

GCX Series 22mm Metal Illuminated Pushbuttons

Momentary Pushbuttons with protective plastic ring

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.

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



GCX1202-24

Momentary Pushbuttons with Protective Plastic Ring						
Part Number	Lamp Color	Price	Drawing Link	Description	Replacement Incandescent Bulb [5 per pack]	Replacement LED Lamp [5 per pack]
Incandescent						
GCX1201-24	Red	\$14.50	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.C. contact block	ECX1902-5 , 80mA	ECX1911-2 , 26mA
GCX1201-120	Red	\$16.00	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.C. contact block	ECX1904-5 , 20mA	ECX1921-2 , 5mA
GCX1202-24	Green	\$14.50	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1912-2 , 26mA
GCX1202-120	Green	\$16.00	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1922-2 , 5mA
GCX1203-24	Yellow	\$14.50	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1913-2 , 26mA
GCX1203-120	Yellow	\$16.00	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1923-2 , 5mA
GCX1204-24	Blue	\$14.50	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1914-2 , 26mA
GCX1204-120	Blue	\$16.00	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1924-2 , 5mA
GCX1205-24	Clear	\$14.50	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1915-2 , 26mA
GCX1205-120	Clear	\$16.00	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1925-2 , 5mA
GCX1206-24	White	\$14.50	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1915-2 , 26mA
GCX1206-120	White	\$16.00	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1925-2 , 5mA
LED						
GCX1201-24L	Red	\$22.00	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.C. contact block	ECX1902-5 , 80mA	ECX1911-2 , 26mA
GCX1201-120L	Red	\$26.50	PDF	22mm metal LED illuminated pushbutton 120 VDC/VAC. One N.C. contact block	ECX1904-5 , 20mA	ECX1921-2 , 5mA
GCX1202-24L	Green	\$22.00	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1912-2 , 26mA
GCX1202-120L	Green	\$26.50	PDF	22mm metal LED illuminated pushbutton 120 VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1922-2 , 5mA
GCX1203-24L	Yellow	\$22.00	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1913-2 , 26mA
GCX1203-120L	Yellow	\$26.50	PDF	22mm metal LED illuminated pushbutton 120 VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1923-2 , 5mA
GCX1204-24L	Blue	\$22.00	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1914-2 , 26mA
GCX1204-120L	Blue	\$26.50	PDF	22mm metal LED illuminated pushbutton 120 VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1924-2 , 5mA
GCX1205-24L	Clear	\$25.50	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1915-2 , 26mA
GCX1205-120L	Clear	\$28.00	PDF	22mm metal LED illuminated pushbutton 120 VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1925-2 , 5mA
GCX1206-24L	White	\$25.50	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1915-2 , 26mA
GCX1206-120L	White	\$28.00	PDF	22mm metal LED illuminated pushbutton 120 VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1925-2 , 5mA

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

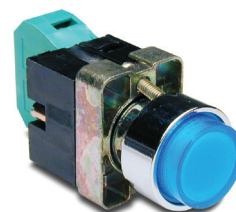
GCX Series 22mm Metal Illuminated Pushbuttons

Momentary Pushbuttons with extended actuator

25 models available:

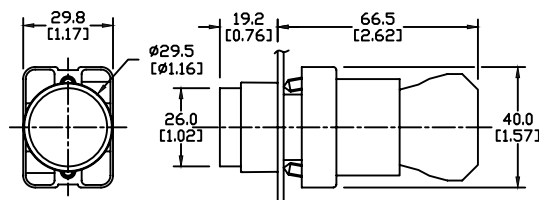
- Protective plastic ring for flush mount pushbutton functionality
- Includes incandescent bulb or LED lamp
- 24V and 120V models
- Available in six colors

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

Dimensions: mm [inches]



