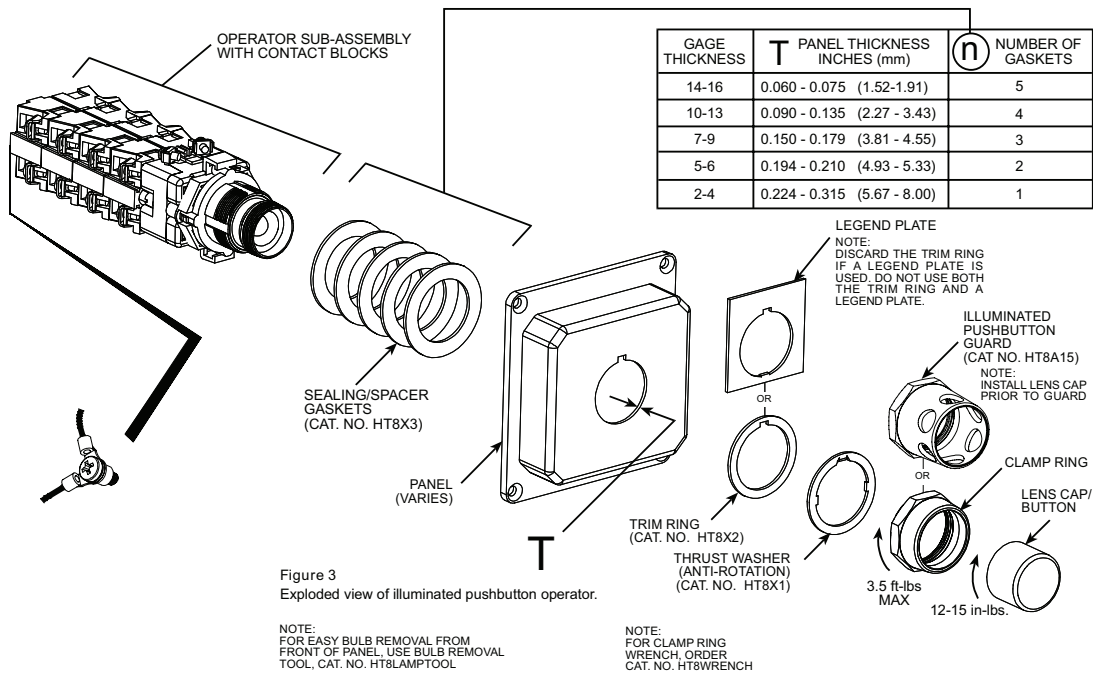
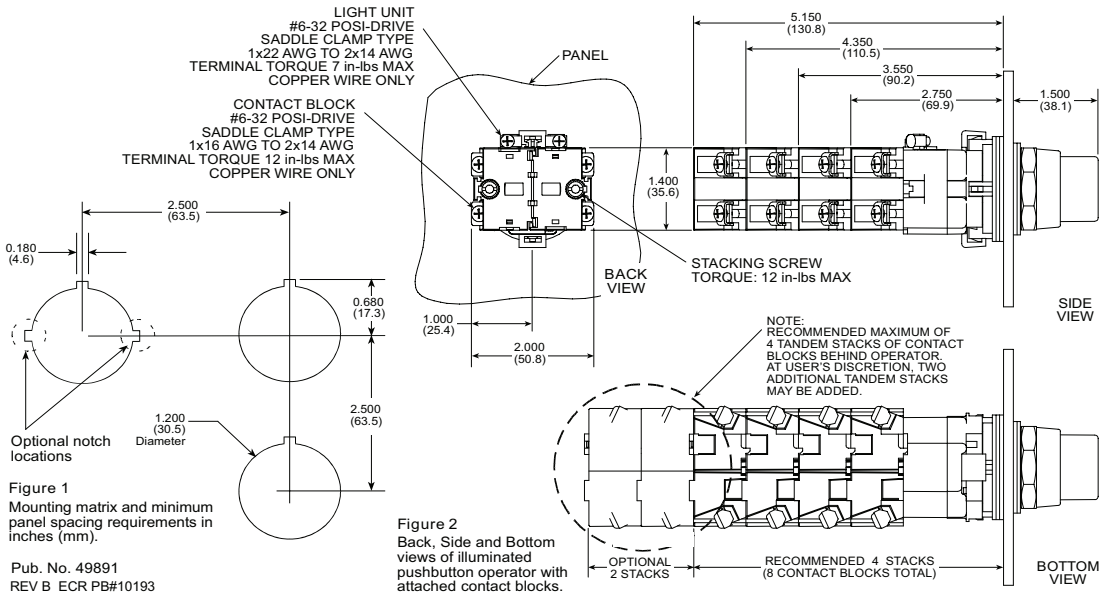
* Part numbers with an * are kitted from individual components at AutomationDirect. The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer. Lens not sold separately.

**Insert letter of color bulb needed; for example, HT8LEDYF3 is the part number for a yellow 24 volt LED replacement bulb. See the accessories page at the end of this section for the complete listing of LED replacement bulbs.

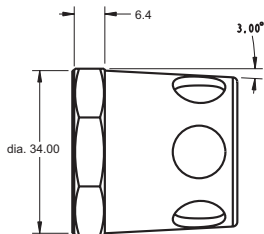
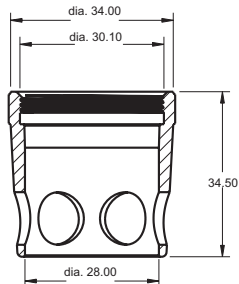


HT800 30mm Guarded Flush Pushbuttons

30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)



Guard dimensions



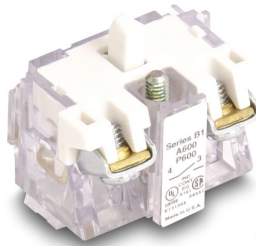
Dimensions in millimeters



Cutler-Hammer

HT800 30mm Contact Blocks & Accessories

Contact blocks



HT8A



HT8B

HT8 Series Contact Blocks		
Part Number	Description	Price
HT8A	Normally open contact block for HT8 series switches. NEMA Rated A600, P600 ¹	\$9.50
HT8B	Normally closed contact block for HT8 series switches. NEMA Rated A600, P600 ¹	\$9.50
HT8C	Early closing normally open contact block for HT8 series switches. NEMA Rated A600 ¹	\$23.00
HT8D	Late opening normally closed contact block for HT8 series switches. NEMA Rated A600 ¹	\$9.50
HT8E	Logic level normally open contact block for HT8 series switches. Gold plated contacts for reliable low energy switching. Power Rating: Min 1mA @ 5V; Max 500mA 28V.	\$18.50

Notes:

1. See HT800 specifications in this section for typical contact wiring diagram.
2. NEMA ICS 5-2000. For more information, refer to HT800 technical specifications and control circuit contact electrical ratings at the beginning of this section.

Spare parts and tools



HT8WRENCH



HT8LAMPTOOL



109305



HT8BULBV3



HT8LEDYF3

HT8 Series Spare Parts and Tools		
Part Number	Description	Price
HT8WRENCH	Installation wrench for Cutler-Hammer HT8 series and E22 series pushbuttons, switches, and indicators	\$10.50
HT8LAMPTOOL	Bulb extraction tool for removing bulbs from switches, indicators and stacklights	\$5.50
109305	Knockout punch hole cutting tool for 30.5 mm mounting hole. Includes punch, die and draw stud	\$31.00
HT8X1	Spare anti-rotation ring for HT8 series. Included with each HT8 device. (not shown)	\$2.00
HT8X2	Spare trim ring for HT8 series. Included with each HT8 device. (not shown)	\$2.00
HT8X3	Spare sealing/spacing ring for HT8 series. Included with each HT8 device. (not shown)	\$2.00
HT8GR1	Spare grounding kit for HT8 series devices except non-PTT indicators. Included with each HT8 device. (not shown)	\$2.00
HT8GR2	Spare grounding kit for HT8 series non-PTT indicators. Included with each HT8 device. (not shown)	\$2.00
HT8BULBV3	24 volt incandescent bulb for HT8 illuminated devices. This is an extended bulb for enhanced illumination with HT8 devices. 50mA at 24 volts.	\$7.50
HT8BULBV7	120 volt incandescent bulb for HT8 illuminated devices. This is an extended bulb for enhanced illumination with HT8 devices. 19mA at 120 volts.	\$7.50
HT8LEDRF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Red	\$21.50
HT8LEDYF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Yellow	\$21.50
HT8LEDGF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Green	\$23.00
HT8LEDBF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Blue	\$24.50
HT8LEDWF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: White	\$27.00
HT8LEDAF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Amber	\$22.00
HT8LEDRF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Red	\$21.50
HT8LEDYF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Yellow	\$21.50
HT8LEDGF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Green	\$23.00
HT8LEDBF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Blue	\$24.50
HT8LEDWF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: White	\$27.00
HT8LEDAF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Amber	\$22.00

NOTE: LED modules have very low current draw and should not be used with triac output devices like PLC triac output modules.



Cutler-Hammer

30mm Legend Plates



For Pushbutton Operators and Indicating Lights			
Legend	Color of Field	Catalog Number	Price
Clamp	Black	HT8SP90	\$4.50
Close	Black	HT8SP73	\$4.50
Down	Black	HT8SP74	\$4.50
Emergency Stop	Red	HT8SP13	\$4.50
Fast	Black	HT8SP75	\$4.50
Faster	Black	HT8SP87	\$4.50
Feeder On	Black	HT8SP94	\$4.50
Feeder Off	Black	HT8SP95	\$4.50
Forward	Black	HT8SP15	\$4.50
High	Black	HT8SP16	\$4.50
In	Black	HT8SP17	\$4.50
Inch	Black	HT8SP18	\$4.50
Jog	Black	HT8SP19	\$4.50
Jog Forward	Black	HT8SP20	\$4.50
Jog Reverse	Black	HT8SP21	\$4.50
Low	Black	HT8SP22	\$4.50
Lower	Black	HT8SP23	\$4.50
Lube-fail	Black	HT8SP92	\$4.50
Motor Run	Black	HT8SP81	\$4.50
Motor Stop	Black	HT8SP82	\$4.50
Off	Red	HT8SP24	\$4.50
On	Black	HT8SP25	\$4.50
Open	Black	HT8SP26	\$4.50
Out	Black	HT8SP27	\$4.50
Power On	Black	HT8SP80	\$4.50
Raise	Black	HT8SP28	\$4.50
Ready	Black	HT8SP86	\$4.50
Reset	Black	HT8SP29	\$4.50
Reverse	Black	HT8SP30	\$4.50
Run	Black	HT8SP31	\$4.50
Safe	Black	HT8SP85	\$4.50
Slow	Black	HT8SP32	\$4.50
Slower	Black	HT8SP88	\$4.50
Start	Black	HT8SP33	\$4.50
Stop	Red	HT8SP34	\$4.50
Test	Black	HT8SP83	\$4.50
Transfer	Black	HT8SP93	\$4.50
Trip	Black	HT8SP84	\$4.50
Unclamp	Black	HT8SP91	\$4.50
Up	Black	HT8SP35	\$4.50

**Note: Dimensions: 1.77" (45mm) x1.77" (45mm)*

For Selector Switch Operators/ Two-Position			
Legend	Color of Field	Catalog Number	Price
Forward Reverse	Black	HT8SP38	\$4.50
Hand Auto	Black	HT8SP39	\$4.50
High Low	Black	HT8SP40	\$4.50
Jog Run	Black	HT8SP41	\$4.50
Manual Auto	Black	HT8SP67	\$4.50
Off On	Black	HT8SP42	\$4.50
Open Close	Black	HT8SP43	\$4.50
Run Jog	Black	HT8SP44	\$4.50
Safe Run	Black	HT8SP45	\$4.50
Start Jog	Black	HT8SP46	\$4.50
Start Stop	Black	HT8SP47	\$4.50
Up Down	Black	HT8SP48	\$4.50

For PUSH/PULL Units			
Legend 3/32" lettering	Color of Field	Catalog Number	Price
ON/OFF	Black	HT8PP5	\$4.50
OPEN/CLOSE	Black	HT8PP8	\$4.50
UP/DOWN	Black	HT8PP11	\$4.50

NOTE: All 30 mm legend plates are plastic.

For Selector Switch Operators/ Three-Position			
Legend	Color of Field	Catalog Number	Price
Auto Off Hand	Black	HT8SP49	\$4.50
For. Off Rev	Black	HT8SP50	\$4.50
For. Safe Rev.	Black	HT8SP69	\$4.50
Hand Off Auto	Black	HT8SP51	\$4.50
Man. Off Auto	Black	HT8SP68	\$4.50
Open Off Close	Black	HT8SP53	\$4.50
Run Safe Jog	Black	HT8SP70	\$4.50
Up Off Down	Black	HT8SP54	\$4.50
On Stop Safe	Black	HT8SP71	\$4.50

Square Blank Plastic Legend Plates			
Lettering	Color of Field	Catalog Number	Price
Black	White/Silver	HT8SP76	\$4.50
White	Red/Black	HT8SP77	\$4.50

Round Plastic Legend Plates			
Legend	Color of Field	Catalog Number	Price
ESTOP	Yellow	HT8RP79	\$4.50

NOTE: 70 mm / 2-3/4" diameter



Command Series Pilot Devices

Fuji Electric Command Series pilot devices are used in machine tools, industrial machines, control panels, distribution panels, and instrumentation panels. Pushbuttons improve interfacing with better layout and wiring, easier installation and increased safety. Reliability is also built in to handle complex multi-functional controls.

The AR22 series is configurable with a wide range of choices. Our selection of 22mm pushbuttons include non-illuminated as well as illuminated models with flush round heads, extended

round heads, and mushroom style heads. Other 22mm pilot devices available include emergency stop pushbuttons, selector switches, pilot lights, joystick selector switches, and buzzers.

The AR30 series of 30mm pilot devices includes a selection of giant head metal pushbuttons.

We also offer a wide array of accessories to complement our selection of Fuji 22mm and 30mm Command Series pilot devices.

AR22 Series Features

- 22.5 mm diameter hole
- Fits 1mm to 6mm max panel thickness
- Mountable in either a 22.3 or 25.5 mm diameter cutout (except for joysticks and buzzers)
- Provided with release arm
- Terminal cover included for added safety
- Wiring possible in vertical and horizontal directions
- Oil and dust-proof operator modules (IP65), except for buzzers DR22B5 (IP00), DR22B8 (IP54)

AR30 Series Features

- 30.5 mm diameter hole
- Quick snap-on replacement of contact blocks
- Double-break self-cleaning contacts
- Terminal cover included for added safety
- Oil and dust-proof operator modules (IP65)



22mm Pushbuttons



22mm E-Stop Pushbuttons



22mm Selector Switches



22mm Pilot Lights



22mm Electronic Buzzers

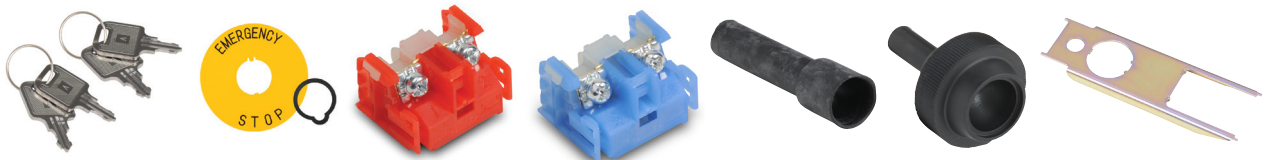


22mm Joysticks



30mm Pushbuttons

Command Series Accessories



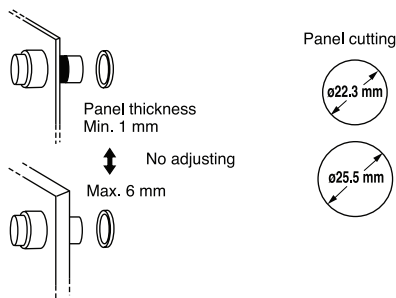
Fuji Electric 22mm Pilot Devices Overview

Pushbuttons, Selectors, Pilot Lights, Joysticks, Buzzers

Fuji Electric AR22 pilot devices can be mounted on panels up to 6mm thick by securing the operator with a locking nut from behind the panel without needing any adjustment.

Easy mounting

Fuji AR22 pilot devices can be mounted on panels between 1 and 6mm thick and are mountable in panel cutouts of 22.3 or 25.5 mm. The button and lens can be mounted on a panel while the operator is engaged.

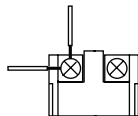


Wiring

These pilot devices can be wired in both vertical and lateral directions making wiring in narrow spaces easier. Contact block color coding makes wiring even easier.

1NO: Blue, 1NC: Red

Lamp terminal and transformer unit: black



Short depth

Fuji AR22 pilot devices are designed to occupy less space than traditional 22mm devices.

Pushbuttons



AR22F0R-01RZA

Illuminated Pushbuttons



AR22F0L-10E3YZA

Pilot Lights



DR22E3L-E3SZA

E-Stop Pushbuttons



AR22V0R-01R

Selector Switches



AR22PR-210BZA

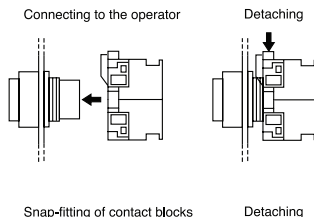
Buzzers



DR22B8-EB

Quick contact block and transformer replacement

Fuji AR22 pilot devices have a snap-on mounting that makes replacing or adding a contact block and transformer unit easier.



Safety

AR22 pilot devices include terminal covers for added safety and security. Emergency stop pushbuttons include a trigger action mechanism that prevents the contacts from moving until the button is pushed and locked.

Protection

AR22 pilot devices feature oil and dust-tight operator construction (IP65), except for buzzers DR22B5 (IP00), DR22B8 (IP54).

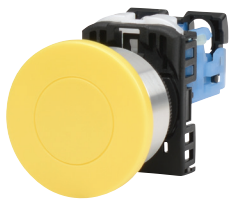




Command Non-Illuminated 22mm Metal Pushbuttons



AR22F0R-01RZA



AR22M0R-10YZA



AR22E0R-10SZA



AR22FAR-01C01ZA

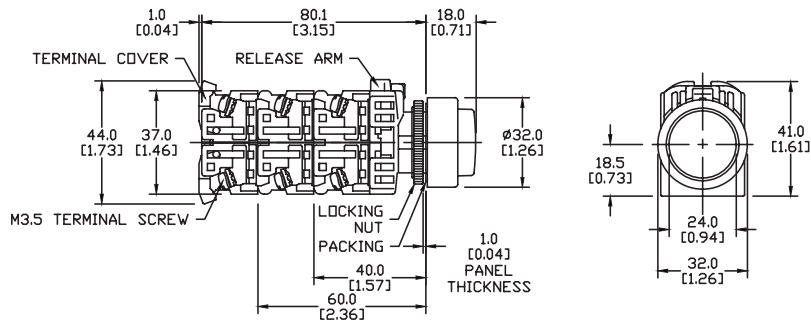


AR22FAR-10C03ZA

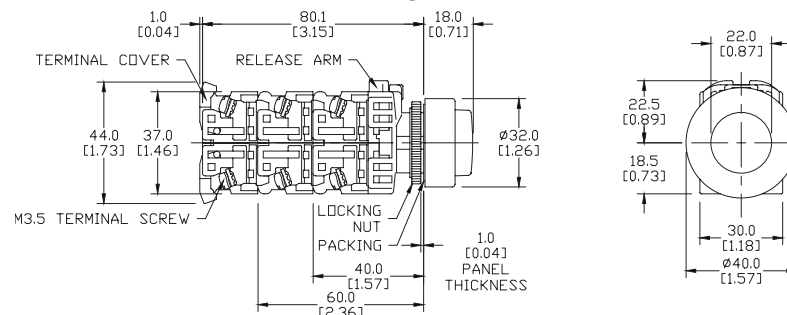
Command Non-Illuminated 22mm Metal Pushbuttons				
Part Number	Color	Price	Operator	Contacts
AR22F0R-10BZA	Black	\$9.00	momentary 30mm flush round head	NO
AR22F0R-01RZA	Red	\$9.00		NC
AR22F0R-10GZA	Green	\$9.00		NO
AR22F0R-10YZA	Yellow	\$9.00		NO
AR22F0R-10SZA	Blue	\$9.00		NO
AR22F0R-10WZA	White	\$9.00		NO
AR22FAR-01C01ZA	White	\$11.00	momentary 30mm flush round head w/OFF imprint (red)	NC
AR22FAR-10C03ZA	White	\$11.00	momentary 30mm flush round head w/ON imprint (green)	NO
AR22M0R-10BZA	Black	\$10.50	momentary 40mm mushroom head	NO
AR22M0R-01RZA	Red	\$10.50		NC
AR22M0R-10GZA	Green	\$10.50		NO
AR22M0R-10YZA	Yellow	\$10.50		NO
AR22M0R-10SZA	Blue	\$10.50		NO
AR22M0R-10WZA	White	\$10.50		NO
AR22E0R-10BZA	Black	\$9.00	momentary 30mm extended round head	NO
AR22E0R-01RZA	Red	\$9.00		NC
AR22E0R-10GZA	Green	\$9.00		NO
AR22E0R-10YZA	Yellow	\$9.00		NO
AR22E0R-10SZA	Blue	\$9.00		NO
AR22E0R-10WZA	White	\$9.00		NO

Dimensions mm [in]

AR22-FOR-xxxxx, AR22-FAR-xxxxx, AR22-EOR-xxxxx



AR22-MOR-xxxxx



Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.



Command Illuminated 22mm Metal and Plastic Pushbuttons



AR22F0L-10E3YZA



AR22F5L-10E3SZA



AR22E0L-01E3GZA



AR22V5L-01L3R



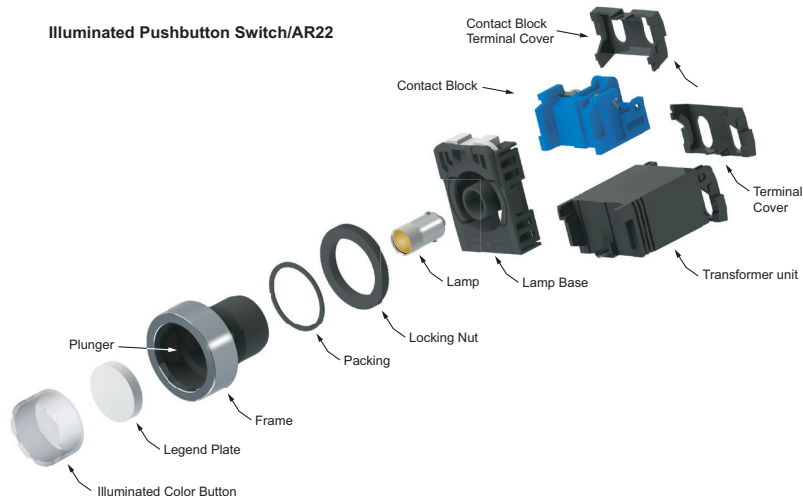
AR22M0L-01E3RZA



AR22M0L-01L3RZA

Command LED Illuminated 22mm Pushbuttons						
Part Number	Color	Price	Operator	Material	Lamp Voltage	Contacts
AR22F0L-01E3RZA	Red	\$20.00	30mm momentary flush round head	Metal	24V AC/DC (without transformer)	NC
AR22F0L-10E3GZA	Green	\$20.00				NO
AR22F0L-10E3YZA	Yellow	\$20.00				NO
AR22F0L-10E3SZA	Blue	\$26.00				NO
AR22F0L-10E3WZA	White	\$18.50				NO
AR22F0L-01L3RZA	Red	\$26.50			115-127 VAC (with transformer)	NC
AR22F0L-10L3GZA	Green	\$26.50				NO
AR22F0L-10L3YZA	Yellow	\$26.50				NO
AR22F0L-10L3SZA	Blue	\$29.00				NO
AR22F0L-10L3WZA	White	\$26.50				NO
AR22F5L-10E3RZA	Red	\$25.00	30mm push-push flush round head	Metal	24V AC/DC (without transformer)	NO
AR22F5L-10E3GZA	Green	\$25.00				NO
AR22F5L-10E3YZA	Yellow	\$25.00				NO
AR22F5L-10E3SZA	Blue	\$25.00				NO
AR22F5L-10E3WZA	White	\$25.00				NO
AR22F5L-10L3RZA	Red	\$29.00			115-127 VAC (with transformer)	NO
AR22F5L-10L3GZA	Green	\$29.00				NO
AR22F5L-10L3YZA	Yellow	\$29.00				NO
AR22F5L-10L3SZA	Blue	\$29.00				NO
AR22F5L-10L3WZA	White	\$29.00				NO
AR22E0L-01E3RZA	Red	\$16.50	30mm momentary extended round head	Metal	24V AC/DC (without transformer)	NC
AR22E0L-10E3GZA	Green	\$16.50				NO
AR22E0L-10E3YZA	Yellow	\$16.50				NO
AR22E0L-10E3SZA	Blue	\$26.50				NO
AR22E0L-10E3WZA	White	\$16.50				NO
AR22E0L-01L3RZA	Red	\$23.00			115-127 VAC (with transformer)	NC
AR22E0L-10L3RZA	Red	\$23.00				NO
AR22E0L-10L3GZA	Green	\$23.00				NO
AR22E0L-10L3YZA	Yellow	\$23.00				NO
AR22E0L-10L3SZA	Blue	\$29.00				NO
AR22E0L-10L3WZA	White	\$25.00				NO
AR22M0L-01E3RZA	Red	\$18.50	40mm momentary mushroom head	Metal	24V AC/DC (without transformer)	NC
AR22M0L-01L3RZA	Red	\$23.50			115-127 VAC (with transformer)	NC
AR22V5L-01E3R	Red	\$18.50	40mm push-lock, twist release, with white arrow	Plastic	24V AC/DC (without transformer)	NC
AR22V5L-01L3R	Red	\$29.50			115-127 VAC (with transformer)	NC

Illuminated Pushbutton Switch/AR22

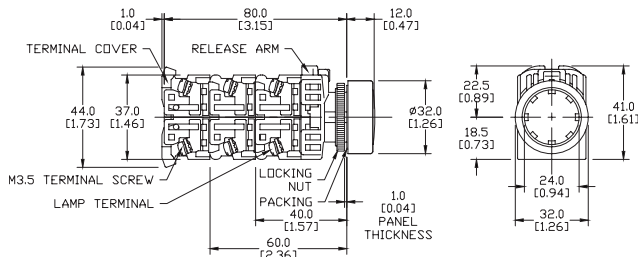




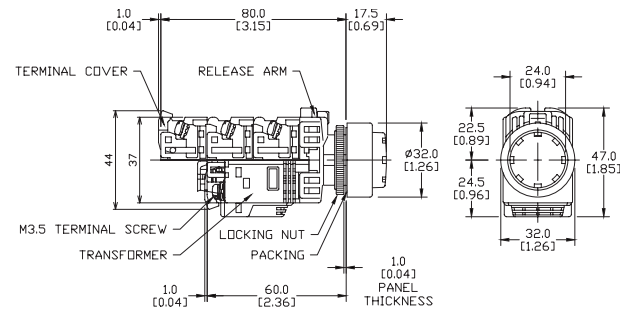
Command Illuminated 22mm Metal and Plastic Pushbuttons

Dimensions mm [in]

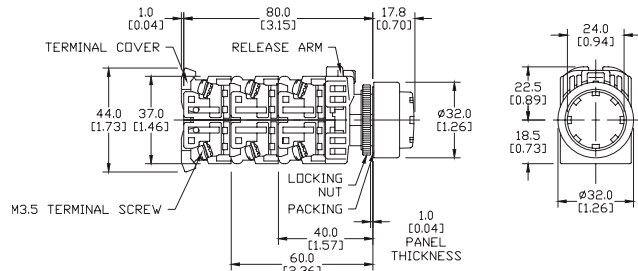
AR22-F0L-xxE3xxx, AR22-F5L-xxE3xxx



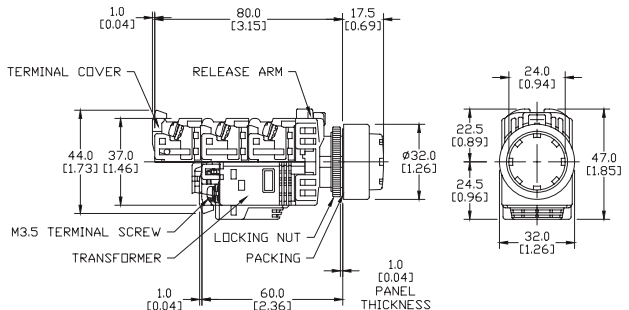
AR22-F0L-xxL3xxx, AR22-F5L-xxL3xxx



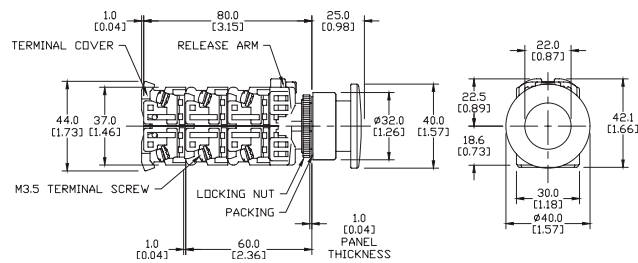
AR22-E0L-xxE3xxx



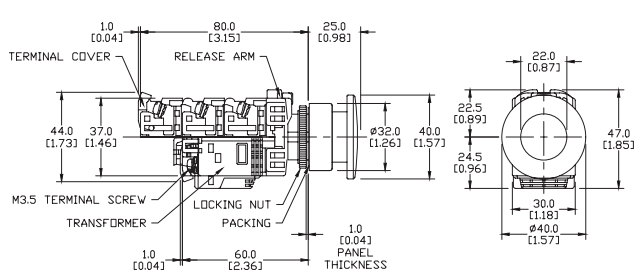
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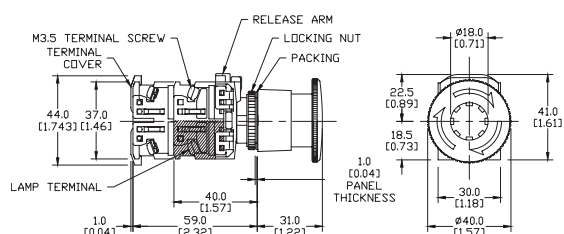
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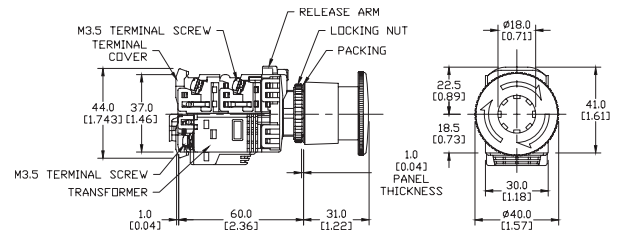
AR22M0L-01L3RZA



AR22V5L-01E3R

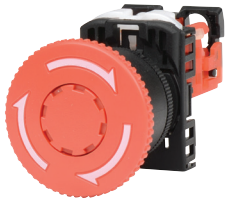


AR22V5L-01L3R



Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.

Command 22mm Emergency Stop Pushbuttons



AR22V0R-01R

Command 22mm Emergency Stop Pushbuttons		
Part Number	Price	Description
AR22V0R-01R	\$18.00	Non-illuminated, twist-release, plastic, red, NC, 40mm head with white arrow
AR22V7R-01R	\$25.00	Non-illuminated, key-release, plastic, red, NC, 40mm head
AR22Q2R-01R	\$22.50	Non-illuminated, push-pull, plastic, red, NC, 35mm head
AR22V0L-01E3R	\$28.50	Illuminated, twist-release, plastic, red, NC, 40mm head with white arrow, 24V AC/DC
AR22V0L-01L3R	\$32.50	Illuminated, twist-release, plastic, red, NC, 40mm head with white arrow, 115-127 VAC
Accessory		
AR9P719-5A	\$7.00	Emergency stop yellow plate, 70mm (2.76 in), aluminum.



AR22V7R-01R



AR22Q2R-01R

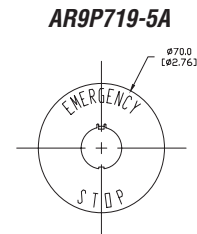
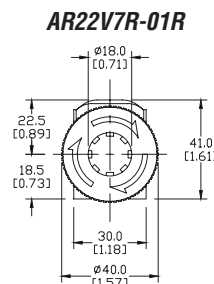
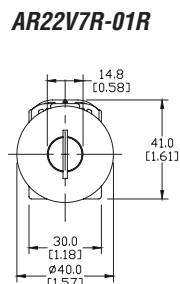
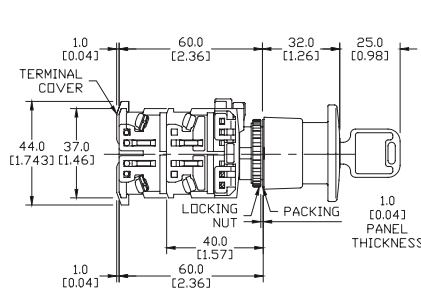


AR22VOL-01E3R

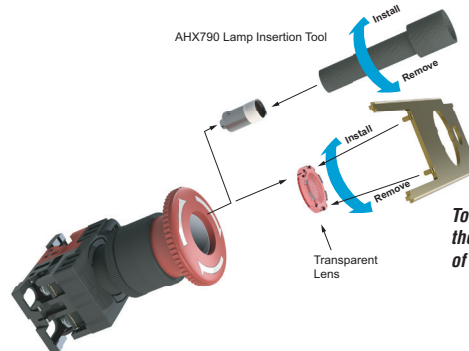
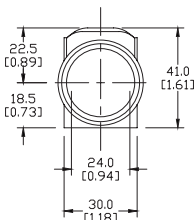
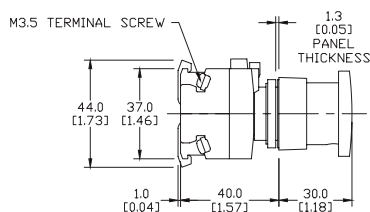


AR9P719-5A

Dimensions mm [in]



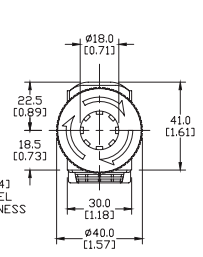
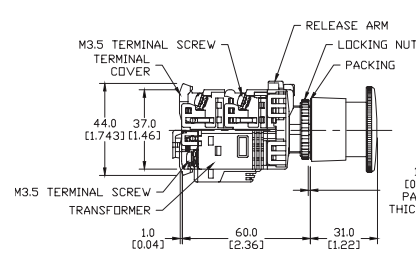
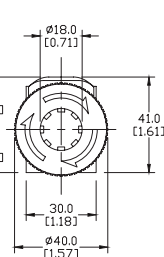
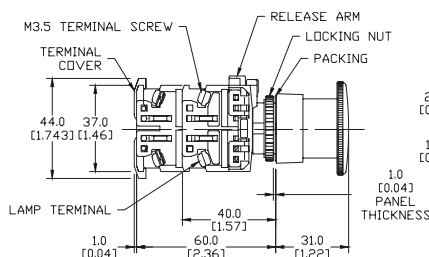
AR9A004 Lens Removal Tool



Tools can be found on the accessories page of this section.

AR22Q2R-01R

AR22VOL-01E3R



Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.



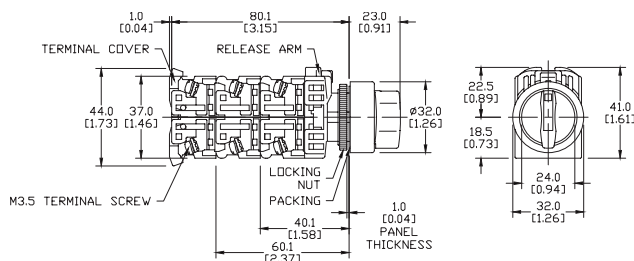
Command Non-Illuminated 22mm Metal Selector Switches



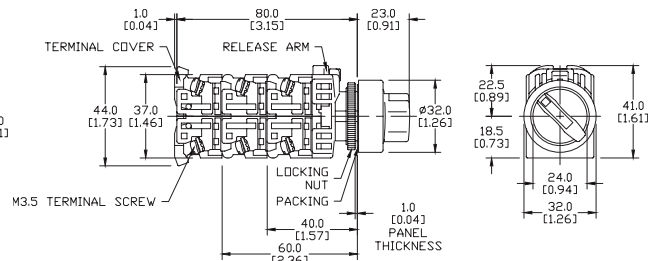
Dimensions mm [in]

Command Non-Illuminated 22mm Metal Selector Switches					
Part Number	Price	Operator	Operation	Key Removable Position	Contacts
AR22PR-210BZA	\$10.50	knob	2-pos maintained	—	NO
AR22PR-010BZA	\$10.50		2-pos spring return		NO
AR22PR-322BZA	\$15.00		3-pos maintained		2 NO + 2 NC
AR22PR-122BZA	\$15.00		3-pos spring return		2 NO + 2 NC
AR22JR-2B10AZA	\$18.00	key	2-pos maintained	left and right	NO
AR22JR-0A10AZA	\$21.00		2-pos spring return	left	NO
AR22JR-3C22AZA	\$27.00		3-pos maintained	left, right, center	2 NO + 2 NC
AR22WR-210BZA	\$11.50	lever	2-pos maintained	—	NO
AR22WR-010BZA	\$11.50		2-pos spring return		NO
AR22WR-322BZA	\$17.50		3-pos maintained		2 NO + 2 NC
AR22WR-122BZA	\$16.00		3-pos spring return		2 NO + 2 NC
Accessory					
Part Number	Price	Description			
AR9C022-A	\$5.75	Replacement key for Command Series 22mm metal selector switches, 4 pcs.			

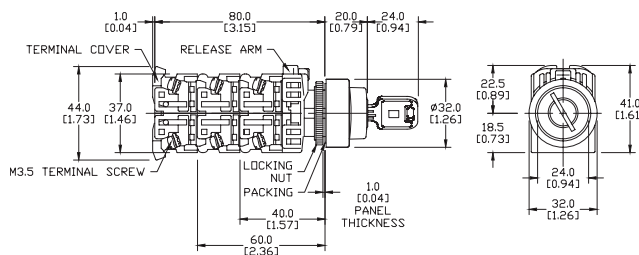
AR22PR-x10BZA



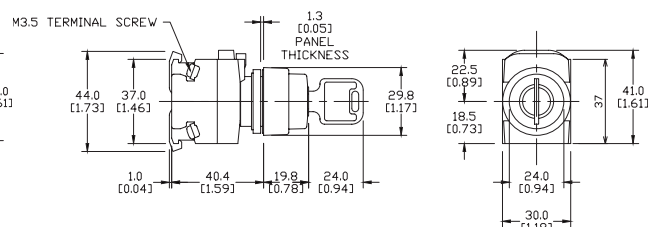
AR22PR-x22BZA



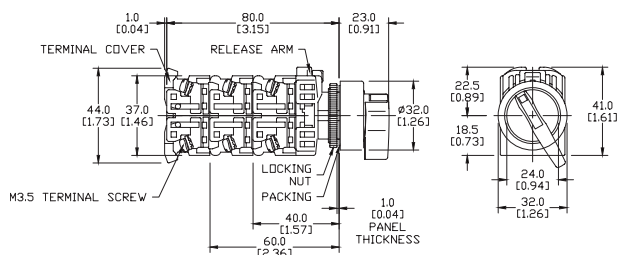
AR22JR-xx10AZA



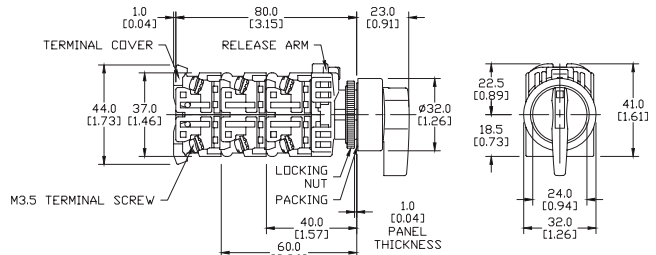
AR22JR-3C22AZA



AR22WR-x10BZA



AR22WR-x22BZA



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Command Illuminated 22mm Metal Selector Switches



AR22PL-010E3RZA



AR22PL-210E3GZA



AR22PL-322E3YZA



AR22PL-322E3SZA

Command LED Illuminated 22mm Metal Selector Switches

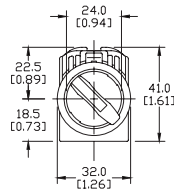
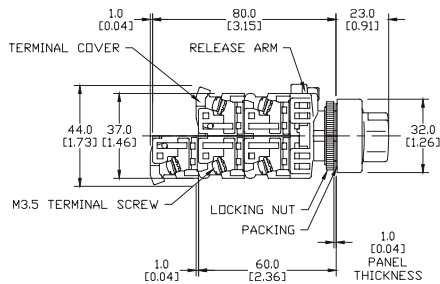
Part Number	Color	Price	Operation	Contacts	Lamp Voltage
AR22PL-010E3RZA	Red	\$20.00	2-pos spring return	NO	24V AC/DC
AR22PL-010E3GZA	Green	\$20.00			
AR22PL-010E3YZA	Yellow	\$20.00			
AR22PL-010E3SZA	Blue	\$29.00			
AR22PL-210E3RZA	Red	\$20.00	2-pos maintained	NO	24V AC/DC
AR22PL-210E3GZA	Green	\$20.00			
AR22PL-210E3YZA	Yellow	\$20.00			
AR22PL-210E3SZA	Blue	\$29.00			
AR22PL-322E3RZA	Red	\$30.00	3-position maintained	2 NO + 2 NC	24V AC/DC
AR22PL-322E3GZA	Green	\$30.00			
AR22PL-322E3YZA	Yellow	\$30.00			
AR22PL-322E3SZA	Blue	\$30.00			
AR22PL-611E3RZA	Red	\$29.00	3-position spring/manual return (left to center)	1 NO + 1 NC	24V AC/DC
AR22PL-611E3GZA	Green	\$29.00			
AR22PL-611E3YZA	Yellow	\$29.00			
AR22PL-611E3SZA	Blue	\$29.00			
AR22PL-010L3RZA	Red	\$26.50	2-pos spring return	NO	115-127 VAC
AR22PL-010L3GZA	Green	\$26.50			
AR22PL-010L3YZA	Yellow	\$26.50			
AR22PL-010L3SZA	Blue	\$35.00			
AR22PL-210L3RZA	Red	\$24.00	2-pos maintained	NO	115-127 VAC
AR22PL-210L3GZA	Green	\$24.00			
AR22PL-210L3YZA	Yellow	\$24.00			
AR22PL-210L3SZA	Blue	\$35.00			
AR22PL-311L3RZA	Red	\$29.00	3-position maintained	1 NO + 1 NC	115-127 VAC
AR22PL-311L3GZA	Green	\$29.00			
AR22PL-311L3YZA	Yellow	\$29.00			
AR22PL-311L3SZA	Blue	\$35.00			
AR22PL-611L3RZA	Red	\$30.00	3-position spring/manual return (left to center)	1 NO + 1 NC	115-127 VAC
AR22PL-611L3GZA	Green	\$30.00			
AR22PL-611L3YZA	Yellow	\$30.00			
AR22PL-611L3SZA	Blue	\$35.00			
2-Position Replacement Knobs					
	Color	Part Number	Qty		Price
	Red	AR9M005-R	5 per/pk		\$3.00
	Green	AR9M005-G			\$3.00
	Yellow	AR9M005-Y			\$3.00
	Blue	AR9M005-S			\$3.00



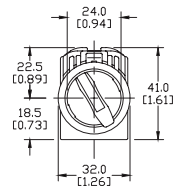
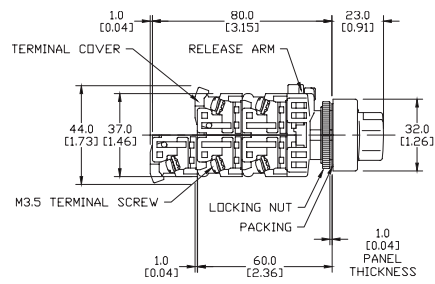
Command Illuminated 22mm Metal Selector Switches

Dimensions mm [in]

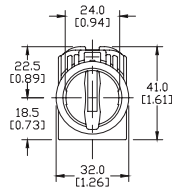
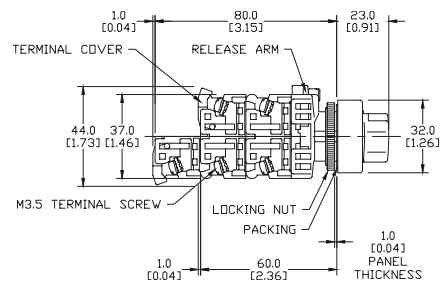
AR22PL-x10E3xxx



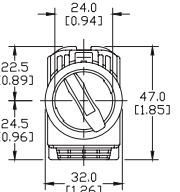
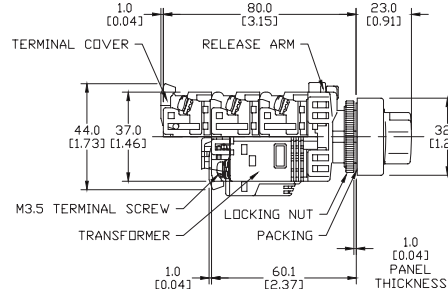
AR22PL-322E3xxx



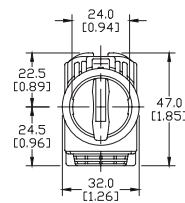
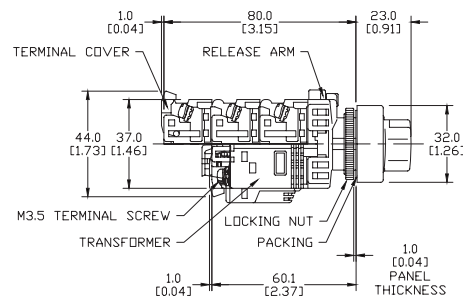
AR22PL-611E3xxx



AR22PL-x10L3xxx



AR22PL-x11L3xxx



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F Fuji Electric **Command 22mm Pilot Lights**



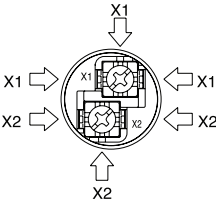
DR22E3L-E3GZA



DR22E3L-L3SZA

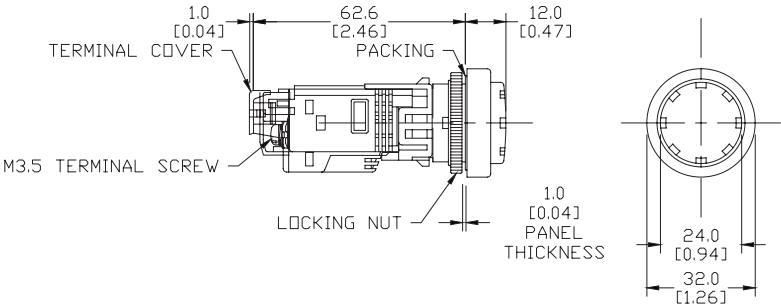
Command 22mm Pilot Lights				
Part Number	Color	Price	Lens	Lamp Voltage
DR22E3L-E3RZA	Red	\$15.00	extended round	24V AC/DC without transformer
DR22E3L-E3GZA	Green	\$15.00		
DR22E3L-E3YZA	Yellow	\$15.00		
DR22E3L-E3SZA	Blue	\$22.00		
DR22E3L-E3WZA	White	\$15.00		
DR22E3L-L3RZA	Red	\$18.50		115-127 VAC with transformer
DR22E3L-L3GZA	Green	\$18.50		
DR22E3L-L3YZA	Yellow	\$18.50		
DR22E3L-L3SZA	Blue	\$29.00		
DR22E3L-L3WZA	White	\$18.50		

DR22E3L-E3xxx
Terminal Layout

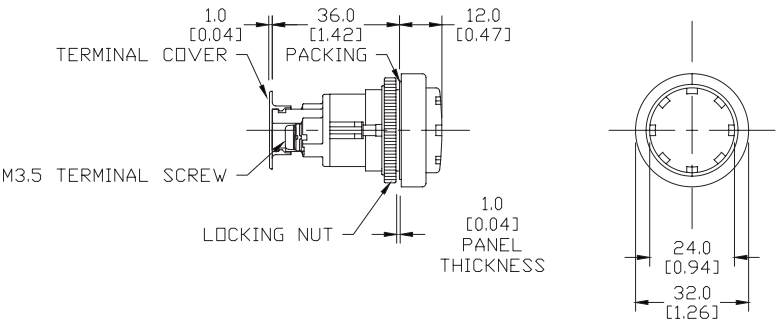


Dimensions mm [in]

DR22E3L-E3xxx



DR22E3L-L3xxx



Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.

Fuji Electric Command 22mm Joysticks

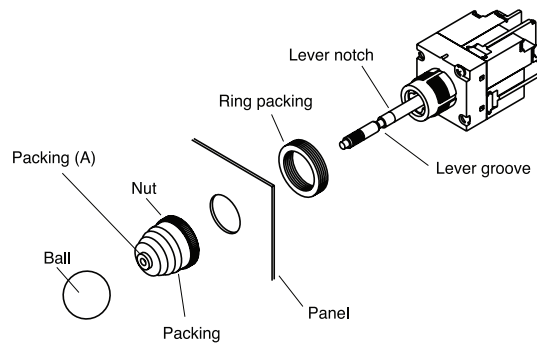
**AR22A5N-A0A0B****AR22A0N-AAAAB**

Command 22mm Joysticks - Screw Terminal				
Part Number	Price	Handle	Contact Arrangement	Operating Directions
AR22A5N-A0A0B	\$49.00	Ball type, momentary	2-position NO	
AR22A0N-A0A0B	\$49.00	Ball type, maintained		
AR22A5N-AAAAB	\$49.00	Ball type, momentary	4-position NO	
AR22A0N-AAAAB	\$49.00	Ball type, maintained		

Joystick selector switch mounting on panel

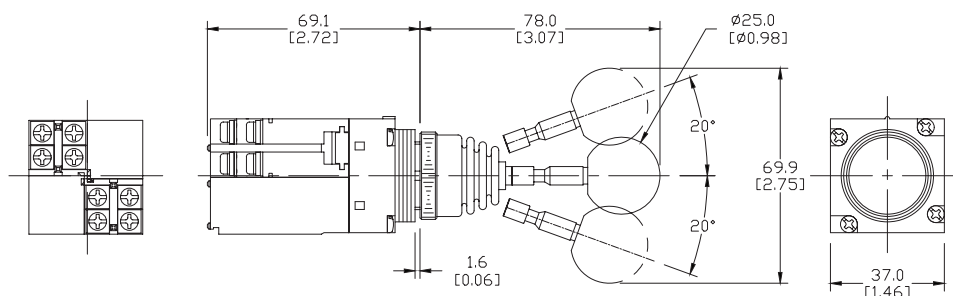
- (1) Twist and remove the ball from the operator.
- (2) If no locking nut is provided, loosen the nut and remove the switch after the packing part (A) shown in the illustration is stretched to the lever groove.
- (3) Mount the switch in the order opposite of removal. Set the packing to the notch on the lever as a reference. Do not separate the nut from the packing.
- (4) Use a torque wrench to tighten the nut from the front of the panel.