Momentary Pushbuttons with Extended Actuator					
Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb [5 per pack]	Replacement LED Lamp [5 per pack]
Incandescent					
GCX1211-24	Red	\$14.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.C. contact block	ECX1902-5 , 80mA	ECX1911-2 , 26mA
GCX1211-120	Red	\$15.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.C. contact block	ECX1904-5 , 20mA	ECX1921-2 , 5mA
GCX1212-24	Green	\$14.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1912-2 , 26mA
GCX1212-120	Green	\$15.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1922-2 , 5mA
GCX1213-24	Yellow	\$14.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1913-2 , 26mA
GCX1213-120	Yellow	\$15.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1923-2 , 5mA
GCX1214-24	Blue	\$14.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1914-2 , 26mA
GCX1214-120	Blue	\$15.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1924-2 , 5mA
GCX1215-24	Clear	\$14.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1915-2 , 26mA
GCX1215-120	Clear	\$15.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1925-2 , 5mA
GCX1216-24	White	\$14.00	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1915-2 , 26mA
GCX1216-120	White	\$15.50	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1925-2 , 5mA
LED					
GCX1211-24L	Red	\$18.50	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.C. contact block	ECX1902-5 , 80mA	ECX1911-2 , 26mA
GCX1211-120L	Red	\$20.00	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.C. contact block	ECX1904-5 , 20mA	ECX1921-2 , 5mA
GCX1211-120LA	Red	\$20.00	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1912-2.5mA
GCX1212-24L	Green	\$21.00	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1912-2 , 26mA
GCX1212-120L	Green	\$14.50	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1922-2 , 5mA
GCX1213-24L	Yellow	\$18.50	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1913-2 , 26mA
GCX1213-120L	Yellow	\$20.00	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1923-2 , 5mA
GCX1214-24L	Blue	\$21.50	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1914-2 , 26mA
GCX1214-120L	Blue	\$22.50	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1924-2 , 5mA
GCX1215-24L	Clear	\$23.50	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1915-2 , 26mA
GCX1215-120L	Clear	\$24.50	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1925-2 , 5mA
GCX1216-24L	White	\$23.50	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5 , 80mA	ECX1915-2 , 26mA
GCX1216-120L	White	\$24.50	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5 , 20mA	ECX1925-2 , 5mA

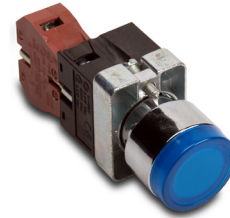
For accessories, see 22mm Metal Pilot Device Accessories in this section.

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



GCX1194-24

Push-Push Style Pushbuttons with Protective Plastic Ring						
Part Number	Lamp Color	Price	Drawing Link	Description	Replacement Incandescent Bulb [5 per pack]	Replacement LED Lamp [5 per pack]
Incandescent						
GCX1191-24	Red	\$16.50	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 , 80mA	ECX1911-2 , 26mA
GCX1191-120	Red	\$17.00	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 , 20mA	ECX1921-2 , 5mA
GCX1192-24	Green	\$16.50	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 , 80mA	ECX1912-2 , 26mA
GCX1192-120	Green	\$17.00	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 , 20mA	ECX1922-2 , 5mA
GCX1193-24	Yellow	\$16.50	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 , 80mA	ECX1913-2 , 26mA
GCX1193-120	Yellow	\$17.00	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 , 20mA	ECX1923-2 , 5mA
GCX1194-24	Blue	\$16.50	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 , 80mA	ECX1914-2 , 26mA
GCX1194-120	Blue	\$17.00	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 , 20mA	ECX1924-2 , 5mA
GCX1195-24	Clear	\$16.50	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 , 80mA	ECX1915-2 , 26mA
GCX1195-120	Clear	\$17.00	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 , 20mA	ECX1925-2 , 5mA
GCX1196-24	White	\$16.50	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5 , 80mA	ECX1915-2 , 26mA
GCX1196-120	White	\$17.00	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5 , 20mA	ECX1925-2 , 5mA

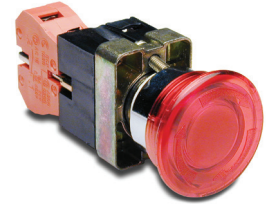
All switches in this series use replacement contact block [ECX1042-2](#) (Brown, N.O.) or [ECX1030-5](#) or [ECX1030-2](#) (Red, N.C.), sold separately. LED on the following page.