Note: Recommended tightening torque is 1 to 1.5 N·m.



Dimensions mm [in]

AR22AxN-AxAxB



Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.

Fuji Electric Command 22mm Buzzers

**DR22B8-EB**

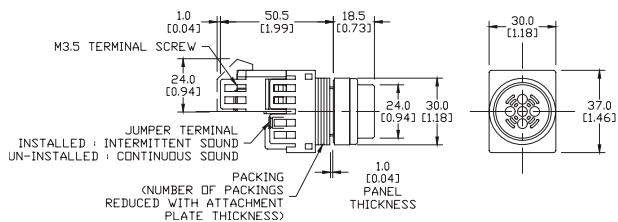
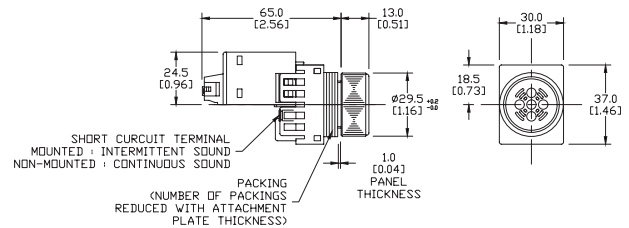
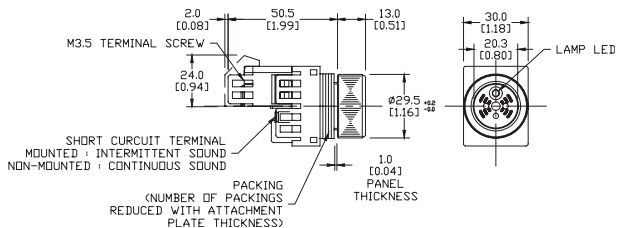
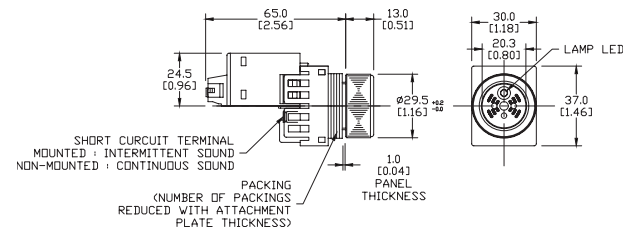
Command 22mm Buzzers						
Part Number	Qty	Price	Sound Type	Sound Level	LED Indicator	Operating Voltage
DR22B8-EB	1	\$29.00	Intermittent/continuous electronic sound	80dB @ 0.1 m 60dB @ 1m	—	12-24V AC/DC
DR22B8-HB	1	\$29.00				100-110VAC
DR22B5-EB	1	\$39.00	Intermittent/continuous electronic sound	90dB @ 0.1 m 70dB @ 1m	Red	12-24V AC/DC
DR22B5-HB	1	\$39.00				100-110VAC

**DR22B5-HB**

Specifications		
	DR22B5	DR22B8
Rated insulation voltage	Without transformer: 60V AC/DC With transformer: 250VAC	
Durability	1000h	
Frequency	2.4 to 3.3 kHz	
Intermittent cycle	Approx. 170-cycle/min	
Dielectric strength	Without transformer: 1000VAC 1 minute With transformer: 2000VAC 1 minute	
Insulation resistance	100MΩ or more (500VDC megger)	
Pollution degree	3	
Vibration	Resonance: 10 to 55Hz, double amplitude 0.1 mm Constant: 16.7 Hz, double amplitude 3.0 mm	
Shock	Mechanical durability: 500 m/s ²	
Ambient temperature	-20° to +60°C [-4° to +140°F] no condensation or no icing	
Storage temperature	-30° to +70°C [-22° to +158°F]	
Humidity	45 to 85% RH (within -5° to 40°C [23° to 104°F])	
Degree of protection	IP00	IP54

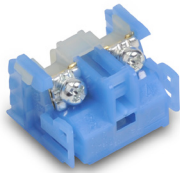
Current Consumption	
24V AC/DC	40mA AC, 25mA DC
110VAC	30mA AC

Dimensions mm [in]

DR22B8-EB**DR22B8-HB****DR22B5-EB****DR22B5-HB**

Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.

Fuji Electric Accessories for 22mm Command Series Pilot Devices



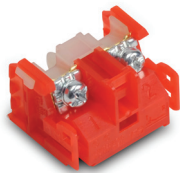
AR9B290

Contact Blocks for Command Series 22mm Pilot Devices				
Part Number	Qty	Price	Contacts	Color
AR9B290	1	\$5.00	NO	Blue
AR9B291	1	\$5.00	NC	Red

Max 6 contacts for non-illuminated momentary devices. Max 4 for alternate action non-illuminated devices.

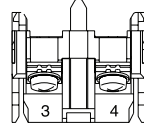
Max 5 contacts for illuminated momentary devices. Max 3 for alternate action illuminated devices.

*Exceeding the maximum number of contacts could affect the mechanical durability of the operators.

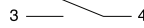


AR9B291

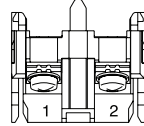
Terminal Layout



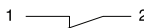
Terminal No.3, 4



AR9B290

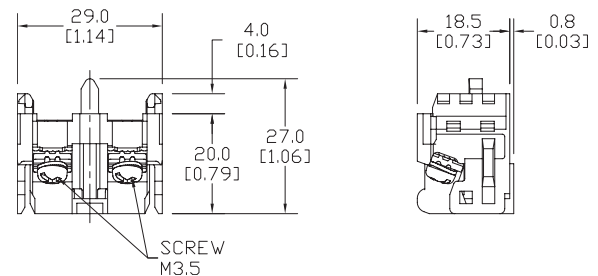


Terminal No.1, 2



AR9B291

Dimensions mm [in]



APX510-24R

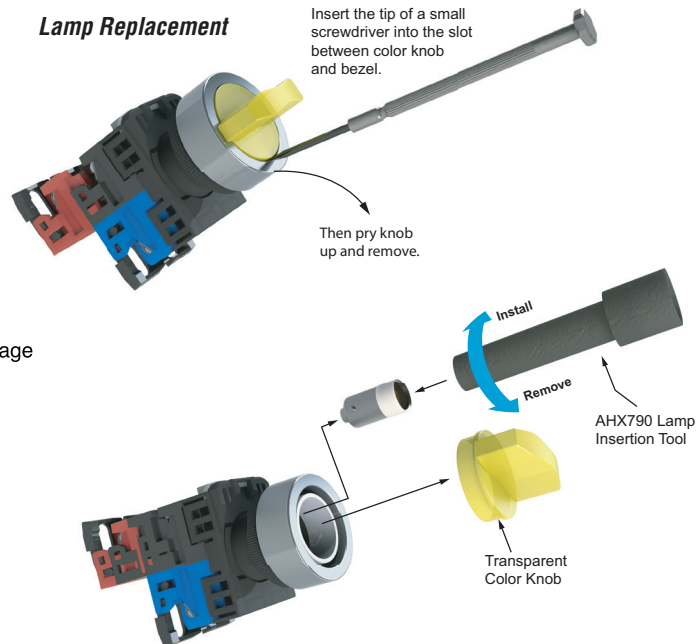
LED Bulbs for Command Series 22mm Pilot Devices								
Part Number	Color	Qty	Price	Use With	Lamp Voltage	Current Consumption	Power Consumption	Lamp Durability
APX510-24R	Red	2	\$13.00	AR22 / DR22 Series	24V AC/DC	12mA AC 11mA DC	0.8 W	30,000h
APX510-24G	Green	2	\$13.00					
APX510-24Y	Yellow	2	\$13.00					
APX510-24S	Blue	2	\$50.00					
APX510-24O	Orange	2	\$13.00					

*Lamp base: Ba9s/13

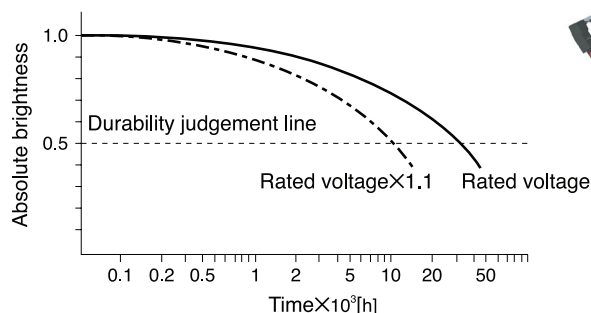
Lamp Replacement

Insert the tip of a small screwdriver into the slot between color knob and bezel.

Then pry knob up and remove.



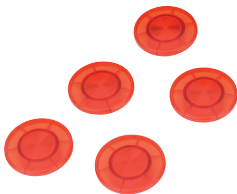
Estimated durability for LED lamps



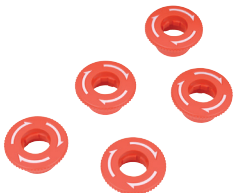


Fuji Electric

Accessories for 22mm Command Series Pilot Devices

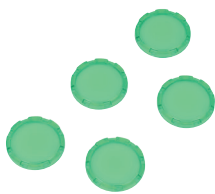


AR9C016-R

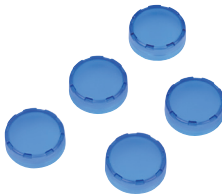


AR9C021-R

Lenses for Command Series 22mm Illuminated Pushbuttons				
Part Number	Color	Qty	Price	Use With
AR9C016-R	Red	5	\$4.00	AR22MOL, AR22M5L
AR9C021-R	Red	5	\$12.00	AR22VOR, AR22VOL
AR9C011-R	Red	5	\$2.00	AR22FOL AR22F5L
AR9C011-G	Green		\$2.00	
AR9C011-Y	Yellow		\$2.00	
AR9C011-S	Blue		\$2.00	
AR9C011-C	Clear		\$2.00	
AR9C012-R	Red	5	\$2.00	AR22EOL
AR9C012-G	Green		\$2.00	
AR9C012-Y	Yellow		\$2.00	
AR9C012-S	Blue		\$2.00	
AR9C012-C	Clear		\$2.00	



AR9C011-G



AR9C012-S

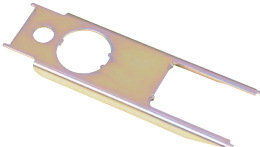


AHX790

Tools and Lock Nut for Use with Command Series 22mm Pilot Devices			
Part Number	Qty	Price	Description
AHX790	1	\$3.00	Bulb removal tool
AHX702	1	\$5.00	Wrench/lamp removal tool
AR9A004	1	\$4.00	Wrench
AR9R744	5	\$2.00	Lock nut



AHX702

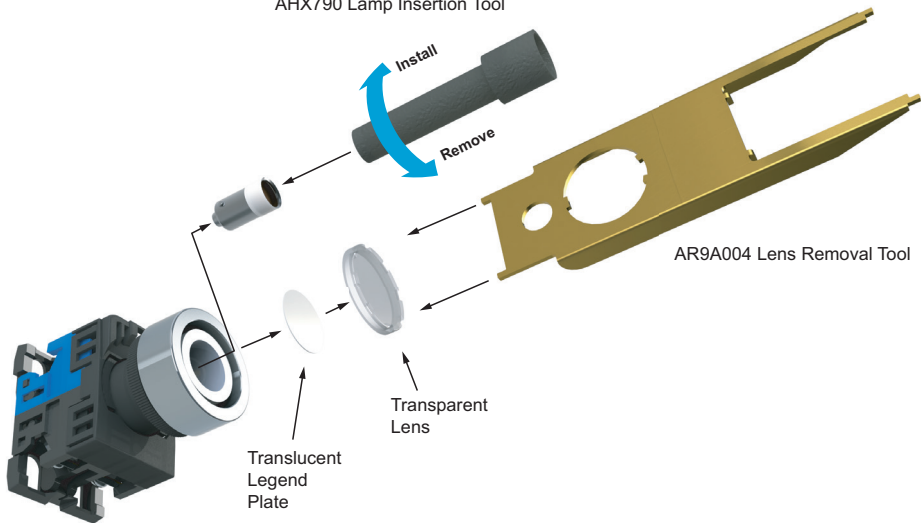


AR9A004



AR9R744

AHX790 Lamp Insertion Tool



Command Series 22mm Pilot Devices Specifications

Specifications (indoor use)			
	<i>Pushbuttons Emergency stop pushbuttons Selector switches</i>	<i>Joysticks</i>	<i>Pilot Lights</i>
Rated thermal current (contact block)	A600 / P600	—	—
Mechanical durability	See durability table below	250,000 operations	—
Electrical durability	500,000 operations at 220V AC 6A 1 million operations at 220V AC 3A	100,000 operations at 220V AC 1A (Res. load)	—
Operating frequency	1200 operations/hour (On-load factor: 40%)		—
Operating force (Avg)	9N – Pushbuttons 30-45 N – Emergency stop pushbuttons 0.15 - 0.1 N-m – Selector switches	Less than 100N	
Positive opening operation	All functions incorporating a N.C. contact are positive-opening operation.		
Dielectric strength	2,500VAC, 1 minute (w/o transformer 2000VAC)	2000VAC, 1 minute (Pilot light with transformer: 2500 VAC, 1minute)	
Insulation resistance	100MΩ or more (500VDC megger)		
Rated impulse dielectric strength	6kV	—	6kV
Conditional short-circuit current	1000A		—
Short-circuit protective device	Fuse 15A (recommended, not supplied)	Fuse 1A (recommended, not supplied)	—
Pollution degree	3		
Vibration	Resonance: 10 to 55Hz, double amplitude 0.1 mm* / Constant: 16.7 Hz, double amplitude 3mm		
Shock	Malfunction durability: 100 m/s² ** /	Mechanical durability: 500 m/s²	Mechanical durability: 500 m/s²
Ambient temperature (no condensation or no icing)	-20° to +70°C [-4° to +158°F] Illuminated type: -20° to -50°C [-4° to -58°F]	-5° to +60°C [+23° to +140°F]	-20° to +50°C [-4° to +122°F]
Temperature ratings	Storage: -40° to +80°C [-40° to +176°F]		
Humidity	45 to 85% RH (within -5° to +40°C)		
Degree of protection	IP65		
Initial contact resistance	≤ 50mΩ	—	—
Terminal markings	IEC 60445	—	—
Connections	AWG 18 to AWG 14; Stripping length: 8mm to 11mm / Tightening torque: 0.8 to 1.0 N-m, 7.1 in-lb to 8.8 in-lb		
Contacts operation	Self-cleaning types. Slow action. Positive opening.		
Operation frequency	1,200 cycle/hour (Application ratio 40%)	—	—
Utilization category/contact ratings	AC-15: 24VAC at 6A, 110VAC at 6A DC-13: 24VDC at 4A, 110VDC at 1.3 A	AC-1: 110VAC at 0.3 A DC-13: 24VDC at 0.7 A, 110VDC at 0.15 A	—
Rated insulation voltage	600V AC/DC***	250V AC/DC	250V AC/DC (w/transformer 600VAC)
Materials	Enclosure: Polyamide / Contacts: silver, nickel		
Standards	UL 508, CSA C22.2, No.14, TUV - EN60947-5-1		
Approvals	UL file E44592, CSA file LR20479		

* Emergency stop type: 10 to 500 Hz, double amplitude 0.7mm(acceleration 50m/s²), according to test condition of EN60947-5-5 (1998)

** Emergency stop type: 150 m/s²

*** Illuminated type without transformer

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

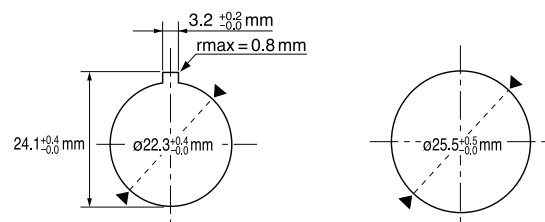
Mechanical Durability		
		Operations
Pushbutton switch	Momentary action	5 million
Illuminated pushbutton switch	Alternate action	1 million
E-stop pushbutton switch	Push-lock, turn-reset	100,000
E-stop illuminated pushbutton	Push-lock, pull-reset	30,000
Selector switch	Maintained 1, 2, 3, 4-contact	1 million
	Maintained 5, 6-contact	500,000
	Spring return, spring/manual return	200,000
Illuminated selector switch	Maintained	
	Without transformer 1, 2, 3-contact	1 million
	4-contact	500,000
	With transformer 1, 2-contact	1 million
	3-contact	500,000
	Spring return, spring/manual return	200,000

Note: Key insertion/removal durability for selector switch key types

• Key type 10,000

22mm Pilot Devices Cutouts

AR22 pilot devices can be mounted in either 22.3 or 25.5 mm diameter holes as shown in the figure below without any extra adapter.



Note: If key washer or legend plate is not used, 3.2 mm-wide location holes do not need to be cut out.



Command Non-Illuminated 30mm Metal Pushbuttons

Non-Illuminated metal mushroom-style pushbuttons

These pushbuttons feature large 65mm diameter plastic actuator and mount in standard 30.5 mm hole. All pushbuttons include operator, support base and contact block(s).

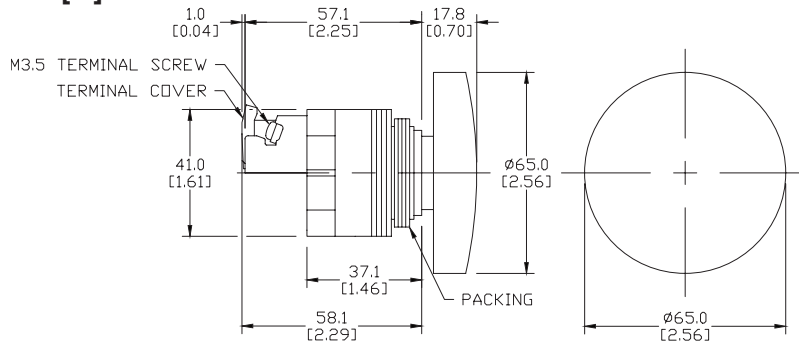
All switches in this series use replacement contact block AR9B290 (Blue, NO) or AR9B291 (Red, NC), sold separately in packages of one.



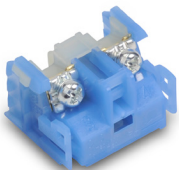
AR30B0R-10G

Command Non-Illuminated 30mm Metal Pushbuttons					
Part Number	Color	Price	Operator	Material	Contacts
AR30B0R-10G	Green	\$20.50	momentary 65mm giant mushroom head	metal	NO
AR30B0R-10B	Black	\$20.50			NO
AR30B0R-10Y	Yellow	\$20.50			NO
AR30B0R-01R	Red	\$20.50			NC
AR30B0R-11G	Green	\$26.50			1 NO + 1 NC
AR30B0R-11B	Black	\$26.50			1 NO + 1 NC
AR30B0R-11Y	Yellow	\$26.50			1 NO + 1 NC
AR30B0R-11R	Red	\$26.50			1 NO + 1 NC

Dimensions mm [in]

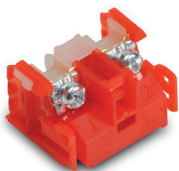


Contact Blocks



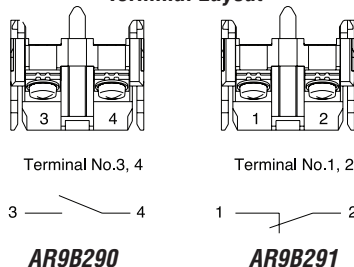
AR9B290

Contact Blocks for Command Series 30mm Pushbuttons				
Part Number	Qty	Price	Color	Contacts
AR9B290	1	\$5.00	Blue	NO
AR9B291	1	\$5.00	Red	NC

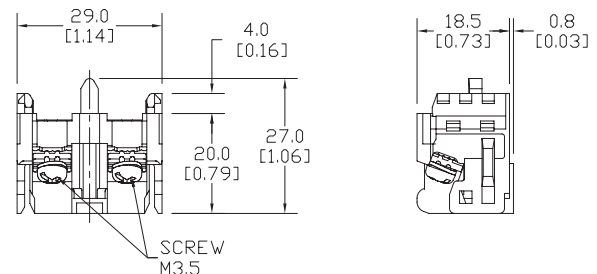


AR9B291

Terminal Layout



Dimensions mm [in]

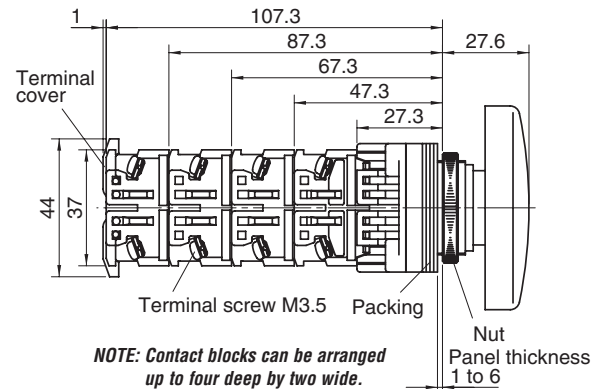
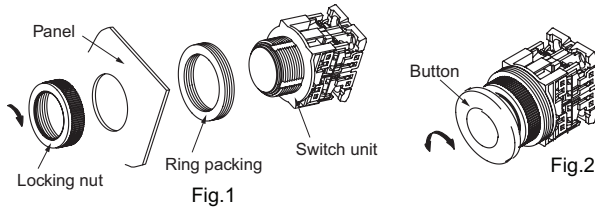


Please see our website www.AutomationDirect.com for complete engineering drawings. Dimensions are approximate. Not for construction purposes.

Command Series 30mm Pilot Devices Specifications

Assembly information

These pushbuttons are supplied with the appropriate contact blocks, unless otherwise indicated. Use these drawings as a guide to make sure there is adequate clearance behind the panel. Insert the switch unit in the panel hole at the back of the panel and secure it with a locking nut at the panel front.



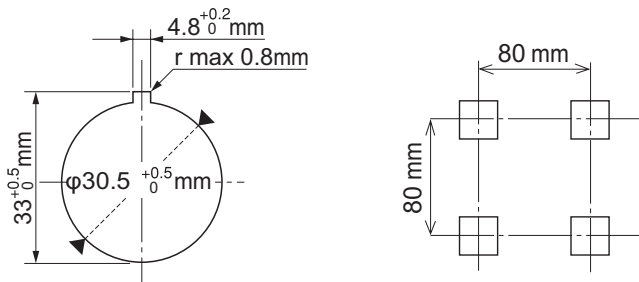
NOTE: Contact blocks can be arranged up to four deep by two wide.

Dimensions are in millimeters.

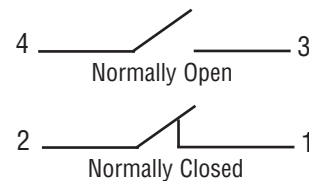
Panel holes

For safe operation, use these mounting hole drawings to ensure that there is adequate space between switches.

Note: Location hole 4.8mm x 33mm is for use with a key washer or legend plate.



Typical Wiring



Physical Specifications	
Standards Reference	UL 508, CSA C22.2, No.14, TUV - EN60947-5-1
Approvals	UL file E44592, CSA file LR20479
Enclosure Material	Polyamide
Contacts Material	Silver, nickel
Protection Degree	IEC IP65
Temperature Ratings	Storage: -40°C to 80°C (-40°F to 176°F) Operating: -20°C to 70°C (-4°F to 158°F)
Working Positions	All working positions are allowed.
Mechanical Life	5 million operations
Positive Opening Operation	All functions incorporating an N.C. contact are positive-opening operation.
Operating Force	75N max

Electrical Specifications	
Rated Thermal Current (contact block)	A600 P600
Rated Insulation Voltage	600V AC/DC
Dielectric Strength	2,500VAC, 1 minute
Insulation Resistance	100MΩ or more
Initial Contact Resistance	≤ 50mΩ
Short-Circuit Protection*	Fuse (rated current 15A).
Terminal Markings	IEC 60445
Connections	AWG 18 to AWG 14; Stripping length: 9mm to 11mm Tightening torque: 0.8 to 1.0 N·m, 7.1 in-lb to 8.8 in-lb
Contacts Operation	Self-cleaning types. Slow action. Positive opening.
Operation Frequency	1,200 cycle/hour (Application ratio 40%)
Utilization Category	AC-15: 24VAC at 6A, 110VAC at 6A DC-13: 24VDC at 4A, 110VDC at 1.3 A

***Note: Recommended, not supplied**

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

KILLARK Hazardous Location Controls FXCS Series Factory Sealed Controls Overview

Applications, Features, Listings, and Electrical Ratings



Applications

Factory sealed pushbutton stations, selector switches and pilot lights are used to prevent the igniting of external hazardous atmospheres by the enclosed arcing devices in such areas as:

- Hazardous locations due to the presence of flammable gases or vapors, combustible dusts or easily ignitable fibers or flyings
- Installations at petroleum refineries, chemical and petrochemical plants and other processing or storage facilities where similar hazards exist
- Use in conjunction with magnetic starters or contactors for remote control of motors

Listings

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11714
- Class I, Zones 1 & 2, Groups IIB, IIA



Features

- Eliminates external sealing requirements
- Lower installation cost
- NEMA 3 weatherproof
- Color coded wiring
- More wiring space for easier field installation
- Stainless steel captive screws for cover assembly
- Ground boss for grounding in the splice box
- Cast conduit hubs 1/2", 3/4" and 1" NPT either dead end or feed through standard in both single and two-gang assemblies
- Pushbutton, selector switches and pilot light bodies are copper-free aluminum
- Operating shaft in both pushbuttons and selector switches are stainless steel
- Miniature and standard size pushbuttons. (miniature 3/4" overall diameter, standard 1 3/8" overall diameter)

Factory sealed devices eliminate the need for external sealing. The difference is the use of a sealing plate between the arcing device and the junction box. The sealing plate confines ignited gases, vapors, flames, or dust to the arcing device chamber, preventing them from traveling through the conduit system. Accurately ground flanges on both sides of the sealing plate provide flame-tight joints. Factory poured seals around the wiring pigtails ensure safe sealing.

Contact Specifications

All contacts are break before make. Replacement contacts are not available for any of our Killark hazardous duty controls.

AC Ratings				
Current	120 VAC	240 VAC	480 VAC	600 VAC
Inrush	60	30	15	12
Breaking	6	3	1.5	1.2
Carrying	10	10	10	10

DC Ratings (Max. Amps)		
Current	125 VDC	250 VDC
Inrush	0.55	0.275
Breaking	0.55	0.275
Carrying	2.50	2.5

FXCS Specifications	
Dielectric Strength	2.5 kV (1 minute)
Electrical Endurance	5 million operations at rated load
Operating Frequency	3,000 per hour
Mechanical Endurance	Momentary: 5 x 10 ⁶ Push-pull and selector: 2 x 10 ⁶
LED Consumption	4-6 mA at 110 to 130 VAC/VDC
Wire Leads	6.5 inches, 18 AWG
Operating Temperature	-4° to 104°F (-20° to 40°C)
Device Bodies and Covers Materials	Copper-free Aluminum
Cover Bolts Material	1/4-20 x 1.10 inch Stainless Steel
Cover Tightening	After tightly attaching cover to device box, check with a 0.0015 inch feeler gauge; it should enter gap more than 1/8 inch.

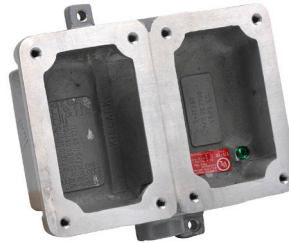
KILLARK FXB Series Factory Sealed Splice/Device Boxes for FXCS Series Cover Assemblies



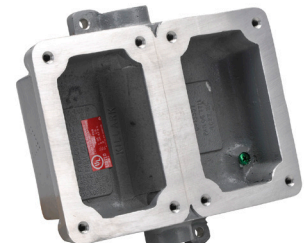
FXB-2
Dead End



FXB-5
Feed Through



FXB-8
Double Gang Dead End



FXB-11
Double Gang Feed Through

Features

Splice Boxes

The FXB series of splice boxes are designed for use with the FXCS series cover sub-assemblies.

Listings

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11714
- Class I, Zones 1 & 2, Groups IIB, IIA



FXB Splice/Device Box Selection and Dimensions			
Part Number	Price	Description	NPT Hub Size (inches)
FXB-1	\$44.00	Single gang / Dead-end	1/2
FXB-2	\$44.00	Single gang / Dead-end	3/4
FXB-3	\$47.00	Single gang / Dead-end	1
FXB-4	\$47.00	Single gang / Feed-through	1/2
FXB-5	\$47.00	Single gang / Feed-through	3/4
FXB-6	\$44.00	Single gang / Feed-through	1
FXB-7	\$72.00	Double gang / Dead-end	1/2
FXB-8	\$74.00	Double gang / Dead-end	3/4
FXB-9	\$72.00	Double gang / Dead-end	1
FXB-10	\$68.00	Double gang / Feed-through	1/2
FXB-11	\$77.00	Double gang / Feed-through	3/4
FXB-12	\$76.00	Double gang / Feed-through	1

KILLARK FXCS Series Factory Sealed Control Station Cover Assemblies

Features

These pushbutton assemblies include the cover and the pushbutton device. An FXB splice/device box is required.

Listings

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11714
- Class I, Zones 1 & 2, Groups IIB, IIA



**Single
Pushbutton**

**Double
Pushbutton**

Pilot Light

FXCS Momentary Contact Single Pushbutton

Part Number (Includes cover with device)	Price	Description	Diagram	Pushbutton Color	Legend Plate Marking*
FXCS-0B1	\$191.00	1 N.O. momentary operator		Green	"START"
FXCS-0B2	\$191.00	1 N.C. momentary operator		Red	"STOP"
FXCS-0B3	\$216.00	1 N.O. / 1 N.C. momentary operator		Black	Blank plate

FXCS Momentary Contact Double Pushbutton

Part Number (Includes cover with device)	Price	Description	Diagram	Button Color	Legend Plate Marking*
FXCS-0B4	\$249.00	Green operator has 1 N.O. momentary contact and red operator has 1 N.C. momentary contact		Green / Red	"START STOP"
FXCS-0B4U	\$266.00	Each operator has 1 N.O. and 1 N.C. momentary contact		Green / Red	"START STOP"
FXCS-0B5	\$249.00	Each operator has 1 N.O. momentary contact		Green / Green	"START START"
FXCS-0B7	\$266.00	Each operator has 1 N.O. and 1 N.C. momentary contact		Black / Black	Two blank plates

FXCS Pilot Light

Part Number (Includes cover with device)	Price	Description	Diagram	LED Voltage	Lens Color	Legend Plate Marking*
FXCS-0B24ALD	\$252.00	Single pilot light		110 VAC/VDC	Amber	Blank plate
FXCS-0B24CLD	\$237.00	Single pilot light		110 VAC/VDC	Clear	Blank plate
FXCS-0B24GLD	\$207.00	Single pilot light		110 VAC/VDC	Green	Blank plate
FXCS-0B24RLD	\$207.00	Single pilot light		110 VAC/VDC	Red	Blank plate

* We also offer a large selection of optional legend plates. See accessories later in this section.

KILLARK FXCS Series Factory Sealed Control Station Cover Assemblies

Listings



Double Pilot Light



Pilot Light / Pushbutton



Pilot Light / Two Mini Pushbutton



Maintained Pushbutton

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11714
- Class I, Zones 1 & 2, Groups IIB, IIA



FXCS Double Pilot Light						
Part Number (Includes cover with device)	Price	Description	Diagram	LED Voltage	Lens Colors	Legend Plate Marking*
FXCS-OB30ALD	\$308.00	Two pilot lights		110 VAC/VDC	Amber / Amber	Two blank plates
FXCS-OB30CLD	\$308.00	Two pilot lights		110 VAC/VDC	Clear / Clear	Two blank plates
FXCS-OB30GLD	\$308.00	Two pilot lights		110 VAC/VDC	Green / Green	Two blank plates
FXCS-OB30RLD	\$308.00	Two pilot lights		110 VAC/VDC	Red / Red	Two blank plates
FXCS-OB30RLD-GLD	\$308.00	Two pilot lights		110 VAC/VDC	Red / Green	Two blank plates

FXCS Momentary Contact Pushbutton and Pilot Light							
Part Number (Includes cover with device)	Price	Description	Diagram	LED Voltage	Pushbutton Color	Lens Color	Legend Plate Marking*
FXCS-OB13-CD	\$237.00	1 N.C. momentary operator and pilot light		110 VAC/VDC	Red	Clear	Pushbutton: "STOP" Pilot light: Blank plate
FXCS-OB13-OD	\$270.00	1 N.O. momentary operator and pilot light		110 VAC/VDC	Green	Red	Pushbutton: "START" Pilot light: Blank plate
FXCS-OB13-UD	\$270.00	1 N.O. / 1 N.C. momentary operator and pilot light		110 VAC/VDC	Black	Red	Two blank plates

FXCS Two Mini Momentary Contact Pushbuttons and Pilot Light							
Part Number (Includes cover with device)	Price	Description	Diagram	LED Voltage	Pushbutton Colors	Lens Color	Legend Plate Marking*
FXCS-0A15D	\$347.00	Mini red operator with 1 N.C. momentary contact and mini green operator with 1 N.O. momentary contact, and pilot light		110 VAC/VDC	Green Red	Red	N.O. Pushbutton: "START" N.C. Pushbutton: "STOP" Pilot light: Blank plate

FXCS Maintained Contact Push-Pull Mushroom Pushbutton					
Part Number (Includes cover with device)	Price	Description	Diagram	Pushbutton Color	Legend Plate Marking*
FXCS-OMMG3	\$479.00	1 N.O. / 1 N.C. push-pull maintained		Green	Three 2-sided legend plates included: "START / STOP"; "EMERGENCY STOP / RESET"; Blank plate / "RESET"
FXCS-OMMR3	\$479.00	1 N.O. / 1 N.C. push-pull maintained		Red	Three 2-sided legend plates included: "START / STOP"; "EMERGENCY STOP / RESET"; Blank plate / "RESET"
FXCS-OMMK3	\$479.00	1 N.O. / 1 N.C. push-pull maintained		Black	Three 2-sided legend plates included: "START / STOP"; "EMERGENCY STOP / RESET"; Blank plate / "RESET"

* We also offer a large selection of optional legend plates. See accessories later in this section.

KILLARK FXCS Series Factory Sealed Control Station Cover Assemblies and Selector Switches

Listings



Selector Switch



Key-Operated
Selector Switch

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11714
- Class I, Zones 1 & 2, Groups IIB, IIA



FXCS Two-Position Maintained Contact Selector Switches								
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Right Position Left Contact	Right Position Right Contact	Knob Color	Legend Plate Marking*
FXCS-0S2A1	\$218.00	1 N.O. / 1 N.C.					Black	"OFF ON"
FXCS-0S2A5	\$252.00	2 N.O. / 2 N.C.					Black	"OFF ON"

FXCS Two-Position Key-Operated Maintained Contact Selector Switches								
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Right Position Left Contact	Right Position Right Contact	Key	Legend Plate Marking*
FXCS-0K2A1A	\$271.00	1 N.O. / 1 N.C.					Key may be removed in all positions	"OFF ON"
FXCS-0K2A5A	\$304.00	2 N.O. / 2 N.C.					Key may be removed in all positions	"OFF ON"

FXCS Three-Position Maintained Contact Selector Switches										
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Center Position Left Contact	Center Position Right Contact	Right Position Left Contact	Right Position Right Contact	Knob Color	Legend Plate Marking*
FXCS-0S3C4	\$229.00	1 N.O. / 1 N.C.							Black	"HAND OFF AUTO"
FXCS-0S3C5	\$257.00	2 N.O. / 2 N.C.							Black	"HAND OFF AUTO"

FXCS Three-Position Key-Operated Maintained Contact Selector Switches										
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Center Position Left Contact	Center Position Right Contact	Right Position Left Contact	Right Position Right Contact	Key	Legend Plate Marking*
FXCS-0K3C4A	\$284.00	1 N.O. / 1 N.C.							Key may be removed in all positions	"HAND OFF AUTO"
FXCS-0K3C5A	\$308.00	2 N.O. / 2 N.C.							Key may be removed in all positions	"HAND OFF AUTO"

* We also offer a large selection of optional legend plates. See accessories later in this section.

KILLARK FXCS Series Factory Sealed Control Station Cover Assemblies and Selector Switches - Continued



Selector Switch

Key-Operated
Selector Switch

FXCS Two-Position Spring Return Selector Switch

Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Right Position Left Contact	Right Position Right Contact	Legend Plate Marking*
FXCS-0S2L3F	\$262.00	1 N.O. / 1 N.C., spring return from right					"OFF" / "ON"

FXCS Two-Position Key-Operated Spring Return Selector Switches

Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Right Position Left Contact	Right Position Right Contact	Key	Legend Plate Marking*
FXCS-0K2L3F22A	\$371.00	1 N.O. / 1 N.C., spring return from right					Key may be removed in left position only	"OFF" / "ON"

FXCS Three-Position Spring Return Selector Switches

Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Center Position Left Contact	Center Position Right Contact	Right Position Left Contact	Right Position Right Contact	Knob Color	Legend Plate Marking*
FXCS-0S3M6G	\$262.00	2 N.O., spring return to center from left or right							Black	"HAND OFF AUTO"
FXCS-0S3L6G	\$262.00	2 N.O., spring return to center from right, maintained in center and left							Black	"HAND OFF AUTO"
FXCS-0S3R6G	\$262.00	2 N.O., spring return to center from left, maintained in center and right							Black	"HAND OFF AUTO"

FXCS Three-Position Key-Operated Spring Return Selector Switches

Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Center Position Left Contact	Center Position Right Contact	Right Position Left Contact	Right Position Right Contact	Key	Legend Plate Marking*
FXCS-0K3M6G32A	\$371.00	2 N.O., spring return to center from left or right							Key may be removed in center position only	"HAND OFF AUTO"
FXCS-0K3L6G32A	\$371.00	2 N.O., spring return to center from right, maintained in center and left							Key may be removed in center position only	"HAND OFF AUTO"
FXCS-0K3R6G32A	\$371.00	2 N.O., spring return to center from left, maintained in center and right							Key may be removed in center position only	"HAND OFF AUTO"

* We also offer a large selection of optional legend plates. See accessories later in this section.

KILLARK SWB/XCS Series Control Stations

Overview - External Sealing Required



Listings

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11714
- Class I, Zones 1 & 2, Groups IIB, IIA



Applications

- Hazardous locations due to the presence of flammable gases or vapors, combustible dusts or easily ignitable fibers or flyings
- Installations at petroleum refineries, chemical and petrochemical plants and other processing or storage facilities where similar hazards exist
- Use in conjunction with magnetic starters or contactors for remote control of motors

Features

- Device bodies and covers are cast copper-free Aluminum alloy and provide a wide assortment for custom assemblies
- Cast conduit hubs, 3/4", either dead end or feed through standard in both single and two-gang device bodies
- Ground flange joint between bolted cover and box provide required flame path
- Pushbutton, selector switches and pilot light bodies are copper-free aluminum
- Operating shaft in both pushbuttons and selector switches are stainless steel
- Open space between gangs for easy wiring from one cover to another
- Miniature and standard size pushbuttons. (miniature 3/4" overall diameter, standard 1 3/8" overall diameter)
- Internal ground screw

Contact Specifications

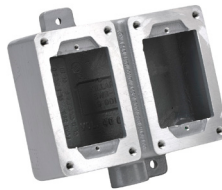
All contacts are break before make. Replacement contacts are not available for any of our Killark hazardous duty controls.

AC Ratings				
Current	120 VAC	240 VAC	480 VAC	600 VAC
Inrush	60	30	15	12
Breaking	6	3	1.5	1.2
Carrying	10	10	10	10

DC Ratings (Max. Amps)		
Current	125 VDC	250 VDC
Inrush	0.55	0.275
Breaking	0.55	0.275
Carrying	2.50	2.5

XCS Specifications	
Dielectric Strength	2.5 kV (1 minute)
Electrical Endurance	5 million operations at rated load
Operating Frequency	3,000 per hour
Mechanical Endurance	Momentary: 5×10^6 Push-pull and selector: 2×10^6
LED Consumption	4-6 mA at 110 to 130 VAC/VDC
Electrical Connections	14 to 20 AWG max., solid or stranded
Terminal Torque	1.8 Nm (15.75 in-lbs)
Lamp Connections	9 inch leads, 18 AWG
Operating Temperature	-4° to 104°F (-20° to 40°C)
Device Bodies and Covers Materials	Copper-free Aluminum
Cover Bolts Material	1/4-20 x 7/8 inch Stainless Steel
Bolt Tightening Torque	After tightly attaching cover to device box, check with a 0.0015 inch feeler gauge; it should not enter the flame path joint more than 1/8 inch.

KILLARK SWB Series Splice/Device Boxes For Use With XCS Cover Assemblies

**SWB-2****SWB-5****SWB-8****SWB-11****SWB-42**

Listings

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11712
- Class I, Zones 1 & 2, Groups IIB, IIA



SWB Device Bodies			
Part Number	Price	Description	Hub Size (inches)
SWB-2	\$40.00	Single gang / Dead-end	3/4
SWB-5	\$41.00	Single gang / Feed-through	3/4
SWB-8	\$78.00	Double gang / Dead-end	3/4
SWB-11	\$79.00	Double gang / Feed-through	3/4
SWB-42	\$103.00	Single gang / Dead-end / Deep style	3/4
SWB-45	\$127.00	Single gang / Feed-through / Deep style	3/4

KILLARK XCS Series Cover Assemblies and Control Stations - Pushbuttons

Pushbuttons and Pushbutton/Pilot Light Assemblies



**Single
Pushbutton**



**Double
Pushbutton**



**Push-Pull Mushroom
Maintained Pushbutton**

Listings

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11714
- Class I, Zones 1 & 2, Groups IIB, IIA



XCS Momentary Contact Single Pushbutton					
Part Number (Includes cover with device)	Price	Description	Diagram	Pushbutton Color	Nameplate Marking*
XCS-0B1	\$129.00	1 N.O. momentary		Green	"START"
XCS-0B2	\$129.00	1 N.C. momentary		Red	"STOP"
XCS-0B3	\$152.00	1 N.O. / 1 N.C. momentary		Black	Blank plate

XCS Momentary Contact Double Pushbutton					
Part Number (Includes cover with device)	Price	Description	Diagram	Pushbutton Colors	Legend Plate Marking*
XCS-0B4	\$168.00	Green operator has 1 N.O. momentary contact and red operator has 1 N.C. momentary contact		Green Red	"START STOP"
XCS-0B4-U	\$217.00	Each operator has 1 N.O. and 1 N.C. momentary contact		Green Red	"START STOP"
XCS-0B5	\$168.00	Each operator has 1 N.O. momentary contact		Green Green	"START START"
XCS-0B7	\$217.00	Each operator has 1 N.O. and 1 N.C. momentary contact		Black Black	Two blank plates

XCS Maintained Contact Push-Pull Mushroom Pushbutton					
Part Number (Includes cover with device)	Price	Description	Diagram	Pushbutton Color	Legend Plate Marking*
XCS-0MMG3	\$413.00	1 N.O. / 1 N.C. push-pull maintained		Green	Three 2-sided legend plates included: "STOP / STOP"; "EMERGENCY STOP / RESET"; Blank plate / "RESET"
XCS-0MMR3	\$413.00	1 N.O. / 1 N.C. push-pull maintained		Red	Three 2-sided legend plates included: "STOP / STOP"; "EMERGENCY STOP / RESET"; Blank plate / "RESET"
XCS-0MMK3	\$413.00	1 N.O. / 1 N.C. push-pull maintained		Black	Three 2-sided legend plates included: "STOP / STOP"; "EMERGENCY STOP / RESET"; Blank plate / "RESET"

* We also offer a large selection of optional legend plates. See accessories later in this section.

KILLARK XCS Series Control Station Cover Assemblies - Pilot Lights

Listings



Pilot Light



Double Pilot Light



Pilot Light / Pushbutton



Pilot Light / Two Mini Pushbutton

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11714
- Class I, Zones 1 & 2, Groups IIB, IIA



XCS Pilot Light						
Part Number (Includes cover with device)	Price	Description	Diagram	LED Voltage	Lens Color	Legend Plate Marking
XCS-0B24ALD	\$165.00	Single pilot light		110 VAC/VDC	Amber	Blank plate
XCS-0B24CLD	\$165.00	Single pilot light		110 VAC/VDC	Clear	Blank plate
XCS-0B24GLD	\$165.00	Single pilot light		110 VAC/VDC	Green	Blank plate
XCS-0B24RLD	\$165.00	Single pilot light		110 VAC/VDC	Red	Blank plate

XCS Double Pilot Light						
Part Number (Includes cover with device)	Price	Description	Diagram	LED Voltage	Lens Colors	Legend Plate Marking
XCS-0B30ALD	\$249.00	Two pilot lights		110 VAC/VDC	Amber Amber	Two blank plates
XCS-0B30CLD	\$243.00	Two pilot lights		110 VAC/VDC	Clear Clear	Two blank plates
XCS-0B30GLD	\$243.00	Two pilot lights		110 VAC/VDC	Green Green	Two blank plates
XCS-0B30RLD	\$243.00	Two pilot lights		110 VAC/VDC	Red Red	Two blank plates
XCS-0B30RLD-GLD	\$243.00	Two pilot lights		110 VAC/VDC	Red Green	Two blank plates

XCS Momentary Contact Pushbutton and Pilot Light							
Part Number (Includes cover with device)	Price	Description	Diagram	LED Voltage	Pushbutton Color	Lens Color	Legend Plate Marking
XCS-0B13-CD	\$172.00	1 N.C. momentary operator and pilot light		110 VAC/VDC	Red	Clear	Pushbutton: "STOP" Pilot light: Blank plate
XCS-0B13-OD	\$172.00	1 N.O. momentary operator and pilot light		110 VAC/VDC	Green	Red	Pushbutton: "START" Pilot light: Blank plate
XCS-0B13-UD	\$215.00	1 N.O. / 1 N.C. momentary and pilot light		110 VAC/VDC	Black	Red	Two blank plates

XCS Two Mini Momentary Contact Pushbuttons and Pilot Light							
Part Number (Includes cover with device)	Price	Description	Diagram	LED Voltage	Pushbutton Colors	Lens Color	Legend Plate Marking
XCS-0A15D	\$272.00	Mini red operator with 1 N.C. momentary contact and mini green operator with 1 N.O. momentary contact, and pilot light		110 VAC/VDC	Green Red	Red	N.O. Pushbutton: "START" N.C. Pushbutton: "STOP" Pilot light: Blank plate

* We also offer a large selection of optional legend plates. See accessories later in this section.

KILLARK XCS Series Cover Assemblies and Control Stations - Selector Switches



Selector Switch

Key-Operated
Selector Switch

Listings

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11714
- Class I, Zones 1 & 2, Groups IIB, IIA



XCS Two-Position Maintained Contact Selector Switches								
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Right Position Left Contact	Right Position Right Contact	Knob Color	Legend Plate Marking*
XCS-0S2A1	\$168.00	1 N.O. / 1 N.C.					Black	"OFF ON"
XCS-0S2A5	\$221.00	2 N.O. / 2 N.C.					Black	"OFF ON"

XCS Two-Position Key-Operated Maintained Contact Selector Switches								
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Right Position Left Contact	Right Position Right Contact	Key	Legend Plate Marking*
XCS-0K2A1A	\$208.00	1 N.O. / 1 N.C.					Key may be removed in all positions	"OFF ON"
XCS-0K2A5A	\$262.00	2 N.O. / 2 N.C.					Key may be removed in all positions	"OFF ON"

XCS Three-Position Maintained Contact Selector Switches										
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Center Position Left Contact	Center Position Right Contact	Right Position Left Contact	Right Position Right Contact	Knob Color	Legend Plate Marking*
XCS-0S3C4	\$168.00	1 N.O. / 1 N.C.							Black	"HAND OFF AUTO"
XCS-0S3C5	\$221.00	2 N.O. / 2 N.C.							Black	"HAND OFF AUTO"

XCS Three-Position Key-Operated Maintained Contact Selector Switches										
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Center Position Left Contact	Center Position Right Contact	Right Position Left Contact	Right Position Right Contact	Key	Legend Plate Marking*
XCS-0K3C4A	\$208.00	1 N.O. / 1 N.C.							Key may be removed in all positions	"HAND OFF AUTO"
XCS-0K3C5A	\$262.00	2 N.O. / 2 N.C.							Key may be removed in all positions	"HAND OFF AUTO"

* We also offer a large selection of optional legend plates. See accessories later in this section.

KILLARK XCS Series Cover Assemblies and Control Stations - Selector Switches



Selector Switch

Listings

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11714
- Class I, Zones 1 & 2, Groups IIB, IIA



XCS Two-Position Spring Return Selector Switch							
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Right Position Left Contact	Right Position Right Contact	Legend Plate Marking*
XCS-0S2L3F	\$228.00	1 N.O. / 1 N.C., spring return from right; requires SWB series deep style splice/device box					"OFF ON"

XCS Three-Position Spring Return Selector Switches										
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Center Position Left Contact	Center Position Right Contact	Right Position Left Contact	Right Position Right Contact	Knob Color	Legend Plate Marking*
XCS-0S3M6G	\$228.00	2 N.O., spring return to center from left and right; requires SWB series deep style splice/device box							Black	"HAND OFF AUTO"
XCS-0S3L6G	\$228.00	2 N.O., spring return to center from right, maintained in center and left; requires SWB series deep style splice/device box							Black	"HAND OFF AUTO"
XCS-0S3R6G	\$228.00	2 N.O., spring return to center from left, maintained in center and right; requires SWB series deep style splice/device box							Black	"HAND OFF AUTO"

* We also offer a large selection of optional legend plates. See accessories later in this section.

KILLARK XCS Series Cover Assemblies and Control Stations



**Key-Operated
Selector Switch**

Listings

- UL Listed; File E53360
- Class I, Div. 1 & 2, Groups C, D
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 7 (C, D) 9 (E, F, G)
- CSA Certified; File LR11714
- Class I, Zones 1 & 2, Groups IIB, IIA



XCS Two-Position Key-Operated Spring Return Selector Switches								
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Right Position Left Contact	Right Position Right Contact	Key	Legend Plate Marking*
XCS-0K2L3F22A	\$228.00	1 N.O. / 1 N.C., spring return from right; requires SWB series deep style splice/device box					Key may be removed in left position only	"OFF ON"

XCS Three-Position Key-Operated Spring Return Selector Switches										
Part Number (Includes cover with device)	Price	Description	Left Position Left Contact	Left Position Right Contact	Center Position Left Contact	Center Position Right Contact	Right Position Left Contact	Right Position Right Contact	Key	Legend Plate Marking*
XCS-0K3M6G32A	\$228.00	2 N.O., spring return to center from left and right; requires SWB series deep style splice/device box							Key may be removed in center position only	"HAND OFF AUTO"
XCS-0K3L6G32A	\$228.00	2 N.O., spring return to center from right, maintained in center and left; requires SWB series deep style splice/device box								"HAND OFF AUTO"
XCS-0K3R6G32A	\$228.00	2 N.O., spring return to center from left, maintained in center and right; requires SWB series deep style splice/device box								"HAND OFF AUTO"

* We also offer a large selection of optional legend plates. See accessories later in this section.

KILLARK Accessories and Replacement Parts

Sealing Fitting

The purpose of seals in a Class I hazardous location is to minimize the passage of gases and vapors and prevent the passage of flames from one electrical installation to another through the conduit system. Consult the electrical code or your local inspector for more detailed information.



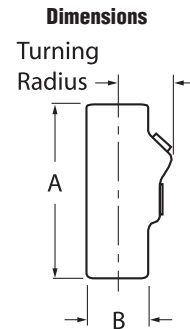
**ENY-2
Sealing Fitting**

ENY Sealing Fitting Dimensions					
Part Number	Price	Hub Size (inches)	Dimensions (in-mm)		Turning Radius*
			A	B	
ENY-2	\$20.00	3/4	4-1/16 (103)	2-1/16 (52)	1-9/32 (33)

**Use Turning Radius to help determine if sealing fitting will fit properly in your installation.*

ENY-2 Sealing Fitting

- Suitable for vertical or horizontal installation
- Copper-free aluminum (less than 0.4 %)
- Electrostatically applied powder coating



Sealing Compound and Packing Fiber



**Sealing
Compound**



Packing Fiber

Ounces Required per Fitting			
Sealing Fitting	Hub Size (inches)	Sealing Compound	Packing Fiber
ENY-2	3/4	2 oz.	1/8 oz.

Sealing Compound

SC series sealing compound is a cement used extensively for sealing conduit to prevent the spread of explosive gases.

- Non-shrinking and forms a secure seal
- Resists acids, water, oil, etc.
- UL listed when used with ENY series sealing fittings
- CE certified when used with any CSA certified sealing fitting

Packing Fiber

- Made from environmentally safe, non-asbestos material
- Easy to use and forms a positive dam to hold sealing compound

Sealing Compound		
Part Number	Price	Size
SC-4-OZ	\$8.00	4 ounces
SC-8-OZ	\$8.00	8 ounces
SC-1-LB	\$14.00	1 pound

Packing Fiber		
Part Number	Price	Size
PF-2	\$20.00	2 ounces
PF-4	\$36.00	4 ounces
PF-16	\$106.00	1 pound

KILLARK Accessories and Replacement Parts - Continued

Accessories and Replacement Parts Overview

We offer an accessory blank cover, a large selection of legend plates, and replacement keys and LEDs.

Replacement contacts are not available for any of our Killark hazardous duty controls. We also do not offer replacement switches, covers, or bolts.

Blank Cover and Replacement Key



X-10
Blank Cover



KEY-C002B
Replacement Key

Blank Cover and Replacement Key		
Part Number	Price	Description
X-10	\$33.00	Blank cover for use with splice/device boxes.
KEY-C002B	\$10.00	Replacement key for FXCS and XCS series key-operated selector switches.

Replacement LED Lamps



Replacement 110 VAC/VDC LED lamps for FXCS and XCS series pilot lights.

Replacement LED Lamps			
Part Number	Price	Color	Volts AC/DC
GOLED-A110	\$43.00	Amber	110 VAC/VDC
GOLED-G110	\$43.00	Green	
GOLED-R110	\$43.00	Red	
GOLED-W110	\$43.00	White	

KILLARK Accessories - Legend Plates

Legend plates

- Engraved aluminum legend plates with red fields.
- Three screws included with each legend plate
- Use with XCS and FXCS series devices



XCSNP-HIGH-LOW



XCSNP-RESET



XCSNP-ON-OFF

Legend Plates			
Legend	Color of Field	Part Number	Price
Blank plate	Red	XCSNP-BLANK	\$10.00
"CLOSE"	Red	XCSNP-CLOSE	\$10.00
"DOWN"	Red	XCSNP-DOWN	\$10.00
"EMERG STOP"	Red	XCSNP-ESTOP	\$10.00
"FAST"	Red	XCSNP-FAST	\$10.00
"FORWARD"	Red	XCSNP-FORWARD	\$10.00
"HIGH"	Red	XCSNP-HIGH	\$10.00
"IN"	Red	XCSNP-IN	\$10.00
"INCH"	Red	XCSNP-INCH	\$10.00
"JOG"	Red	XCSNP-JOG	\$10.00
"JOG FWD"	Red	XCSNP-JOG-FORWARD	\$10.00
"JOG REV"	Red	XCSNP-JOG-REVERSE	\$10.00
"LOW"	Red	XCSNP-LOW	\$10.00
"LOWER"	Red	XCSNP-LOWER	\$10.00
"MOTOR RUN"	Red	XCSNP-MOTOR-RUN	\$10.00
"MOTOR STOP"	Red	XCSNP-MOTOR-STOP	\$10.00
"OFF"	Red	XCSNP-OFF	\$10.00
"ON"	Red	XCSNP-ON	\$10.00
"OPEN"	Red	XCSNP-OPEN	\$10.00
"OUT"	Red	XCSNP-OUT	\$10.00
"POWER ON"	Red	XCSNP-POWER-ON	\$10.00
"RAISE"	Red	XCSNP-RAISE	\$10.00
"READY"	Red	XCSNP-READY	\$10.00
"RESET"	Red	XCSNP-RESET	\$10.00
"REVERSE"	Red	XCSNP-REVERSE	\$10.00
"RUN"	Red	XCSNP-RUN	\$10.00
"SLOW"	Red	XCSNP-SLOW	\$10.00
"START"	Red	XCSNP-START	\$10.00
"STOP"	Red	XCSNP-STOP	\$10.00
"TEST"	Red	XCSNP-TEST	\$10.00

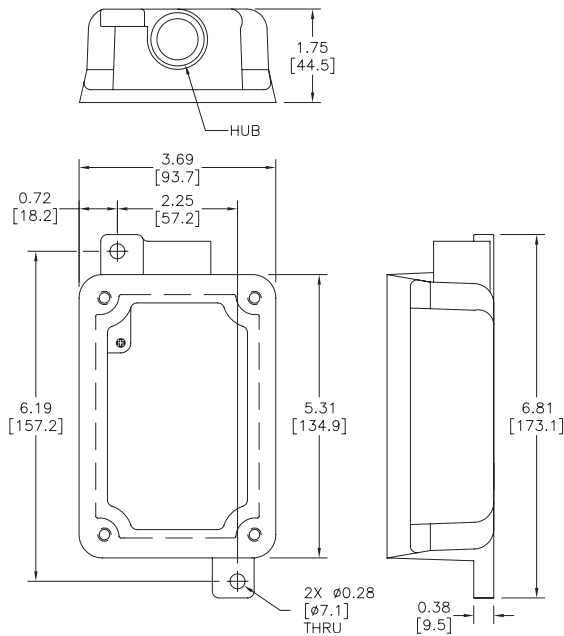
Legend Plates			
Legend	Color of Field	Part Number	Price
"UP"	Red	XCSNP-UP	\$10.00
"FWD REV"	Red	XCSNP-FWD-REV	\$10.00
"HAND AUTO"	Red	XCSNP-HAND-AUTO	\$10.00
"ON OFF"	Red	XCSNP-ON-OFF	\$10.00
"OFF ON"	Red	XCSNP-OFF-ON	\$10.00
"START STOP"	Red	XCSNP-START-STOP	\$10.00
"UP DOWN"	Red	XCSNP-UP-DOWN	\$10.00
"RUN JOG"	Red	XCSNP-RUN-JOG	\$10.00
"JOG RUN"	Red	XCSNP-JOG-RUN	\$10.00
"AUTO HAND"	Red	XCSNP-AUTO-HAND	\$10.00
"MAN AUTO"	Red	XCSNP-MANUAL-AUTO	\$10.00
"OFF REMOTE"	Red	XCSNP-OFF-REMOTE	\$10.00
"START JOG"	Red	XCSNP-START-JOG	\$10.00
"HIGH LOW"	Red	XCSNP-HIGH-LOW	\$10.00
"OPEN CLOSE"	Red	XCSNP-OPEN-CLOSE	\$10.00
"RAISE LOWER"	Red	XCSNP-RAISE-LOWER	\$10.00
"SLOW FAST"	Red	XCSNP-SLOW-FAST	\$10.00
"FWD OFF REV"	Red	XCSNP-FWD-OFF-REV	\$10.00
"HAND OFF AUTO"	Red	XCSNP-HAND-OFF-AUT	\$10.00
"RUN OFF JOG"	Red	XCSNP-RUN-OFF-JOG	\$10.00
"REV OFF FWD"	Red	XCSNP-REV-OFF-FWD	\$10.00
"AUTO OFF HAND"	Red	XCSNP-AUT-OFF-HAND	\$10.00
"HAND OFF REMOTE"	Red	XCSNP-HAND-OFF-REM	\$10.00
"1-OFF-2"	Red	XCSNP-1-OFF-2	\$10.00
"JOG OFF RUN"	Red	XCSNP-JOG-OFF-RUN	\$10.00
"STOP RUN START"	Red	XCSNP-STP-RUN-STRT	\$10.00
"LOCAL OFF REM"	Red	XCSNP-LOCL-OFF-REM	\$10.00
"LOW OFF HIGH"	Red	XCSNP-LOW-OFF-HIGH	\$10.00
"RAISE OFF LOWER"	Red	XCSNP-RAS-OFF-LOWR	\$10.00
"SLOW OFF FAST"	Red	XCSNP-SLOW-OFF-FST	\$10.00

KILLARK Hazardous Location Controls - Dimensions

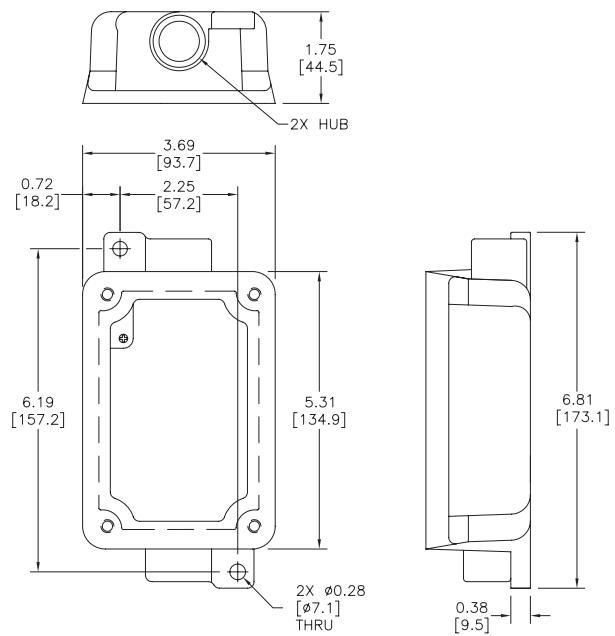
FXB Series Factory Sealed Splice/Device Boxes

Dimensions in inches [mm]

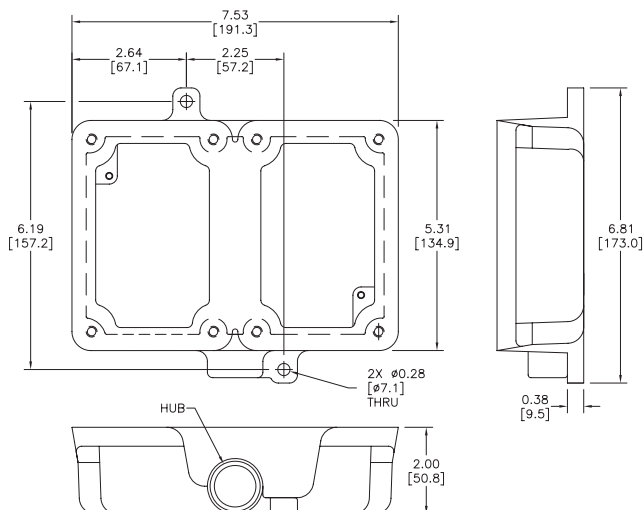
FXB-1, -2, -3



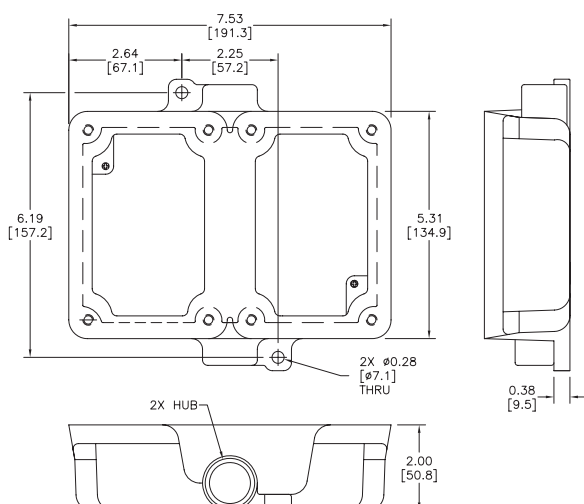
FXB-4, -5, -6



FXB-7, -8, -9



FXB-10, -11, -12



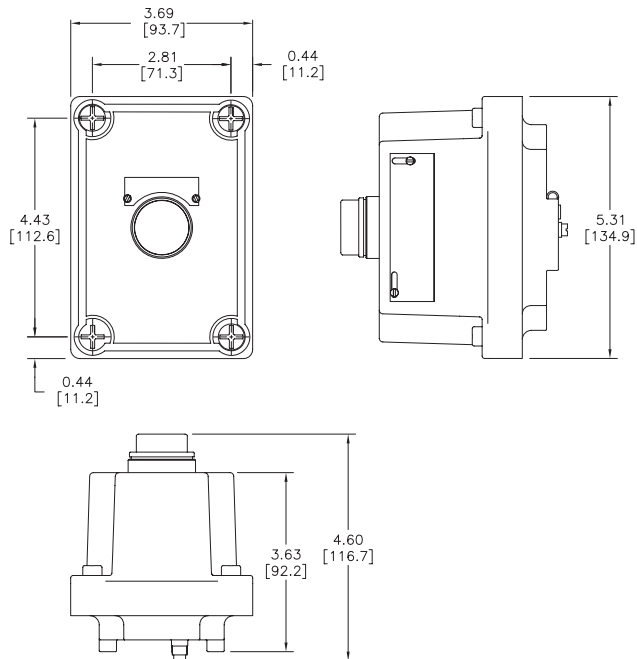
KILLARK Hazardous Location Controls

- Dimensions

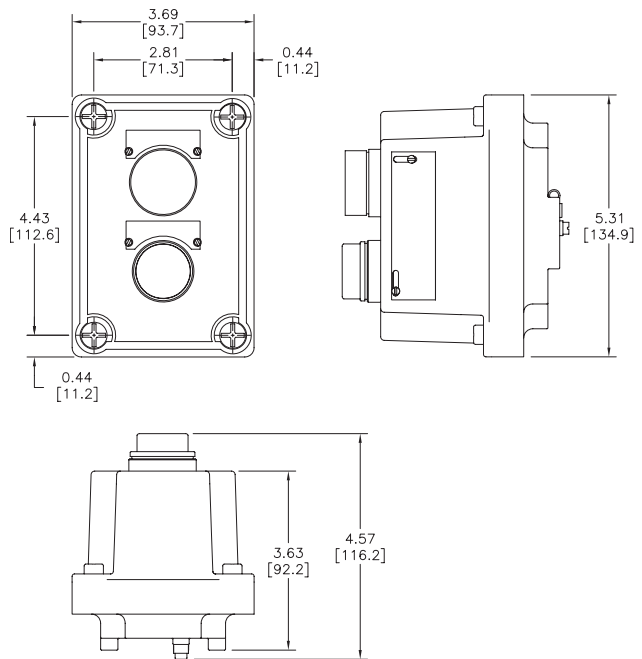
FXCS Series Factory Sealed Cover Assemblies

Dimensions in inches [mm]

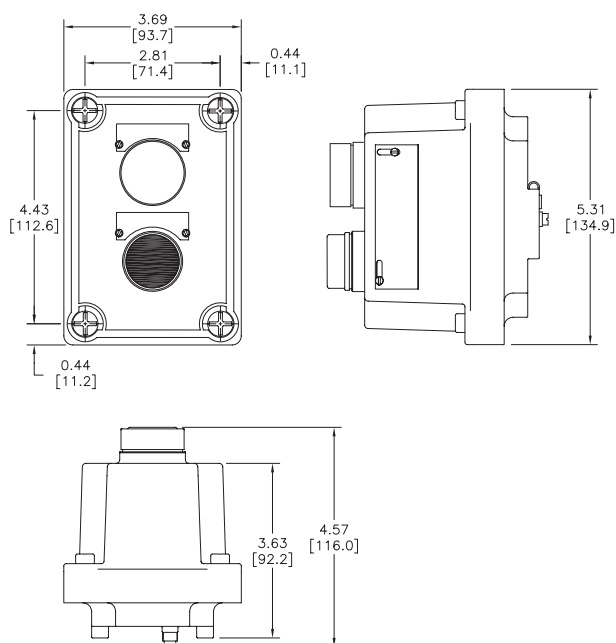
FXCS-0B1, -0B2, -B3



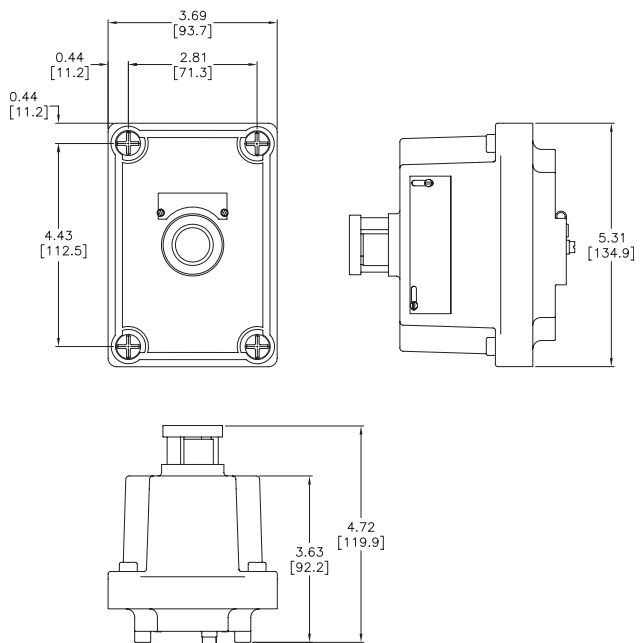
FXCS-0B4, -0B4U



FXCS-0B5, -0B7



FXCS-0B24ALD, -0B24CLD, -0B24GLD, -0B24RLD



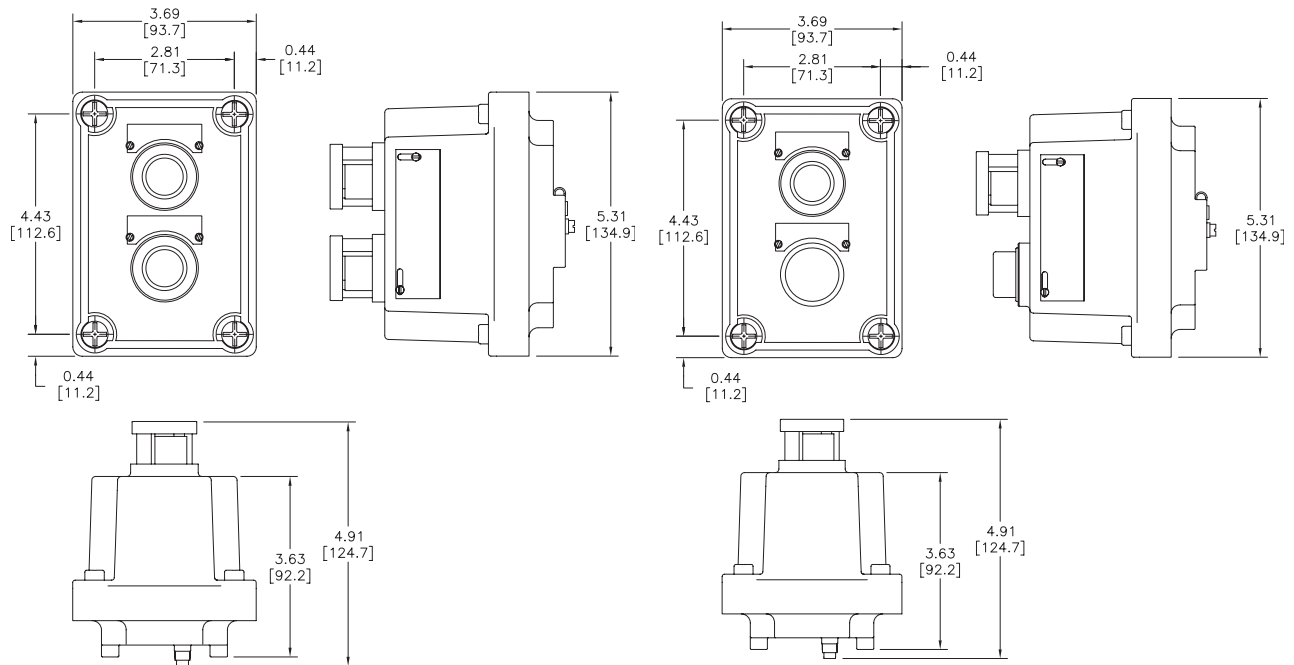
KILLARK Hazardous Location Controls - Dimensions

FXCS Series Factory Sealed Cover Assemblies

Dimensions in inches [mm]

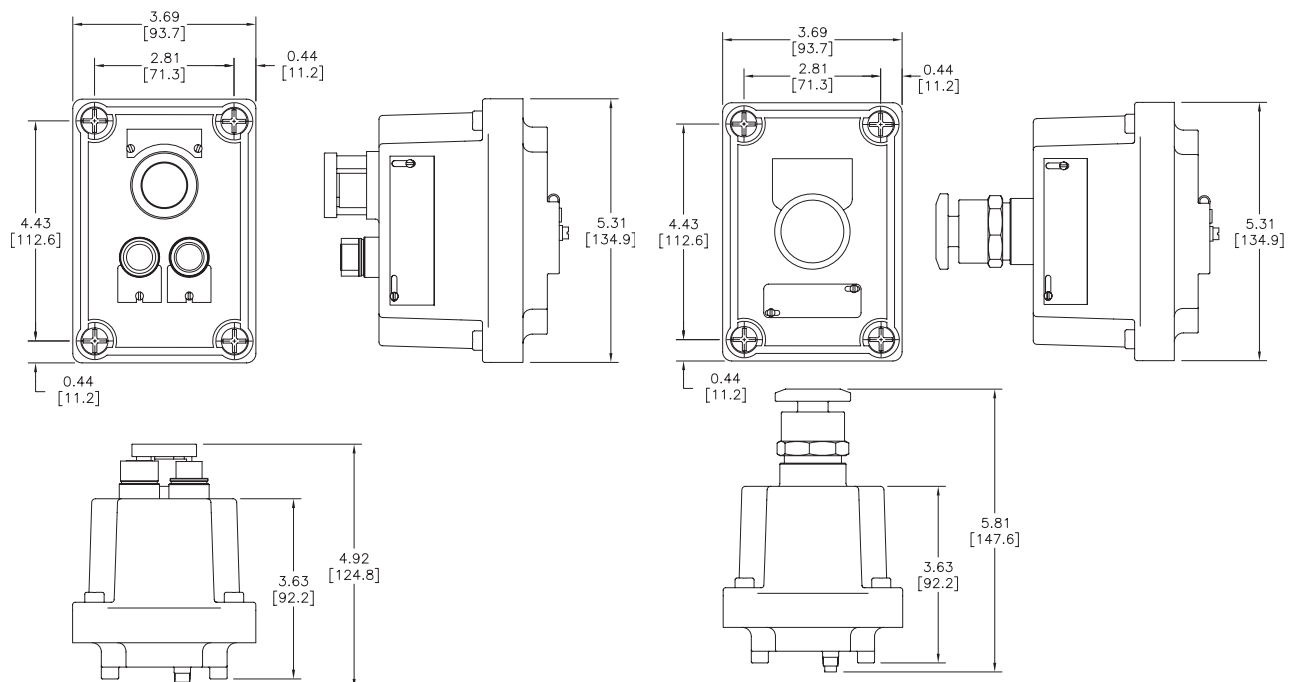
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-0B30RLD, -0B30RLD-GLD**

FXCS-0B13-CD, 0B13-OD, 0B13-UD



FXCS-0A15D

FXCS-0MMG3, -0MMR3, -0MMK3



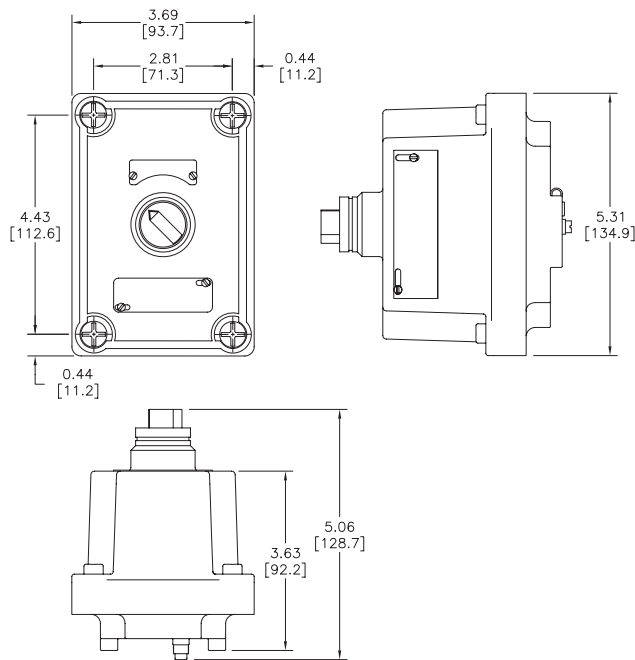
KILLARK Hazardous Location Controls - Dimensions

FXCS Series Factory Sealed Cover Assemblies

Dimensions in inches [mm]

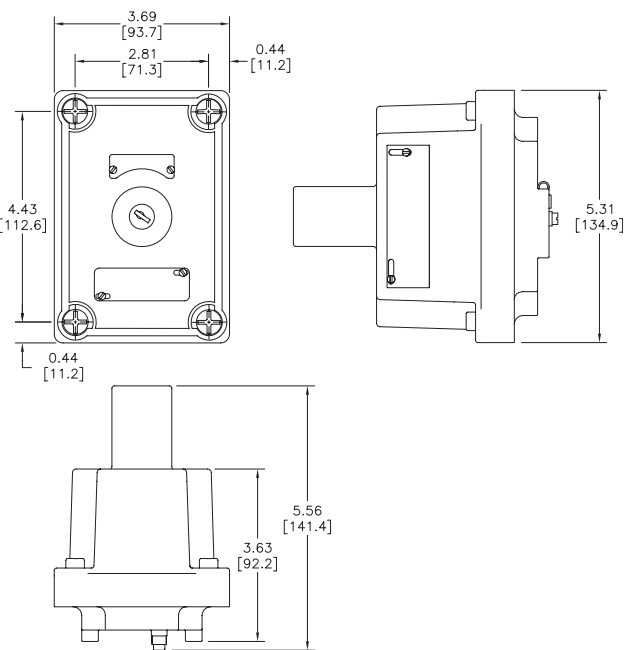
FXCS-0S2A1, -0S2A5

FXCS-0S3C4, -0S3C5



FXCS-0K2A1A, -0K2A5A

FXCS-0K3C4A, -0K3C5A



KILLARK Hazardous Location Controls

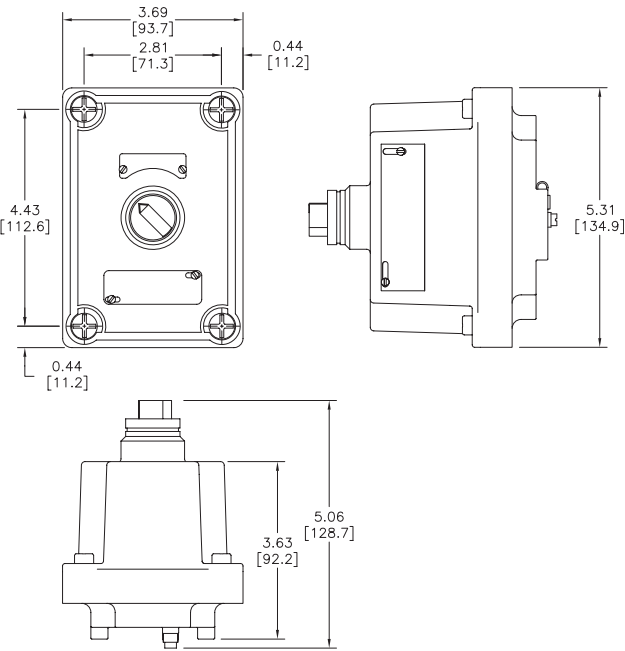
- Dimensions

FXCS Series Factory Sealed Cover Assemblies

Dimensions in inches [mm]

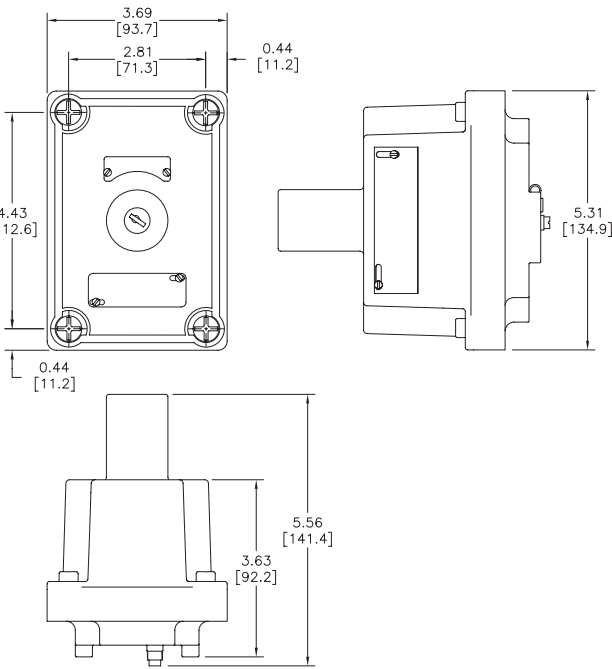
FXCS-0S2L3F

FXCS-0S3MG6G, -0S3L6G, -0S3R6G



FXCS-0K2L3F22A

FXCS-0K3M6G32A, -0K3L6G32A, -0K3R6G32A

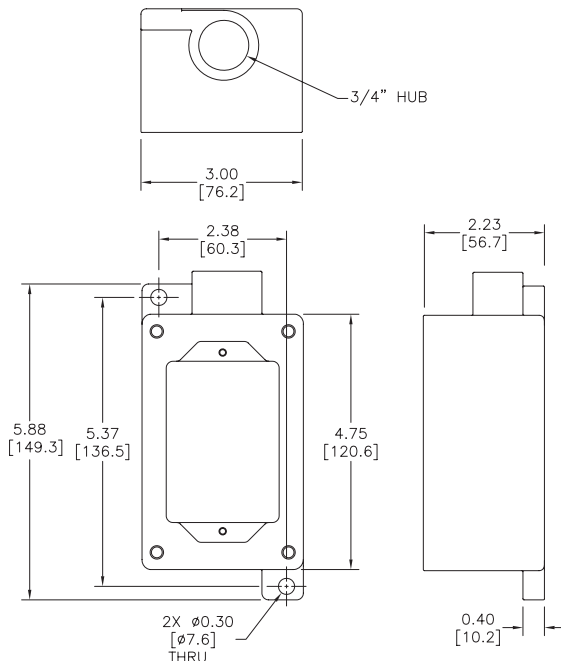


KILLARK Hazardous Location Controls - Dimensions

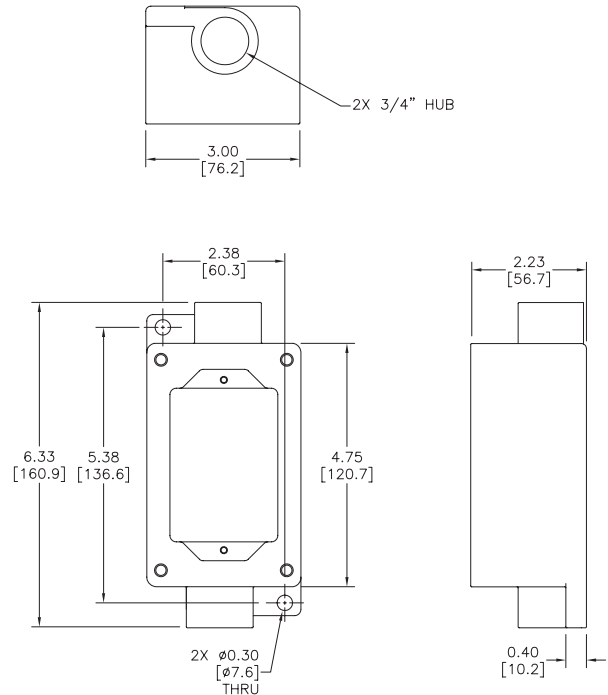
SWB Series Splice/Device Boxes

Dimensions in inches [mm]

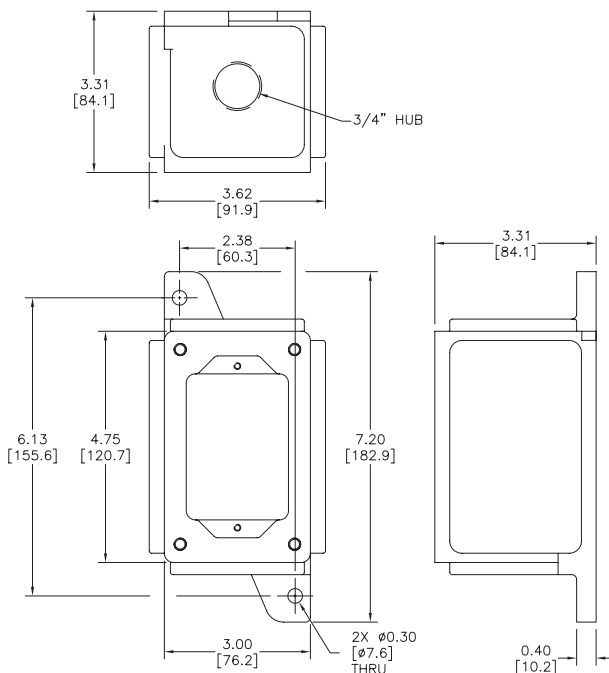
SWB-2



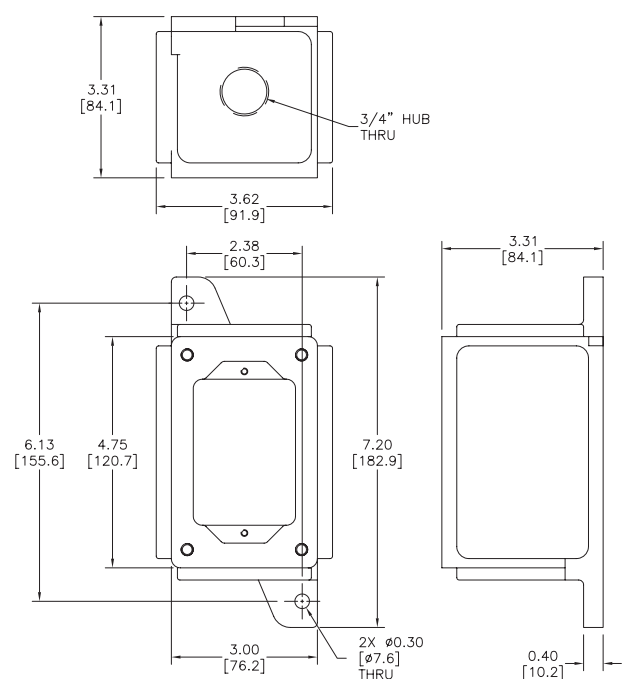
SWB-5



SWB-42



SWB-45

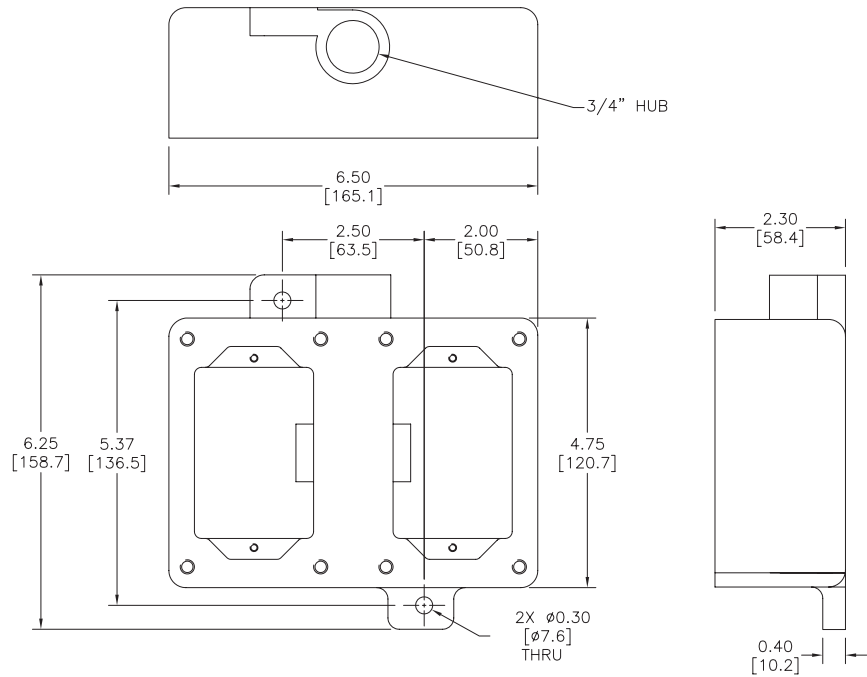


KILLARK Hazardous Location Controls - Dimensions

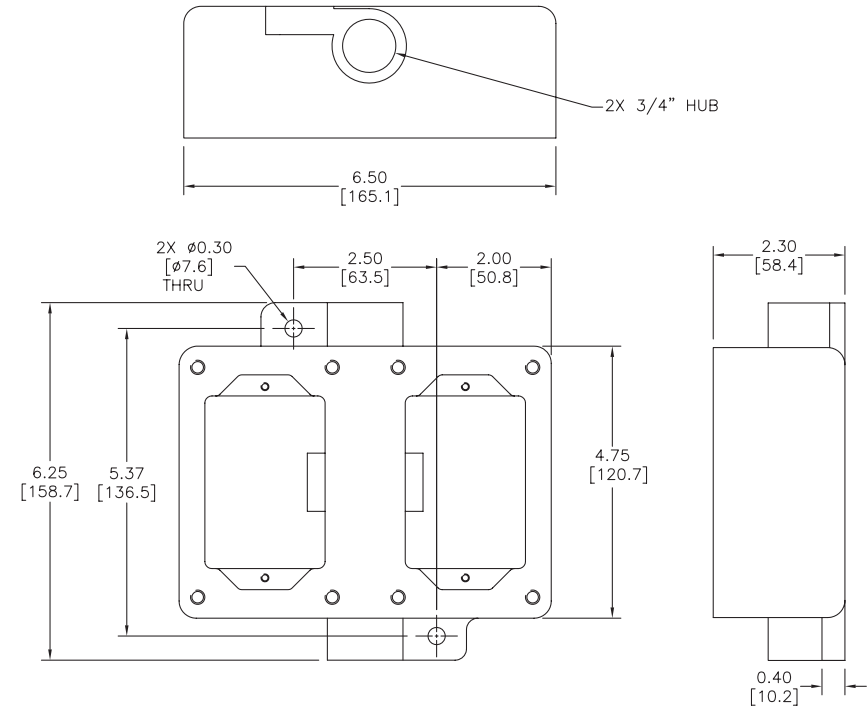
SWB Series Splice/Device Boxes

Dimensions in inches [mm]

SWB-8



SWB-11

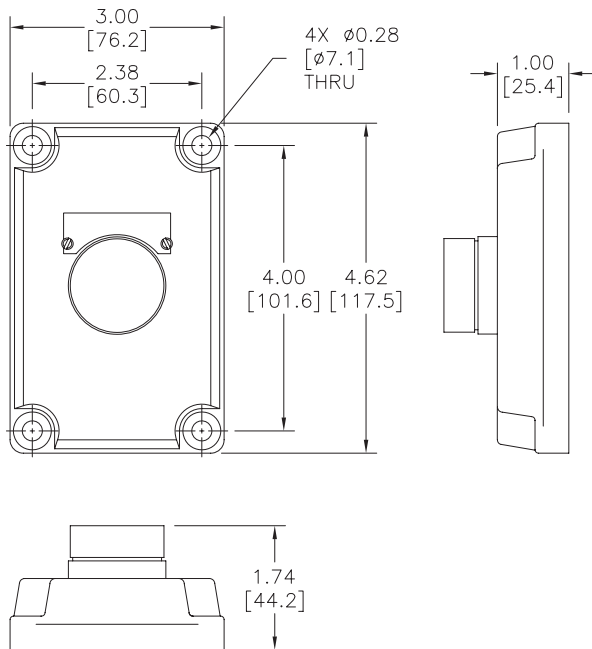


KILLARK Hazardous Location Controls - Dimensions

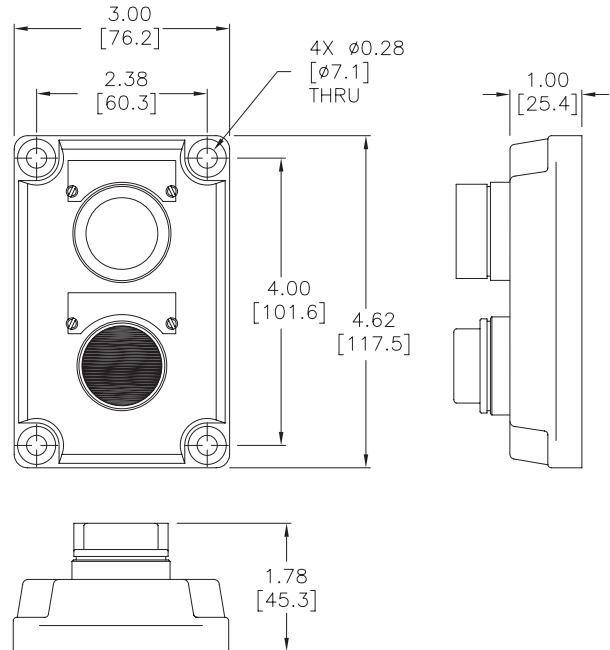
XCS Series Cover Assemblies

Dimensions in inches [mm]

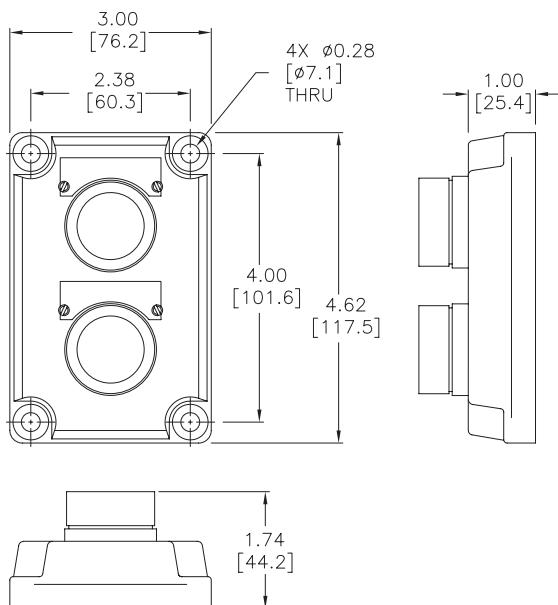
XCS-0B1, -0B2, -0B3



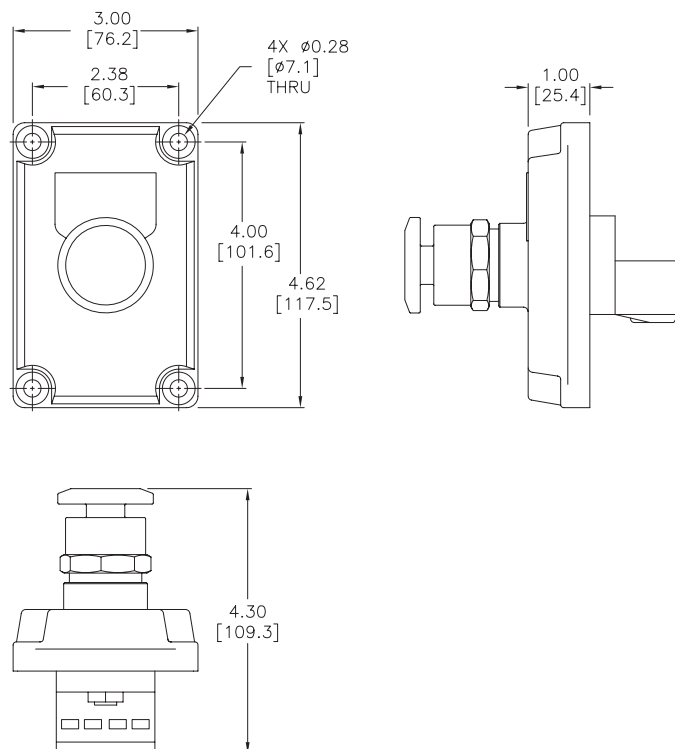
XCS-0B4, -0B4-U



XCS-0B5, -0B7



XCS-0MMG3, -0MMR3, -0MMK3

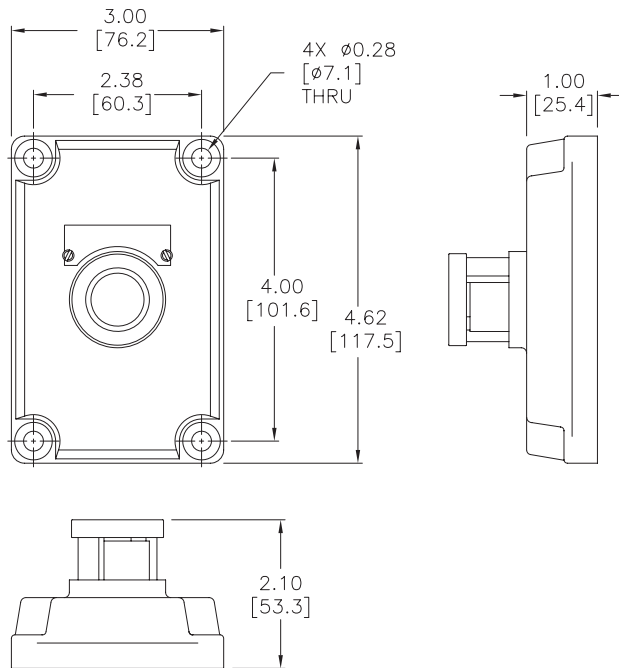


KILLARK Hazardous Location Controls - Dimensions

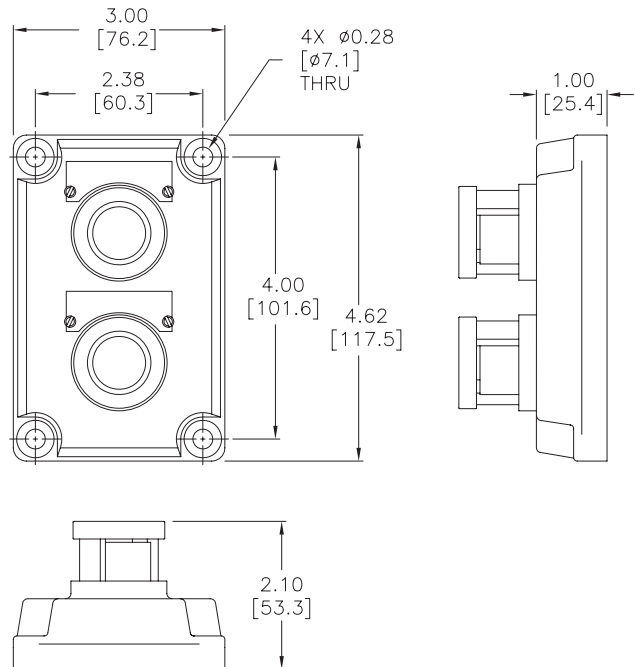
XCS Series Cover Assemblies

Dimensions in inches [mm]