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

Mushroom Style Illuminated Pushbuttons					
Part Number	Lamp Color	Price	Drawing Link	Description	Replacement Bulbs
Incandescent					
<u>GCX1221-24</u>	Red	\$16.50	<u>PDF</u>	22mm metal incandescent momentary pushbutton with incandescent illuminated 40mm mushroom actuator, 24VDC/VAC, one N.C. contact block	<u>ECX1902-5</u> 5/pk 80mA
<u>GCX1221-120</u>	Red	\$18.00	<u>PDF</u>	22mm metal incandescent momentary pushbutton with incandescent illuminated 40mm mushroom actuator, 120VDC/VAC, one N.C. contact block	<u>ECX1904-5</u> , 5/pk 20mA
<u>GCX1226-24</u>	Red	\$18.50	<u>PDF</u>	22mm metal incandescent pushbutton with incandescent illuminated 40mm mushroom twist-to-release actuator, 24VDC/VAC, one N.C. contact block	<u>ECX1902-5</u> 5/pk 80mA
<u>GCX1226-120</u>	Red	\$20.50	<u>PDF</u>	22mm metal incandescent pushbutton with incandescent illuminated 40mm mushroom twist-to-release actuator, 120VDC/VAC, one N.C. contact block	<u>ECX1904-5</u> , 5/pk 20mA
LED					
<u>GCX1221-24L</u>	Red	\$21.00	<u>PDF</u>	22 mm metal momentary pushbutton with LED illuminated 40 mm mushroom actuator, 24VDC/VAC, one N.C. contact block	<u>ECX1911-2</u> 2/pk 26mA
<u>GCX1221-120L</u>	Red	\$22.50	<u>PDF</u>	22 mm metal momentary pushbutton with LED illuminated 40 mm mushroom actuator, 120VDC/VAC, one N.C. contact block	<u>ECX1921-2</u> 2/pk 5mA
<u>GCX1226-24L</u>	Red	\$23.00	<u>PDF</u>	22 mm metal pushbutton with LED illuminated 40 mm mushroom twist-to-release actuator, 24VDC/VAC, one N.C. contact block	<u>ECX1911-2</u> 2/pk 26mA
<u>GCX1226-120L</u>	Red	\$25.00	<u>PDF</u>	22 mm metal pushbutton with LED illuminated 40 mm mushroom twist-to-release actuator, 120VDC/VAC, one N.C. contact block	<u>ECX1921-22</u> 2/pk 5mA

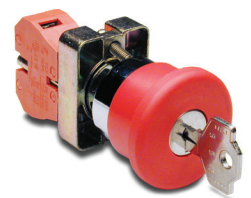
Non-Illuminated Mushroom Pushbuttons

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

Non-Illuminated Mushroom Pushbuttons				
Part Number	Color	Price	Drawing Link	Description
<u>GCX1131</u>	Red	\$14.50	<u>PDF</u>	Twist-to-release actuator with one N.C. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator.
<u>GCX1134</u>	Black	\$12.00	<u>PDF</u>	Momentary action with one N.O. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator.
<u>GCX1135</u>	Red	\$12.00	<u>PDF</u>	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).
<u>GCX1136</u>	Red	\$17.50	<u>PDF</u>	Twist-to-release actuator with one N.C. contact block, fits in 22mm dia. hole. 60mm mushroom-style actuator.
<u>GCX1137</u>	Red	\$14.50	<u>PDF</u>	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).
<u>GCX1139</u>	Yellow	\$12.00	<u>PDF</u>	Momentary action with one N.O. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator.
<u>GCX1141</u>	Red	\$20.00	<u>PDF</u>	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).



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).

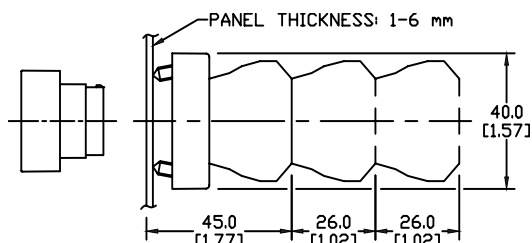
For accessories, see 22mm Metal Pilot Device Accessories in this section.

GCX Series 22mm Metal Pilot Devices Specifications

Assembly information

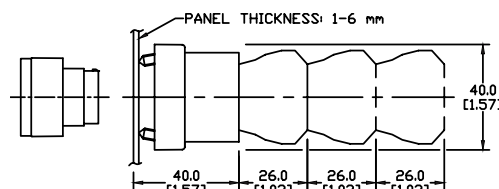
These pushbuttons and indicator lights are supplied with the appropriate contact blocks, unless otherwise indicated. Use these drawings as a guide to make sure there is adequate clearance behind the panel.

Pushbuttons and selector switches

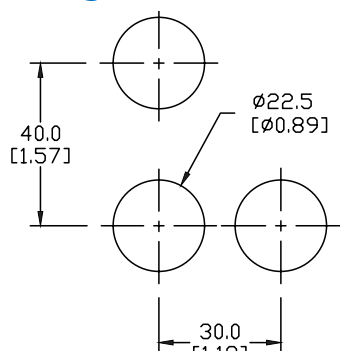


Dimensions: mm [inches]

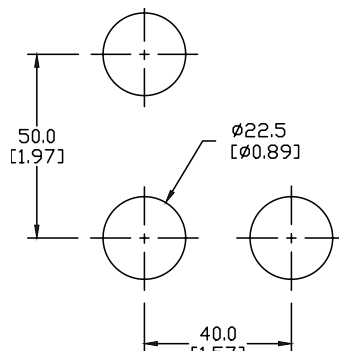
Illuminated pushbuttons and selector switches/pilot lights



Mounting



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

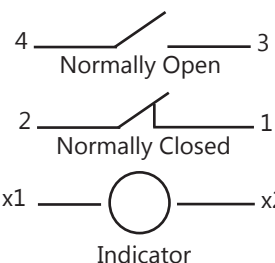


This layout is suitable if all switches are 400V or less and different polarity.

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	IP40 for GCX3151-24, GCX3151-120, GCX3153-24 and GCX3153-120. IP65 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 10,3x381 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

22mm Metal Pilot Device Accessories

Replacement Incandescent Bulbs

Replacement Incandescent Bulbs				
Part Number	Quantity	Price	Rating	Description
<u>ECX1900-5</u>	5	\$9.50	6V@ 200mA , 1.2 watts	6V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4
<u>ECX1902-5</u>	5	\$9.50	24V@ 80mA 2 watts	24V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4
<u>ECX1904-5</u>	5	\$20.00	130V@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 HT8LAMPTOOL.



[ECX1902-5](#)

Replacement LED Lamps

Replacement LED Lamps					
Part Number	Color	Quantity	Price	Rating	Description
<u>ECX1911-2</u>	Red	2	\$17.50	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.
<u>ECX1912-2</u>	Green		\$22.00		
<u>ECX1913-2</u>	Yellow		\$17.50		
<u>ECX1914-2</u>	Blue		\$23.50		
<u>ECX1915-2</u>	White		\$28.00		
<u>ECX1921-2</u>	Red		\$17.50	120V@5mA 0.6 watts	
<u>ECX1922-2</u>	Green		\$22.00		
<u>ECX1923-2</u>	Yellow		\$17.50		
<u>ECX1924-2</u>	Blue		\$23.50		
<u>ECX1925-2</u>	White		\$28.00		



[ECX1915-2](#)

Hole plug

Hole Plug			
Part Number	Color	Price	Description
<u>ECX1490</u>	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.



[ECX1490](#)

Pilot Light Replacement Lens

Pilot Light Replacement Lens				
Part Number	Lamp Color	Price	Description	Use with
<u>PL1170PR-5</u>	Red	\$7.00	22mm metallic series pilot light replacement lens, 5/pk	Part numbers starting with GCX123
<u>PL1170PV-5</u>	Green	\$7.00	22mm metallic series pilot light replacement lens, 5/pk	
<u>PL1170PG-5</u>	Yellow	\$7.00	22mm metallic series pilot light replacement lens, 5/pk	
<u>PL1170PB-5</u>	Blue	\$7.00	22mm metallic series pilot light replacement lens, 5/pk	
<u>PL1170PN-5</u>	Clear	\$7.00	22mm metallic series pilot light replacement lens, 5/pk	
<u>PL1170PW-5</u>	White	\$7.00	22mm metallic series pilot light replacement lens, 5/pk	