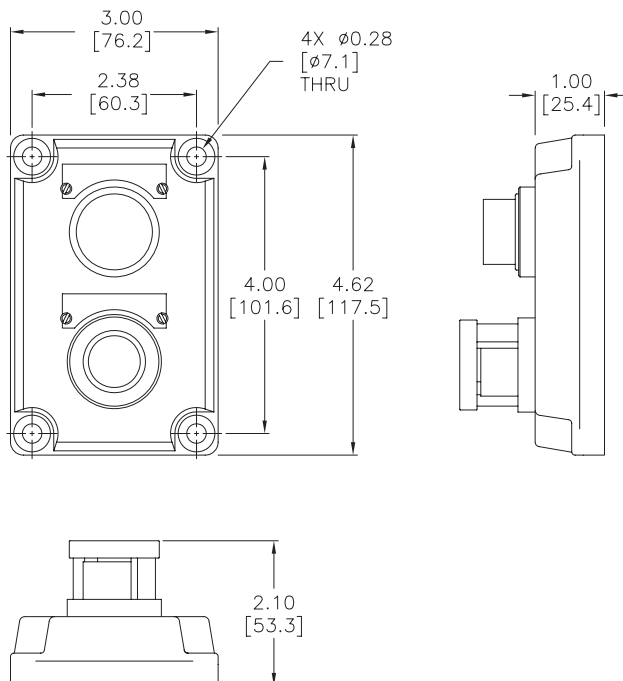
XCS-0B24ALD, -0B24CLD, -0B24RLD



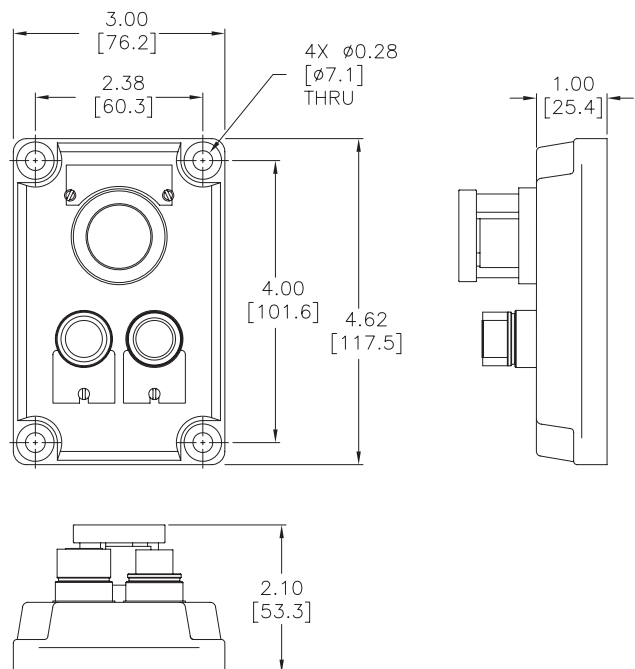
XCS-0B30ALD, -0B30CLD, -0B30GLD, -0B30RLD, -0B30RLD-GLD



XCS-0B13-CD, -0B13-OD, -0B13-UD



XCS-0A15D

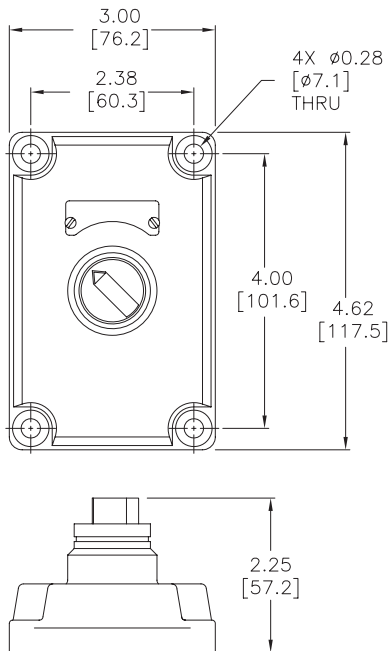


KILLARK Hazardous Location Controls - Dimensions

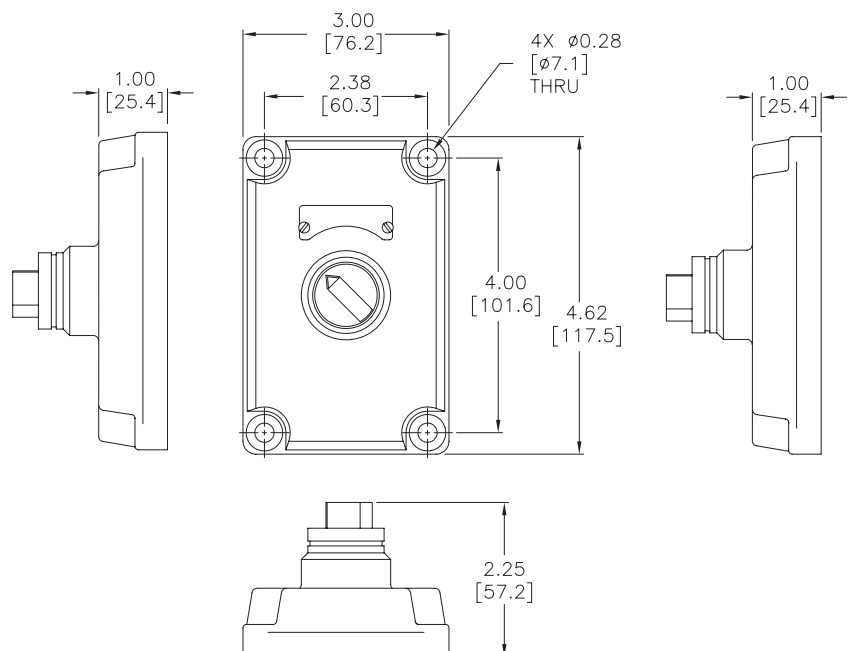
XCS Series Cover Assemblies

Dimensions in inches [mm]

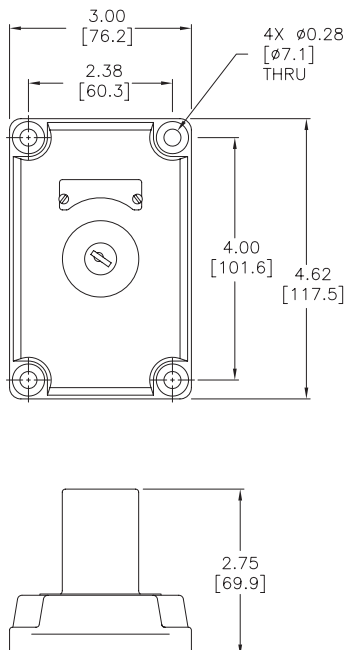
XCS-0S2A1, -0S2A5



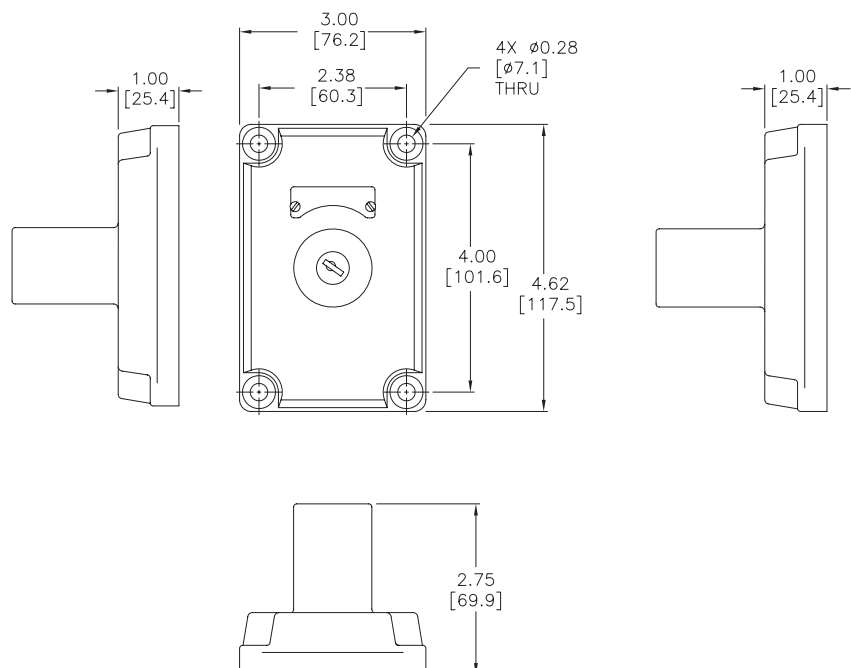
XCS-0S3C4, -0S3C5



XCS-0K2A1A, -0K2A5A



XCS-0K3C4A, -0K3C5A

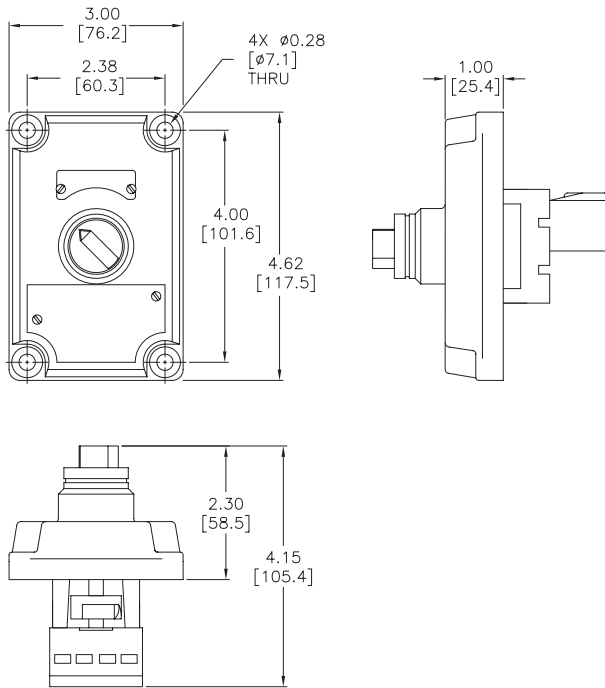


KILLARK Hazardous Location Controls - Dimensions

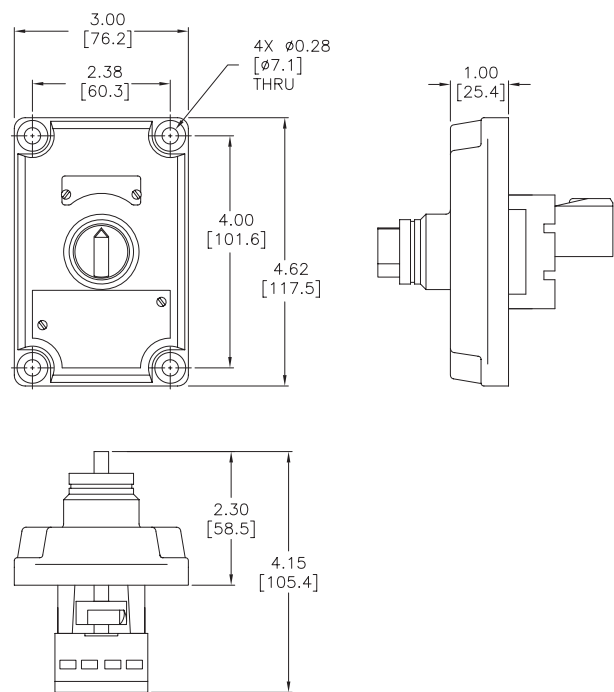
XCS Series Cover Assemblies

Dimensions in inches [mm]

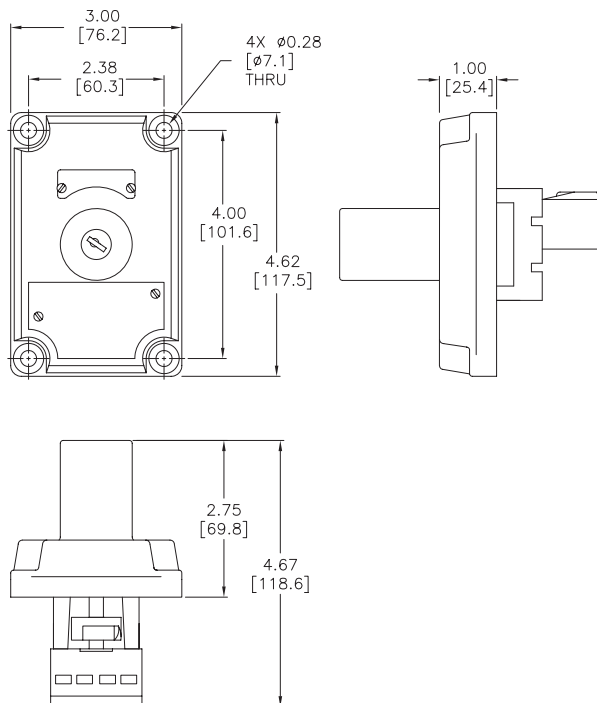
XCS-0S2A1, -0S2A5



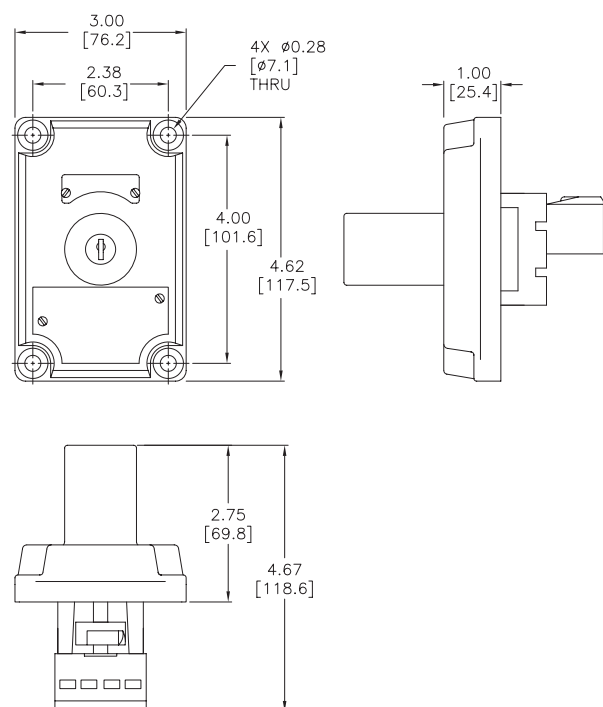
XCS-0S3C4, -0S3C5



XCS-0K2L3F22A

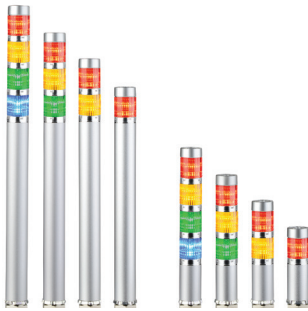


XCS-0K3M6G32A, -0K3L6G32A, -0K3R6G32A



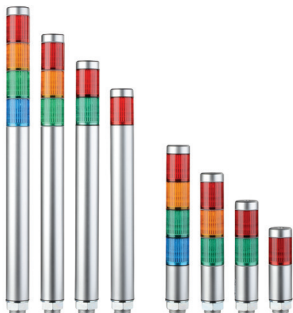
Slim Design LED Signal Towers

PATLITE®



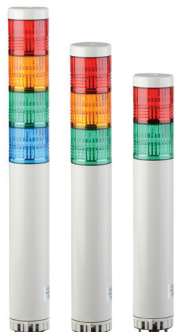
MES-A and ME-A 25mm Super Slim Signal Towers

These rust-free aluminum body signal towers are designed to be direct mounted. LED module lenses are clear and change color when activated. The super slim design is ideal for tight spaces.



MPS and MP 30mm Signal Towers

These LED towers offer superior impact and heat resistance and have an ABS resin main body. They are designed for direct mounting and have a double insulation for enhanced durability and safety.



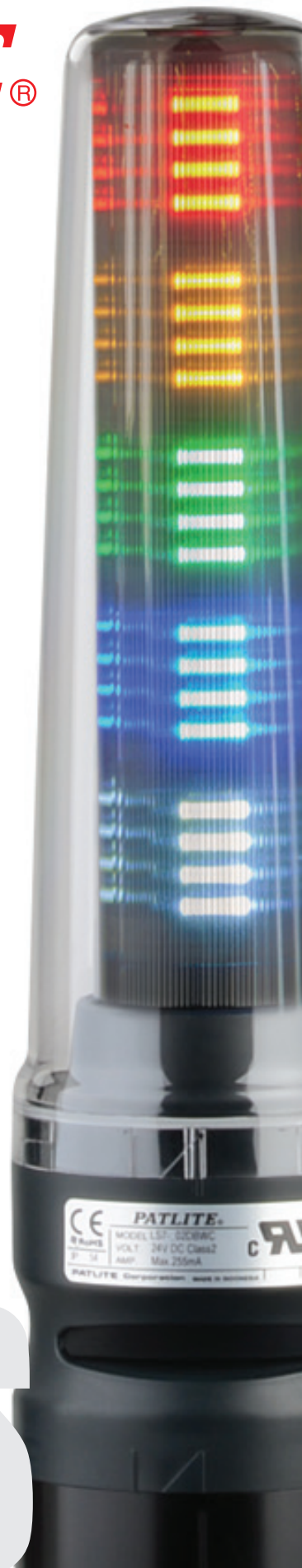
LCE 40mm Signal Towers

The LCE Series features low maintenance and energy efficiency using LED technology.



LS7 70mm Signal Towers

The LS7 Series feature a smooth body surface that reduces adhesion of water and dust. There are no exposed screws, shafts or other metals making these signal towers adaptable in many environments. This model is suitable for high pressure and high temperature wash down environments. An available model with a buzzer has a sound frequency that cuts through loud environments.



PATLITE® 25mm LED Signal Towers

Features

- Slim aluminum body is ideal for small devices
- Prism-cut lens design for enhanced visibility from any direction
- Impact and heat resistant polycarbonate resin lens for superior durability and light transmission
- High intensity illumination design
- Direct mount installation with a single hole
- Interchangeable modules do not need re-wiring, even after installation
- Corrosion resistant anodized aluminum body
- UL recognized File No. E215660
- NPN models IP42; PNP models IP65



MES-A

ME-A

Patlite® 25mm LED Signal Towers Selection								
Part Number	Price	Modules		Polarity	Light Function	Wiring	Body Style	Mounting
		#	LED					
MES-102A-R	\$79.00	1	red	NPN	Continuous light	460mm pigtail	Short body	Direct mount installation
MES-202A-RG	\$105.00	2	red, green					
MES-302A-RYG	\$125.00	3	red, amber, green					
MES-402A-RYGB	\$149.00	4	red, amber, green, blue					
MES-102P-R	\$79.00	1	red	PNP				
MES-202P-RG	\$99.00	2	red, green					
MES-302P-RYG	\$129.00	3	red, amber, green					
MES-402P-RYGB	\$149.00	4	red, amber, green, blue					
ME-102A-R	\$79.00	1	red	NPN	Continuous light	300mm pigtail	Standard body	
ME-202A-RG	\$105.00	2	red, green					
ME-302A-RYG	\$134.00	3	red, amber, green					
ME-402A-RYGB	\$157.00	4	red, amber, green, blue					
ME-102P-R	\$79.00	1	red	PNP				
ME-202P-RG	\$105.00	2	red, green					
ME-302P-RYG	\$134.00	3	red, amber, green					
ME-402P-RYGB	\$157.00	4	red, amber, green, blue					

Note: Please see the accessories section of this section for optional and/or replacement components.
Colors in order from left to right.

PATLITE® 25mm LED Signal Towers

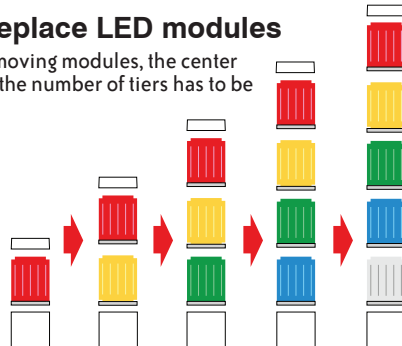
Specifications

Patlite® 25mm Signal Towers Technical Specifications											
# of Tiers	Part Number		Rated Voltage		Operating Voltage		Power Consumption		Weight g [oz]		
1	MES-102A-R		24VDC		±10%		0.6 W		120 [4.23]		
	MES-102P-R								220 [7.76]		
	ME-102A-R										
	ME-102P-R										
2	MES-202A-RG						1.1 W		130 [4.59]		
	MES-202P-RG								230 [8.11]		
	ME-202A-RG										
	ME-202P-RG										
3	MES-302A-RYG						1.7 W		140 [4.94]		
	MES-302P-RYG								240 [8.47]		
	ME-302A-RYG										
	ME-302P-RYG										
4	MES-402A-RYGB						2.3 W		150 [5.29]		
	MES-402P-RYGB								250 [8.82]		
	ME-402A-RYGB										
	ME-402P-RYGB										
Signal wire current (Rated Current Consumption)		LED Unit		Red		Amber		Green		Blue	
				NPN	PNP	NPN	PNP	NPN	PNP	NPN	PNP
		Typical		25.2 mA		25.2 mA		13.3 mA	20.3 mA	13.3 mA	20.5 mA
		Max		30.2 mA	27.2 mA	29.2 mA	17.0 mA	23.8 mA	17.0 mA	27.0 mA	
Luminosity			>1300mcd	>350mcd	>800mcd	>700mcd	>1100mcd	>500mcd	>500mcd	>250mcd	
Wire Size			22AWG								
Operating ambient temperature			-10°C to +55°C [+14°F to +133°F]								
Operating ambient humidity			Less than 90% (no condensation)								
Vibration resistance			19.6 m/s² @ 30Hz								
Insulation resistance			More than 1MΩ at 500VDC between the terminals and the chassis								
Withstand voltage			500VAC applied for 1 min between terminals and chassis without breaking insulation								
Ingress protection rating			PNP models IP65, NPN models IP42								
Conformity standards			UL 508, CSA-C22.2 No.14, RoHs Directive (EN 50581)								

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Easily add or replace LED modules

When adding or removing modules, the center screw that matches the number of tiers has to be purchased.



Interchangeable LED Modules

Color sequence is changeable by adding or removing up to 5 color modules even after installation.

NOTE: LED modules of the same color within a signal tower will light up simultaneously.

Wiring does not change

The LED module colors correspond to the wiring, so re-wiring is not necessary.



PATLITE® 25mm LED Signal Towers

Accessories

Accessories for Patlite® 25mm Signal Towers		
Part Number	Price	Description
B72100223-1F1	\$29.00	Red NPN LED module
B72100223-2F1	\$29.00	Amber NPN LED module
B72100115-3F1	\$29.00	Green NPN LED module
B72100115-4F1	\$29.00	Blue NPN LED module
B72100115-7F1	\$29.00	Clear/white NPN LED module
B72100226-1F1	\$35.00	Red PNP LED module
B72100226-2F1	\$35.00	Amber PNP LED module
B72100135-3F1	\$35.00	Green PNP LED module
B72100135-4F1	\$35.00	Blue PNP LED module
B72100135-7F1	\$35.00	Clear/white PNP LED module
S33552110-0346F1	\$5.00	1-tier center screw, zinc plated steel
S33552110-0376F1	\$6.00	2-tier center screw, zinc plated steel
S33552110-03108F1	\$6.00	3-tier center screw, zinc plated steel
S33552110-03138F1	\$6.00	4-tier center screw, zinc plated steel
SZ-013	\$8.00	"L" angle aluminum mounting bracket, 22mm diameter, steel
B32310020-F1	\$8.00	25mm diameter cap, ABS plastic



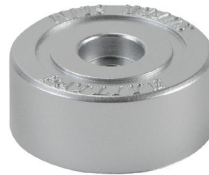
B72100223, B72100115



B72100226, B72100135



S33552110



B32310020-F1

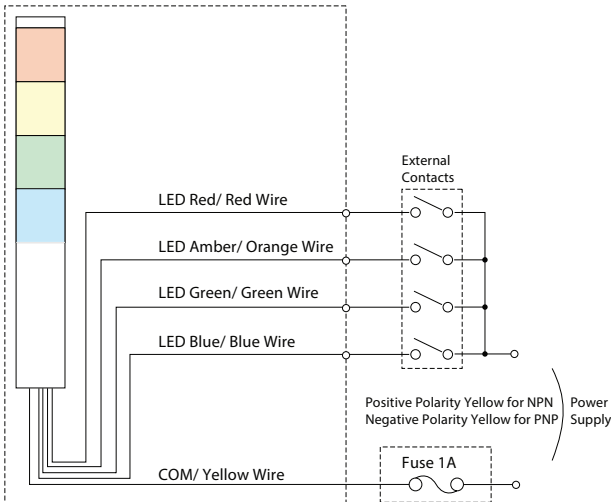


SZ-013

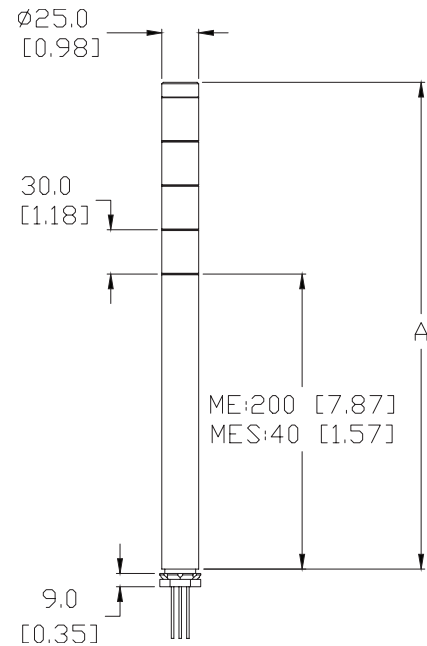
PATLITE® 25mm LED Signal Towers

Wiring

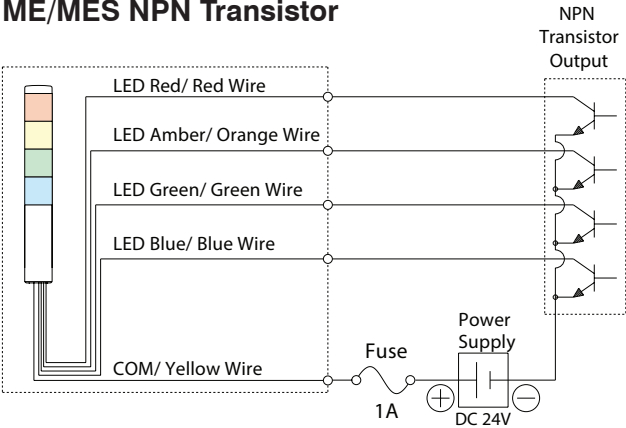
ME/MES Contact/Switch



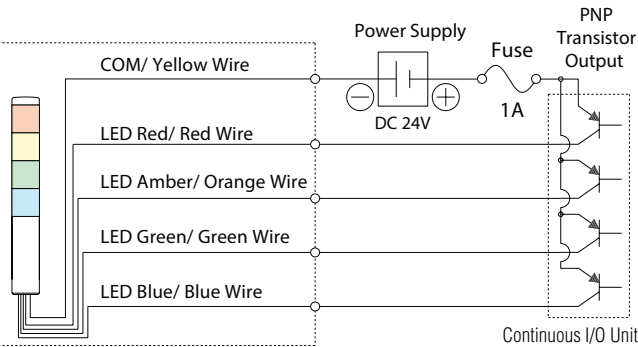
Dimensions mm [in]



ME/MES NPN Transistor

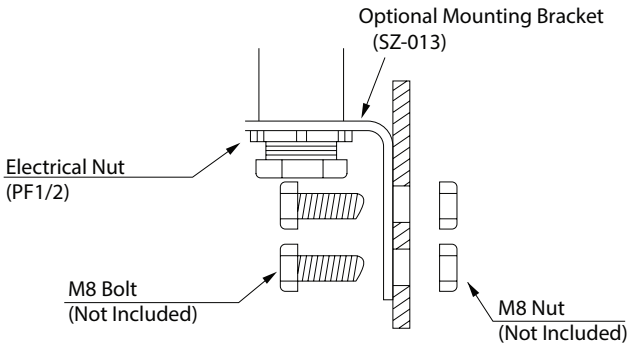
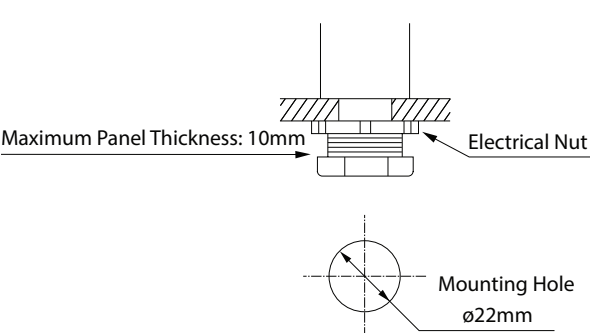


ME/MES PNP Transistor



A Dimensions – mm [in]			
MES-102A-R	80 [3.15]	ME-102A-R	240 [9.45]
MES-202A-RG	110 [4.33]	ME-202A-RG	270 [10.63]
MES-302A-RYG	140 [5.51]	ME-302A-RYG	300 [11.81]
MES-402A-RYGB	170 [6.69]	ME-402A-RYGB	330 [12.99]
MES-102P-R	80 [3.15]	ME-102P-R	240 [9.45]
MES-202P-RG	110 [4.33]	ME-202P-RG	270 [10.63]
MES-302P-RYG	140 [5.51]	ME-302P-RYG	300 [11.81]
MES-402P-RYGB	170 [6.69]	ME-402P-RYGB	330 [12.99]

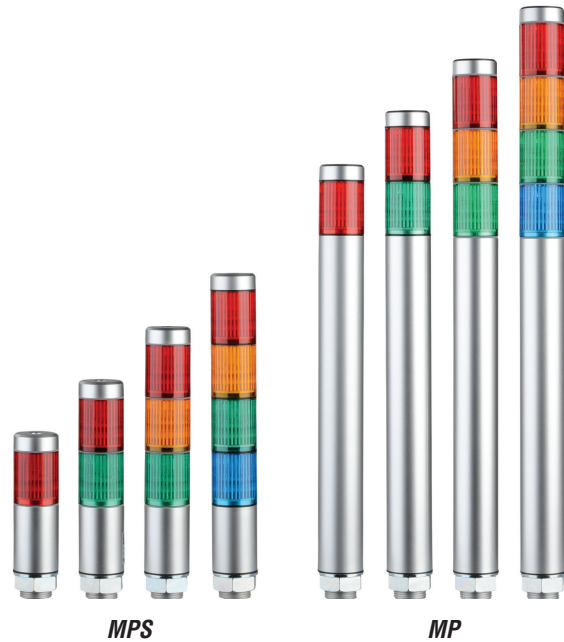
See our website: www.AutomationDirect.com for complete engineering drawings.



PATLITE® 30mm LED Signal Towers

Features

- Prism-cut lens design for enhanced visibility from any direction
- Double-insulated construction for enhanced durability and safety in the work environment.
- Direct mount installation with just a single hole.
- Interchangeable modules do not need re-wiring, even after installation
- Main body is constructed of superior impact and heat resistant ABS resin.
- Lens is made of superior weather resistant and light translucent AS resin.
- Optional MP-B buzzer available. Please see accessories section for ordering information.
- UL recognized File No. E215660
- IP65 ingress protection rating



Patlite® 30mm LED Signal Towers Selection										
Part Number	Price	Modules		Polarity	Light Function	Wiring	Body Style	Mounting		
		#	LED							
MPS-102-R	\$79.00	1	red	NPN/PNP	Continuous light	1000mm pigtail	Short body	Direct mount installation		
MPS-202-RG	\$103.00	2	red, green							
MPS-302-RYG	\$130.00	3	red, amber, green							
MPS-402-RYGB	\$153.00	4	red, amber, green, blue							
MPS-102-RZ	\$79.00	1	red							
MPS-202-RGZ	\$107.00	2	red, green							
MPS-302-RYGZ	\$134.00	3	red, amber, green							
MPS-402-RYGBZ	\$157.00	4	red, amber, green, blue							
MPS-102C-R	\$79.00	1	red			M12 Connector	Standard body			
MPS-202C-RG	\$99.00	2	red, green							
MPS-302C-RYG	\$129.00	3	red, amber, green							
MP-102-R	\$79.00	1	red						1180mm pigtail	Standard body
MP-202-RG	\$109.00	2	red, green							
MP-302-RYG	\$129.00	3	red, amber, green							
MP-402-RYGB	\$155.00	4	red, amber, green, blue							
MP-102-RZ	\$85.00	1	red							
MP-202-RGZ	\$109.00	2	red, green							
MP-302-RYGZ	\$139.00	3	red, amber, green							
MP-402-RYGBZ	\$159.00	4	red, amber, green, blue							
MP-102C-R	\$79.00	1	red	M12 Connector						
MP-202C-RG	\$109.00	2	red, green							
MP-302C-RYG	\$135.00	3	red, amber, green							

Note: Please see the accessories section of this section for optional and/or replacement components.
Colors in order from left to right.

PATLITE® 30mm LED Signal Towers

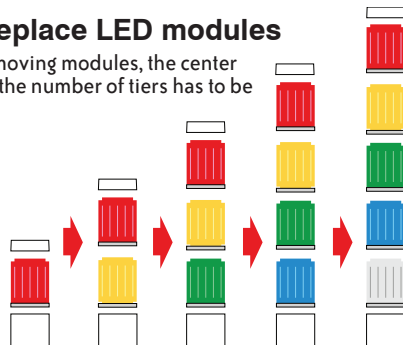
Specifications

Patlite® 30mm Signal Towers Technical Specifications						
# of Tiers	Part Number	Rated Voltage	Operating Voltage	Power Consumption	Weight g [oz]	
1	MPS-102-R	24V AC/DC	±10%	0.7 W	110 [3.88]	
	MPS-102-RZ					
	MPS-102C-R	24VDC			210 [7.41]	
	MP-102-R	24V AC/DC				
	MP-102-RZ					
	MP-102C-R	24VDC				
2	MPS-202-RG	24V AC/DC		±10%	1.4 W	130 [4.59]
	MPS-202-RGZ					
	MPS-202C-RG	24VDC				230 [8.11]
	MP-202-RG	24V AC/DC				
	MP-202-RGZ					
	MP-202C-RG	24VDC				
3	MPS-302-RYG	24V AC/DC		±10%	2.0 W	150 [5.29]
	MPS-302-RYGZ					
	MPS-302C-RYG	24VDC				250 [8.82]
	MP-302-RYG	24V AC/DC				
	MP-302-RYGZ					
	MP-302C-RYG	24VDC				
4	MPS-402-RYGB	24V AC/DC		±10%	2.6 W	170 [6.0]
	MPS-402-RYGBZ					
	MP-402-RYGB					270 [9.52]
	MP-402-RYGBZ					
Signal wire current (Rated Current Consumption)	LED Unit	Red	Amber		Green	Blue
	Typical	29.0 mA	29.5 mA		17.1 mA	17.1 mA
	Max	32.7 mA	34.5 mA	21.4 mA	21.4 mA	
Luminosity		550mcd	650mcd	1900mcd	700mcd	
Wire Size		22AWG				
Operating ambient temperature		-30°C to +60°C [-22°F to +140°F]				
Operating ambient humidity		Less than 90% (no condensation)				
Vibration resistance		19.6 m/s² @ 30Hz				
Insulation resistance		More than 1MΩ at 500VDC between the terminals and the chassis				
Withstand voltage		500VAC applied for 1 min between terminals and chassis without breaking insulation				
Ingress protection rating		IP65 (IEC 60529)				
Conformity standards		UL 508, CSA-C22.2 No.14, RoHs Directive (EN 50581)				

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Easily add or replace LED modules

When adding or removing modules, the center screw that matches the number of tiers has to be purchased.



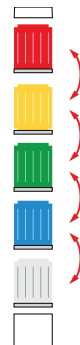
Interchangeable LED Modules

Color sequence is changeable by adding or removing up to 5 color modules even after installation.

NOTE: LED modules of the same color within a signal tower will light up simultaneously.

Wiring does not change

The LED module colors correspond to the wiring, so re-wiring is not necessary.



PATLITE® 30mm LED Signal Towers

Accessories

Accessories for Patlite® 30mm Signal Towers		
Part Number	Price	Description
MP-B	\$59.00	80dB @ 1 meter / 3,000Hz add-on alarm; activated by red module
B72100182-1F1	\$35.00	Red LED module
B72100182-2F1	\$35.00	Amber LED module
B72100182-3F1	\$35.00	Green LED module
B72100182-4F1	\$35.00	Blue LED module
B72100182-7F1	\$35.00	Clear/white LED module
B72100192-1F1	\$35.00	Red LED module with clear lens
B72100192-2F1	\$35.00	Amber LED module with clear lens
B72100192-3F1	\$35.00	Green LED module with clear lens
B72100192-4F1	\$35.00	Blue LED module with clear lens
S33552120-0355F1	\$5.00	1-tier center screw, zinc plated steel
S33552120-0390F1	\$5.00	2-tier center screw, zinc plated steel
S33552120-03125F1	\$6.00	3-tier center screw, zinc plated steel
S33552120-03160F1	\$6.00	4-tier center screw, zinc plated steel
B25110032-F1	\$6.00	LED module o-ring, silicone
SZ-904	\$15.00	22mm to 3/4" FNPT adapter, aluminum
SZ-150	\$19.00	220mm extension pole, ABS plastic
SZ-013	\$8.00	"L" angle mounting bracket, 22mm diameter, aluminum
B32310025-F1	\$8.00	30mm diameter cap, ABS plastic



MP-B



B72100xxx-xF1



SZ-150



SZ-904



S33552120-03xxxxx



B32310025-F1



B25110032-F1

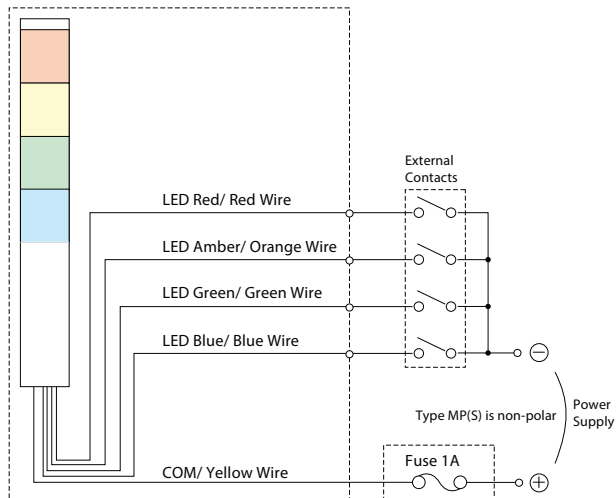


SZ-013

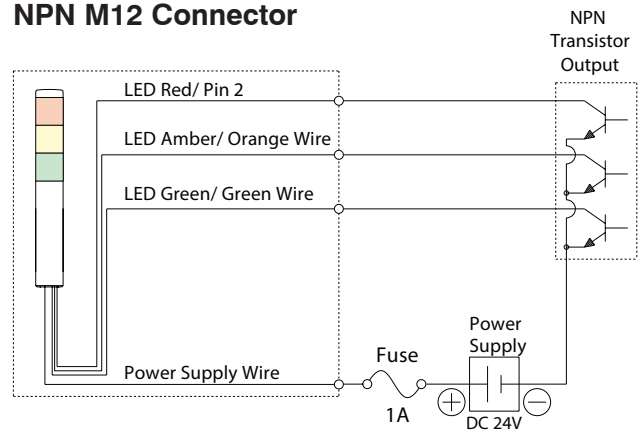
PATLITE® 30mm LED Signal Towers

Wiring

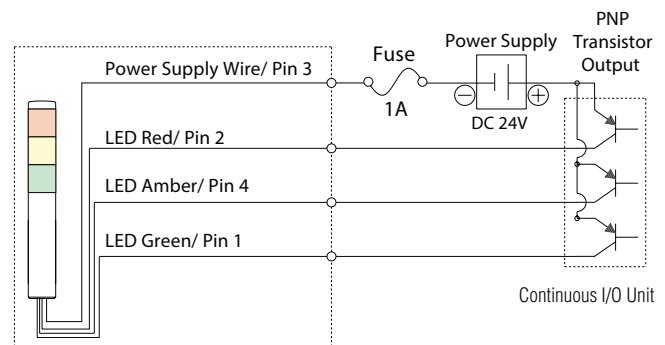
Contact/Switch



NPN M12 Connector

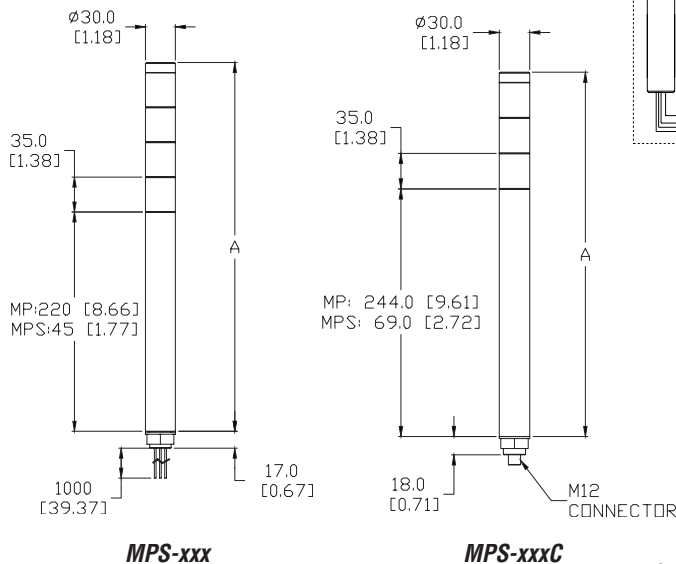


PNP M12 Connector



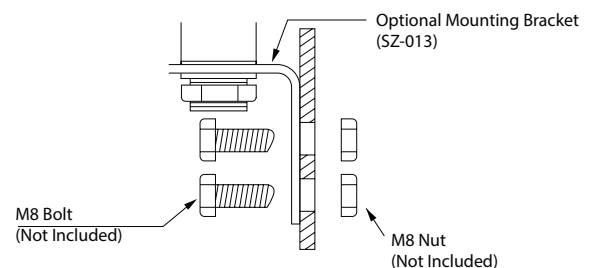
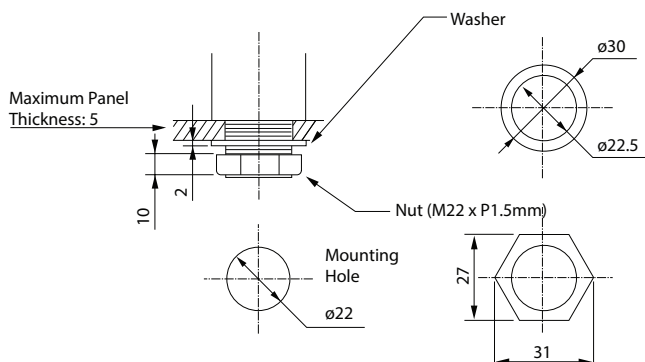
Dimensions

mm [in]



A Dimensions – mm [in]

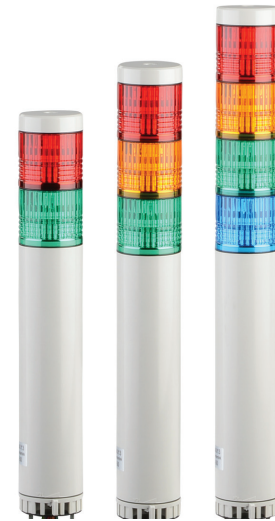
MPS-102-R	90 [3.54]	MP-102-R	265 [10.43]
MPS-202-RG	125 [4.92]	MP-202-RG	300 [11.81]
MPS-302-RYG	160 [6.30]	MP-302-RYG	335 [13.19]
MPS-402-RYGB	195 [7.68]	MP-402-RYGB	370 [14.57]
MPS-102-RZ	90 [3.54]	MP-102-RZ	265 [10.43]
MPS-202-RGZ	125 [4.92]	MP-202-RGZ	300 [11.81]
MPS-302-RYGZ	160 [6.30]	MP-302-RYGZ	335 [13.19]
MPS-402-RYGBZ	195 [7.68]	MP-402-RYGBZ	370 [14.57]
MPS-102C-R	90 [3.54]	MP-102C-R	265 [10.43]
MPS-202C-RG	125 [4.92]	MP-202C-RG	300 [11.81]
MPS-302C-RYG	160 [6.30]	MP-302C-RYG	335 [13.19]

See our website: www.AutomationDirect.com for complete engineering drawings.

PATLITE® 40mm LED Signal Towers

Features

- Prism-cut lens design for enhanced visibility from any direction
- Dual reflection system for enhanced light diffusion; creating bright, distinctive illumination while saving energy
- Two built-in alarms (FB model) with selectable sound patterns
- Adjustable volume with a maximum of 85dB (at 1m)
- Direct or pole mount installation
- Color-coordinated wiring corresponding to the lens color for quick wiring and verification
- Interchangeable LED modules requires no re-wiring, even after installation
- Main body is constructed of superior impact and heat resistant ABS resin.
- Lens is made of superior impact resistant and light translucent AS resin.
- Conforms to the CE requirements
- UL Recognized Components (File No. E215660).
- NEMA Type 4/4X/13 for -W, -FBW Only



LCE



Patlite® 40mm LED Signal Towers Selection							
Part Number	Price	Modules		Function	Wiring	Mounting	
		#	LED				
LCE-202-RG	\$99.00	2	red, green	Continuous light	1100mm pigtail	300mm pole mount	
LCE-2M2-RG	\$125.00				1050mm pigtail		
LCE-302-RYG	\$115.00	3	red, amber, green		1100mm pigtail		
LCE-3M2-RYG	\$139.00				1050mm pigtail		
LCE-402-RYGB	\$149.00	4	red, amber, green, blue		1100mm pigtail		
LCE-4M2-RYGB	\$175.00				1050mmpigtail		
LCE-202FB-RG	\$139.00	2	red, green	Flashing/ 2 alarms	1000mm pigtail		
LCE-2M2FB-RG	\$165.00				950mm pigtail		
LCE-302FB-RYG	\$159.00	3	red, amber, green		1000mm pigtail		
LCE-3M2FB-RYG	\$179.00				950mm pigtail		
LCE-402FB-RYGB	\$189.00	4	red, amber, green, blue		1000mm pigtail		
LCE-4M2FB-RYGB	\$215.00				950mm pigtail		
LCE-202W-RG	\$79.00	2	red, green		Continuous light	1100mm pigtail	Direct mount
LCE-2M2W-RG	\$99.00					1050mm pigtail	
LCE-302W-RYG	\$97.00	3	red, amber, green			1100mm pigtail	
LCE-3M2W-RYG	\$119.00					1050mm pigtail	
LCE-402W-RYGB	\$129.00	4	red, amber, green, blue			1100mm pigtail	
LCE-4M2W-RYGB	\$149.00					1050mm pigtail	
LCE-202FBW-RG	\$119.00	2	red, green	Flashing/ 2 alarms	1000mm pigtail		
LCE-2M2FBW-RG	\$145.00				950mm pigtail		
LCE-302FBW-RYG	\$139.00	3	red, amber, green		1000mm pigtail		
LCE-3M2FBW-RYG	\$159.00				950mm pigtail		
LCE-402FBW-RYGB	\$169.00	4	red, amber, green, blue		1000mm pigtail		
LCE-4M2FBW-RYGB	\$189.00				950mm pigtail		

Note: Please see the accessories section of this section for optional and/or replacement components.

PATLITE® 40mm LED Signal Towers

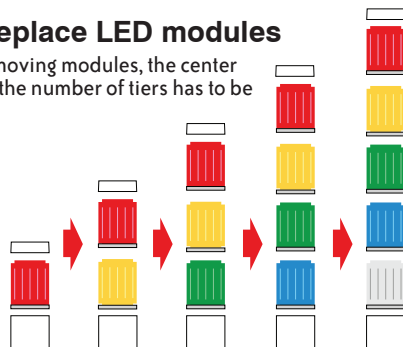
Specifications

Patlite® 40mm Signal Towers Technical Specifications						
# of Tiers	Part Number	Rated Voltage	Operating Voltage	Power Consumption	Weight g [oz]	
2	LCE-202-RG	24V AC/DC	±10%	2.4 W	550 [19.40]	
	LCE-202FB-RG				610 [21.52]	
	LCE-202W-RG				190 [6.70]	
	LCE-202FBW-RG				250 [8.82]	
	LCE-2M2-RG	90-250 VAC		2.6 W	630 [22.22]	
	LCE-2M2FB-RG				680 [23.99]	
	LCE-2M2W-RG				270 [9.52]	
	LCE-2M2FBW-RG				320 [11.29]	
3	LCE-302-RYG	24V AC/DC		3.0 W	580 [20.46]	
	LCE-302FB-RYG				640 [22.58]	
	LCE-302W-RYG				220 [7.76]	
	LCE-302FBW-RYG				280 [9.88]	
	LCE-3M2-RYG	90-250 VAC		3.2 W	660 [23.28]	
	LCE-3M2FB-RYG				710 [25.04]	
	LCE-3M2W-RYG				300 [10.58]	
	LCE-3M2FBW-RYG				350 [12.35]	
4	LCE-402-RYGB	24V AC/DC		3.6 W	610 [21.52]	
	LCE-402FB-RYGB				670 [23.63]	
	LCE-402W-RYGB				250 [8.82]	
	LCE-402FBW-RYGB				310 [10.93]	
	LCE-4M2-RYGB	90-250 VAC		3.8 W	690 [24.34]	
	LCE-4M2FB-RYGB				740 [26.10]	
	LCE-4M2W-RYGB				330 [11.64]	
	LCE-4M2FBW-RYGB				380 [13.40]	
Signal wire current (Rated Current Consumption)		LED Unit	Red	Amber	Green	Blue
		Typical	27.5 mA	27.2 mA	15.2 mA	15.2 mA
		Max	34.2 mA	35.9 mA	19.4 mA	19.4 mA
Luminosity		≥760mcd	≥830mcd	≥1800mcd	≥700mcd	
Wire sizes		For 24V AC/DC models 22AWG; for 90-250 VAC models power wire 18AWG, lead wires 22AWG				
Buzzer current/sound (FB models)		Typical current 40mA, max current 50mA / sound level 85dB at 1M / 3190Hz				
Flashing		60 flashes per minute				
Operating ambient temperature		-30°C to +60°C [-22°F to +140°F]				
Operating ambient humidity		Less than 90% (no condensation)				
Vibration resistance		19.6 m/s² @ 30Hz				
Insulation resistance		More than 1MΩ at 500VDC between the terminals and the chassis				
Withstand voltage		500VAC applied for 1 min between terminals and chassis without breaking insulation				
Ingress protection rating		IP54 for pole mounted models; IP65 and UL type 4, 4x, and 13 for direct mount				
Conformity standards		UL 508, CSA-C22.2 No.14, RoHs Directive (EN 50581)				

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Easily add or replace LED modules

When adding or removing modules, the center screw that matches the number of tiers has to be purchased.



Interchangeable LED Modules

Color sequence is changeable by adding or removing up to 5 color modules even after installation.

NOTE: LED modules of the same color within a signal tower will light up simultaneously.

Wiring does not change

The LED module colors correspond to the wiring, so re-wiring is not necessary.



PATLITE® 40mm LED Signal Towers

Accessories

Accessories for Patlite® 40mm Signal Towers		
Part Number	Price	Description
SZ-012	\$7.00	L-bracket for 17mm pole
SZ-021	\$22.00	Side mount bracket for 17mm pole, ivory color
SZ-80L	\$50.00	300mm pole kit for LCE series with L-bracket
B22220020-F1	\$23.00	40mm diameter top mating bracket for 17mm pole, ivory color
SZ-80NPT	\$48.00	40mm to 1/2" FNPT adapter
SZ-011	\$22.00	94mm diameter aluminum flange mount bracket for 17mm pole
SZ-903	\$16.00	17mm to 1/2" FNPT adapter
17POLE-1010	\$34.00	1000mm chrome plated steel pole, 17mm diameter with L-bracket
B72100126-1F1	\$26.00	Red LED module
B72100126-2F1	\$26.00	Amber LED module
B72100126-3F1	\$37.00	Green LED module
B72100126-4F1	\$37.00	Blue LED module
B72100126-7F1	\$37.00	Clear/white LED module
S33552120-0350F2	\$7.00	1-tier center screw, zinc plated steel
S33552120-0385F1	\$7.00	2-tier center screw, zinc plated steel
S33552120-03120F1	\$7.00	3-tier center screw, zinc plated steel
S33552120-03155F1	\$10.00	4-tier center screw, zinc plated steel
B32310029-F1	\$8.00	40mm diameter cap, ABS plastic
Z35721009-034F1	\$7.00	O-ring, silicone



SZ-012



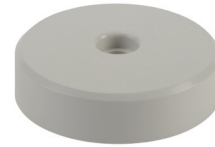
B72100126-xF1



SZ-011



SZ-021



B32310029-F1



SZ-903



S33552120-03xxx



Z35721009-034F1



17POLE-1010



SZ-80L

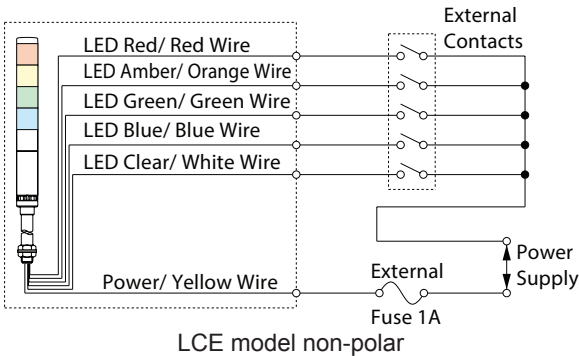


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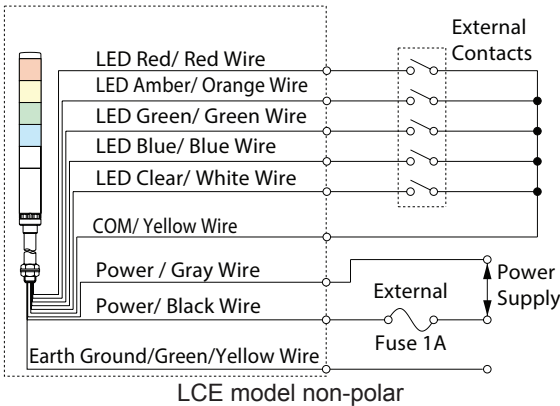
PATLITE® 40mm LED Signal Towers

Wiring

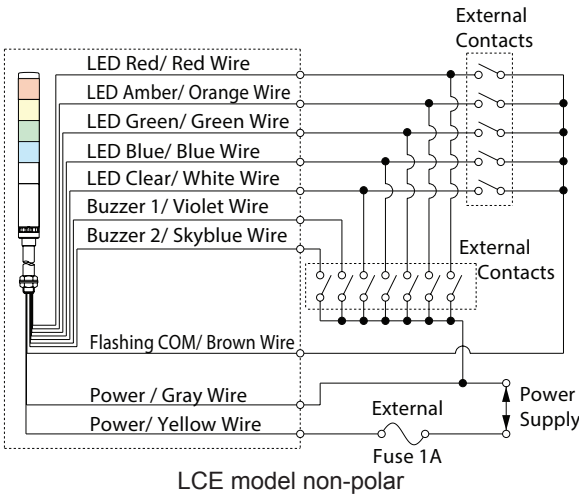
• AC/DC 24V Lighting Type



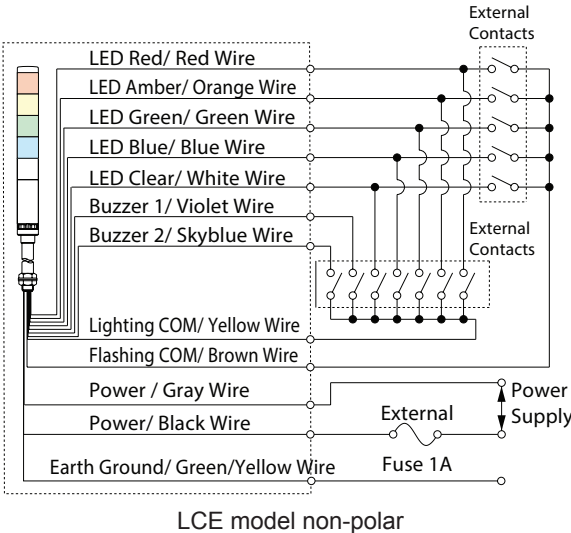
• AC 90 - 250V Lighting Type



• AC/DC 24V Lighting/Flashing Type



• AC 90 - 250V Lighting/Flashing Type

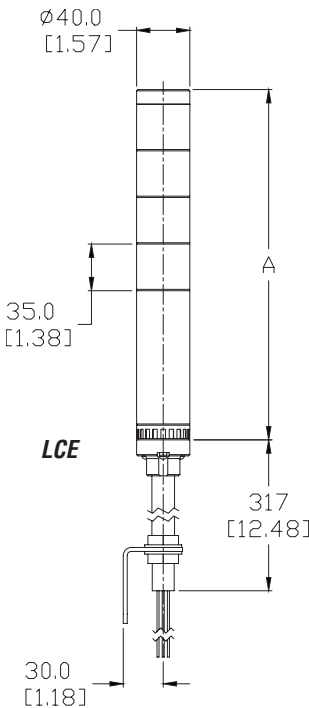


Lead Wire Color Coordination	
LED Unit Color	Lead Wire Color
Red	Red
Amber	Orange
Green	Green
Blue	Blue
Clear/white	White
Alarm Sounds	Lead Wire Color
Buzzer 1	Purple
Buzzer 2	Sky blue

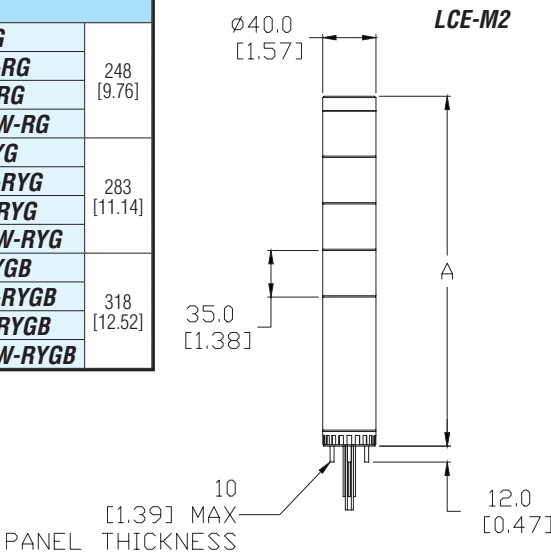
Signal Line Voltage and Current per LED Module						
Model	Rated Voltage	Signal Voltage	LED		Alarm	
			Signal Line Current		Signal Line Current	Inrush Current
			Red, Amber	Green, Blue		
LCE	24V AC/DC	24V AC/DC	30mA	25mA	40mA	250mA
LCE-M2	90-250 VAC	24VDC	30mA	25mA	40mA	250mA

PATLITE® 40mm LED Signal Towers

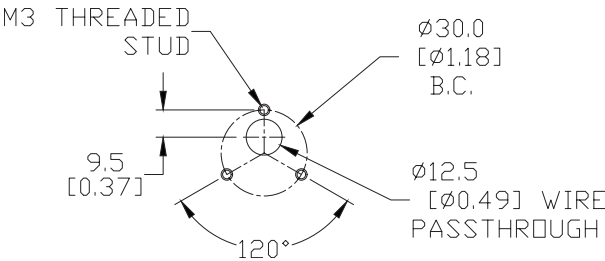
Dimensions mm [in]



A Dimensions – mm [in]			
LCE-202-RG	193 [7.60]	LCE-2M2-RG	248 [9.76]
LCE-202FB-RG		LCE-2M2FB-RG	
LCE-202W-RG		LCE-2M2W-RG	
LCE-202FBW-RG	228 [8.98]	LCE-2M2FBW-RG	283 [11.14]
LCE-302-RYG		LCE-3M2-RYG	
LCE-302FB-RYG		LCE-3M2FB-RYG	
LCE-302W-RYG	263 [10.35]	LCE-3M2W-RYG	318 [12.52]
LCE-302FBW-RYG		LCE-3M2FBW-RYG	
LCE-402-RYGB		LCE-4M2-RYGB	
LCE-402FB-RYGB	263 [10.35]	LCE-4M2FB-RYGB	318 [12.52]
LCE-402W-RYGB		LCE-4M2W-RYGB	
LCE-402FBW-RYGB		LCE-4M2FBW-RYGB	



Mounting Pattern



See our website: www.AutomationDirect.com for complete engineering drawings.

PATLITE® 70mm LED Signal Towers

Features

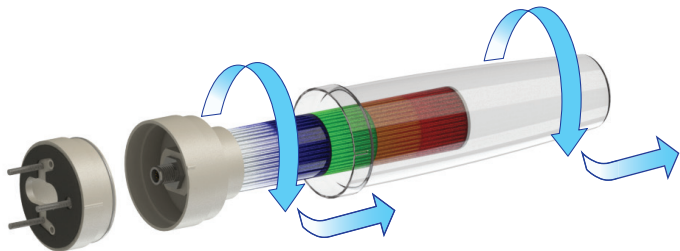
- Smooth surfaced body
- Stackable design
- Shock-resistant polycarbonate body
- M12 connector quick disconnect
- Inner lens LED emits a more efficient light
- IP65 (buzzer models IP54; WC9 models IP69k)



LS7

Patlite® 70mm LED Signal Towers Selection						
Part Number	Price	Lights		Body Color	Buzzer	Wiring
		#	Color			
LS7-302DWC-RYGNN	\$139.00	3	red, amber, green	Dark gray	—	M12 Connector
LS7-502DWC-RYGBC	\$225.00	5	red, amber, green, blue, white		—	
LS7-302DBWC-RYGNN	\$178.00	3	red, amber, green	Off-white	Yes	
LS7-502DBWC-RYGBC	\$264.00	5	red, amber, green, blue, white		—	
LS7-302WC-RYGNN	\$139.00	3	red, amber, green	Off-white	—	
LS7-502WC-RYGBC	\$225.00	5	red, amber, green, blue, white		Yes	
LS7-302BWC-RYGNN	\$178.00	3	red, amber, green	Dark gray	—	
LS7-502BWC-RYGBC	\$264.00	5	red, amber, green, blue, white		Yes	
LS7-302DWC9-RYGNN	\$275.00	3	red, amber, green	Dark gray	—	
LS7-502DWC9-RYGBC	\$359.00	5	red, amber, green, blue, white		—	
LS7-302DBWC9-RYGNN	\$319.00	3	red, amber, green	Off-white	Yes	
LS7-502DBWC9-RYGBC	\$399.00	5	red, amber, green, blue, white		—	
LS7-302WC9-RYGNN	\$279.00	3	red, amber, green	Off-white	—	
LS7-502WC9-RYGBC	\$359.00	5	red, amber, green, blue, white		Yes	
LS7-302BWC9-RYGNN	\$309.00	3	red, amber, green	Off-white	—	
LS7-502BWC9-RYGBC	\$389.00	5	red, amber, green, blue, white		Yes	

Note: Please see the accessories section of this section for optional and/or replacement components.



Stackable construction, M12 quick disconnect

PATLITE® 70mm LED Signal Towers

Specifications

Patlite® 70mm Signal Towers Technical Specifications						
# of Tiers	Part Number	Rated Voltage	Maximum Sound Pressure	Body Color	Type	Weight g [oz]
3	LS7-302DWC-RYGNN	24VDC (±10%)	—	Dark gray	—	234 [8.25]
	LS7-302WC-RYGNN			Off-white		
	LS7-302DWC9-RYGNN			Dark gray	High temperature, high pressure, wash down safe	
	LS7-302WC9-RYGNN			Off-white		
	LS7-302DBWC-RYGNN		buzzer 1 = 82dB @ 1M / 2000Hz	Dark gray	—	288 [10.16]
	LS7-302BWC-RYGNN			Off-white		
	LS7-302DBWC9-RYGNN		buzzer 2 = 85dB @ 1M / 2000/3000 Hz	Dark gray	High temperature, high pressure, wash down safe	
	LS7-302BWC9-RYGNN			Off-white		
5	LS7-502DWC-RYGBC		—	Dark gray	—	286 [10.09]
	LS7-502WC-RYGBC			Off-white		
	LS7-502DWC9-RYGBC			Dark gray	High temperature, high pressure, wash down safe	
	LS7-502WC9-RYGBC			Off-white		
	LS7-502DBWC-RYGBC		buzzer 1 = 82dB @ 1M / 2000Hz	Dark gray	—	352 [12.42]
	LS7-502BWC-RYGBC			Off-white		
	LS7-502DBWC9-RYGBC		buzzer 2 = 85dB @ 1M / 2000/3000 Hz	Dark gray	High temperature, high pressure, wash down safe	
	LS7-502BWC9-RYGBC			Off-white		
Signal wire current (Rated Current Consumption)	LED Unit	Red	Amber	Green	Blue	White
	Typical	20mA	30mA			
	Max	35mA	40mA			
Luminosity		>490mcd	>1140mcd	>940mcd	>195mcd	>1000mcd
Operating ambient temperature		-30°C to +60°C [-22°F to +140°F]				
Operating ambient humidity		Less than 90% (no condensation)				
Vibration resistance		19.6 m/s² @ 30Hz				
Insulation resistance		More than 1MΩ at 500VDC between the terminals and the chassis				
Withstand voltage		500VAC applied for 1 min between terminals and chassis without breaking insulation				
Mass (tolerance ±10%)	3 Tiers	0.26 kg [0.57 lb]				
	5 Tiers	0.37 kg [0.82 lb]				
Ingress protection rating		Continuous illumination models: IP65 / Buzzer models: IP54 /WC9 models: IP69k				
Conformity standards		UL 508, CSA-C22.2 No.14, RoHS Directive (EN 50581)				

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

PATLITE® 70mm LED Signal Towers

Accessories

Accessories for Patlite® 70mm Signal Towers		
Part Number	Price	Description
SZ-100D	\$27.00	150mm tall pedestal, dark gray
SZ-110D	\$33.00	Wall mount bracket, dark gray
SZ-130D	\$33.00	3-hole to 4-hole mounting adapter, dark gray
SZ-100	\$27.00	150mm tall pedestal, off-white
SZ-110	\$33.00	Wall mount bracket, off-white
SZ-130	\$33.00	3-hole to 4-hole mounting adapter, off-white
B45110011-F1	\$29.00	Outer cover, polycarbonate
Z35721039-F1	\$9.00	O-ring for outer cover, silicone
Z35721038-056F1	\$9.00	O-ring for base, silicone



SZ-100D



SZ-100



SZ-110D



SZ-110



SZ-130D



SZ-130



Z35721039-F1



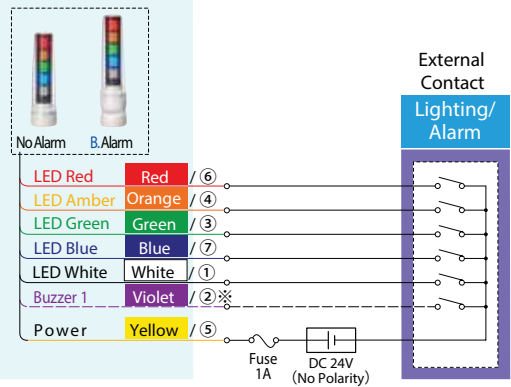
Z35721038-056F1



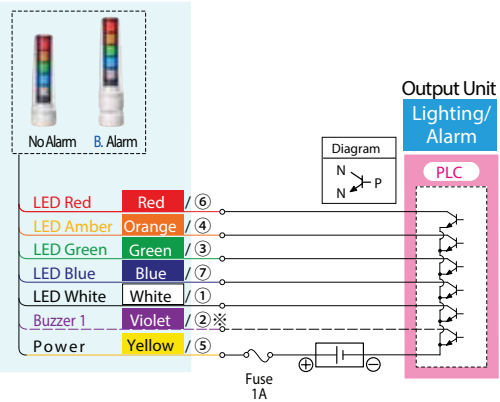
PATLITE® 70mm LED Signal Towers

Wiring

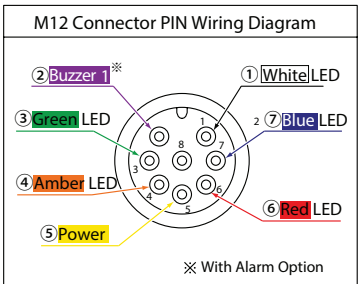
Contact Relay



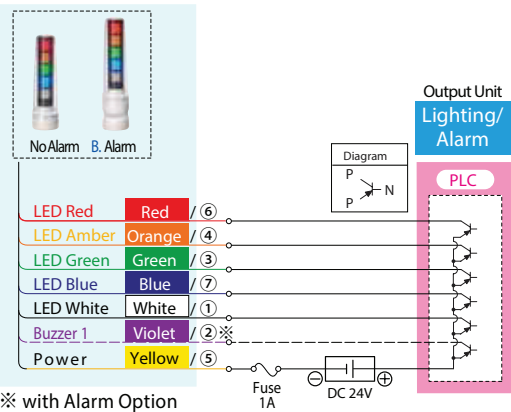
PLC (NPN Transistor)



LED colors associated with pin numbers



PLC (PNP Transistor)

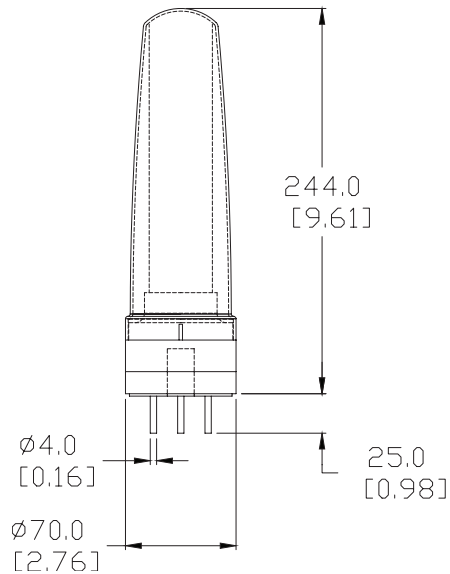


※ with Alarm Option

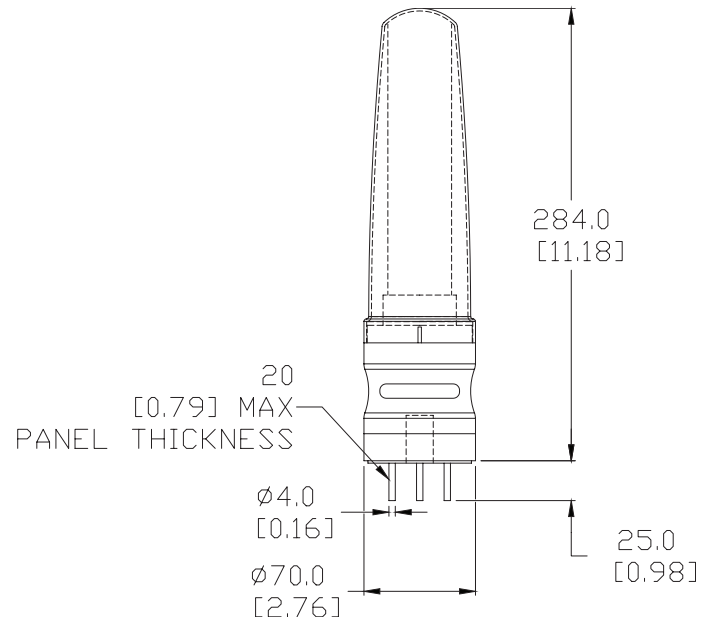
LED colors associated with pin numbers

PATLITE® 70mm LED Signal Towers

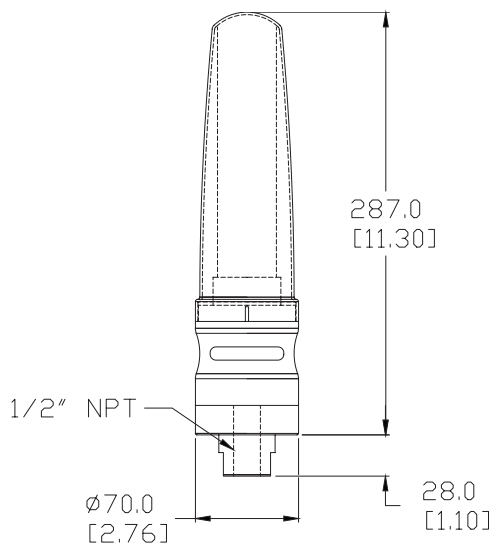
Dimensions mm [in]



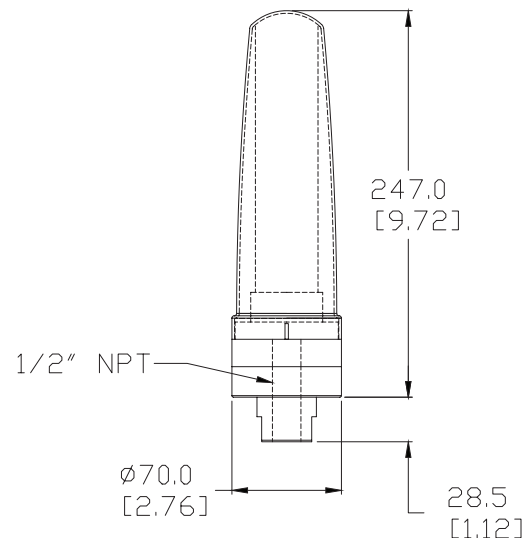
LS7-xxxDWC



LS7-xxxBWC

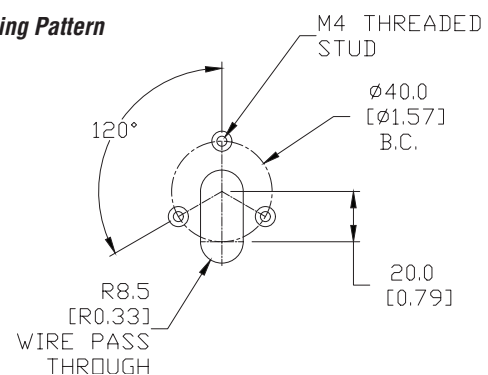


LS7-xxxBWC9



LS7-xxxWC9

Mounting Pattern



See our website: www.AutomationDirect.com for complete engineering drawings.

Werma Modular Stack Lights Overview



Description

WERMA's modular stack light system offers total choice and flexibility as it allows for a completely free combination of optical and audible signal elements. The bayonet mechanism allows elements to be mechanically and electrically connected within seconds. This means that elements can be safely and easily changed (contact-voltage proof) without the need for tools.

Typical product applications include; machine tools, packaging machines, conveyor systems, printing machines, loading docks, retail centers (check outs), queuing indicators for theme parks, and more.

Product highlights:

- Signal elements in common voltages (24V DC and 115V AC)
- Modular system allows combination as required
- Two different sizes (70 and 50 mm diameter)
- Five colors available
- Wide range of audible elements
- Diverse and flexible solutions

Simple assembly with bayonet mechanism

- Simple mounting and removal of the elements
- New combinations at the twist of a hand
- Tool-free bulb change
- Position marks to guide alignment



Werma Stack Lights Family Overview

KombiSIGN 71

Modular IP65-rated stack light system with 70 mm diameter for use in standard applications.

KS 71 stack lights are available in 5 colors and multiple light effects (permanent, blinking, rotating, flashing). Multiple light sources (incandescent, LED, Xenon tube) and a wide variety of mountings are available. Combine up to 5 elements per terminal. Various terminal design choices are available as well as multiple voltages and audible elements up to 105 dB.

KS 71 Terminal Elements



Screw terminals



CAGE CLAMP® terminals

KombiSIGN 50

Modular IP54-rated stack light system with 50 mm diameter for use on smaller machines.

KS 50 stack lights are available in 5 colors with either permanent or blinking light effects in multiple voltages. A choice of incandescent or LED light sources is available as well as an 80 dB audible element. Elements can be combined in a variety of mountings, up to 4 elements per mounting for 360° of visibility.

KS 50 Terminal Element

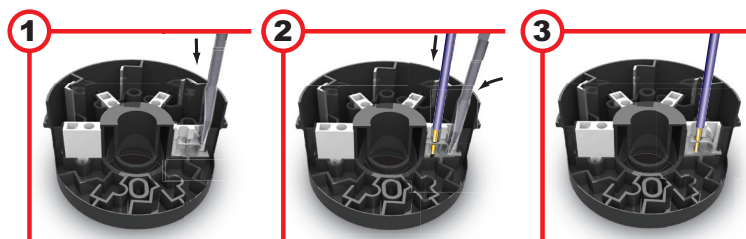


Screw terminal



Safe and efficient connection thanks to CAGE CLAMP® technology

Terminal elements with CAGE CLAMP® technology enable leads to be quickly and easily wired, guaranteeing a secure and reliable contact.



1 Insert screwdriver at a slight angle into opening as far as possible.

2 Open spring-loaded clamp with the help of the screwdriver and insert wire as far as possible.

3 Remove screwdriver - the wire is firmly clamped.

CAGE CLAMP® is a registered trademark of WAGO Kontakttechnik GmbH.

Configuring Your KombiS/IGN 71 Stack Light

► STEP 1

Select the required optical elements for your application

► STEP 2

Select the optional audible elements for your application



Optical Signal Elements

- Incandescent Permanent Light
- LED Permanent Light
- LED Flashing Light
- LED Blinking Light
- LED Rotating Light
- Xenon Flashing Light

Audible Signal Elements

- Buzzer Element
- Siren Element



► STEP 3

Select the correct terminal element for your mounting option (includes cap)

Plain Base Mount



Screw terminal
Order no. **64082000**

CAGE CLAMP® terminal
Order no. **64080000**

Tube Base Mount




Screw terminal
Order no. **64083000**


CAGE CLAMP® terminal
Order no. **64081000**

► STEP 4


Where appropriate, select a base and the desired tube length (only for tube mounting)



Tube with clamp
Order no. **96000018**



Adapter for single hole mounting
Order no. **96000025**



Base with integrated tube
Order no. **97584010**

Tube Ø 25 mm, all anodized


100 mm long	Order no. 97584510
250 mm long	Order no. 97584025
400 mm long	Order no. 97584040
600 mm long	Order no. 97584060
800 mm long	Order no. 97584080
1000 mm long	Order no. 97584003

Base for Tube, plastic
Order no. **97584090**

Base for Tube, metal
Order no. **97584091**

Foldaway Base
Order no. **96000030**

Tube Ø 25 mm, plastic, only for Foldaway Base, 45 mm long
Order no. **96000031**



► STEP 5

Where appropriate, select the bracket and the contact box.



Contact box with side cable exit
Order no. **97584001**



Bracket for base mounting
Order no. **96000002**



Bracket for 1-sided mounting
Order no. **97584085**



Bracket for 2-sided mounting
Order no. **97584086**



Contact box with side cable exit
Order no. **97584001**



Contact box with magnetic base and side cable exit
Order no. **97584004**


















































Bracket for base mounting with concealed cable entry
Order no. **96000014**



Bracket for tube mounting
Order no. **96000001**

KS 71 Elements Quick Selection Guide

STEP 1 - Optical Elements Quick Selection Guide									
Type of Light	Part Number	Color	Operating Voltage	Price	Type of Light	Part Number	Color	Operating Voltage	Price
Incandescent Permanent*	64110000	 Red	Depends on bulb selection (bulb sold separately)	\$20.50	Xenon Flashing Light	64310055	 Red	24VDC	\$99.00
	64120000	 Green		\$20.50		64320055	 Green		\$99.00
	64130000	 Yellow		\$20.50		64330055	 Yellow		\$99.00
	64140000	 Clear		\$20.50		64340055	 Clear		\$99.00
	64150000	 Blue		\$20.50		64350055	 Blue		\$99.00
Incandescent Bulbs	95584035		24V AC/DC	\$7.25		64310067	 Red	115VAC	\$84.00
	95584038		230VAC	\$7.25		64320067	 Green		\$84.00
	95584057		115V AC/DC	\$7.25		64330067	 Yellow		\$84.00
LED Permanent	64410075	 Red	24V AC/DC	\$49.00	LED Blinking Light	64340067	 Clear		\$84.00
	64420075	 Green		\$49.00		64350067	 Blue		\$84.00
	64430075	 Yellow		\$49.00		64411075	 Red	24V AC/DC	\$64.00
	64440075	 Clear		\$74.75		64421075	 Green		\$64.00
	64450075	 Blue		\$74.75		64431075	 Yellow		\$64.00
	64445055**	 Multi	24VDC	\$197.00		64441075	 Clear		\$84.50
	64410067	 Red	115VAC	\$58.75		64451075	 Blue		\$84.50
	64420067	 Green		\$58.75		64411067	 Red	115VAC	\$67.25
	64430067	 Yellow		\$58.75		64421067	 Green		\$67.25
	64440067	 Clear		\$85.00		64431067	 Yellow		\$67.25
LED Flashing Light	64450067	 Blue		\$85.00		64441067	 Clear		\$95.50
	64412055	 Red	24VDC	\$119.00	LED Rotating Light	64451067	 Blue		\$95.50
	64422055	 Green		\$88.50		64413075	 Red	24V AC/DC	\$109.00
	64432055	 Yellow		\$119.00		64423075	 Green		\$109.00
	64442055	 Clear		\$185.00		64433075	 Yellow		\$109.00
	64452055	 Blue		\$185.00		64443075	 Clear		\$119.00
						64453075	 Blue		\$169.00

* Bulbs are required for permanent incandescent optical element.

** The multicolor element can be combined with up to 2 additional signal elements.

STEP 2 - Audible Elements Quick Selection Guide					
Part Number	Description	Voltage	Tone Frequency	Max. Volume @ 1m	Price
64580075	Buzzer element	24V AC/DC	1.75 kHz	85dB	\$49.00
64580077		115VAC			\$59.00
64582075	Multi-functional siren	24V AC/DC	1.6 / 3.4 kHz	100dB	\$85.00
64582067		115VAC			\$89.00
64585055	Multi-functional siren, external trigger	24VDC	1.6 / 3.4 kHz	100dB	\$99.00
64581055	Siren element with self-adjusting sound output	24VDC	2.5 kHz	100dB	\$129.00

STEP 3 - Terminal Elements Quick Selection Guide			
Part Number	Description	Mounting	Price
64082000	Screw terminal with M3 clamps	Base Mounting	\$27.00
64080000	Terminal element with CAGE CLAMP® technology		\$27.00
64083000	Screw terminal with M3 clamps	Tube Mounting	\$27.00
64081000	Terminal element with CAGE CLAMP® technology		\$27.00

STEP 5 - Contact Boxes & Brackets Quick Selection Guide			
Mounting Option	Part Number	Description	Price
Plain Base Mount	97584001	Contact box with side exit cable	\$17.25
	96000002	Bracket for base mounting	\$15.00
	97584085	Bracket for 1-sided mounting	\$12.75
	97584086	Bracket for 2-sided mounting	\$14.00
Tube Base Mount	97584001	Contact box with side exit cable	\$17.25
	97584004	Contact box w/ magnetic base and side cable exit	\$46.25
	96000014	Bracket for base mounting w/ concealed cable entry	\$18.75
	96000001	Bracket for tube mounting	\$15.00

STEP 4 - Tube Mounting/Accessories Quick Selection		
Part Number	Description	Price
97584510	Anodized tube, 100mm [3.94 in] long	\$11.75
97584025	Anodized tube, 250mm [9.84 in] long	\$14.00
97584040	Anodized tube, 400mm [15.75 in] long	\$19.00
97584060	Anodized tube, 600mm [23.62 in] long	\$25.50
97584080	Anodized tube, 800mm [31.49 in] long	\$32.25
97584003	Anodized tube, 1000mm [39.37 in] long	\$43.75
96000018	Tube with clamp	\$47.50
96000025	Adapter for single-hole mounting	\$47.50
97584010	Base with integrated tube	\$24.00
97584090	Plastic base for 25mm [0.98 in] diameter tube	\$12.00
97584091	Metal base for 25mm [0.98 in] diameter tube	\$19.00
96000031	Plastic tube for foldaway base	\$8.00
97584002	Adapter for tube mounting	\$9.00
96000004	Cable gland for surface mounting	\$5.00
96000030	Foldaway base	\$50.25

KS 71 Optical Elements Specifications

Optical Elements Technical Specifications										
Description	Voltage	Part Number	Color	Current	Starting Current	Operating Temp/ Protection	Life Duration	Flash Frequency	Housing Material	Weight
Incandescent Permanent Light Element with B15d Bayonet Socket	12-240 V Depends on bulb selection. (bulb sold separately)	64110000	Red	Depends on bulb selection. (bulb sold separately)	—	-20°C to 60°C [-4°F to 140°F] IP65	up to 5,000h	—	Polycarbonate	55g [1.94 oz]
		64120000	Green							
		64130000	Yellow							
		64140000	Clear							
		64150000	Blue							
LED Permanent Light Element	24V AC/DC	64410075	Red	max. 30mA	max. 500mA	-20°C to 50°C [-4°F to 122°F] IP65	up to 100,000h	—	Polycarbonate	58g [2.05 oz]
		64420075	Green	max. 25mA						
		64430075	Yellow	max. 30mA						
		64440075	Clear	max. 25mA						
		64450075	Blue	max. 25mA						
	24VDC	64445055	Multi	max. 120mA	—	-20°C to 50°C [-4°F to 122°F] IP65	up to 50,000h	—	Polycarbonate	63g [2.22 oz]
		64410067	Red	max. 20mA						
	115VAC	64420067	Green							
		64430067	Yellow							
		64440067	Clear							
		64450067	Blue							
LED Flashing Light Element	24VDC	64412055	Red	35mA	max. 500mA	-20°C to 50°C [-4°F to 122°F] IP65	up to 50,000h	1Hz on for 2x10 ms	Polycarbonate	75g [2.65 oz]
		64422055	Green							
		64432055	Yellow							
		64442055	Clear							
		64452055	Blue							
Xenon Flashing Light Element	24VDC	64310055	Red	125mA	max. 500mA	-20°C to 50°C [-4°F to 122°F] IP65	up to 4,000,000 flashes	1Hz on for 10 ms	Polycarbonate	73g [2.57 oz]
		64320055	Green							
		64330055	Yellow							
		64340055	Clear							
		64350055	Blue							
	115VAC	64310067	Red	22mA	—	-20°C to 50°C [-4°F to 122°F] IP65	up to 4,000,000 flashes	1Hz on for 10 ms	Polycarbonate	74g [2.61 oz]
		64320067	Green							
		64330067	Yellow							
		64340067	Clear							
		64350067	Blue							
LED Blinking Light Element	24V AC/DC	64411075	Red	max. 30mA	max. 500mA	-20°C to 50°C [-4°F to 122°F] IP65	up to 100,000h	1Hz on for 550 ms	Polycarbonate	58g [2.05 oz]
		64421075	Green	max. 25mA						
		64431075	Yellow	max. 30mA						
		64441075	Clear	max. 25mA						
		64451075	Blue	max. 25mA						
	115VAC	64411067	Red	max. 20mA	—	-20°C to 50°C [-4°F to 122°F] IP65	up to 100,000h	1Hz on for 550 ms	Polycarbonate	58g [2.05 oz]
		64421067	Green							
		64431067	Yellow							
		64441067	Clear							
		64451067	Blue							
LED Rotating Light Element	24V AC/DC	64413075	Red	max. 40mA	max. 500mA	-20°C to 50°C [-4°F to 122°F] IP65	up to 100,000h	120 rotations per minute	Polycarbonate	67g [2.36 oz]
		64423075	Green							
		64433075	Yellow							
		64443075	Clear							
		64453075	Blue							



Terminal Pin Activation of Multi-Color LED Permanent Light Element

Pin 1	Pin 2	Pin 3	Function
24V	—	—	Red
—	24V	—	Green
24V	24V	—	Yellow
—	—	24V	Blue
24V	24V	24V	White
24V	—	24V	Violet
—	24V	24V	Turquoise



Bulbs for Incandescent Permanent Optical Element

Part Number	Description	Wattage	Voltage	Life Duration
95584035	Bulb for incandescent light BA15d Bayonet Socket	5W	24VDC	up to 5,000h
95584038			230VAC	
95584057			115VAC	

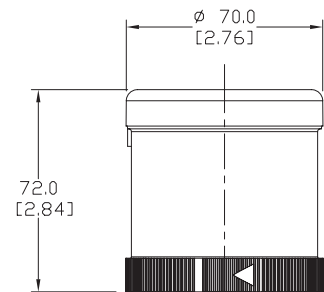
KS 71 Audible Elements Specifications

KS 71 Audible Elements Specifications					
Part Number	64580075	64580077	64582075	64582067	64585055
Description	Buzzer Element		Multi-functional Siren		
Voltage	24V AC/DC	115VAC	24V AC/DC	115VAC	24VDC
Current Consumption	≤ 25mA		≤ 80mA	≤ 40mA	≤ 80mA
Tone Frequency	1.7 kHz		1.6 to 3.4 kHz		
Maximum Volume	85dB		100dB		
Tone Type	Continuous/Pulse Selectable		8 tones selectable via DIP switches		Up to 7 tones externally triggered
Life Duration	> 5000h				
Operating Temperature	-4°F to 122°F [-20°C to 50°C]				
Weight	74g [2.61 oz]	82g [2.89 oz]	82g [2.89 oz]	87g [3.07 oz]	77g [2.72 oz]
Housing Material	Polycarbonate		ABS, Polycarbonate		

Note: Refer to insert for wiring diagram.

Number of tones available are limited by number of elements in stack.

Dimensions in mm [in]

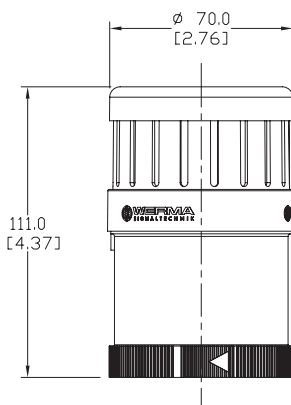


Audible Element Dimensions For:

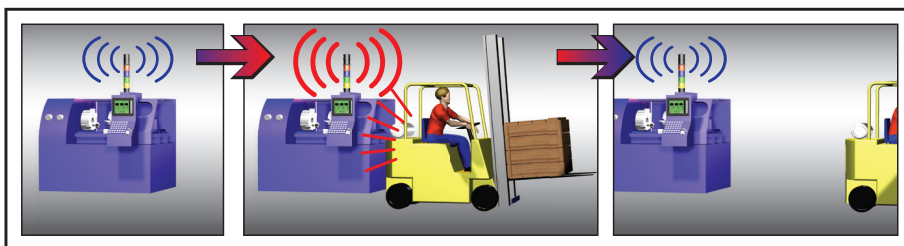
64580075
64580077
64582075
64582067
64585055

Siren element with self-adjusting sound output

- Automatic sound output adjustment between 80 and 100 dB
- Sound output is about 5 dB louder than the background noise level
- Continual measurement of the ambient noise level
- Ideal for applications with changing ambient sound levels



KS 71 Self-Adjusting Siren Element		
Part Number	Technical Specifications	
64581055	Housing	Polycarbonate
	Tone type	Pulse tone
	Tone frequency	2.5 kHz
	Sound output	80dB - max. 100dB
	Operating Voltage	24VDC
	Starting Current	< 500mA
	Current consumption	≤ 150mA
	Life Duration	> 5000h
	Weight	125g [4.41 oz]
	Temperature Range	-4°F to 122°F [-20°C to 50°C]



The siren element adjusts its sound output through continual measurement of the ambient noise level. The emitted tone is about 5dB louder than the background noise level. The warning signal can always be heard without being irritatingly loud for people in the siren's vicinity.

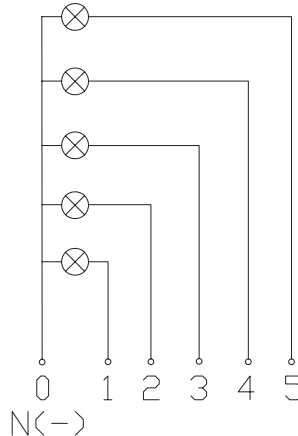
KS 71 Terminal Elements Specifications

KS 71 Terminal Element Specifications				
Part Number	64082000	64080000	64083000	64081000
Description	Screw terminal element with cap and seal	Screwless terminal element with cap and seal	Screw terminal element with cap	Screwless terminal element with cap
Mounting	Base and Bracket Mounting		Tube Mounting	
Connection	max. 2.5 mm ² - single wire M3 Clamps	max. 2.5 mm ² CAGE CLAMP® technology	max. 2.5 mm ² - single wire M3 Clamps	max. 2.5 mm ² CAGE CLAMP® technology
Cable Entry	Cable diameter max. 14mm [0.55 in]			
Operating Temperature	-20°C to 50°C [-4°F to 122°F]			
Torque	max 0.4 N·m	—	max 0.4 N·m	—
Gauge	AWG 18 to AWG 14			
Weight	83g [2.93 oz]	75g [2.65 oz]	84g [2.96 oz]	77g [2.72 oz]
Housing Material	Polyamide Glass Fiber-Reinforced			

Dimensions in mm [in]

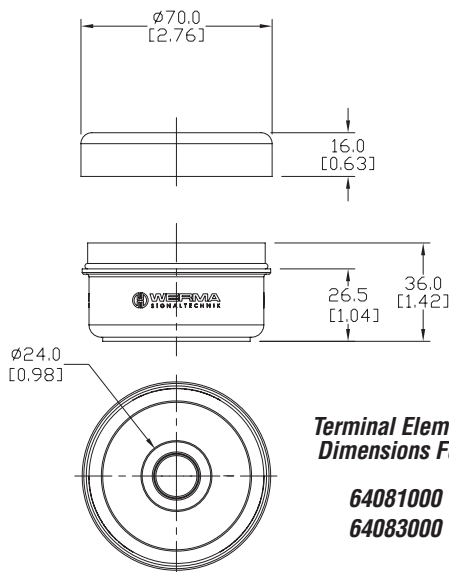


Screw terminal element
M3 clamps
(including cap)



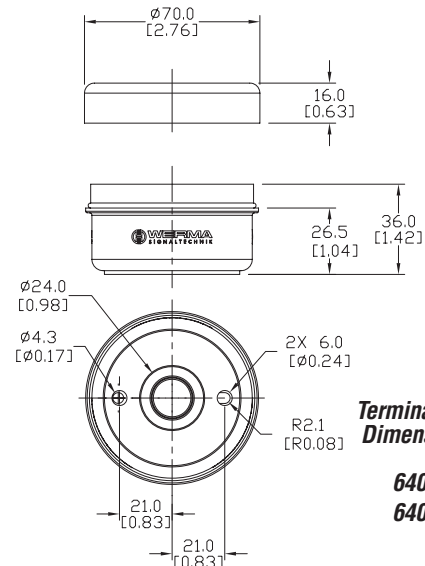
64080000

Terminal element with
CAGE CLAMP® technology
(including cap and seal)



Terminal Element
Dimensions For:







64081000
64083000

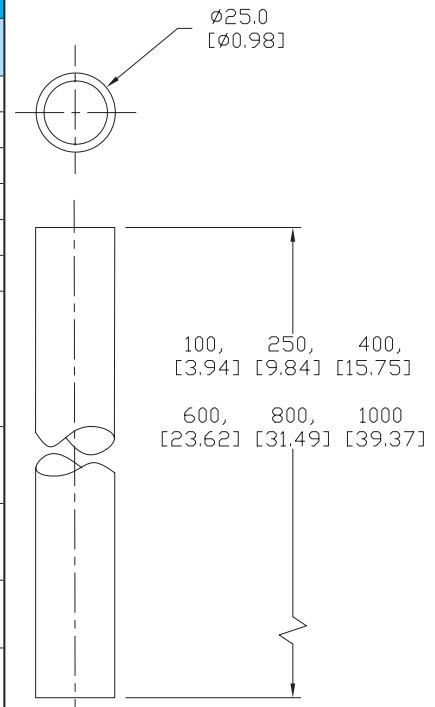


Terminal Element
Dimensions For:

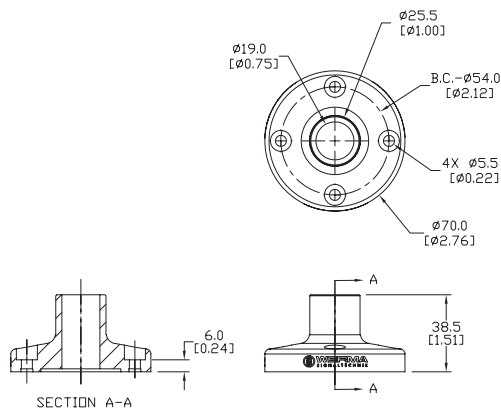
64080000
64082000

KS 71 Mounting Hardware Specifications

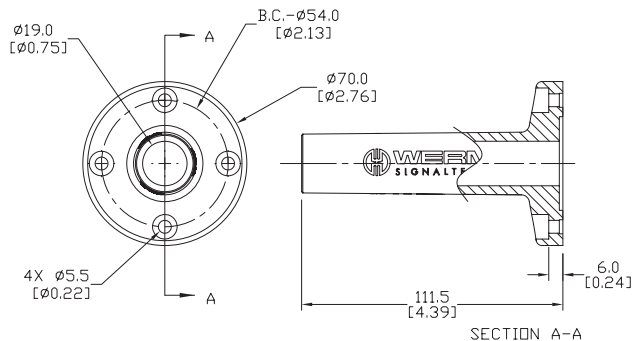
KS 71 Mounting Hardware Specifications				
Part Number	Description	Operating Temp	Material	Weight
	97584510 Tube, 100mm [3.94 in]	-20°C to 50°C [-4°F to 122°F]	Anodized Aluminum	30g [1.06 oz]
	97584025 Tube, 250mm [9.84 in]			73g [2.57 oz]
	97584040 Tube, 400mm [15.75 in]			120g [4.23 oz]
	97584060 Tube, 600mm [23.62 in]			180g [6.35 oz]
	97584080 Tube, 800mm [31.49 in]			236g [8.32 oz]
	97584003 Tube, 1000mm [39.37 in]			296g [10.44 oz]
	96000018 Tube with clamp	—	Polythylene Tube Steel Clamp	175g [6.17 oz]
	97584010 Base with integrated tube	-20°C to 50°C [-4°F to 122°F]	Polyamide Glass-Reinforced	63g [2.22 oz]
	97584090 Plastic base for 25mm [0.98 in] diameter tube	-20°C to 50°C [-4°F to 122°F]	Polyamide Glass-Reinforced	40g [1.41 oz]
	97584091 Metal base for 25mm [0.98 in] diameter tube	-20°C to 50°C [-4°F to 122°F]	Anodized Aluminum	110g [3.88 oz]
	96000031 Plastic tube for foldaway base	-20°C to 50°C [-4°F to 122°F]	Polyethylene	13g [0.46 oz]



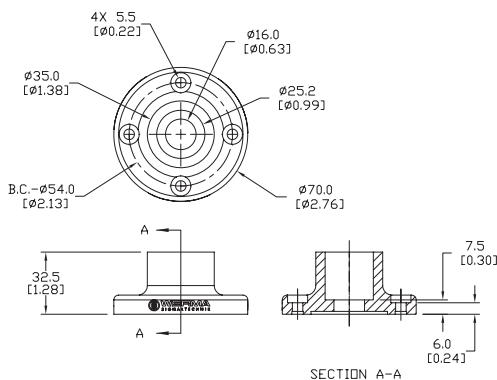
Dimensions in mm [in]



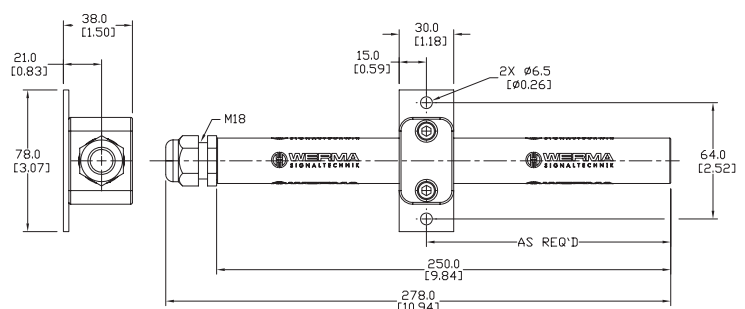
97584090



97584010










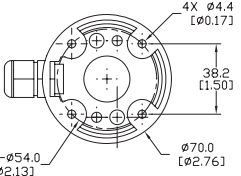
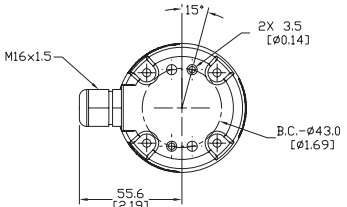
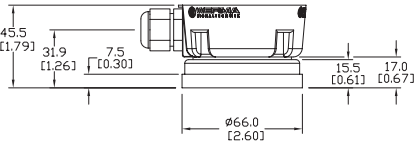
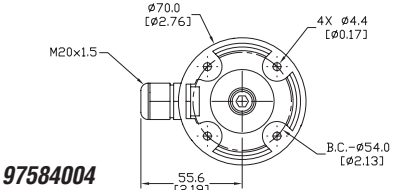
97584091