[PL1170PR-5](#)

22mm Metal Pilot Device Accessories

Protective Covers for Pushbuttons

Protective Covers for Pushbuttons				
Part Number	Color	Quantity	Price	Description
<u>ECX1700-5</u>	Black	5	\$7.50	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.
<u>ECX1701-5</u>	Red		\$7.50	
<u>ECX1702-5</u>	Green		\$7.50	
<u>ECX1703-5</u>	Yellow		\$7.50	
<u>ECX1704-5</u>	Blue		\$7.50	
<u>ECX1705-5</u>	Clear		\$7.50	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.
<u>ECX1706-5</u>	Clear		\$13.00	



[ECX1703-5](#)

Replacement 22mm Support Base

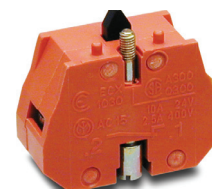
Replacement 22mm Support Base				
Part Number	Quantity	Price	Drawing Link	Description
<u>ECX1029-2</u>	1	\$7.00	<u>PDF</u>	22mm metal support base Note: This item is supplied as a replacement part and is not required with any switch assembly. Will not work with Cutler-Hammer 22mm switches sold by AutomationDirect



[ECX1029-2](#)

Replacement Contact Blocks

Replacement Contact Blocks					
Part Number	Quantity	Price	Drawing Link	Contacts	Description
<u>ECX1030-2</u>	2	\$7.25	<u>PDF</u>	Red, normally-closed (N.C.)	Replacement contact block for 22mm pushbuttons and selector switches. Tightening Torque, terminal screw: 0.8Nm max mounting screw: 0.5Nm max Note: Will not work with Cutler-Hammer 22mm switches.
<u>ECX1030-5</u>	5	\$17.00	<u>PDF</u>		
<u>ECX1040-2</u>	2	\$7.25	<u>PDF</u>	Green, normally-open (N.O.)	
<u>ECX1040-5</u>	5	\$17.00	<u>PDF</u>		
<u>ECX1042-2</u>	2	\$7.25	<u>PDF</u>	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.



[ECX1030-2](#)

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

Replacement Keys

Replacement Keys			
Part Number	Quantity	Price	Description
<u>ECX1067-2</u>	Pkg of 2 sets (2 keys per set)	\$6.50	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.



[ECX1067-2](#)

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

22mm Metal Pilot Device Accessories

EMERGENCY STOP Legend Plate

EMERGENCY STOP Legend Plate				
Part Number	Quantity	Price	Drawing Link	Description
<u>ECX1651</u>	1	\$2.75	PDF	Oversize yellow circular EMERGENCY STOP legend plate for 22mm E-stop type mushroom pushbuttons, 60mm outside diameter.



[ECX1651](#)

Knockout Punches

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.

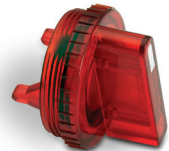
Note: Part number [109225](#) is recommended when punching holes for 22mm pilot devices.



[109225](#)

Two-Position Short Lever Operator

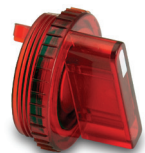
2-Position Short Lever Replacement Operator				
Part Number	Lamp Color	Price	2-Position	Use with
<u>GR1172PR-5</u>	Red	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX124, GCX125 GCX324, GCX325
<u>GR1172PV-5</u>	Green	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
<u>GR1172PG-5</u>	Yellow	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
<u>GR1172PB-5</u>	Blue	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
<u>GR1172PN-5</u>	Clear	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	



[GR1172PR-5](#)

Three-Position Short Lever Operator

3-Position Short Lever Replacement Operator				
Part Number	Lamp Color	Price	3-Position	Use with
<u>GR1288PR-5</u>	Red	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX126, GCX128 GCX326, GCX328
<u>GR1288PV-5</u>	Green	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
<u>GR1288PG-5</u>	Yellow	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
<u>GR1288PB-5</u>	Blue	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
<u>GR1288PN-5</u>	Clear	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	



[GR1288PR-5](#)