96000018

KS 71 Brackets & Contact Boxes Specifications

Brackets & Contact Boxes Technical Specifications				
Part Number	Description	Temp. Range	Material	Weight
 97584001	Contact box with side cable exit, with mounting material	-30°C to 60°C [-22°F to 140°F]	Polyamide	71g [2.50 oz]
 97584004	Contact box with magnetic base and side cable exit	-30°C to 60°C [-22°F to 140°F]	Polyamide	316g [11.15 oz]
 97584085	Bracket for 1-sided mounting, including rubber seals	-20°C to 60°C [-4°F to 140°F]	Polyamide	78g [2.75 oz]
 97584086	Bracket for 2-sided mounting, including rubber seals	-20°C to 60°C [-4°F to 140°F]	Polyamide	76g [2.68 oz]
 96000001	Bracket for base mounting with cable gland	-20°C to 50°C [-4°F to 122°F]	Polyamide	57g [2.01 oz]
 96000002	Bracket for surface mounting with cable gland	-20°C to 50°C [-4°F to 122°F]	Polyamide	40g [1.41 oz]
 96000014	Bracket for base mounting with concealed cable entry, including rubber seals	-20°C to 50°C [-4°F to 122°F]	Polyamide	80g [2.82 oz]

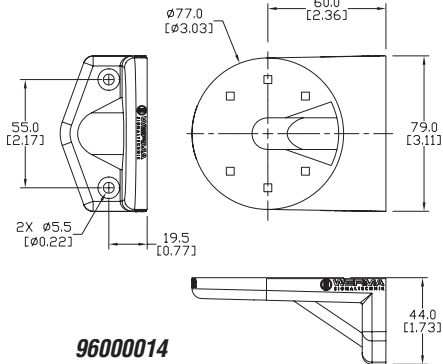


97584001

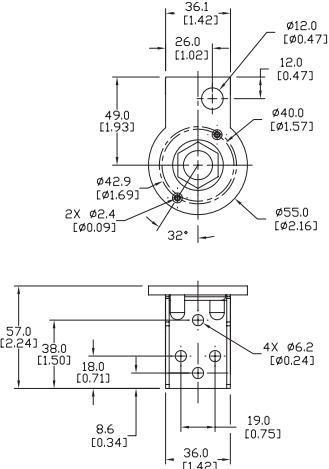
96000002



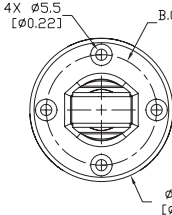
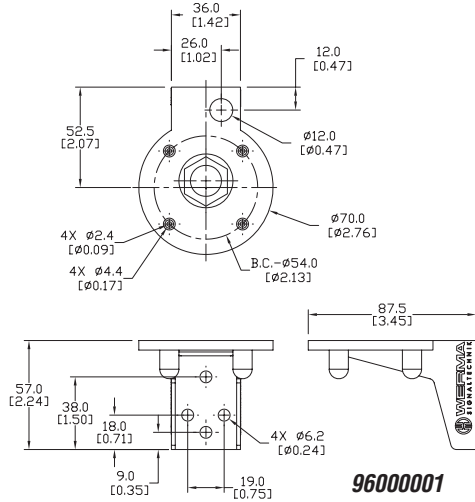
Dimensions in mm [in]



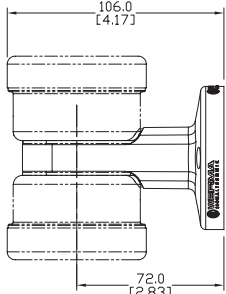
96000014



96000001



97584086



97584085

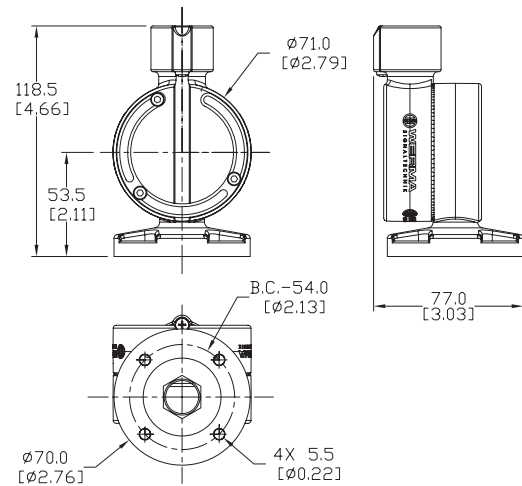
Foldaway Base for KS 71 and KS 50

- The signal tower can be folded away while still connected
- Minimizes packaging costs and optimizes machine transportation
- Simple mounting and cable entry – for up to 14 mm diameter cables
- Vertical alignment of signal towers even on sloping surfaces
- Positioning in 7.5° steps, markings for 30, 45, 60, or 90 degrees

Foldaway Base for KS 71 and KS 50		
Part Number	Technical Specifications	
96000030	Material	Polyamide Glass Fiber-Reinforced
	Cable Diameter	Max. 14mm [0.55 in]
	Assembly	Includes rubber seals
	Fixing	Vertical or horizontal positioning
	Weight	165g [5.82 oz]



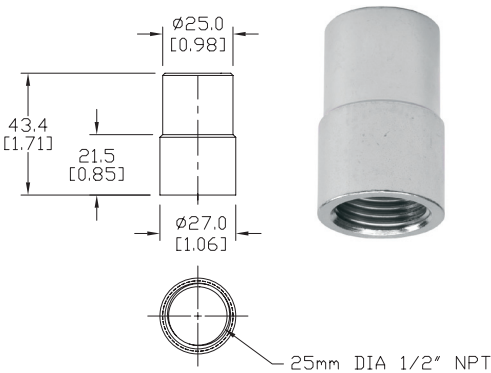
Dimensions in mm [in]



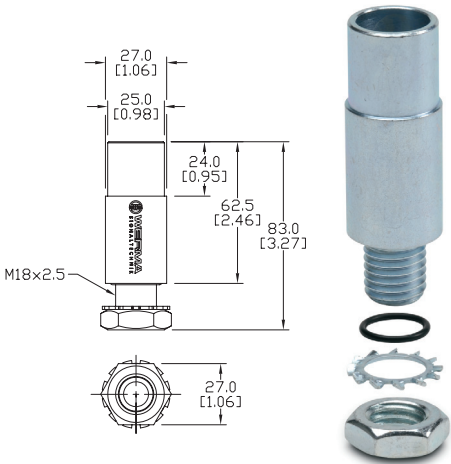
KS 71 Adapters Specifications

KS 71 Adapters Specifications			
Part Number	Description	Temperature Range	Weight
96000004	Cable gland for surface mounting	-20°C to 50°C [-4°F to 122°F]	10g [0.35 oz]
96000025	Adapter for single hole mounting	-20°C to 50°C [-4°F to 122°F]	165g [5.82 oz]
97584002	Adapter for tube mounting	-20°C to 50°C [-4°F to 122°F]	81g [2.86 oz]

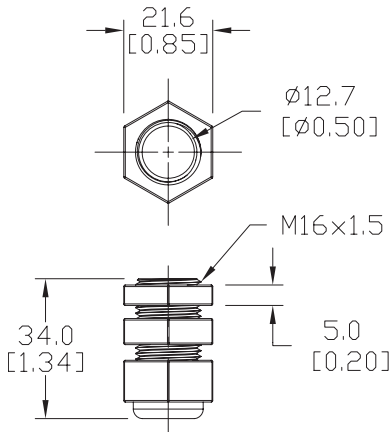
Dimensions in mm [in]



97584002



96000025



96000004

KS 71 Pre-assembled Stacklights



64924001/64924002





KombiSIGN 71 Pre-assembled Stacklights Features

- Available in common voltages of 24V AC/DC and 115VAC
- IP65
- LED Permanent Optical Elements
- 70mm diameter/base mount models
- Polycarbonate lens material
- Polyamide glass fiber-reinforced terminal element with cage clamp.

KS 71 Pre-assembled Stacklights								
Part Number	Voltage	Colors	Current	Starting Current	Operating Temp	Life Duration	Weight g [oz]	Price
64924001	115VAC	Green, yellow, red	max. 20mA	–	-20°C to 50°C [-4°F to 122°F]	Up to 100,000h	249 [8.78]	\$210.00
64924002	24V AC/DC		max. 25mA	max. 500mA				\$165.00
64924003	115VAC	Green, red	max. 20mA	–			191 [6.74]	\$155.00
64924004	24V AC/DC		max. 25mA	max. 500mA				\$135.00

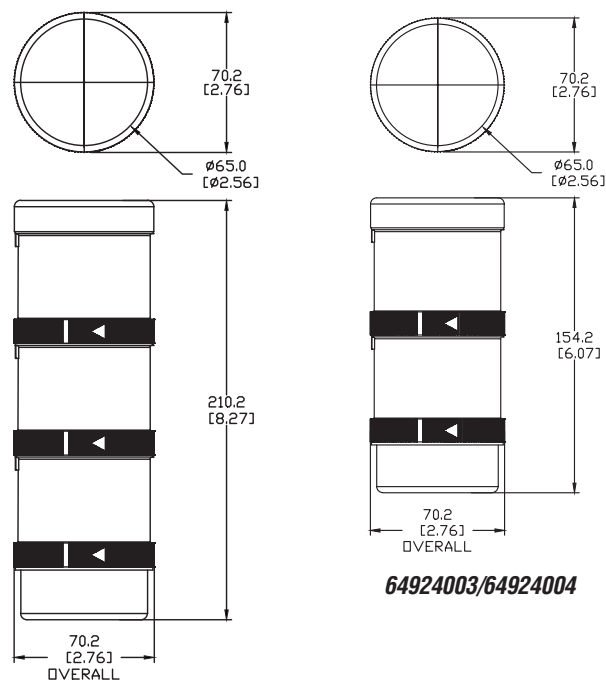


64924003/64924004

Components for KS 71 Pre-assembled Stacklights				
Image				
Part Number	97584001	97584085	97584086	96000002
Price	\$17.25	\$12.75	\$14.00	\$15.00
General Description	Contact box with side cable exit, with mounting material	Bracket for 1-sided mounting, including rubber seals	Bracket for 2-sided mounting, including rubber seals	Bracket for surface mounting with cable gland
Specifications & Dimensions	See Catalog Book 2 page 172	See Catalog Book 2 page 172	See Catalog Book 2 page 172	See Catalog Book 2 page 172

Note: Please see our website www.AutomationDirect.com for the most current pricing, specifications, and engineering drawings.

Dimensions in mm [in]



64924001/64924002

64924003/64924004

Configuring Your KombiSIGN 50 Stack Light

► STEP 1

Select the required optical elements for your application

► STEP 2

Select the optional audible element for your application



Optical Signal Elements

- Incandescent Permanent Light
- LED Permanent Light
- LED Blinking Light
- LED Flashing Light




Audible Signal Elements

- Buzzer Element

► STEP 3

Select the terminal element for your mounting option (includes cap)




Terminal element for surface, tube, single hole and bracket mounting

Order no. **84500000**


► STEP 4

Select the appropriate mounting option and accessories

Base/Bracket Mounting



Bracket for wall mounting
Order no. **97584502**




Base for surface mounting, incl. rubber seal
Order no. **97584501**


Tube Mounting

Tube Ø 25mm, all anodized


100mm long	Order no. 97584510
250mm long	97584025
400mm long	97584040
600mm long	97584060
800mm long	97584080
1000mm long	97584003



Base for Tube, plastic
Order no. **97584090**



Base for Tube, metal
Order no. **97584091**



Foldaway Base
Order no. **96000030**

► STEP 5

Where appropriate, select the bracket and the contact box



Contact box with side cable exit
Order no. **97584001**



Contact box with magnetic base and side cable exit
Order no. **97584004**



Bracket for base mounting with concealed cable entry
Order no. **96000014**



Bracket for base mounting
Order no. **96000001**

KS 50 Elements Quick Selection Guide

STEP 1 - Optical Elements Quick Selection Guide

Type of Light	Part Number	Color	Operating Voltage	Price
Incandescent Permanent*	84610000	Red	12-240V AC/DC	\$20.00
	84620000	Green		\$20.00
	84630000	Yellow		\$20.00
	84640000	Clear		\$20.00
	84650000	Blue		\$20.00
Bulbs	95584035	Clear	24VDC	\$7.25
	95584038	Clear	230VAC	\$7.25
	95584057	Clear	115VAC	\$7.25
LED Permanent	84810055	Red	24V AC/DC	\$63.00
	84820055	Green		\$63.00
	84830055	Yellow		\$63.00
	84840055	Clear		\$98.50
	84850055	Blue		\$98.50
	84810067	Red	115VAC	\$74.00
	84820067	Green		\$74.00
	84830067	Yellow		\$74.00
	84840067	Clear		\$83.00
	84850067	Blue		\$109.00
LED Blinking Light	84811075	Red	24V AC/DC	\$63.00
	84821075	Green		\$63.00
	84831075	Yellow		\$63.00
	84841075	Clear		\$98.50
	84851075	Blue		\$98.50
	84811067	Red	115VAC	\$74.00
	84821067	Green		\$74.00
	84831067	Yellow		\$74.00
	84841067	Clear		\$83.00
	84851067	Blue		\$109.00
LED Flashing Light Element	84812055	Red	24VDC	\$128.00
	84822055	Green		\$170.00
	84832055	Yellow		\$128.00
	84842055	Clear		\$170.00
	84852055	Blue		\$170.00

* Note: Bulbs are required for permanent incandescent optical element



KS 50 LED
Light Element

STEP 2 - Audible Elements Quick Selection Guide

Part Number	Description	Voltage	Tone Frequency	Maximum Volume	Price
84900075	Buzzer element	24V AC/DC	2.1 kHz	80dB	\$55.00
84900077		115V AC/DC			\$58.00

STEP 3 - Terminal Element Quick Selection

Part Number	Description	Mounting	Price
84500000	Screw terminal element for KS 50	Surface, tube, single hole, and bracket mounting	\$27.00

STEP 4 - Mounting Options/Accessories Quick Selection

Part Number	Description	Price
97584510	Anodized tube, 100mm [3.94 in] long	\$11.75
97584025	Anodized tube, 250mm [9.84 in] long	\$14.00
97584040	Anodized tube, 400mm [15.75 in] long	\$19.00
97584060	Anodized tube, 600mm [23.62 in] long	\$25.50
97584080	Anodized tube, 800mm [31.49 in] long	\$32.25
97584003	Anodized tube, 1000mm [39.37 in] long	\$43.75
97584090	Plastic base for 25mm [0.98 in] diameter tube	\$12.00
97584091	Metal base for 25mm [0.98 in] diameter tube	\$19.00
96000030	Foldaway base for 25mm [0.98 in] diameter tube	\$50.25
97584501	Base for surface mounting, includes rubber seal	\$13.50
97584502	Bracket for wall mounting	\$20.00
97584503	Adapter for single hole mounting	\$17.75

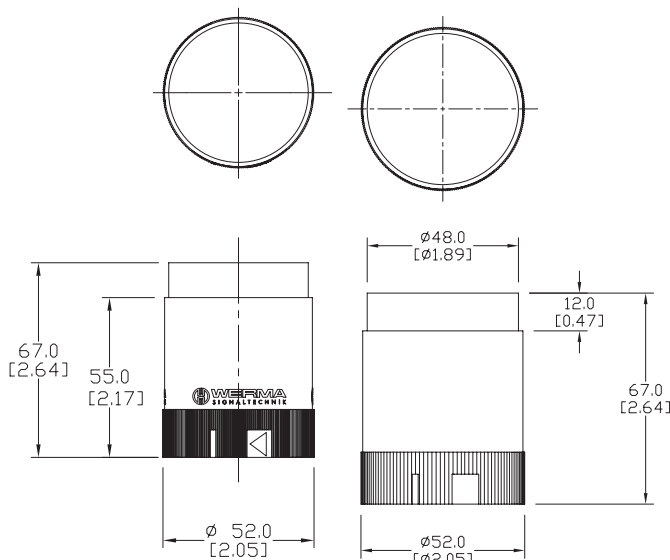
STEP 5 - Contact Boxes & Brackets Quick Selection

Part Number	Description	Price
97584001	Contact box with side exit cable	\$17.25
97584004	Contact box with magnetic base and side exit cable	\$46.25
96000014	Bracket for base mounting with concealed cable entry	\$18.75
96000001	Bracket for base mounting	\$15.00

KS 50 Optical Elements Specifications

KS 50 Optical Elements Technical Specifications										
Description	Operating Voltage	Part Number	Color	Current Consumption	Starting Current	Operating Temp/Protection	Life Duration	Flash Frequency	Housing Material	Weight
Incandescent Permanent Light	12-240V AC/DC (bulb sold separately)	84610000	Red	Depends on bulb selection. (bulb sold separately)	—	-20°C to 50°C [-4°F to 122°F] IP54	up to 5,000h	—	Polycarbonate	40g [1.41 oz]
		84620000	Green							
		84630000	Yellow							
		84640000	Clear							
		84650000	Blue							
LED Permanent Light Element	24V AC/DC	84810055	Red	max. 45mA	max. 500mA	-20°C to 50°C [-4°F to 122°F] IP54	up to 100,000h	—	Polycarbonate	45g [1.59 oz]
		84820055	Green							
		84830055	Yellow							
		84840055	Clear							
		84850055	Blue							
	115VAC	84810067	Red	max. 25mA	—	-20°C to 50°C [-4°F to 122°F] IP54	up to 100,000h	—	Polycarbonate	45g [1.59 oz]
		84820067	Green							
		84830067	Yellow							
		84840067	Clear							
		84850067	Blue							
LED Blinking Light Element	24V AC/DC	84811075	Red	max. 25mA	max. 500mA	-20°C to 50°C [-4°F to 122°F] IP54	up to 100,000h	1Hz on for 550ms	Polycarbonate	45g [1.59 oz]
		84821075	Green							
		84831075	Yellow							
		84841075	Clear							
		84851075	Blue							
	115VAC	84811067	Red	max. 25mA	—	-20°C to 50°C [-4°F to 122°F] IP54	up to 100,000h	1Hz on for 550ms	Polycarbonate	45g [1.59 oz]
		84821067	Green							
		84831067	Yellow							
		84841067	Clear							
		84851067	Blue							
LED Flashing Light Element	24VDC	84812055	Red	45mA	max. 500mA	-20°C to 50°C [-4°F to 122°F] IP54	up to 50,000h	1Hz on for 10ms	Polycarbonate	56g [1.98 oz]
		84822055	Green	40mA						
		84832055	Yellow	45mA						
		84842055	Clear	40mA						
		84852055	Blue	40mA						

Dimensions in mm [in]



KS 50 Optical Element Dimensions

848xxxxx



KS 50 Incandescent Permanent Light Element



Bulbs for Incandescent Permanent Optical Element				
Part Number	Description	Wattage	Voltage	Life Duration
95584035	Bulb for Incandescent Light BA15d Bayonet Socket	5W	24VDC	up to 5,000h
95584038			230VAC	
95584057			115VAC	

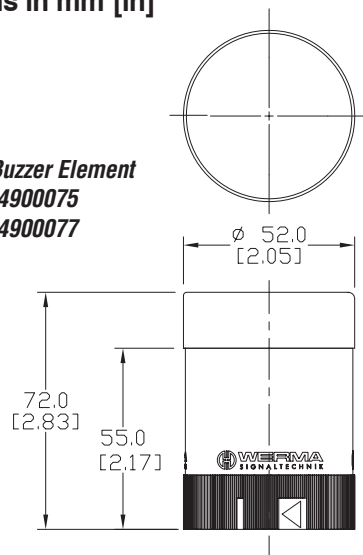
KS 50 Audible and Terminal Elements

KS 50 Audible Elements Specifications		
Part Number	84900075	84900077
Voltage	24V AC/DC	115V AC/DC
Current Consumption	max. 25mA	
Tone Frequency	2.1 kHz	
Maximum Volume	80dB	
Tone Type	Continuous/Pulse Tone Selectable	
Life Duration	min. 5,000h	
Duty Cycle	100%	
Operating Temperature	-4°F to 122°F [-20°C to 50°C]	
Weight	54g [1.90 oz]	
Housing Material	PC/ABS, PC blend (cap)	
Dome Material	PC/ABS, PC blend	

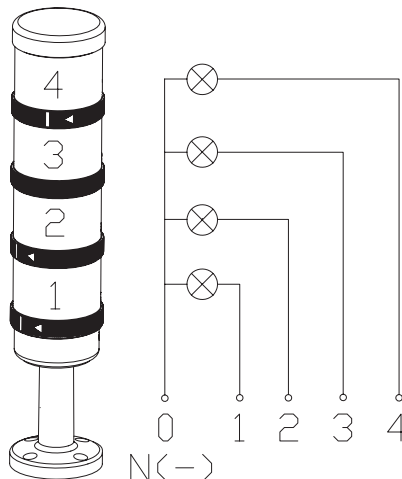
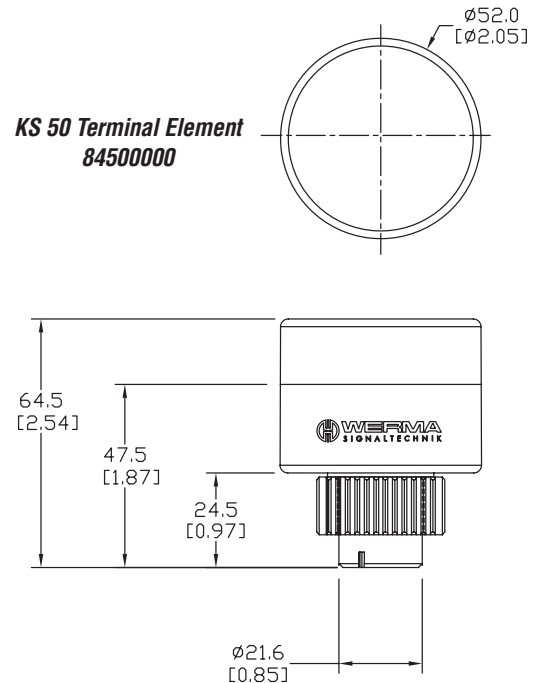
KS 50 Terminal Element Specifications	
Part Number	84500000
Description	Terminal with screw connector
Mounting	Tube, bracket, base, and single hole mounting
Connection	max. 1.5 mm ² - Single Wire
Operating Temperature	-4°F to 122°F [-20°C to 50°C]
Gauge	AWG18 to AWG14
Weight	93g [3.28 oz]
Cap Material	Polycarbonate
Base Material	Polyamide + PC/ABS

Dimensions in mm [in]

KS 50 Buzzer Element
84900075
84900077








KS 50 Terminal Element
84500000

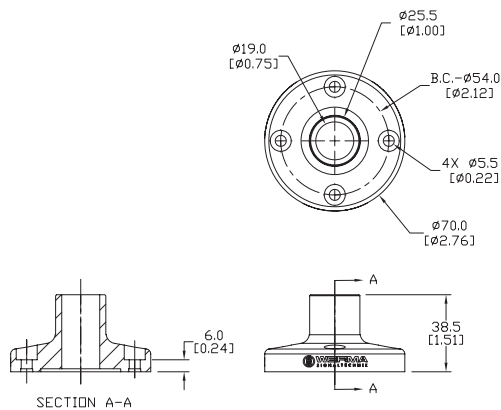


84900075 and 84900077
Switching from continuous to pulse tone.

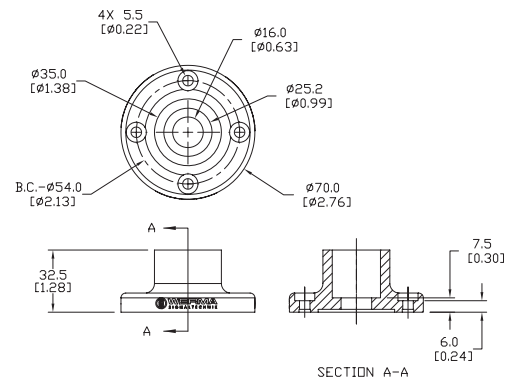
KS 50 Mounting Hardware and Accessories

KS 50 Mounting Hardware and Accessories Specifications				
Part Number	Description	Operating Temp.	Material	Weight
	97584510 Tube, 100mm [3.94 in]	-20°C to 50°C [-4°F to 122°F]	Anodized aluminum	30g [1.06 oz]
	97584025 Tube, 250mm [9.84 in]			73g [2.57 oz]
	97584040 Tube, 400mm [15.75 in]			120g [4.23 oz]
	97584060 Tube, 600mm [23.62 in]			180g [6.35 oz]
	97584080 Tube, 800mm [31.49 in]			236g [8.32 oz]
	97584003 Tube, 1000mm [39.37 in]			296g [10.44 oz]
	97584090 Plastic base for 25mm [0.98 in] diameter tube	-20°C to 50°C [-4°F to 122°F]	Polyamide Glass Reinforced	40g [1.41 oz]
	97584091 Metal base for 25mm [0.98 in] diameter tube	-20°C to 50°C [-4°F to 122°F]	Anodized Aluminum	110g [3.88 oz]
	96000030 Foldaway base for 25mm [0.98 in] diameter tube	—	Polyamide Glass Reinforced	165g [5.82 oz]
	97584501 Base for surface mounting, includes rubber seal	-20°C to 60°C [-4°F to 140°F]	Polyamide Glass Reinforced	35g [1.23 oz]

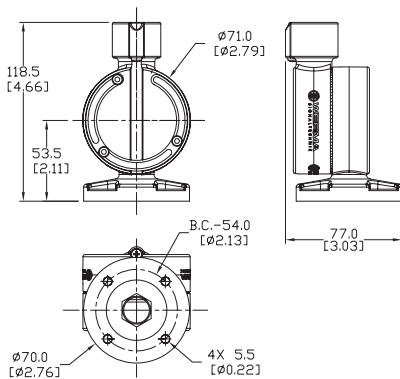
Dimensions in mm [in]



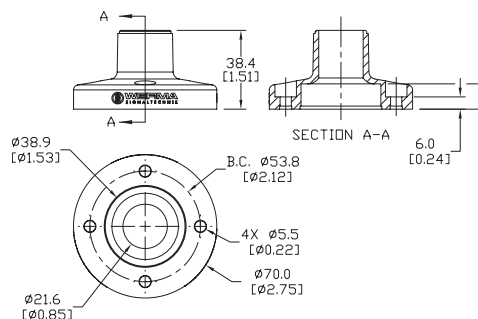
97584090



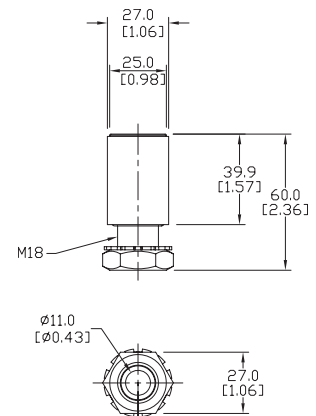
97584091



96000030



97584501



97584503

tPIL-181

FlatSIGN Signal Lights

WERMA FlatSIGN Features

- Industrial signal light
- Red/Yellow/Green LEDs
- Permanent or blinking (DIP switch selectable)
- 160-degree viewing angle
- Wall mount installation
- Audible alert option with 8
DIP switch-selectable tones (DC models) or continuous (AC models)
- 2 year warranty

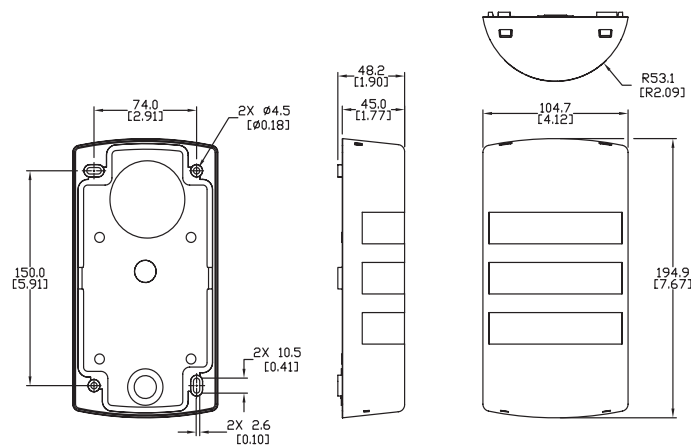


691 Series FlatSIGN Technical Specifications

Description	Voltage	Part Number	Price	Housing Color	Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Wiring Diagram	Connection	Agency Approval						
Base Mount																		
Permanent or blinking LED	24V AC/DC	69110055	\$132.00	Transparent	30mA per tier	-30°C - +50°C (-22°F - +122°F) IP65 when mounted	max. 50,000h	PC transparent or coated cap/ PC/ABS blend housing	230g [8.11 oz]	Diagram 1	Membrane grommet Cable diameter max. 13mm Terminal screw 0.5 -1.5 mm²	UL file E164155, CE, RoHS						
		69130055	\$187.00	Silver														
	115-230 VAC	69110068	\$132.00	Transparent														
		69130068	\$187.00	Silver														
Permanent or blinking LED Audible alert (8 selectable tones, 80dB at 1 meter)	24V AC/DC	69120055	\$159.00	Transparent											235g [8.29 oz]	Diagram 2		
		69140055	\$221.00	Silver														
Permanent or blinking LED Audible alert (continuous tone, 80dB at 1 meter)	115-230 VAC	69120068	\$159.00	Transparent														
		69140068	\$221.00	Silver														

Note: Refer to insert for audible tone frequencies.

Dimensions mm [in]



691xxxx

Schematics

Diagram 1

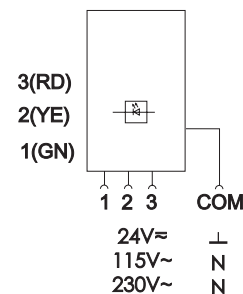
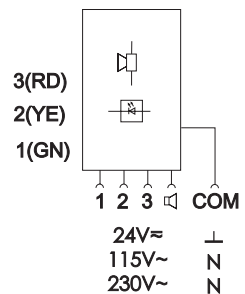


Diagram 2



WERMA Signaling Overview



Description

WERMA offers a wide range of signaling devices for either installation panel or surface mount applications. Modern designs and the latest LED technology provide exceptionally clear and bright signalling.

Installation Beacons and Audible Signal Devices

WERMA installation beacons are designed for mounting in panels or enclosures. A characteristic of this beacon type is that the rear fixture uses a central nut.

- Permanent, blinking, flashing, or LED beacons
- High protection rating IP65
- Beacons in 29, 57/58, and 75mm beacon diameters
- Audible modules with sight/sound combinations
- Signal modules come in common voltages (24V AC/DC, 115VAC, and 230VAC)
- Five colors
- For installation in 22.5 or 34mm cutouts

Freestanding Beacons

WERMA freestanding beacons offer a range of modules including: permanent, blinking, flashing, LED EVS, and LED rotating.

- Base, bracket or tube mounting
- Incandescent, LED, or Xenon light sources
- High protection rating IP65
- 57/58/75/98mm beacon diameters available
- Tall lens option available
- Signal modules in common voltages (24V AC/DC, 115VAC, and 230VAC)
- Five colors available

Beacon Accessories

Accessories for installation and freestanding beacons:

- Tube adapter, mounting base, surface-mounting enclosures, washers, for installation beacons
- Wire guard, wallmount bracket, bracket, base and tube, and cable gland for freestanding beacons



How to Select your WERMA Signal Device



► STEP 1

Select the required panel or freestanding beacon or buzzer for your application



Optical Signal Elements

- Incandescent Permanent Light
- LED Permanent Light
- Xenon Flashing Light
- LED Flashing Light
- LED Blinking Light
- LED Rotating Light
- LED Double Flashing Light
- LED EVS (Enhanced Visibility System) Flashing Light

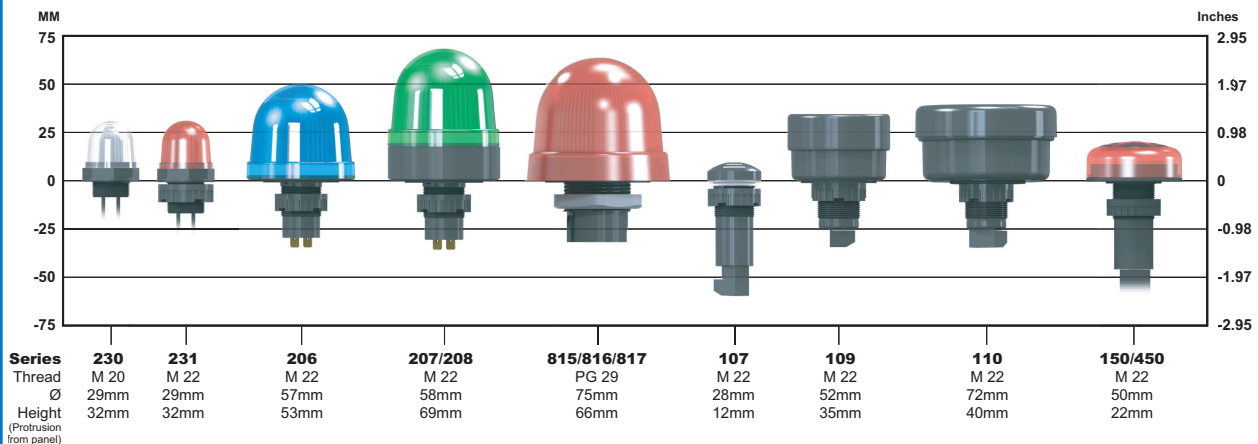
Audible Signal Elements

- Buzzer Element
- Buzzer Element with Acknowledgment Function
- Bracket mounting continuous tone horns

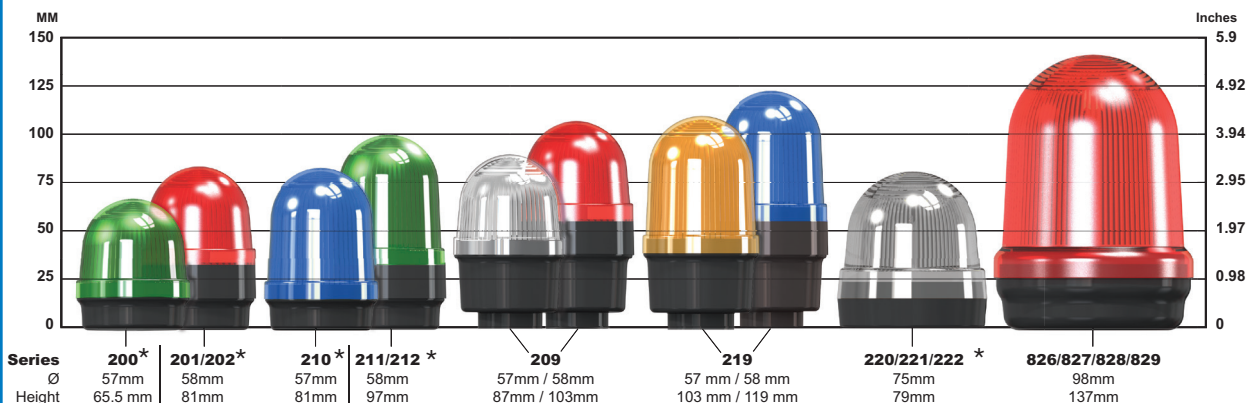
► STEP 2

Select the required beacon height/depth for your application from either the panel beacons and buzzers or free-standing beacons.

Installation Beacons and Buzzers



Freestanding Beacons



*Bracket mount also available

How to Select your WERMA Signal Device



► STEP 3

Select the correct mount for your application

Panel Mounting

Series: 230, 231, 206, 207, 208

PG 29 Mounting

Series: 815, 816, 817

Base Mounting

Series: 200, 201, 202, 210, 211, 212, 220, 221, 222, 826, 827, 828, 829

Bracket Mounting

Series: 203, 204, 205, 213, 214, 215, 223, 224, 225

Tube Mounting

Series: 209, 219

► STEP 4

Where appropriate, select a mounting accessory for your PG29, base-mounted, or tube-mounted beacon.



Anti-twist washer for beacons with 37mm PG29 mounting
Order no. **97581522**



Tube adaptor for beacons with 37mm PG29 Mounting
Order no. **97581201**



Galvanized Wire Guard - for use with 826, 827, 828 and 829 series industrial signal beacons
Order no. **97582603**



Plastic Bracket for wall mounting - for use with 826, 827, 828 and 829 series industrial signal beacons.
Order no. **97582605**



Plastic Base with integrated tube for use with 209 and 219 series beacons
Order no. **97520901**



Cable gland (M25x1.5, plastic) for use with 209 and 219 series industrial signal beacons
Order no. **97520902**



Surface mounting enclosure for 1 beacon with 37mm PG29 mounting
Order no. **97581503**



Surface mounting enclosure for 2 beacons with 37mm PG29 Mounting
Order no. **97581507**



Surface mounting enclosure for 3 beacons with 37mm PG29 Mounting
Order no. **97581508**



Surface mounting base for beacons with 37mm PG29 Mounting
Order no. **97581202**

Tube Ø 25mm, all anodized
Order no.
100mm long **97584510**
250mm long **97584025**
400mm long **97584040**
600mm long **97584060**
800mm long **97584080**
1000mm long **97584003**



Base for Tube, plastic
Order no. **97584090**

Base for Tube, metal
Order no. **97584091**

Foldaway Base
Order no. **96000030**

Tube Ø 25mm, plastic, only for Foldaway Base, 45mm long
Order no. **96000031**



Contact box with side cable exit
Order no. **97584001**



Contact box with magnetic base and side cable exit
Order no. **97584004**



Bracket for base mounting with concealed cable entry
Order no. **96000014**



Bracket for tube mounting
Order no. **96000001**

Optical Signal Devices



29mm Beacons with Permanent LED Indicator



29mm Beacon Features

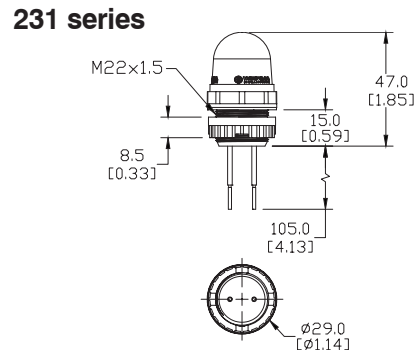
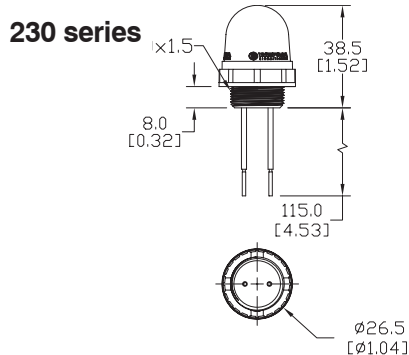
- High-intensity LED permanent beacon
- Mounting for either 22.5 mm panel mount or M20 thread for use with limit and cable-operated switches
- Lock nut included with 22.5 mm models
- Mostly sideways illumination
- Rubber seal included
- 2 year warranty



230 and 231 Series Beacons with Permanent LED Indicator Technical Specifications												
Description	Voltage	Part Number	Price	LED Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals
230 Series 20mm x 1.5 Threaded Base												
LED Permanent Light	24VDC	23010055	\$57.00	Red	< 45mA	≤ 0.5 A	-4°F to 122°F [-20°C to 50°C]	up to 100,000h	Polycarbonate cap	12g [0.42 oz]	M20 x 1.5 20.5 mm Threaded base Does not include lock nut	cULus file E164155, CE, RoHS
		23020055	\$93.50	Green								
		23030055	\$57.00	Yellow								
		23040055	\$93.50	Clear								
		23050055	\$93.50	Blue								
	115VAC	23010067	\$68.50	Red	< 15mA	—	IP65	ABS/ Polycarbonate blend, Black base	2 wires, approximately 115mm long 20AWG (0.5 mm²)			
		23020067	\$107.50	Green								
		23030067	\$68.50	Yellow								
		23040067	\$107.50	Clear								
		23050067	\$107.50	Blue								
231 Series 22.5 mm Panel Mount												
LED Permanent Light	24VDC	23110055	\$55.50	Red	< 45mA	≤ 0.5 A	-4°F to 122°F [-20°C to 50°C]	up to 100,000h	Polycarbonate cap	16g [0.56 oz]	M22 x 1.5 22.5 mm Panel mount	cULus file E164155, CE, RoHS
		23120055	\$90.50	Green								
		23130055	\$55.50	Yellow								
		23140055	\$89.00	Clear								
		23150055	\$89.00	Blue								
	115VAC	23110067	\$66.50	Red	< 15mA	—	IP65	ABS/ Polycarbonate blend, Black base	2 wires, approximately 105mm long 20AWG (0.5 mm²)			
		23120067	\$104.00	Green								
		23130067	\$66.50	Yellow								
		23140067	\$104.00	Clear								
		23150067	\$104.00	Blue								

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Dimensions mm [in]



Please see our website www.AutomationDirect.com for complete engineering drawings.

Optical Signal Devices


WERMA
SIGNALTECHNIK

57/58 mm Panel Mount Beacons

57/58 mm Beacon Features

- Available in permanent Incandescent or LED, and Xenon flashing models
- 360° visibility
- For use in 22.5 mm standard control panel holes
- Connection by 6.3mm x 0.8mm spades
- Finger-proof when used with insulated spades
- Changeable bulb for incandescent models not included
- Lock nut and rubber seal included
- 2 year warranty



206, 207 and 208 Series 57/58 mm Beacons Technical Specifications												
Description	Voltage	Part Number	Price	Lamp Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals
22.5 mm Panel Mount												
Incandescent Permanent Light	max. 48V	20610000	\$28.50	Red	Depends on bulb selection. (bulb sold separately)	-	-4°F to 122°F [-20°C to 50°C] IP65	Depends on bulb selection. (bulb sold separately)	Polycarbonate cap	39g [1.38 oz]	22.5 mm Panel Mount	cULus file E164155, RoHS
		20620000	\$28.50	Green					Polyamide fiberglass Black base		6.3 mm spade connector	
		20630000	\$28.50	Yellow								
		20640000	\$34.00	Clear								
		20650000	\$34.00	Blue								
LED Permanent Light	24V AC/DC	20710075	\$63.50	Red	< 45mA	≤ 0.5 A	-4°F to 122°F [-20°C to 50°C] IP65	up to 100,000h	Polycarbonate cap	56g [1.98 oz]	22.5 mm Panel Mount	cULus file E164155, CE, RoHS
		20720075	\$63.50	Green					Polyamide fiberglass Black base		6.3 mm spade connector	
		20730075	\$63.50	Yellow								
		20740075	\$105.50	Clear								
		20750075	\$105.50	Blue								
	115VAC	20710067	\$73.00	Red	< 25mA	-	-4°F to 122°F [-20°C to 50°C] IP65	up to 100,000h	Polycarbonate cap	56g [1.98 oz]	22.5 mm Panel Mount	
		20720067	\$69.00	Green					Polyamide fiberglass Black base		6.3 mm spade connector	
		20730067	\$69.00	Yellow								
		20740067	\$115.00	Clear								
		20750067	\$115.00	Blue								
Xenon Flashing Light (0.75 Hz flash frequency)	24VDC	20810055	\$97.00	Red	< 100mA	≤ 0.5 A	-4°F to 122°F [-20°C to 50°C] IP65	4 x 10 ⁶ flashes	Polycarbonate cap	74g [2.61 oz]	22.5 mm Panel Mount	cULus file E164155, CE, RoHS
		20820055	\$99.00	Green					Polyamide fiberglass Black base		6.3 mm spade connector	
		20830055	\$97.00	Yellow								
		20840055	\$99.00	Clear								
		20850055	\$99.00	Blue								
	115VAC	20810067	\$97.00	Red	< 25mA	-	-4°F to 122°F [-20°C to 50°C] IP65	4 x 10 ⁶ flashes	Polycarbonate cap	74g [2.61 oz]	22.5 mm Panel Mount	
		20820067	\$99.00	Green					Polyamide fiberglass Black base		6.3 mm spade connector	
		20830067	\$97.00	Yellow								
		20840067	\$99.00	Clear								
		20850067	\$99.00	Blue								

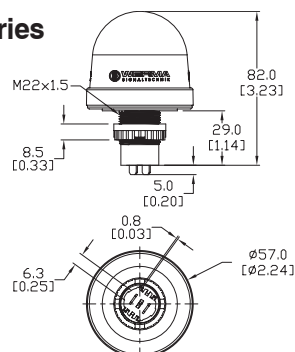
To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Bulbs for Incandescent Permanent Optical Element					
Part Number	Price	Description	Wattage	Voltage	Life Duration
95584035	\$7.25	Bulb for Incandescent Light BA15d Bayonet Socket	5W	24VDC	up to 5,000h

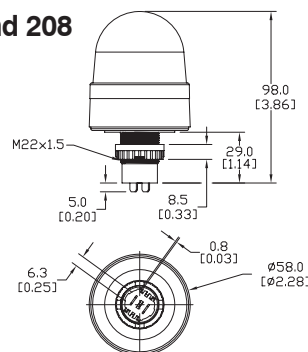


Dimensions mm [in]

206 series



207 and 208 series



Please see our website www.AutomationDirect.com for complete engineering drawings.

Optical Signal Devices


WERMA
SIGNALTECHNIK

75mm Beacons (PG29 Mount)

75mm Beacon Features

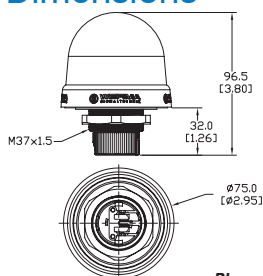
- Choose from blinking, rotating or permanent LED models, flashing Xenon model, or permanent Incandescent model
- Light-intensive Xenon flash in flash models
- High-impact polycarbonate lens (up to 20 joules)
- Various mounting accessories available
- Bulb not included with incandescent models
- Tamper-proof bulb change via rear access with bayonet mechanism on incandescent bulbs only
- 2 year warranty



815, 816 and 817 Series 75mm Beacons Technical Specifications													
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals	
37mm (PG29 Mount)													
Incandescent Permanent Light	12-240V Depends on bulb selection. (bulb sold separately)	81510000	\$37.00	Red	Depends on bulb selection. (bulb sold separately)	—	-4°F to 140°F [-20°C to 60°C] IP65	Up to 5,000h		96g [3.39 oz]			
		81520000	\$37.00	Green									
		81530000	\$37.00	Yellow									
		81540000	\$43.50	Clear									
		81550000	\$43.50	Blue									
LED Permanent Light	24V AC/DC	81610055	\$79.00	Red	< 45mA	≤ 0.5 A	-4°F to 122°F [-20°C to 50°C] IP65	up to 100,000h	Polycarbonate cap ABS/ Polycarbonate base	107g [3.77 oz]	37mm (PG29) mount Terminal M3 ≤ 2.5 mm² AWG14	cULus file E164155, CE, RoHS	
		81620055	\$79.00	Green									
		81630055	\$79.00	Yellow									
		81640055	\$134.00	Clear									< 25mA
		81650055	\$134.00	Blue									< 45mA
	115 VAC	81610067	\$93.00	Red	< 25mA	—							
		81620067	\$93.00	Green									
		81630067	\$93.00	Yellow									
		81640067	\$146.00	Clear									
		81650067	\$146.00	Blue									
LED Blinking Light (1Hz flash frequency)	24V AC/DC	81611055	\$129.00	Red	< 25mA	≤ 0.5 A							
		81621055	\$129.00	Green									
		81631055	\$129.00	Yellow									
		81641055	\$235.00	Clear									
		81651055	\$235.00	Blue									
LED Rotating Light (120 rotations/min flash frequency)		81613055	\$129.00	Red	< 40mA								
		81623055	\$129.00	Green									
		81633055	\$129.00	Yellow									
		81643055	\$216.00	Clear									< 70mA
		81653055	\$216.00	Blue									< 40mA
Xenon Flashing Light (1Hz flash frequency)	24VDC	81710055	\$119.00	Red	< 125mA	≤ 0.5 A		4,000,000 flashes		116g [4.09 oz]			
		81720055	\$119.00	Green									
		81730055	\$119.00	Yellow									
		81740055	\$124.00	Clear									
		81750055	\$124.00	Blue									
	115VAC	81710067	\$119.00	Red	< 22mA					108g [3.81 oz]			
		81720067	\$117.00	Green									
		81730067	\$117.00	Yellow									
		81740067	\$119.00	Clear									
		81750067	\$119.00	Blue									

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Dimensions mm [inches]



Bulbs for Incandescent Permanent Optical Element					
Part Number	Price	Description	Wattage	Voltage	Life Duration
95584035	\$7.25	Bulb for Incandescent Light BA15d Bayonet Socket	5W	24VDC	up to 5,000h
95584038	\$7.25			230VAC	
95584057	\$7.25			115VAC	



Please see our website www.AutomationDirect.com for complete engineering drawings.

Optical Signal Devices


WERMA
SIGNALTECHNIK

57/58 mm Base Mount Beacons

57/58 mm Beacon Features

- Choose from permanent incandescent, permanent LED, or flashing Xenon model
- Base mount installation
- 57 and 58mm diameters
- Light-intensive Xenon flash in flash models
- Bulb not included on incandescent models
- 2 year warranty



200, 201, and 202 Series Beacons Technical Specifications																														
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals																		
35.5 mm Base Mount																														
Incandescent Permanent Light 57mm	12-240 V AC/DC max (depends on bulb selection; bulb sold separately)	20010000	\$15.00	Red	Depends on bulb selection. (Bulb sold separately)	—	-4°F to 122°F [-20°C to 50°C] IP65	up to 5,000h	Polycarbonate cap Polyamide base	50g [1.76 oz]	Up to 2.5 mm² Screwless CAGE CLAMP® - technology (8-14 AWG)	cULus file E164155, CE, RoHS																		
		20020000	\$15.00	Green																										
		20030000	\$15.00	Yellow																										
		20040000	\$15.00	Clear																										
		20050000	\$15.00	Blue																										
LED Permanent Light 58mm	115VAC	20110067	\$69.00	Red	< 25mA	≤ 0.5 A		-4°F to 122°F [-20°C to 50°C] IP65		up to 100,000h			Polycarbonate cap Polyamide base	66g [2.33 oz]	Up to 2.5 mm² Screwless CAGE CLAMP® - technology (8-14 AWG)	cULus file E164155, CE, RoHS														
		20120067	\$69.00	Green																										
		20130067	\$69.00	Yellow																										
		20140067	\$98.00	Clear																										
		20150067	\$105.00	Blue																										
	24V AC/DC	20110075	\$56.00	Red	< 45mA												-4°F to 122°F [-20°C to 50°C] IP65	up to 100,000h	Polycarbonate cap Polyamide base	66g [2.33 oz]	Up to 2.5 mm² Screwless CAGE CLAMP® - technology (8-14 AWG)	cULus file E164155, CE, RoHS								
		20120075	\$56.00	Green																										
		20130075	\$56.00	Yellow																										
		20140075	\$109.00	Clear																										
20150075	\$109.00	Blue																												
Xenon Flashing Light (0.75 Hz flash frequency, 1W flash energy) 58mm	24VDC	20210055	\$89.00	Red	< 100mA	—				-4°F to 122°F [-20°C to 50°C] IP65				4,000,000 flashes									Polycarbonate cap Polyamide base	82g [2.89 oz]	Up to 2.5 mm² Screwless CAGE CLAMP® - technology (8-14 AWG)	cULus file E164155, CE, RoHS				
		20220055	\$95.00	Green																										
		20230055	\$89.00	Yellow																										
		20240055	\$95.00	Clear																										
		20250055	\$95.00	Blue																										
	115VAC	20210067	\$89.00	Red	< 20mA													-4°F to 122°F [-20°C to 50°C] IP65		4,000,000 flashes							Polycarbonate cap Polyamide base	82g [2.89 oz]	Up to 2.5 mm² Screwless CAGE CLAMP® - technology (8-14 AWG)	cULus file E164155, CE, RoHS
		20220067	\$95.00	Green																										
		20230067	\$89.00	Yellow																										
		20240067	\$95.00	Clear																										
		20250067	\$95.00	Blue																										

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Bulbs

Bulbs for Incandescent Permanent Optical Element					
Part Number	Price	Description	Wattage	Voltage	Life Duration
95584035	\$7.25	Bulb for Incandescent Light BA15d Bayonet Socket	5W	24VDC	up to 5,000h
95584038	\$7.25			230VAC	
95584057	\$7.25			115VAC	



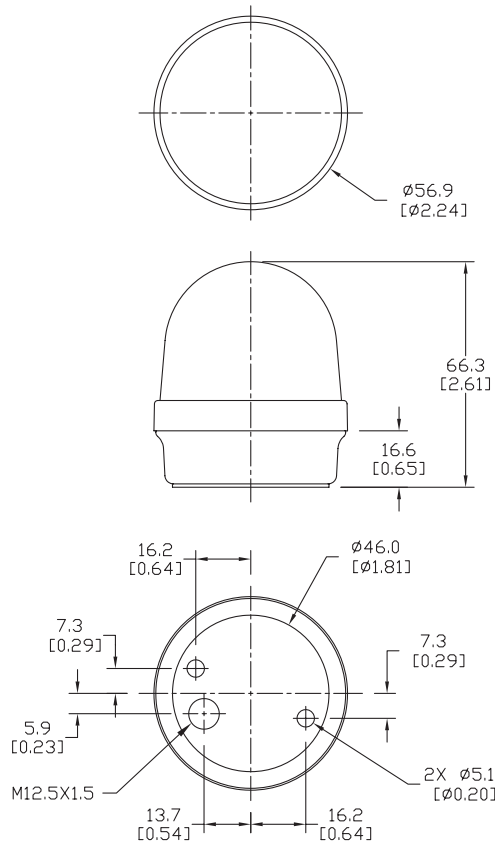
Optical Signal Devices



57/58 mm Base Mount Beacons

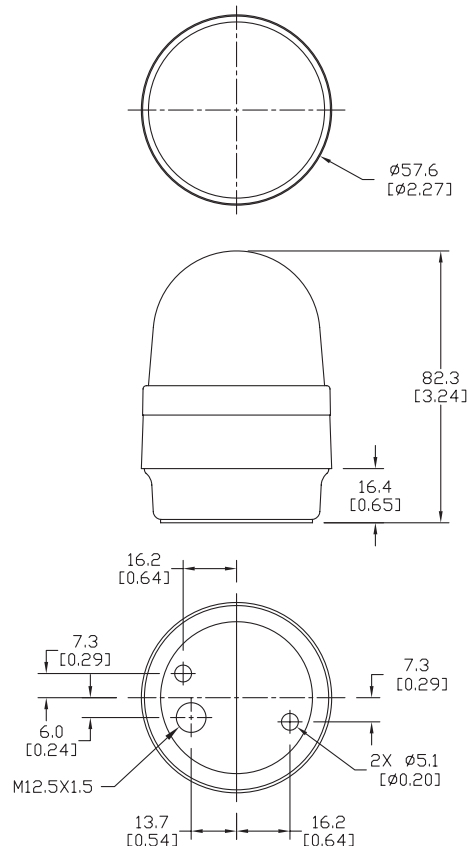
DIMENSIONS mm [in]

200 Series



201/202 Series

Please see our website www.AutomationDirect.com for complete engineering drawings.



Optical Signal Devices


WERMA
SIGNALTECHNIK

57/58 mm Bracket Mount Beacons

57/58 mm Beacon Features

- Choose from permanent incandescent, permanent LED, or flashing Xenon models
- Bracket mount installation
- 57 and 58mm diameters
- Light-intensive Xenon flash in flash models
- Bulb not included with incandescent models
- 2 year warranty



203, 204, and 205 Series Beacons Technical Specifications															
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals			
25.8 mm (Bracket Mount)															
Incandescent Permanent Light 57mm	12-240V AC/DC max (depends on bulb selection; bulb sold separately)	20310000	\$19.00	Red	Depends on bulb selection. (bulb sold separately)	—	-4°F to 122°F [-20°C to 50°C] IP65	up to 5,000h	Polycarbonate cap Polyamide base	55g [1.94 oz]		cULus file E164155, CE, RoHS			
		20320000	\$19.00	Green											
		20330000	\$19.00	Yellow											
		20340000	\$19.00	Clear											
		20350000	\$19.00	Blue											
LED Permanent Light 58mm	115VAC	20410067	\$79.00	Red	< 25mA	≤ 0.5 A				up to 100,000h				72g [2.53 oz]	2.5 mm² Screwless CAGE CLAMP® - technology (18-14 AWG) Cable gland: m12 x1.5 Cable diameter: 3-6 mm
		20420067	\$79.00	Green											
		20430067	\$79.00	Yellow											
		20440067	\$119.00	Clear											
		20450067	\$119.00	Blue											
	24V AC/DC	20410075	\$64.00	Red	< 45mA										
		20420075	\$64.00	Green											
		20430075	\$64.00	Yellow											
		20440075	\$105.00	Clear											
		20450075	\$105.00	Blue											
Xenon Flashing Light (1Hz flash frequency, 1W flash energy) 58mm	24VDC	20510055	\$95.00	Red	< 100mA	—				4,000,000 flashes			88g [3.10 oz]		
		20520055	\$99.00	Green											
		20530055	\$93.00	Yellow											
		20540055	\$99.00	Clear											
		20550055	\$99.00	Blue											
	115VAC	20510067	\$95.00	Red	< 20mA										
		20520067	\$99.00	Green											
		20530067	\$93.00	Yellow											
		20540067	\$99.00	Clear											
		20550067	\$99.00	Blue											

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Bulbs

Bulbs for Incandescent Permanent Optical Element					
Part Number	Price	Description	Wattage	Voltage	Life Duration
95584035	\$7.25	Bulb for Incandescent Light BA15d Bayonet Socket	5W	24VDC	up to 5,000h
95584038	\$7.25			230VAC	
95584057	\$7.25			115VAC	



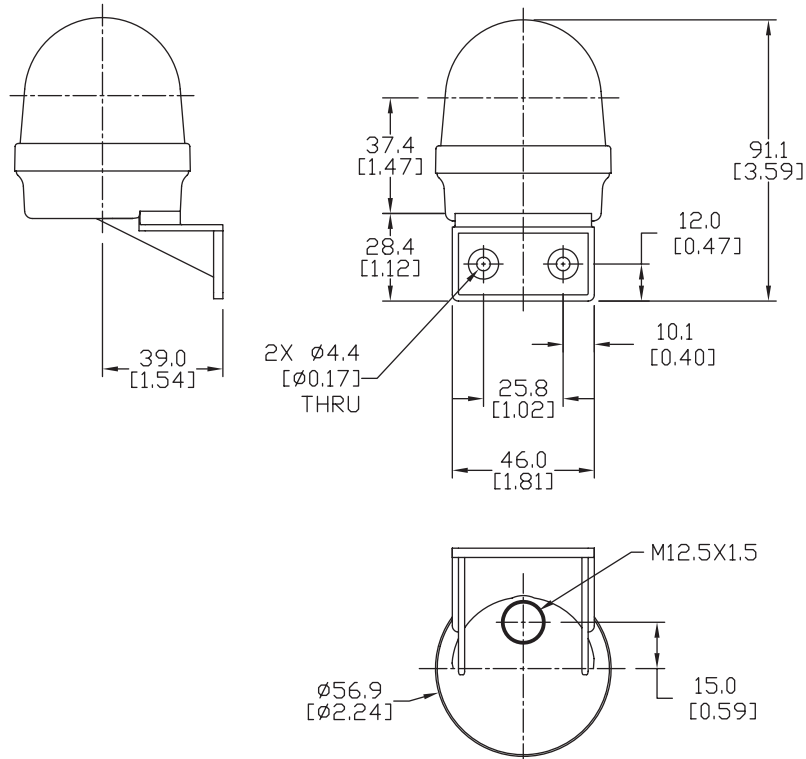
Optical Signal Devices



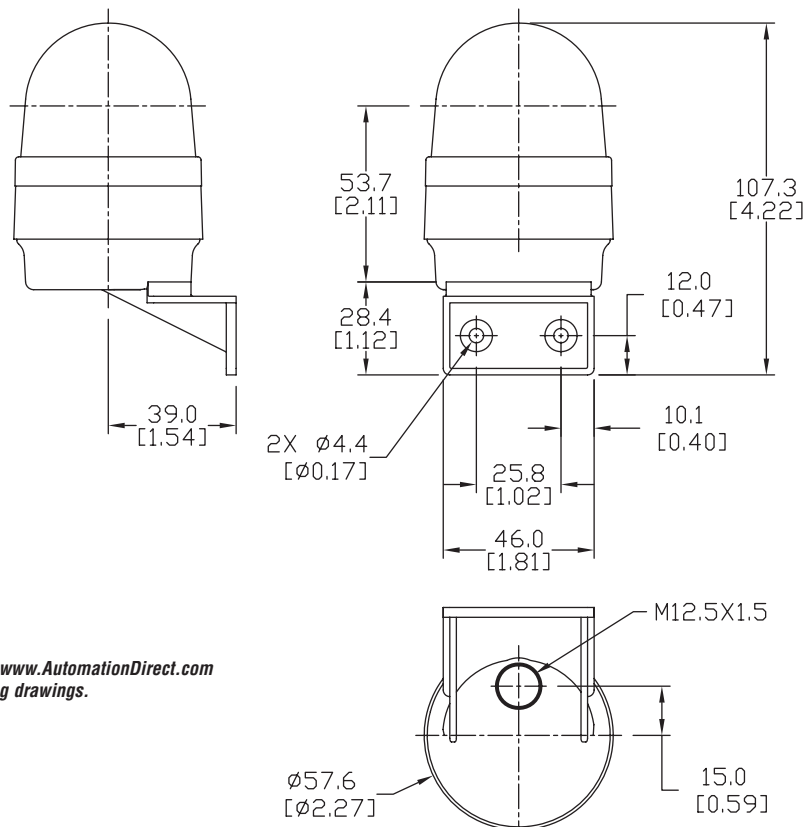
57/58 mm Bracket Mount Beacons

DIMENSIONS mm [in]

203 Series



204/205 Series



Please see our website www.AutomationDirect.com for complete engineering drawings.

Optical Signal Devices


WERMA
SIGNALTECHNIK

57/58 mm Tube Mount Beacons

57/58 mm Beacon Features

- Choose from permanent incandescent, permanent LED, or flashing Xenon models
- Tube mount installation
- 57 and 58mm diameters
- Light-intensive Xenon flash in flash models
- Bulb not included with incandescent models
- Various mounting accessories available
- 2 year warranty



209 Series Beacons Technical Specifications																			
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals							
M25x1.5 (Tube Mount)																			
Incandescent Permanent 57mm	12-240V AC/DC max (depends on bulb selection; bulb sold separately)	20910000	\$19.00	Red	Depends on bulb selection. (Bulb sold separately)	—	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 5,000h	Polycarbonate cap Polyamide base	62g [2.19 oz]									
		20920000	\$19.00	Green															
		20930000	\$19.00	Yellow															
		20940000	\$19.00	Clear															
		20950000	\$19.00	Blue															
LED Permanent Light 58mm	115VAC	20911067	\$78.00	Red	< 25mA	< 0.5 A at 24V				up to 100,000h				78g [2.75 oz]	2.5 mm² Screwless CAGE CLAMP® - technology (18-14 AWG)	cULus file E164155, CE, RoHS			
		20921067	\$78.00	Green															
		20931067	\$78.00	Yellow															
		20941067	\$118.00	Clear															
		20951067	\$118.00	Blue															
	24V AC/DC	20911075	\$64.00	Red	< 45mA					4,000,000 flashes		94g [3.32 oz]							
		20921075	\$64.00	Green															
		20931075	\$64.00	Yellow															
		20941075	\$104.00	Clear															
		20951075	\$104.00	Blue															
Xenon Flashing Light (0.75 Hz flash frequency, 1W flash energy) 58mm	24VDC	20912055	\$93.00	Red	< 100mA	—													
		20932055	\$93.00	Yellow															
		20942055	\$99.00	Clear															
		20952055	\$99.00	Blue															
	115VAC	20912067	\$93.00	Red	< 20mA														
		20932067	\$93.00	Yellow															
		20942067	\$99.00	Clear															
		20952067	\$99.00	Blue															

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Bulbs

Bulbs for Incandescent Permanent Optical Element					
Part Number	Price	Description	Wattage	Voltage	Life Duration
95584035	\$7.25	Bulb for Incandescent Light BA15d Bayonet Socket	5W	24VDC	up to 5,000h
95584038	\$7.25			230VAC	
95584057	\$7.25			115VAC	



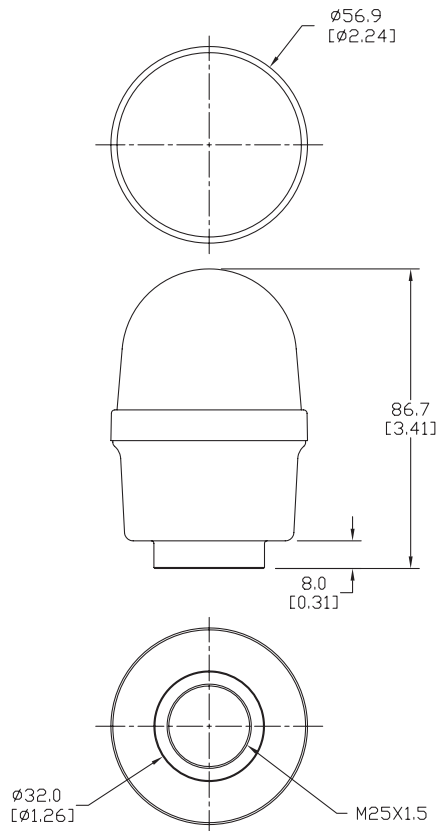
Optical Signal Devices



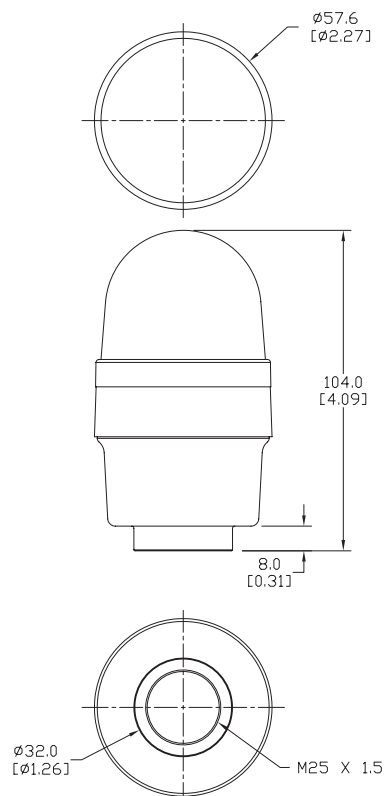
57/58 mm Tube Mount Beacons

DIMENSIONS mm [in]

209x0000 Series



209xx055/209xx067 Series



Please see our website www.AutomationDirect.com for complete engineering drawings.

Optical Signal Devices


WERMA
SIGNALTECHNIK

57/58 mm Base Mount Beacons (Tall Lens)

57/58 mm Beacon Features

- Beacon with tall lens
- Base mount installation
- Choose from permanent incandescent, permanent LED, or flashing Xenon models
- 57 and 58mm diameters
- Light-intensive Xenon flash in flash models
- Bulb not included with incandescent models
- 2 year warranty



210, 211, and 212 Series Beacons Technical Specifications												
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals
35.5 mm (Base Mount)												
Incandescent Permanent Light 57mm	12-240 V AC/DC max (depends on bulb selection; bulb sold separately)	21010000	\$16.00	Red	Depends on bulb selection. (Bulb sold separately)	—		up to 5,000h		55g [1.94 oz]		
		21020000	\$16.00	Green								
		21030000	\$16.00	Yellow								
		21040000	\$16.00	Clear								
		21050000	\$16.00	Blue								
LED Permanent Light 58mm	115VAC	21110067	\$79.00	Red	< 25mA	≤ 0.5 A	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 100,000h	Polycarbonate cap Polyamide base	72g [2.53 oz]	2.5 mm² Screwless CAGE CLAMP® - technology (18-14 AWG)	cULus file E164155, CE, RoHS
		21120067	\$79.00	Green								
		21130067	\$79.00	Yellow								
		21140067	\$120.00	Clear								
		21150067	\$120.00	Blue								
	24V AC/DC	21110075	\$64.00	Red	< 45mA							
		21120075	\$64.00	Green								
		21130075	\$64.00	Yellow								
		21140075	\$105.00	Clear								
		21150075	\$105.00	Blue								
Xenon Flashing Light (0.75 Hz flash frequency, 1W flash energy) 58mm	24VDC	21210055	\$94.00	Red	< 100mA	—		4,000,000 flashes		88g [3.10 oz]		
		21220055	\$99.00	Green								
		21230055	\$99.00	Yellow								
		21240055	\$105.00	Clear								
		21250055	\$105.00	Blue								
	115VAC	21210067	\$94.00	Red	< 20mA							
		21220067	\$99.00	Green								
		21230067	\$99.00	Yellow								
		21240067	\$105.00	Clear								
		21250067	\$105.00	Blue								

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Bulbs

Bulbs for Incandescent Permanent Optical Element					
Part Number	Price	Description	Wattage	Voltage	Life Duration
95501535	\$7.25	Bulb for Incandescent Light BA15d Bayonet Socket	7W	24V AC/DC	up to 5,000h
95501537	\$7.25			115VAC	
95501538	\$7.25			230VAC	



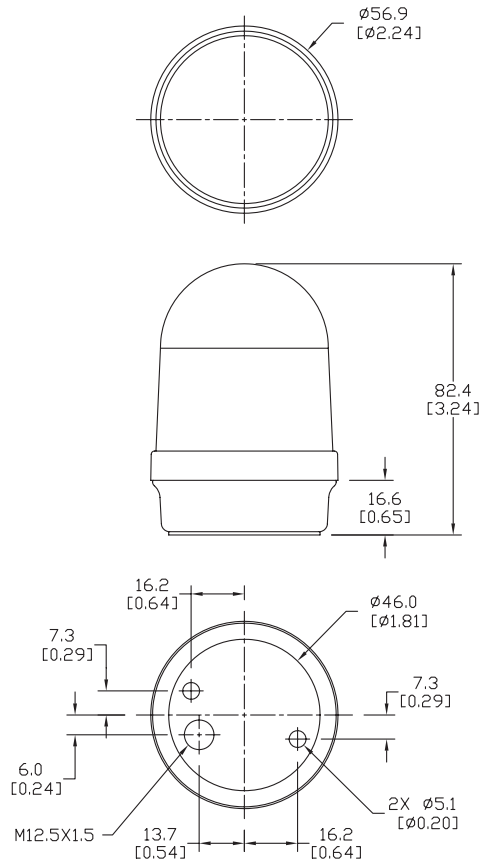
Optical Signal Devices



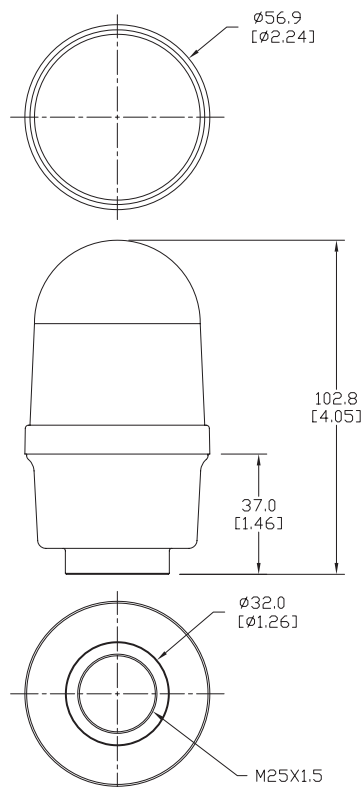
57/58 mm Base Mount Beacons (Tall Lens)

DIMENSIONS mm [in]

210 Series



211/212 Series



Please see our website www.AutomationDirect.com for complete engineering drawings.

Optical Signal Devices


WERMA
SIGNALTECHNIK

57/58 mm Bracket Mount Beacons (Tall Lens)

57/58 mm Beacon Features

- Beacon with tall lens
- Bracket mount installation
- Choose from permanent incandescent, permanent LED, or flashing Xenon models
- 57 and 58mm diameters
- Light-intensive Xenon flash in flash models
- Bulb not included with incandescent models
- 2 year warranty



213, 214, and 215 Series Beacons Technical Specifications																		
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals						
25.8 mm (Bracket Mount)																		
Incandescent Permanent Light 57mm	12-240V AC/DC max (depends on bulb selection; bulb sold separately)	21310000	\$19.00	Red	Depends on bulb selection. (Bulb sold separately)	—	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 5,000h	Polycarbonate cap Polyamide base	61g [2.15 oz]		cULus file E164155, CE, RoHS						
		21320000	\$19.00	Green														
		21330000	\$19.00	Yellow														
		21340000	\$19.00	Clear														
		21350000	\$19.00	Blue														
LED Permanent Light 58mm	115VAC	21410067	\$79.00	Red	< 25mA	≤ 0.5 A		-4°F to 122°F [-20°C to 50°C] IP65 when mounted		up to 100,000h			Polycarbonate cap Polyamide base	78g [2.75 oz]	2.5 mm² Screwless CAGE CLAMP® - technology (18-14 AWG) Cable gland: m12 x1.5 Cable diameter: 3-6 mm	cULus file E164155, CE, RoHS		
		21420067	\$79.00	Green														
		21430067	\$79.00	Yellow														
		21440067	\$119.00	Clear														
		21450067	\$119.00	Blue														
	24V AC/DC	21410075	\$66.00	Red	< 45mA		≤ 0.5 A		-4°F to 122°F [-20°C to 50°C] IP65 when mounted		up to 100,000h	Polycarbonate cap Polyamide base		78g [2.75 oz]			2.5 mm² Screwless CAGE CLAMP® - technology (18-14 AWG) Cable gland: m12 x1.5 Cable diameter: 3-6 mm	cULus file E164155, CE, RoHS
		21420075	\$66.00	Green														
		21430075	\$66.00	Yellow														
		21440075	\$105.00	Clear														
		21450075	\$105.00	Blue														
Xenon Flashing Light (1Hz flash frequency, 1W flash energy) 58mm	24VDC	21510055	\$98.00	Red	< 100mA	—		-4°F to 122°F [-20°C to 50°C] IP65 when mounted		4,000,000 flashes			Polycarbonate cap Polyamide base	94g [3.32 oz]	2.5 mm² Screwless CAGE CLAMP® - technology (18-14 AWG) Cable gland: m12 x1.5 Cable diameter: 3-6 mm	cULus file E164155, CE, RoHS		
		21520055	\$105.00	Green														
		21530055	\$98.00	Yellow														
		21540055	\$105.00	Clear														
		21550055	\$105.00	Blue														
	115VAC	21510067	\$98.00	Red	< 20mA		—		-4°F to 122°F [-20°C to 50°C] IP65 when mounted		4,000,000 flashes	Polycarbonate cap Polyamide base		94g [3.32 oz]			2.5 mm² Screwless CAGE CLAMP® - technology (18-14 AWG) Cable gland: m12 x1.5 Cable diameter: 3-6 mm	cULus file E164155, CE, RoHS
		21520067	\$105.00	Green														
		21530067	\$98.00	Yellow														
		21540067	\$105.00	Clear														
		21550067	\$105.00	Blue														

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Bulbs



Bulbs for Incandescent Permanent Optical Element					
Part Number	Price	Description	Wattage	Voltage	Life Duration
95501535	\$7.25	Bulb for Incandescent Light BA15d Bayonet Socket	7W	24V AC/DC	up to 5,000h
95501537	\$7.25			115VAC	
95501538	\$7.25			230VAC	

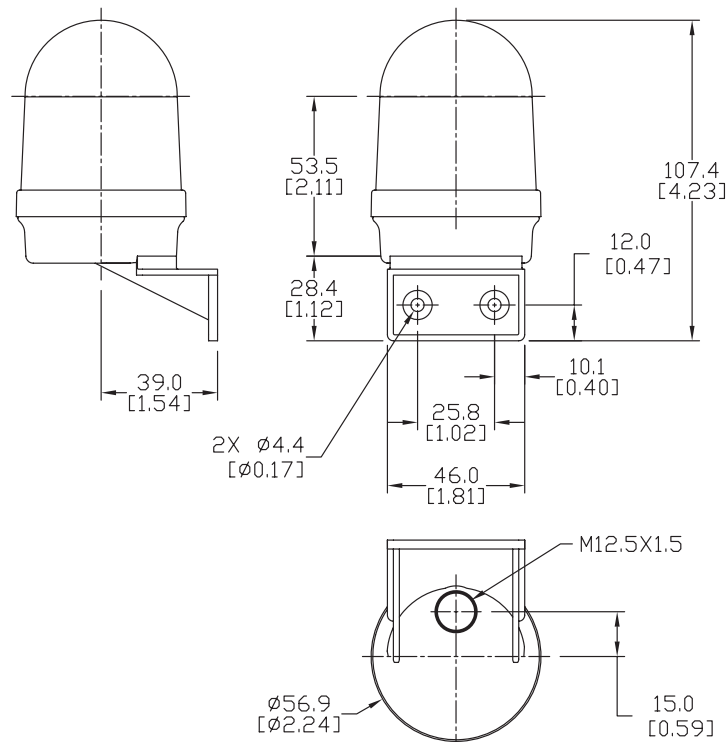
Optical Signal Devices



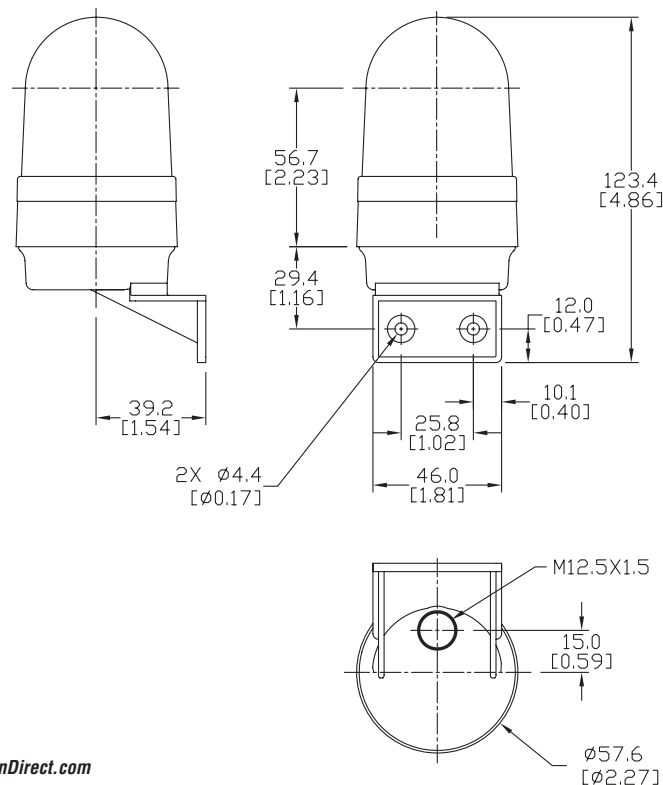
57/58 mm Bracket Mount Beacons (Tall Lens)

DIMENSIONS mm [in]

213 Series



214/215 Series



Please see our website www.AutomationDirect.com for complete engineering drawings.

Optical Signal Devices


WERMA
SIGNALTECHNIK

57/58 mm Tube Mount Beacons (Tall Lens)

57/58 mm Beacon Features

- Beacon with tall lens
- Choose from permanent incandescent, permanent LED, or flashing Xenon models
- Tube mount installation
- 57 and 58 mm diameters
- Light-intensive Xenon flash in flash models
- Bulb not included with incandescent models
- Various mounting accessories available
- 2 year warranty



219 Series 57/58 mm Beacons Technical Specifications																	
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals					
M25x1.5 (Tube Mount)																	
Incandescent Permanent Light 57mm	12-240V AC/DC max (depends on bulb selection; bulb sold separately)	21910000	\$21.00	Red	Depends on bulb selection. (Bulb sold separately)	—	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 5,000h	Polycarbonate cap Polyamide base	67g [2.37 oz]							
		21920000	\$21.00	Green													
		21930000	\$21.00	Yellow													
		21940000	\$21.00	Clear													
		21950000	\$21.00	Blue													
LED Permanent Light 58mm	115VAC	21911067	\$83.00	Red	< 25mA	≤ 0.5A				up to 100,000h				84g [2.96 oz]	Max. 2.5 mm² Screwless CAGE CLAMP® - technology (18-14 AWG)		
		21921067	\$83.00	Green													
		21931067	\$83.00	Yellow													
		21941067	\$124.00	Clear													
		21951067	\$124.00	Blue													
	24V AC/DC	21911075	\$69.00	Red	< 45mA												
		21921075	\$69.00	Green													
		21931075	\$69.00	Yellow													
		21941075	\$110.00	Clear													
		21951075	\$110.00	Blue													
Xenon Flashing Light (1Hz flash frequency, 1W flash energy) 58mm	24VDC	21912055	\$98.00	Red	< 100mA	—				4,000,000 flashes			100g [3.52 oz]				
		21932055	\$98.00	Yellow													
		21942055	\$104.00	Clear													
		21952055	\$104.00	Blue													
	115VAC	21912067	\$98.00	Red	< 20mA												
		21932067	\$98.00	Yellow													
		21942067	\$104.00	Clear													
		21952067	\$104.00	Blue													

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Bulbs



Bulbs for Incandescent Permanent Optical Element						
Part Number	Price	Description	Wattage	Voltage	Life Duration	
95501535	\$7.25	Bulb for Incandescent Light BA15d Bayonet Socket	7W	24V AC/DC	up to 5,000h	
95501537	\$7.25			115VAC		
95501538	\$7.25			230VAC		

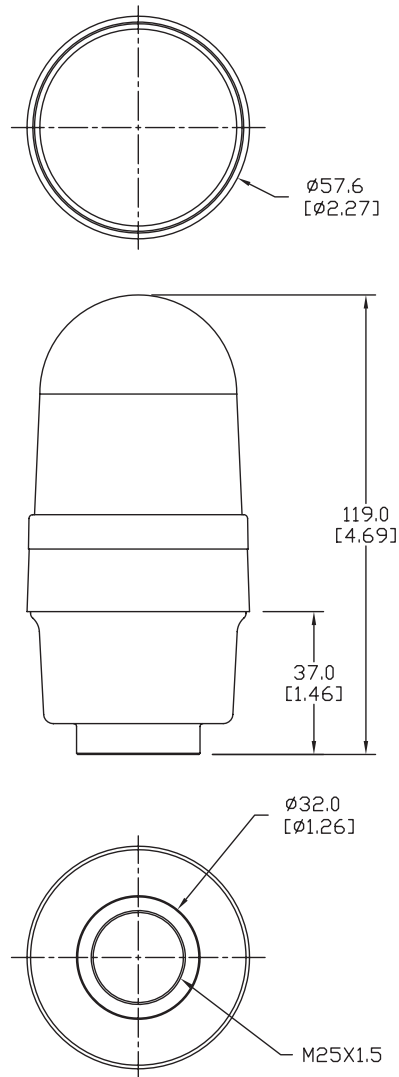
Optical Signal Devices

57/58 mm Tube Mount Beacons (Tall Lens)



DIMENSIONS mm [in]

219 Series



Please see our website www.AutomationDirect.com for complete engineering drawings.

Optical Signal Devices



75mm Base Mount Beacons

75mm Beacon Features

- Choose from permanent incandescent, permanent LED, or flashing Xenon models
- 75mm diameter
- Base mount installation
- Through-hole, cable diameter maximum 10mm
- Light-intensive Xenon flash in flash models
- Bulb not included with incandescent models
- Various mounting accessories available
- 2 year warranty



220, 221, and 222 Series 75mm Beacons Technical Specifications

Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals
48mm (Base Mount)												
Incandescent Permanent Light	12-240V AC/DC max (depends on bulb selection; bulb sold separately)	22010000	\$29.00	Red	Depends on bulb selection. (Bulb sold separately)	-		up to 5,000h		97g [3.42 oz]		
		22020000	\$29.00	Green								
		22030000	\$29.00	Yellow								
		22040000	\$29.00	Clear								
		22050000	\$29.00	Blue								
LED Permanent Light	115VAC	22110067	\$89.00	Red	< 25mA	0.5A		up to 100,000h	Polycarbonate cap Polyamide base	106g [3.74 oz]		
		22120067	\$89.00	Green								
		22130067	\$89.00	Yellow								
		22140067	\$129.00	Clear								
		22150067	\$129.00	Blue								
	24V AC/DC	22110075	\$75.00	Red	< 45mA	0.5A	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 100,000h	Polycarbonate cap Polyamide base	133g [4.69 oz]	Max. 2.5 mm2 Screwless CAGE CLAMP® - technology (18-14 AWG)	cULus file E164155, CE, RoHS
		22120075	\$75.00	Green								
		22130075	\$75.00	Yellow								
		22140075	\$113.00	Clear								
		22150075	\$113.00	Blue								
Xenon Flashing Light (1Hz flash frequency, 1W flash energy)	24VDC	22210055	\$107.00	Red	< 100mA	-		4,000,000 flashes		151g [5.33 oz]		
		22220055	\$113.00	Green								
		22230055	\$107.00	Yellow								
		22240055	\$113.00	Clear								
		22250055	\$113.00	Blue								
	115VAC	22210067	\$107.00	Red	< 20mA	-		4,000,000 flashes		151g [5.33 oz]		
		22220067	\$113.00	Green								
		22230067	\$107.00	Yellow								
		22240067	\$113.00	Clear								
		22250067	\$113.00	Blue								

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Bulbs



Bulbs for Incandescent Permanent Optical Element					
Part Number	Price	Description	Wattage	Voltage	Life Duration
95501535	\$7.25	Bulb for Incandescent Light BA15d Bayonet Socket	7W	24V AC/DC	up to 5,000h
95501537	\$7.25			115VAC	
95501538	\$7.25			230VAC	

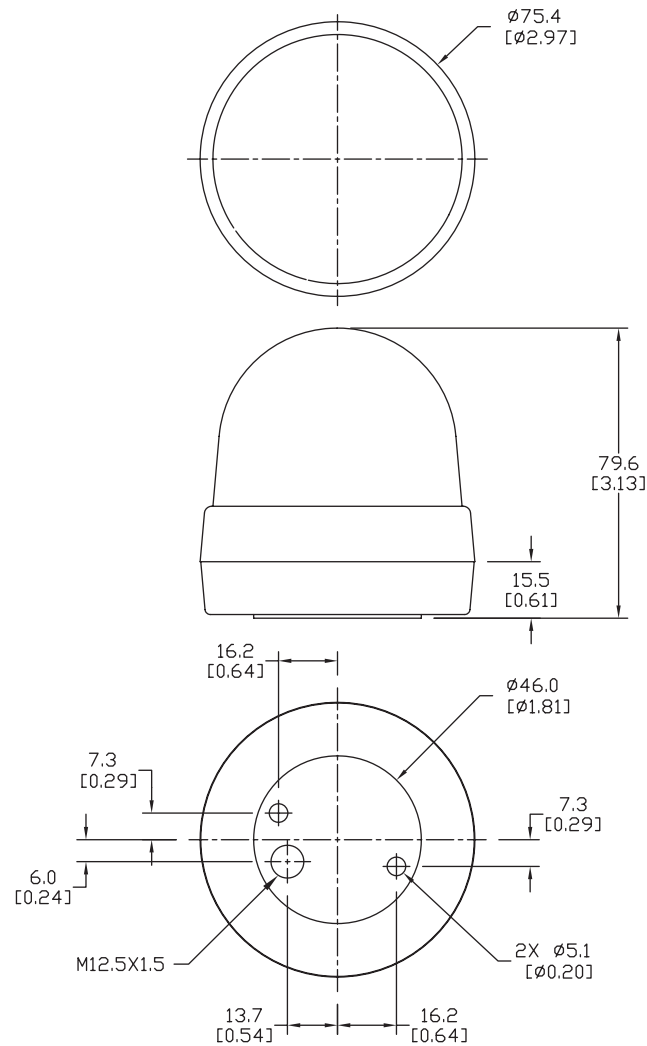
Optical Signal Devices



75mm Base Mount Beacons

DIMENSIONS mm [in]

220/221/222 Series



Please see our website www.AutomationDirect.com for complete engineering drawings.

Optical Signal Devices


WERMA
SIGNALTECHNIK

75mm Bracket Mount Beacons

75mm Beacon Features

- Choose from permanent incandescent, permanent LED, or flashing Xenon models
- 75mm diameter
- Bracket mount installation
- Light-intensive Xenon flash in flash models
- Bulb not included with incandescent models
- Various mounting accessories available
- 2 year warranty



223, 224, and 225 Series Beacons Technical Specifications																	
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals					
48mm (Bracket Mount)																	
Incandescent Permanent Light	12-240V AC/DC max (depends on bulb selection; bulb sold separately)	22310000	\$33.00	Red	Depends on bulb selection. (bulb sold separately)	—		up to 5,000h		103g [3.63 oz]							
		22320000	\$33.00	Green													
		22330000	\$33.00	Yellow													
		22340000	\$33.00	Clear													
		22350000	\$33.00	Blue													
LED Permanent Light	115VAC	22410067	\$99.00	Red	< 25mA	≤ 0.5 A	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 100,000h	Polycarbonate cap Polyamide base	142g [5.01 oz]	2.5 mm² Screwless CAGE CLAMP® - technology (18-14 AWG) Cable gland: m12 x1.5 Cable diameter: 3-6 mm	cULus file E164155, CE, RoHS					
		22420067	\$99.00	Green													
		22430067	\$99.00	Yellow													
		22440067	\$129.00	Clear													
		22450067	\$129.00	Blue													
	24V AC/DC	22410075	\$86.00	Red	< 45mA										144g [5.08 oz]		
		22420075	\$86.00	Green													
		22430075	\$86.00	Yellow													
		22440075	\$117.00	Clear													
		22450075	\$117.00	Blue													
Xenon Flashing Light (0.75 Hz flash frequency, 1W flash energy)	24VDC	22510055	\$108.00	Red	< 100mA	—		4,000,000 flashes		151g [5.33 oz]							
		22520055	\$114.00	Green													
		22530055	\$108.00	Yellow													
		22540055	\$114.00	Clear													
		22550055	\$114.00	Blue													
	115VAC	22510067	\$108.00	Red	< 20mA												
		22520067	\$114.00	Green													
		22530067	\$108.00	Yellow													
		22540067	\$114.00	Clear													
		22550067	\$114.00	Blue													

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Bulbs



Bulbs for Incandescent Permanent Optical Element					
Part Number	Price	Description	Wattage	Voltage	Life Duration
95501535	\$7.25	Bulb for Incandescent Light BA15d Bayonet Socket	7W	24V AC/DC	up to 5,000h
95501537	\$7.25			115VAC	
95501538	\$7.25			230VAC	

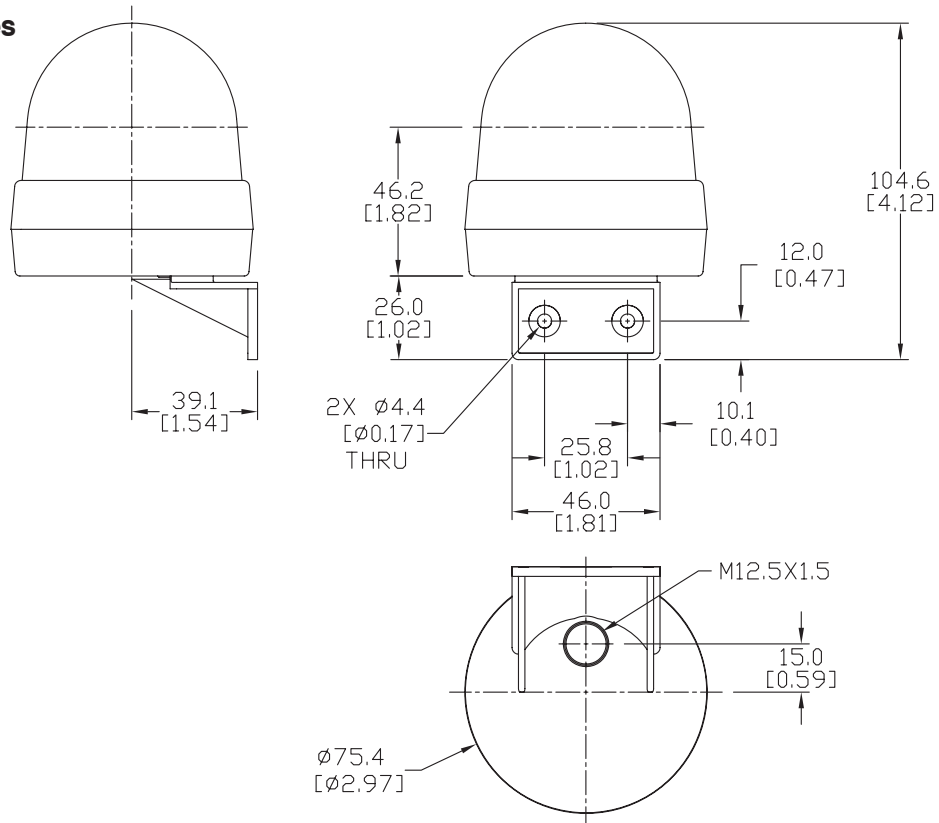
Optical Signal Devices

75mm Bracket Mount Beacons



DIMENSIONS mm [in]

223/224/225 Series



Please see our website www.AutomationDirect.com for complete engineering drawings.

Optical Signal Devices


WERMA
SIGNALTECHNIK

98mm Base Mount Beacons

98mm Beacon Features

- Choose from permanent incandescent, permanent LED, flashing Xenon, EVS (Enhanced Visibility System) flashing LED, and rotating models
- Base mount installation
- 98mm diameter
- Light-intensive Xenon flash in flash models
- Bulb not included with 826 incandescent models
- 25W bulb included with 827 incandescent models
- Various mounting accessories available
- 2 year warranty



826, 827, and 828 Series Beacons Technical Specifications																				
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals								
74mm (Base Mount)																				
Incandescent Permanent Light 98mm	12-240V AC/DC max (depends on bulb selection; bulb sold separately)	82610000	\$35.00	Red	Depends on bulb selection. (bulb sold separately)	—				180g [6.35 oz]										
		82620000	\$38.00	Green																
		82630000	\$35.00	Yellow																
		82640000	\$38.00	Clear																
		82650000	\$38.00	Blue																
Incandescent Blinking Light (1.5 Hz blinking frequency, 5Ws flash energy) 98mm	24V AC/DC	82710075	\$90.00	Red	max. 3.0 A	≤ 3.0 A	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	Up to 5,000h	Polycarbonate cap Polycarbonate/ABS base	207g [7.30 oz]	Terminal screws Max 2.5 mm² AWG 16-14 Cable diameter 5-8 mm	cULus file E164155, CE, RoHS								
		82720075	\$98.00	Green																
		82730075	\$90.00	Yellow																
		82740075	\$98.00	Clear																
		82750075	\$98.00	Blue																
	115V AC/DC	82710077	\$90.00	Red	max. 500 mA															
		82720077	\$98.00	Green																
		82730077	\$90.00	Yellow																
		82740077	\$98.00	Clear																
		82750077	\$98.00	Blue																
Xenon Flashing Light (1Hz flash frequency, 1W flash energy) 98mm	24VDC	82810055	\$108.00	Red	300mA			4,000,000 flashes			220g [7.76 oz]									
		82820055	\$115.00	Green																
		82830055	\$108.00	Yellow																
		82840055	\$115.00	Clear																
		82850055	\$183.00	Blue																
	115VAC	82810067	\$108.00	Red	65mA 50-60 Hz															
		82820067	\$115.00	Green																
		82830067	\$108.00	Yellow																
		82840067	\$115.00	Clear																
		82850067	\$183.00	Blue																

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Bulbs


95582635

Bulbs						
Part Number	Price	Description	Wattage	Voltage	For Use With	Life Duration
95582635	\$7.25	Bulb for incandescent light BA15d bayonet socket	15W	24V AC/DC	826xxxx	up to 5,000h
95582637	\$7.25			115VAC		
95582638	\$7.25			230VAC		
95582735	\$7.00	Bulb for blinking incandescent light B15d bayonet socket	25W	24V AC/DC	827xxxx	up to 2,000h
95582737	\$7.00			115VAC		
95588524	\$10.00	Halogen bulb G6.35	20W	12V	885xxx78	
95588525	\$10.00			24V	885xxx75	


95582735

95588524

Optical Signal Devices


WERMA
S I G N A L T E C H N I K

98mm Base Mount Beacons

829 and 885 Series 98mm Beacons Technical Specifications												
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals
74mm (Base Mount)												
Permanent/ Blinking LED (blinking frequency 1.5 Hz) 98mm	24VDC	82910055	\$139.00	Red	≤ 150mA	< 500 mA	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 50,000h	Polycarbonate cap Polycarbonate/ABS base	200g [7.05 oz]	Terminal screw ≤ 2.5 mm² AWG 16-14 Cable diameter 5-7 mm	cULus file E164155, CE, RoHS
		82920055	\$185.00	Green								
		82930055	\$139.00	Yellow								
		82950055	\$195.00	Blue								
Rotating LED 98mm	24VDC	82911055	\$165.00	Red	≤ 170mA							
		82921055	\$252.00	Green								
		82931055	\$165.00	Yellow								
		82941055	\$252.00	Clear								
	82951055	\$252.00	Blue									
	115-230 VAC	82911068	\$190.00	Red	≤ 200mA							
		82921068	\$277.00	Green								
		82931068	\$190.00	Yellow								
82941068		\$277.00	Clear									
82951068	\$277.00	Blue										
Double Flash LED 98mm	24VDC	82912055	\$148.00	Red	≤ 100mA							
		82932055	\$149.00	Yellow								
		82942055	\$226.00	Clear								
	115-230 VAC	82912068	\$168.00	Red	≤ 100mA							
		82932068	\$168.00	Yellow								
		82942068	\$234.00	Clear								
Permanent LED 98mm	115VAC	82913067	\$149.00	Red	≤ 30mA	≤ 500mA						
		82923067	\$200.00	Green								
		82933067	\$149.00	Yellow								
		82953067	\$212.00	Blue								
Permanent/ blinking / rotating LED 98mm	24VDC	82915055	\$207.00	Red	≤ 300mA	< 500mA						
		82925055	\$339.00	Green								
		82935055	\$207.00	Yellow								
		82955055	\$339.00	Blue								
*Enhanced Visibility System (EVS) flashing LED 98mm	24VDC	82919055	\$182.00	Red	≤ 150mA							
		82939055	\$182.00	Yellow								
		82949055	\$278.00	Clear								
	115-230 VAC	82919068	\$208.00	Red								
		82939068	\$208.00	Yellow								
		82949068	\$288.00	Clear								
Halogen Rotating Mirror Beacon 98mm	24V AC/DC	88510075	\$133.00	Red	≤ 1A	-						
		88520075	\$133.00	Green								
		88530075	\$133.00	Yellow								
		88550075	\$133.00	Blue								
	115-230V AC/DC	88510078	\$169.00	Red	≤ 400mA		-					
		88520078	\$169.00	Green								
		88530078	\$169.00	Yellow								
		88550078	\$169.00	Blue								

*EVS models provide a random flash pattern for increased visibility.

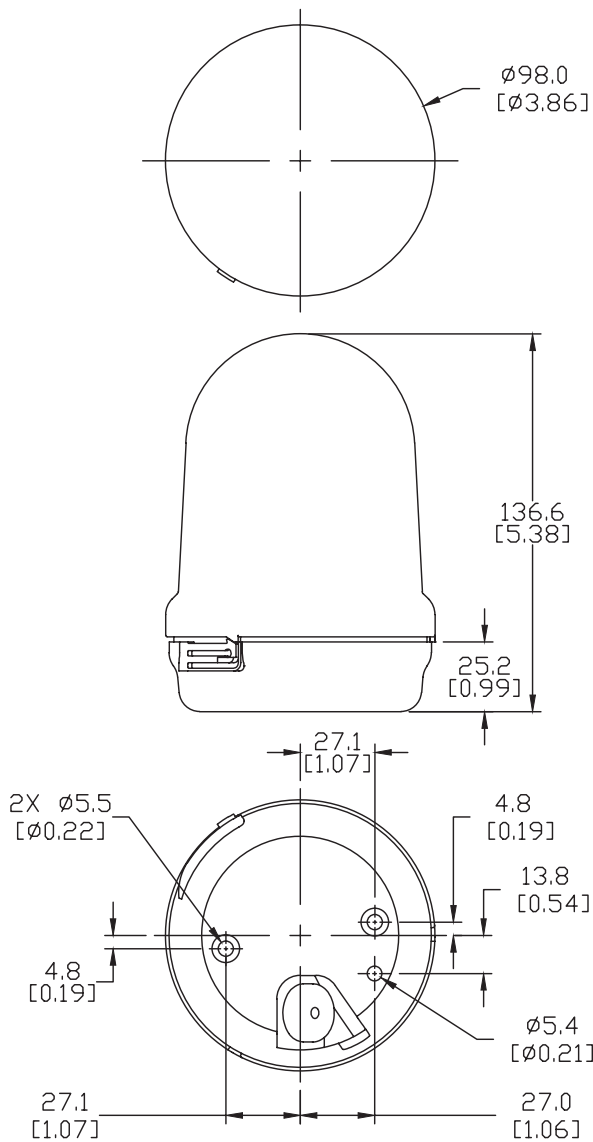
Optical Signal Devices

98mm Base Mount Beacons

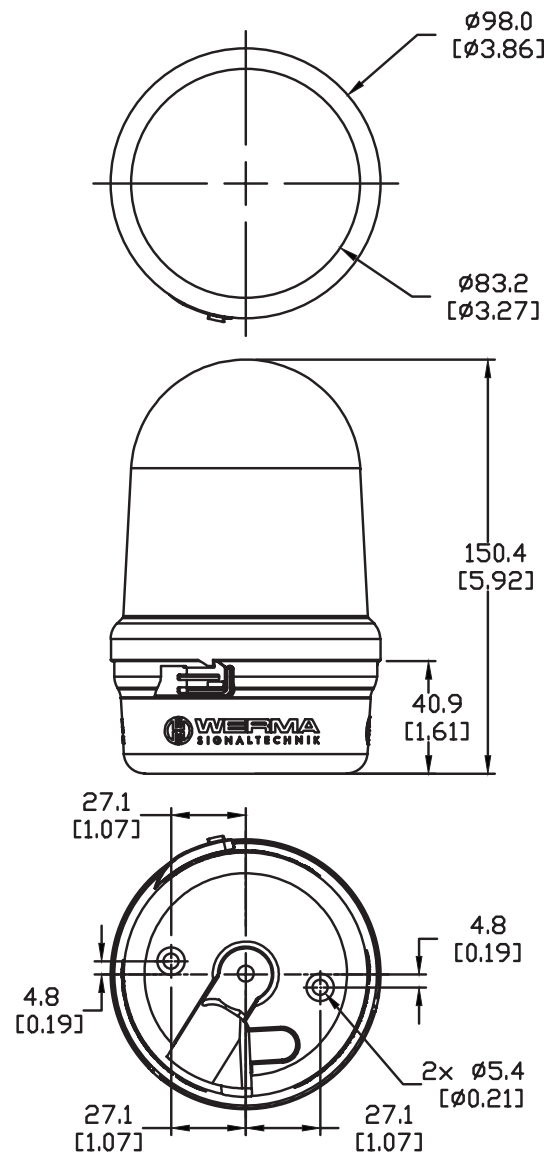
DIMENSIONS mm [in]



826/827/828/829 Series



885 Series



Please see our website www.AutomationDirect.com for complete engineering drawings.

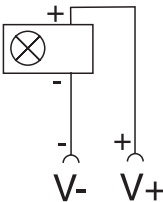
Optical Signal Devices

98mm Base Mount Beacons

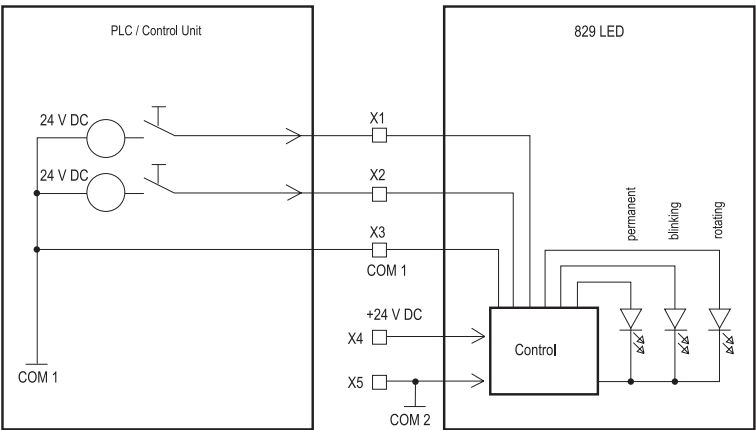


SCHEMATICS

**826, 827, 828, 885 Series and All 829s except:
82915055, 82925055, 82935055, 82955055**



**Permanent/Blinking/Rotating LED:
82915055, 82925055, 82935055, 82955055**



With positive logic	
X1	1 = +24 V, 0 = COM 1
X2	1 = +24 V, 0 = COM 1
X3	COM 1
X4	+24 V
X5	COM 2
With negative logic	
X1	1 = -24 V, 0 = COM 1
X2	1 = -24 V, 0 = COM 1
X3	COM 1
X4	+24 V
X5	COM 2

Binary Code (for external triggering)		
X1	X2	mode
0	0	Permanent ON/Solid
0	1	Rotating
1	0	Blinking
1	1	Permanent ON/Solid

Optical Signal Devices



98mm Tube Mount Beacons

98mm Beacon Features

- Choose from permanent incandescent, permanent LED, flashing Xenon, EVS (Enhanced Visibility System) flashing LED, and rotating models
- Tube mount installation
- 98mm diameter
- Light-intensive Xenon flash in flash models
- Bulb not included with 826 incandescent models
- Various mounting accessories available
- 2 year warranty



826 and 828 Series Beacons Technical Specifications												
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals
M25x1.5 (Tube Mount)												
Incandescent Permanent Light 98mm	12-240V AC/DC max (depends on bulb selection; bulb sold separately)	82611000	\$44.00	Red	Depends on bulb selection. (bulb sold separately)	—	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	Up to 5,000h	Polycarbonate cap Polycarbonate/ABS base	231g [8.15 oz]	Terminal screws Max 1.5 mm² Cable diameter 5-7 mm	cULus file E164155, CE, RoHS
		82621000	\$44.00	Green								
		82631000	\$44.00	Yellow								
		82641000	\$44.00	Clear								
		82651000	\$44.00	Blue								
Xenon Flashing Light (1Hz flash frequency, 1W flash energy) 98mm	24VDC	82814055	\$116.00	Red	300mA	—	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	Min 4,000,000 flashes	Polycarbonate cap Polycarbonate/ABS base	272g [9.59 oz]	Terminal screws Max 2.5 mm² Cable diameter 5-7 mm	
		82824055	\$123.00	Green								
		82834055	\$116.00	Yellow								
		82844055	\$123.00	Clear								
		82854055	\$123.00	Blue								
	115VAC	82814067	\$116.00	Red	65mA 50-60 Hz	—	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	Min 4,000,000 flashes	Polycarbonate cap Polycarbonate/ABS base	262g [9.24 oz]	Terminal screws Max 2.5 mm² Cable diameter 5-7 mm	
		82824067	\$123.00	Green								
		82834067	\$116.00	Yellow								
		82844067	\$123.00	Clear								
		82854067	\$123.00	Blue								

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Bulbs



95582635

Bulbs						
Part Number	Price	Description	Wattage	Voltage	For Use With	Life Duration
95582635	\$7.25	Bulb for incandescent light BA15d bayonet socket	15W	24V AC/DC	826xxxx	up to 5,000h
95582637	\$7.25			115VAC		
95582638	\$7.25			230VAC		
95588524	\$10.00	Halogen bulb G6.35	20W	12V	885xxx78	Up to 2,000h
95588525	\$10.00			24V	885xxx75	



95588524

Optical Signal Devices


WERMA
SIGNALTECHNIK

98mm Tube Mount Beacons

829 and 885 Series 98mm Beacons Technical Specifications												
Description	Voltage	Part Number	Price	Color	Current	Starting Current	Operating Temp /Protection	Life Duration	Housing Material	Weight	Connection	Agency Approvals
M25x1.5 (Tube Mount)												
Permanent/ Blinking LED (blinking frequency 1.5 Hz) 98mm	24VDC	82910755	\$150.00	Red	≤ 150mA	≤ 500mA	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 50,000h	Polycarbonate cap Polycarbonate/ ABS base	246g [8.68 oz]	Terminal screws ≤ 2.5 mm² Cable diameter 5-7 mm	cULus file E164155, CE, RoHS
		82920755	\$199.00	Green								
		82930755	\$150.00	Yellow								
		82950755	\$210.00	Blue								
Rotating LED 98mm	24VDC	82911755	\$177.00	Red	≤ 170mA	≤ 500mA	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 50,000h	Polycarbonate cap Polycarbonate/ ABS base	259g [9.14 oz]	Terminal screws ≤ 2.5 mm² Cable diameter 5-7 mm	
		82921755	\$271.00	Green								
		82931755	\$177.00	Yellow								
		82941755	\$271.00	Clear								
		82951755	\$271.00	Blue								
	115-230 VAC	82911768	\$205.00	Red	≤ 200mA	≤ 500mA				275g [9.7 oz]		
		82921768	\$298.00	Green								
		82931768	\$205.00	Yellow								
		82941768	\$298.00	Clear								
		82951768	\$298.00	Blue								
Double Flash LED 98mm	24VDC	82912755	\$159.00	Red	≤ 30mA	≤ 500mA	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 50,000h	Polycarbonate cap Polycarbonate/ ABS base	257g [9.07 oz]	Terminal screws ≤ 2.5 mm² Cable diameter 5-7 mm	
		82932755	\$160.00	Yellow								
		82942755	\$244.00	Clear								
	115-230 VAC	82912768	\$180.00	Red	≤ 120mA	≤ 500mA				264g [9.31 oz]		
		82932768	\$180.00	Yellow								
82942768	\$252.00	Clear										
Permanent LED 98mm	115VAC	82913767	\$160.00	Red	≤ 30mA	≤ 500mA	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 50,000h	Polycarbonate cap Polycarbonate/ ABS base	251g [8.85 oz]	Terminal screws ≤ 2.5 mm² Cable diameter 5-7 mm	
		82923767	\$215.00	Green								
		82933767	\$160.00	Yellow								
		82953767	\$228.00	Blue								
Permanent/ blinking / rotating LED 98mm	24VDC	82915755	\$223.00	Red	≤ 300mA	≤ 500mA	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 50,000h	Polycarbonate cap Polycarbonate/ ABS base	256g [9.03 oz]	Terminal screws ≤ 2.5 mm² AWG 22-14 Cable diameter 5-7 mm	
		82925755	\$365.00	Green								
		82935755	\$223.00	Yellow								
		82955755	\$365.00	Blue								
*Enhanced Visibility System (EVS) flashing LED 98mm	24VDC	82919755	\$196.00	Red	≤ 300mA	< 500mA	-4°F to 122°F [-20°C to 50°C] IP65 when mounted	up to 50,000h	Polycarbonate cap Polycarbonate/ ABS base	256g [9.03 oz]	Terminal screws ≤ 2.5 mm² AWG 22-14 Cable diameter 5-7 mm	
		82939755	\$196.00	Yellow								
		82949755	\$299.00	Clear								
	115-230 VAC	82919768	\$225.00	Red	≤ 150mA					275g [9.7 oz]		
		82939768	\$225.00	Yellow								
82949768	\$310.00	Clear										
Halogen Rotating Mirror Beacon 98mm	24V AC/DC	88511075	\$138.00	Red	≤ 1A	-	-22°F to 122°F [-30°C to 50°C] IP65 when mounted	up to 5,000h	Polycarbonate cap Polycarbonate/ ABS base	341g [12.03 oz]	Terminal screws ≤ 2.5 mm² AWG 22-14 Cable diameter 5-7 mm	cULus file E354322, CE, RoHS
		88521075	\$138.00	Green								
		88531075	\$138.00	Yellow								
		88551075	\$138.00	Blue								
	115-230V AC/DC	88511078	\$175.00	Red	≤ 400mA	-				381g [13.44 oz]		
		88521078	\$175.00	Green								
		88531078	\$175.00	Yellow								
		88551078	\$175.00	Blue								

*EVS models provide a random flash pattern for increased visibility.

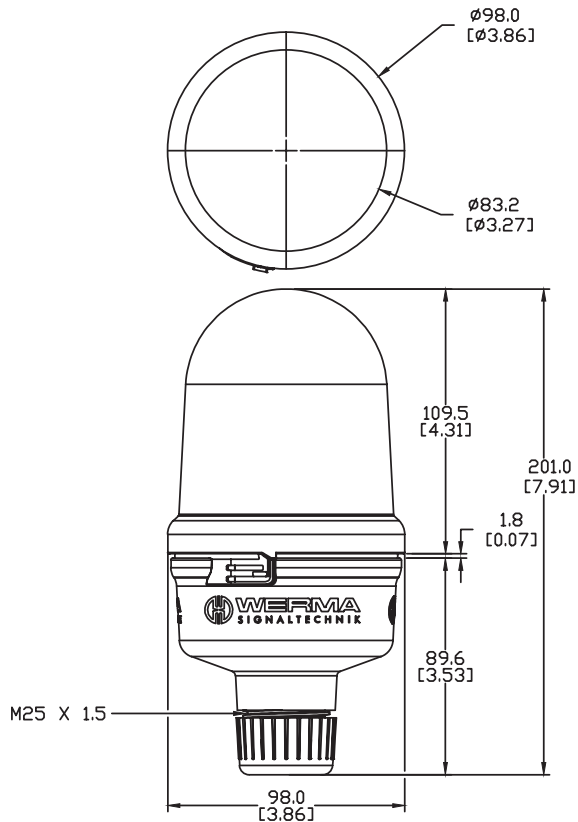
Optical Signal Devices

98mm Tube Mount Beacons

DIMENSIONS mm [in]

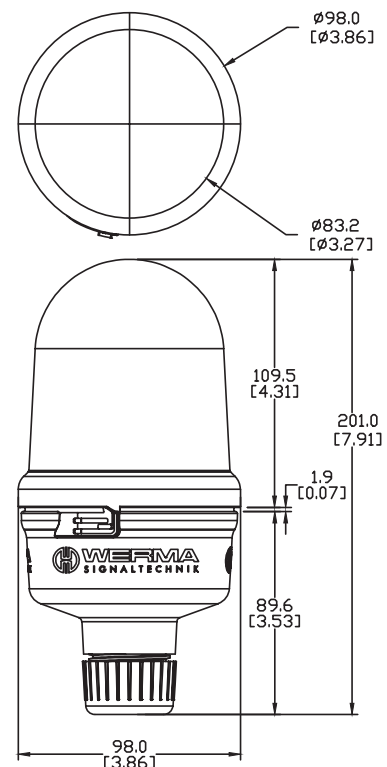


829 Series



Please see our website www.AutomationDirect.com for complete engineering drawings.

885 Series

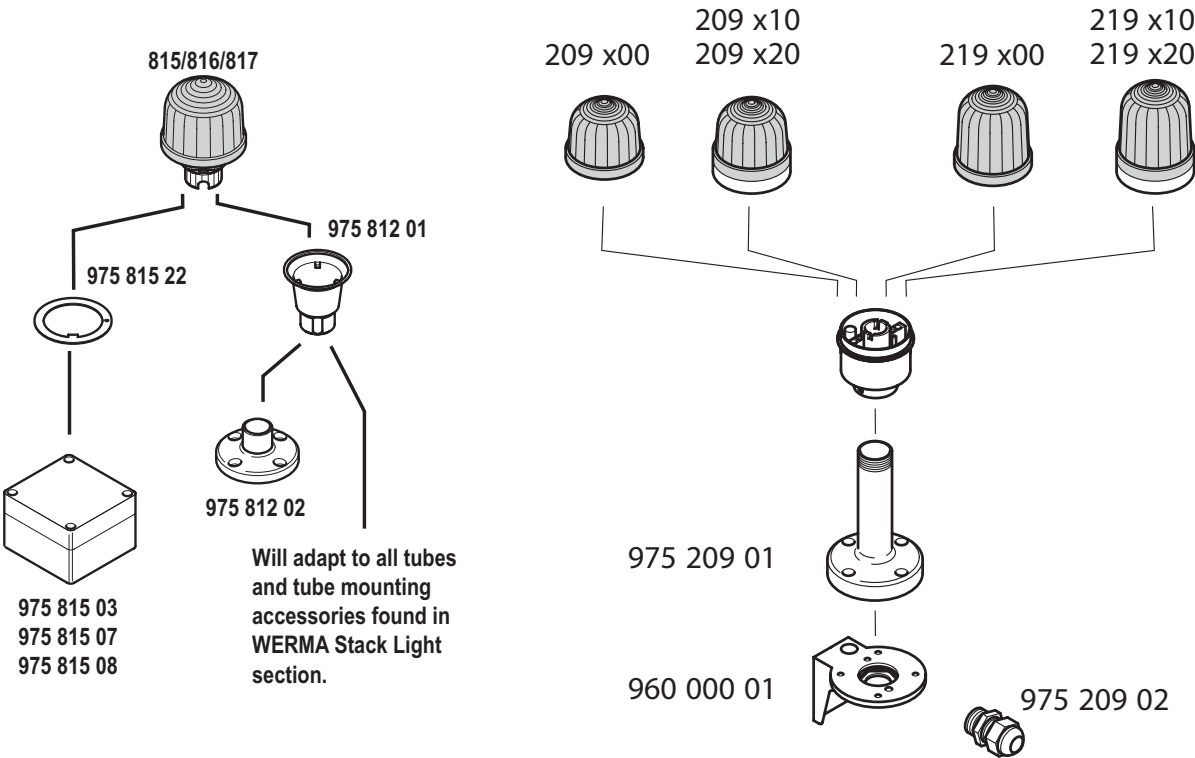


Optical Signal Devices

Beacon Accessories



WERMA Beacons Accessories					
Part Number	Price	Description	Operating Temp.	Material	Weight
Installation Beacon Accessories					
97581201	\$12.50	Tube adapter for beacons with 37mm (PG29) mounting installation. Find tube adapter accessories in WERMA Stack light catalog section.	-4°F to 122°F [-20°C to 50°C]	Polyamide / Fiberglass	1.13 g [0.04 oz]
97581202	\$12.00	Surface mounting base for beacons with 37mm (PG29) mounting installation		Polyamide / Fiberglass with rubber seal	2.83 g [0.1 oz]
97581503	\$39.00	Surface mounting enclosure for 1 beacon with 37mm (PG29) mounting installation		Polycarbonate/ ABS blend	8.5 g [0.3 oz]
97581507	\$54.50	Surface mounting enclosure for 2 beacons with 37mm (PG29) mounting installation			14.17 g [0.5 oz]
97581508	\$71.50	Surface mounting enclosure for 3 beacons with 37mm (PG29) mounting installation			17g [0.6 oz]
97581522	\$5.00	Anti-twist washer for beacons with 37mm (PG29) mounting installation		304 Stainless steel	0.57 g [0.02 oz]
Freestanding Beacon Accessories					
96000001	\$15.00	Bracket for tube mounting - for use with for use with 219 and 209 series industrial signal beacons.	-4°F to 122°F [-20°C to 50°C]	Polyamide	57g [2.01 oz]
97520901	\$18.00	Plastic Base with integrated tube for WERMA industrial signal beacons- for use with 209 and 219 series beacons		Polyamide	0.1 lbs [1.6 oz]
97520902	\$5.00	Cable gland for WERMA industrial signal beacons: M25x1.5, plastic - for use with 209 and 219 series industrial signal beacons		Nylon	0.1 lbs [1.6 oz]
97582603	\$38.00	Galvanized Wire Guard for WERMA industrial signal beacons - for use with 826, 827, 828 and 829 series industrial signal beacons		Wire D 3mm, chromed	140g [4.93 oz]
97582605	\$9.00	Plastic Bracket for wall mounting for use with WERMA signal beacons - for use with 826, 827, 828 and 829 series industrial signal beacons		Polycarbonate/ ABS blend	62g [2.19 oz]

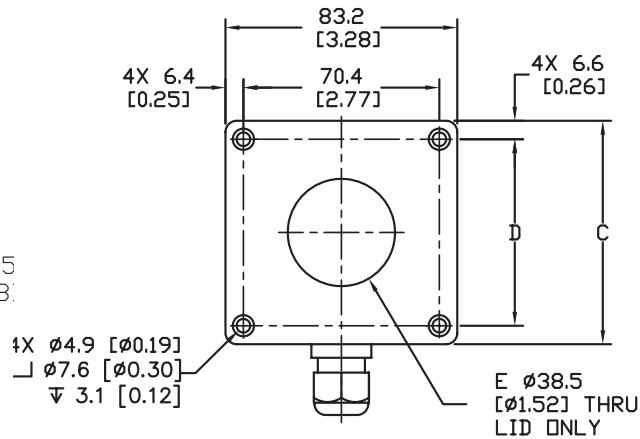
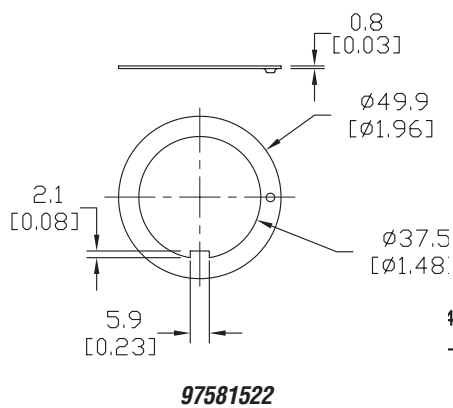
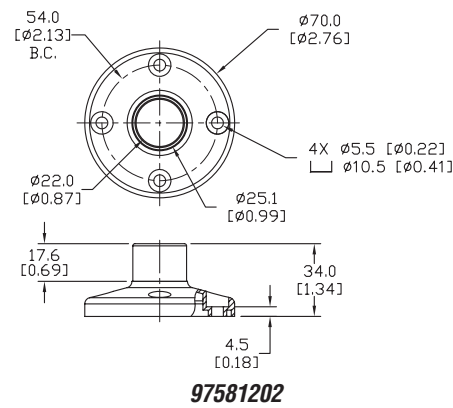
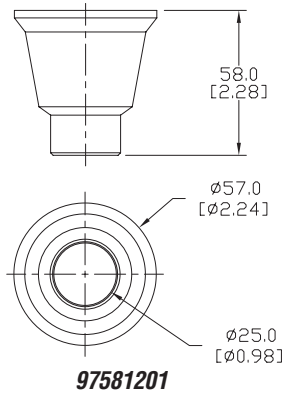


Optical Signal Devices

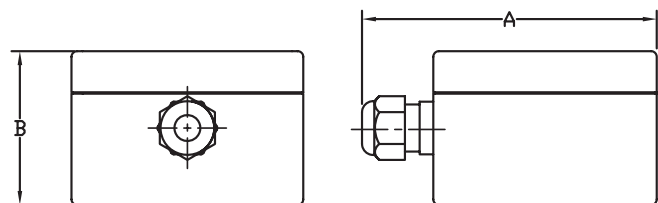
Beacon Accessories



DIMENSIONS mm [in]



Please see our website www.AutomationDirect.com for complete engineering drawings.



PART #	DIM A	DIM B	DIM C	DIM D	E # OF HOLES EQUALLY SPACED
97581503	105.8[4.17]	55.2[2.17]	80.2[3.16]	67.0[2.64]	1
97581507	185.7[7.31]	55.2[2.17]	160.3[6.31]	147.1[5.79]	2
97581508	266.7[10.50]	60.9[2.40]	241.3[9.50]	228.1[8.98]	3

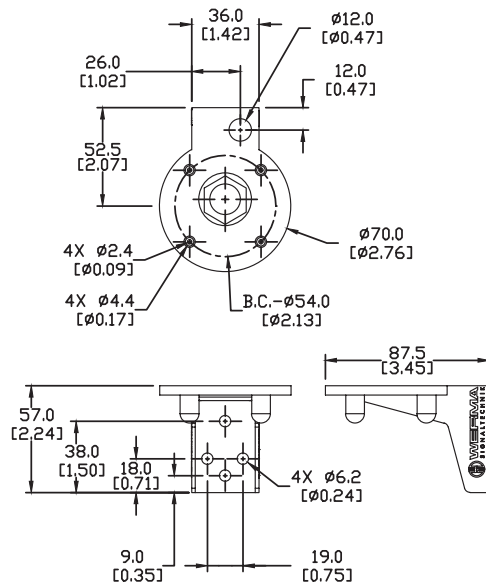
Optical Signal Devices

Beacon Accessories

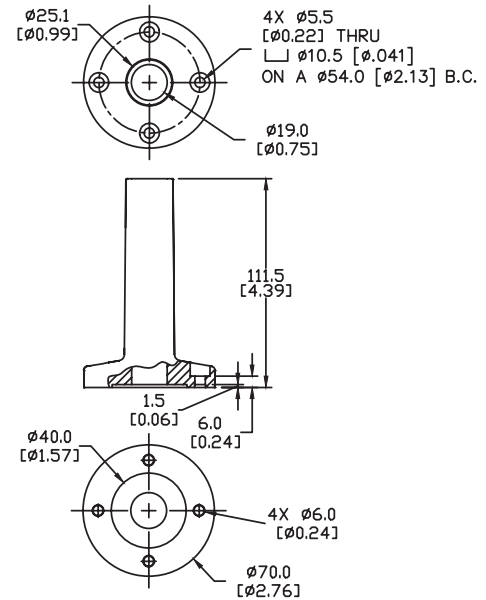
DIMENSIONS mm [in]



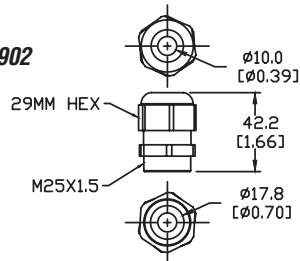
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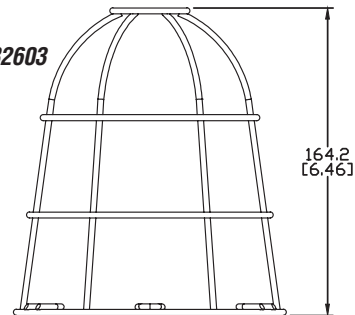
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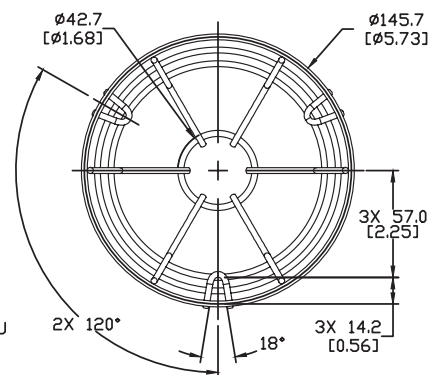
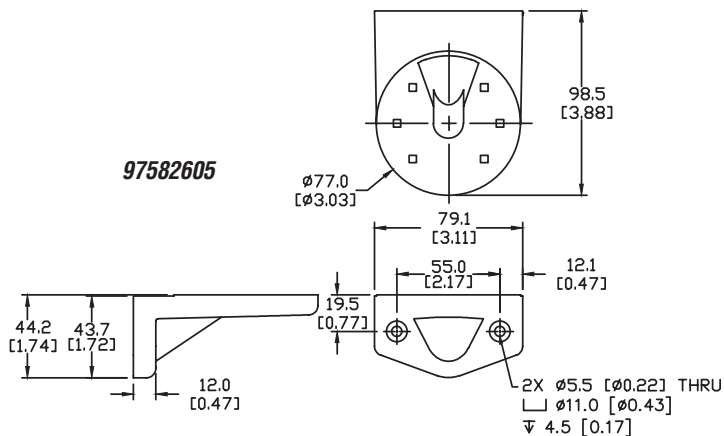
97520902



97582603



97582605

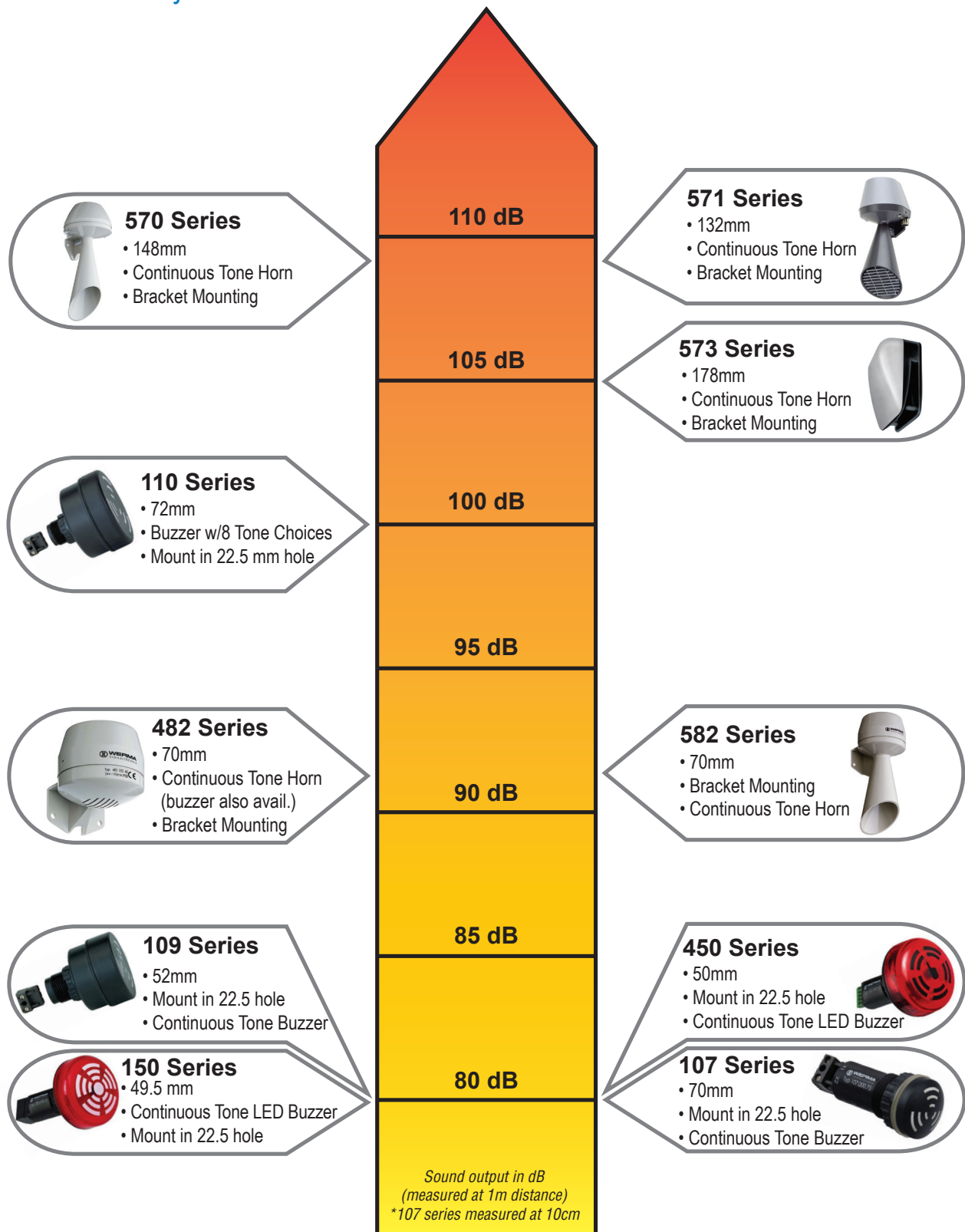


Please see our website www.AutomationDirect.com for complete engineering drawings.

Audible Signal Devices



Product Family Overview



Audible Signal Devices



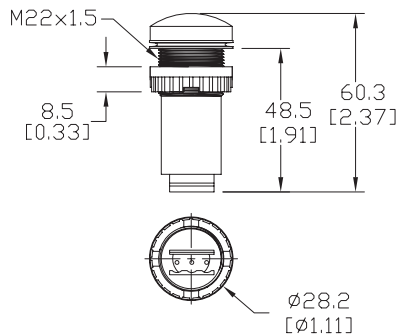
22.5 mm Panel-mount Electrical Buzzers

- Mount in 22.5 mm hole
- Fourteen models available
- Continuous and pulse-tone models
- 80 to 100 decibels
- Buzzer without sound output holes
- Low current consumption
- High IP 65 protection rating



DIMENSIONS mm [in]

107 Series



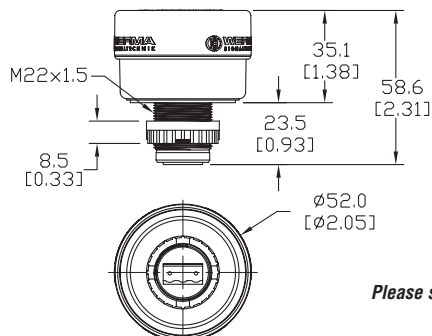
107 Series Buzzer Specifications				
Part Number	10700075	10700077	10701075	10701077
Price	\$29.00	\$32.00	\$29.00	\$32.00
Description	Buzzer			
Voltage	24V AC/DC	115V AC/DC	24V AC/DC	115V AC/DC
Current Consumption	≤ 8mA			
Tone Frequency	2.4 kHz			
Maximum Volume	80dB @ 10cm			
Tone Type	Continuous		Pulse, approx.1Hz	
Life Duration	> 5000h			
Operating Temperature	-4°F to 122°F [-20°C to 50°C]			
Protection	IP65			
Weight	30g [1.06 oz]			
Housing Material	Polyamide-Fiberglass			
Connection	Connector with max. wire 1.5 mm² (16AWG), 0.3 N torque			
Agency Approvals	cULus file E164155, CE, RoHS			

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com



DIMENSIONS mm [in]

109 Series



109 Series Buzzer Specifications				
Part Number	10900075	10900077	10901075	10901077
Price	\$59.00	\$65.50	\$59.00	\$65.50
Description	Buzzer			
Voltage	24V AC/DC	115V AC/DC	24V AC/DC	115V AC/DC
Current Consumption	≤ 25mA			
Tone Frequency	2.1 kHz			
Maximum Volume	80dB @ 1m			
Tone Type	Continuous		Pulse, approx. 1Hz	
Life Duration	> 5000h			
Operating Temperature	-4°F to 122°F [-20°C to 50°C]			
Protection	IP65			
Weight	44g [1.55 oz]	47g [1.66 oz]	44g [1.55 oz]	47g [1.66 oz]
Housing Material	Polycarbonate (PC)/ABS, (black)			
Connection	Connector with max. wire 1.5 mm² (16AWG), 0.3 N torque			
Agency Approvals	cULus file E164155, CE, RoHS			

Please see our website www.AutomationDirect.com for complete engineering drawings.

Audible Signal Devices

22.5 mm Panel-mount Electrical Buzzers

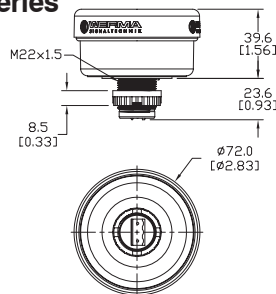


Buzzer without sound output holes

- Mount in 22.5 mm hole
- 8 selectable tones
- Adjustable volume, 100 decibels maximum at one meter

DIMENSIONS mm [inches]

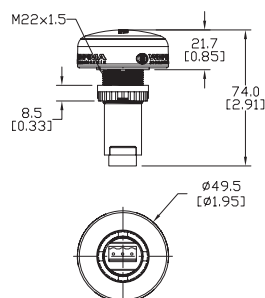
110 Series



- Mount in 22.5 mm hole
- LED permanent light indicator
- Continuous tone
- Simple connection with connector plug
- 80 decibels volume at one meter

DIMENSIONS mm [inches]

150 Series



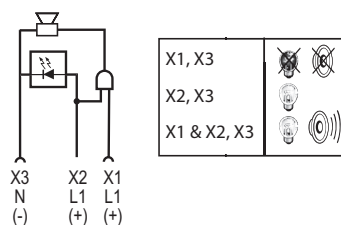
110 Series Buzzer Specifications		
Part Number	11000067	11000075
Price	\$99.00	\$89.00
Description	Buzzer Element with selectable tones	
Voltage	115VAC	24V AC/DC
Current Consumption	≤ 40mA	≤ 80mA
Tone Frequency	1.6 and 3.4 kHz	
Maximum Volume	100dB @ 1m	
Tone Type	Multi-tonal, 8 selectable tones	
Life Duration	> 5000h	
Operating Temperature	-4°F to 122°F [-20°C to 50°C]	
Protection	IP65	
Weight	79g [2.79 oz]	64g [2.26 oz]
Housing Material	Polycarbonate (PC)/ABS	
Connection	Connector with max. wire 1.5 mm ² (16AWG), 0.3 N torque	
Agency Approvals	cULus file E164155, CE, RoHS	

Note: Refer to insert for available tones.

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

150 Series Buzzer with LED Indicator Specifications				
Part Number	15010055	15010067	15030055	15030067
Price	\$69.00	\$75.00	\$69.00	\$75.00
Description	Buzzer element with LED indicator			
LED Indicator	Red		Yellow	
Voltage	24VDC	115VAC	24VDC	115VAC
Current Consumption	≤ 50mA	≤ 20mA	≤ 50mA	≤ 20mA
Tone Frequency	2.8 kHz			
Maximum Volume	80dB @ 1m			
Tone Type	Continuous			
Life Duration	Up to 50,000h			
Operating Temperature	-4°F to 122°F [-20°C to 50°C]			
Protection	IP65			
Weight	30g [1.06 oz]	30g [1.06 oz]	30g [1.06 oz]	30g [1.06 oz]
Housing Material	Cap: Polycarbonate. Base: Polycarbonate (PC)/ABS - black			
Connection	Connector with max. wire 1.5 mm ² (16AWG), 0.3 N torque			
Agency Approvals	cULus file E164155, CE, RoHS			

Wiring Diagram



Note: Buzzer will not sound without light energized.

Please see our website www.AutomationDirect.com for complete engineering drawings.

Audible Signal Devices



22.5 mm Panel-mount Electrical Buzzers with Acknowledgment Function



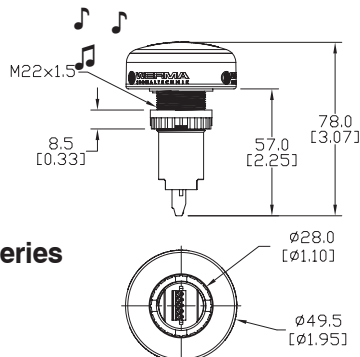
Buzzer without sound output holes

- Mount in 22.5 mm hole
- LED permanent light with continuous tone
- 80 decibels volume at one meter
- Lightly press to silence the audible signal
- Potential-free output for transmission of the acknowledgment signal to the control unit
- Positive and negative logic

450 Series Buzzer Specifications		
Part Number	45010055	45030055
Price	\$139.00	\$139.00
Description	Buzzer element with acknowledgment function	
LED Indicator Color	Red	Yellow
Voltage	24V /DC	
Current Consumption	≤ 0mA	
Tone Frequency	3kHz	
Maximum Volume	80dB @ 1m	
Max. Output (acknowledgment)	Solid State 30V, 100mA	
Tone Type	Continuous	
Life Duration	> 50,000h	
Operating Temperature	-4°F to 122°F [-20°C to 50°C]	
Protection	IP65	
Weight	40g [1.41 oz]	
Housing Material	Cap: Polycarbonate, Body: Black Polycarbonate	
Connection	Connector plug with screwable connection max. 0.5 mm² (20AWG)	
Agency Approvals	cULus file E164155, CE, RoHS	

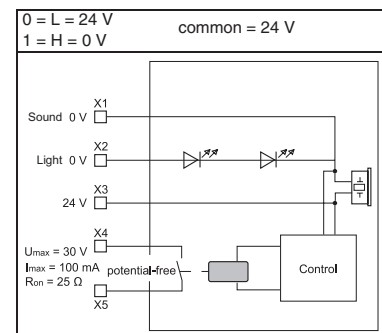
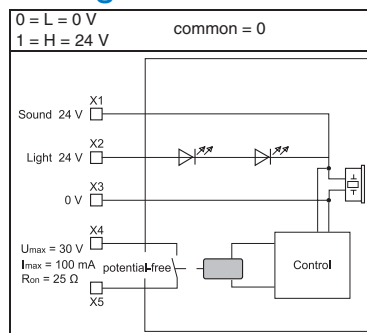
To obtain the most current agency approval information, see the **Agency Approval Checklist** section on the specific part number's web page at www.AutomationDirect.com

DIMENSIONS mm [inches]



450 Series

Wiring



1



An initial alarm is indicated by both an illuminated and audible signal.

2



The audible signal can be silenced quickly by lightly pressing on the front of the indicator.

3



An acknowledge signal is then transmitted via an electronic switch, and the alarm is now only indicated by the illuminated visual signal.

Audible Signal Devices


WERMA
SIGNALTECHNIK

Bracket-mount Signal Horns/Buzzer



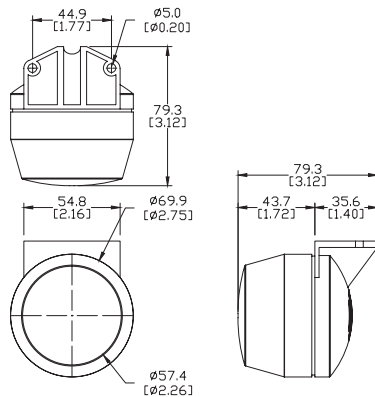
482 Series Features

- Bracket mounting
- Continuous tone
- 70mm diameter



DIMENSIONS mm [in]

482 Series



482 Series Signal Horns and Buzzer Specifications			
Part Number	48205255	48205267	48234715
Price	\$39.00	\$38.00	\$45.00
Description	Signal Horn		Buzzer
Voltage	24VDC	115VAC	24VDC
Current Consumption	70mA	15mA	70mA
Tone Frequency	500Hz	100Hz	500Hz
Maximum Volume	92dB @ 1m		83dB @ 1m
Tone Type	Continuous		
Life Duration	> 300h		
Operating Temperature	-20°C to 60°C [-4° to 140°F]		
Protection	IP33		
Weight	160g [5.64 oz]		
Housing Material	High impact ABS		
Connection	Connector with max. wire 1.5 mm ² , 18-16 AWG		
Agency Approvals	CE, RoHS		

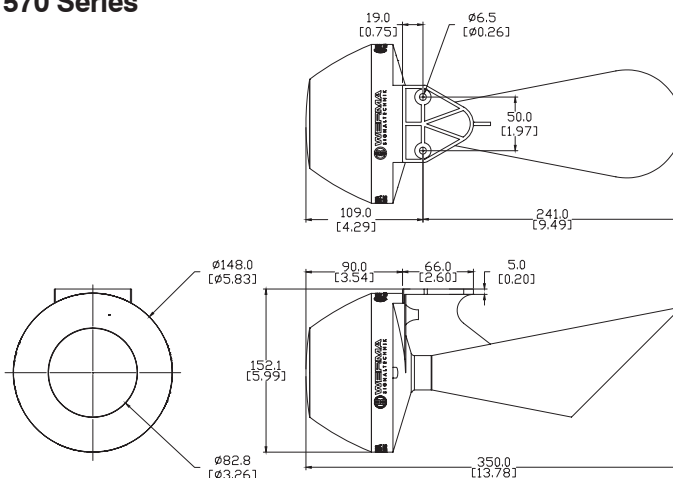


570 Series Horns Features

- Bracket mounting
- Continuous tone
- 148mm diameter

DIMENSIONS mm [in]

570 Series



570 Series Signal Horns Specifications		
Part Number	57005255	57005267
Price	\$115.00	\$97.00
Description	Signal Horn	
Voltage	24VDC	115VAC
Current Consumption	350mA	200mA
Tone Frequency	150Hz	100Hz (supply frequency)
Maximum Volume	108dB @ 1m	
Tone Type	Continuous	
Life Duration	> 250h	
Operating Temperature	-20°C to 60°C [-4° to 140°F]	
Protection	IP55	
Weight	880g [31.04 oz]	860g [30.34 oz]
Housing Material	ABS/PC	
Connection	Screwable connection max. 2.5 mm ² single wire, 18-14 AWG	
Agency Approvals	CE, RoHS	

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Please see our website www.AutomationDirect.com for complete engineering drawings.

Audible Signal Devices



Bracket-mount Signal Horns

571 Series Horns Features

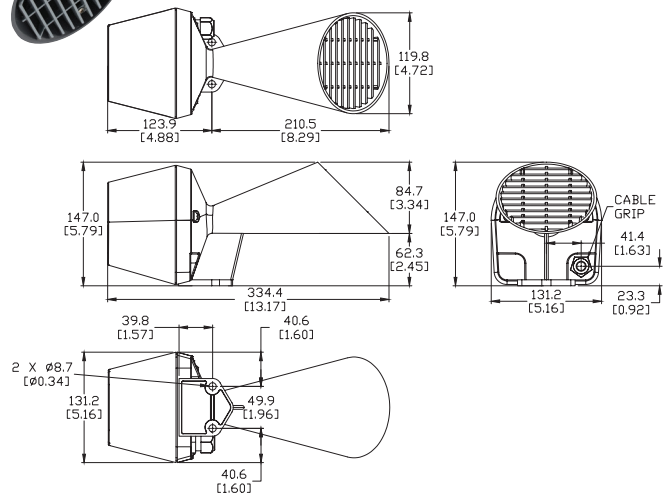
- Corrosion-resistant aluminum housing, salt water proof
 - Bracket mounting
- Continuous tone
- 132mm diameter

571 Series Signal Horns Specifications		
Part Number	57105255	57105267
Price	\$357.00	\$326.00
Description	Signal Horn	
Voltage	24VDC	115VAC
Current Consumption	350mA	200mA
Tone Frequency	150Hz	100Hz (supply frequency)
Maximum Volume	108dB @ 1m	
Tone Type	Continuous	
Life Duration	> 250h	
Operating Temperature	-20°C to 60°C [-4° to 140°F]	
Protection	IP55	
Weight	880g [31.04 oz]	860g [30.34 oz]
Housing Material	Aluminum	
Connection	Screwable connection max. 2.5 mm ² single wire, 18-14 AWG	
Agency Approvals	CE, RoHS	



DIMENSIONS mm [in]

571 Series



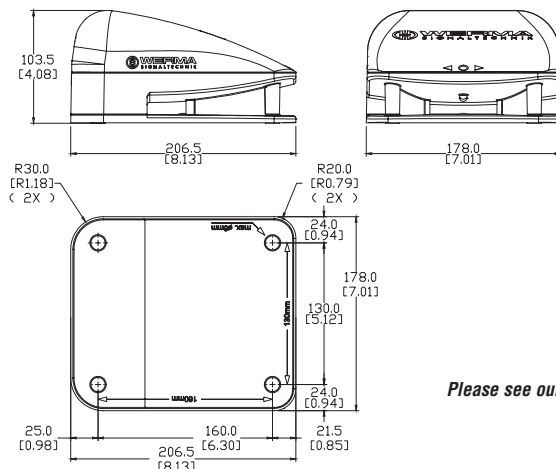
573 Series Horns Features

- Modern electro-mechanical design
 - Bracket mounting
- Continuous tone
- 178mm diameter



DIMENSIONS mm [in]

573 Series



573 Series Signal Horns Specifications

Part Number	57300055	57300067
Price	\$154.00	\$123.00
Description	Signal Horn	
Voltage	24VDC	115VAC
Current Consumption	350mA	200mA
Tone Frequency	150Hz	100Hz (supply frequency)
Maximum Volume	105dB @ 1m	
Tone Type	Continuous	
Life Duration	> 250h	
Operating Temperature	-30°C to 50°C [-22° to 122°F]	
Protection	IP65	
Weight	1200g [42.33 oz]	1150g [40.57 oz]
Housing Material	Polycarbonate/ABS-blend	
Connection	Screwable connection max. 2.5 mm ² single wire, 18-14 AWG	
Agency Approvals	CE, RoHS	

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com

Please see our website www.AutomationDirect.com for complete engineering drawings.

Audible Signal Devices

Bracket-mount Signal Horns



582 Series Horns Features

- Small electro-mechanical horn with trumpet
- Bracket mounting
- Continuous tone
- 70mm diameter

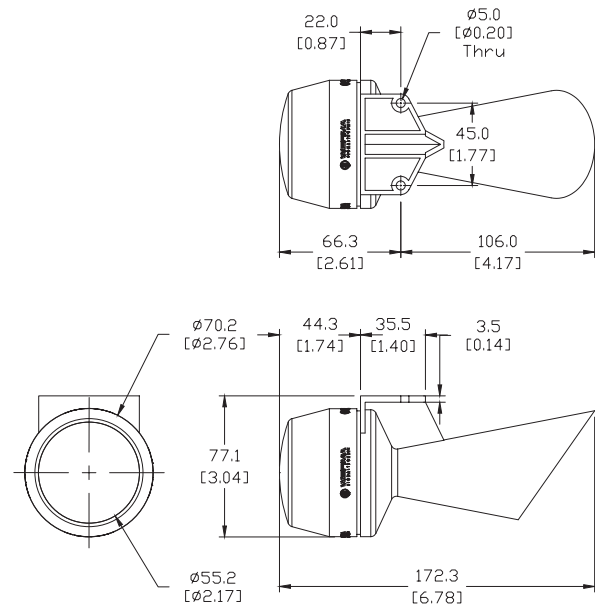


DIMENSIONS mm [in]

582 Series

582 Series Signal Horns and Buzzer Specifications		
Part Number	58205255	58205267
Price	\$45.00	\$45.00
Description	Signal Horn	
Voltage	24VDC	115VAC
Current Consumption	70mA	15mA
Tone Frequency	500Hz	100Hz
Maximum Volume	92dB @ 1m	
Tone Type	Continuous	
Life Duration	> 300h	
Operating Temperature	-20°C to 60°C [-4° to 140°F]	
Protection	IP33	
Weight	200g [7.05 oz]	
Housing Material	High impact ABS	
Connection	Connector with max. wire 1.5 mm ² , 18-16 AWG	
Agency Approvals	CE, RoHS	

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page at www.AutomationDirect.com



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