22mm Metal Pilot Device Accessories

Mushroom Switch Replacement Operator

Mushroom Switch Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
<u>PL1171PR-5</u>	Red	\$7.25	22mm, illuminated momentary Mushroom switch replacement operator, red, 5/pk	Part numbers starting with GCX1221, GCX3221 mushroom-style illuminated pushbuttons
<u>PL1298P-5</u>	Red	\$7.25	22mm illuminated twist-to-release mushroom switch replacement operator, red, 5/pk	Part numbers starting with GCX1226, GCX3226 mushroom-style illuminated pushbuttons



[PL1298P-5](#)

Flush Pushbutton Replacement Operator

Flush Pushbutton Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
<u>GR1168PR-5</u>	Red	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	Part numbers starting with GCX119, GCX120 GCX319, GCX320
<u>GR1168PV-5</u>	Green	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<u>GR1168PG-5</u>	Yellow	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<u>GR1168PB-5</u>	Blue	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<u>GR1168PN-5</u>	Clear	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<u>GR1168PW-5</u>	White	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	



[GR1168PR-5](#)

Extended Pushbutton Replacement Operator

Extended Pushbutton Replacement Operator				
Part Number	Lamp Color	Price	Description	Use with
<u>PL1308PR-5</u>	Red	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	Part numbers starting with GCX121, GCX321
<u>PL1308PV-5</u>	Green	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<u>PL1308PG-5</u>	Yellow	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<u>PL1308PB-5</u>	Blue	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<u>PL1308PN-5</u>	Clear	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<u>PL1308PW-5</u>	White	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	



[PL1308PR-5](#)

22mm Metal Pilot Device Accessories

Legend Plates

Aluminum legend plates for use with 22mm pilot devices. Black or red field with silver background. O-ring included.



ECX1670A-B04



ECX1670A-R03

Aluminum Legend Plates						
Legend	Color of Field	Text Color	Background Color	Part Number	Price	Drawing Link
AUTO OFF HAND	Black	Black	Silver	<u>ECX1670A-B46</u>	\$3.75	<u>PDF</u>
Blank Plate	Black	-	Silver	<u>ECX1670A-B</u>	\$3.75	<u>PDF</u>
Blank Plate	Red	-	Silver	<u>ECX1670A-R</u>	\$3.75	<u>PDF</u>
CLAMP	Black	Black	Silver	<u>ECX1670A-B24</u>	\$3.75	<u>PDF</u>
CLOSE	Black	Black	Silver	<u>ECX1670A-B01</u>	\$3.75	<u>PDF</u>
DOWN	Black	Black	Silver	<u>ECX1670A-B02</u>	\$3.75	<u>PDF</u>
EMERG. STOP	Red	Red	Silver	<u>ECX1670A-R03</u>	\$3.75	<u>PDF</u>
EXTEND	Black	Black	Silver	<u>ECX1670A-B51</u>	\$3.75	<u>PDF</u>
FEEDER OFF	Black	Black	Silver	<u>ECX1670A-B26</u>	\$3.75	<u>PDF</u>
FEEDER ON	Black	Black	Silver	<u>ECX1670A-B25</u>	\$3.75	<u>PDF</u>
FOR OFF REV	Black	Black	Silver	<u>ECX1670A-B19</u>	\$3.75	<u>PDF</u>
FOR REV	Black	Black	Silver	<u>ECX1670A-B13</u>	\$3.75	<u>PDF</u>
FORWARD	Black	Black	Silver	<u>ECX1670A-B04</u>	\$3.75	<u>PDF</u>
GRIP	Black	Black	Silver	<u>ECX1670A-B53</u>	\$3.75	<u>PDF</u>
HAND-AUTO	Black	Black	Silver	<u>ECX1670A-B14</u>	\$3.75	<u>PDF</u>
HAND OFF AUTO	Black	Black	Silver	<u>ECX1670A-B20</u>	\$3.75	<u>PDF</u>
HIGH	Black	Black	Silver	<u>ECX1670A-B27</u>	\$3.75	<u>PDF</u>
HIGH LOW	Black	Black	Silver	<u>ECX1670A-B43</u>	\$3.75	<u>PDF</u>
IN	Black	Black	Silver	<u>ECX1670A-B28</u>	\$3.75	<u>PDF</u>
INCH	Black	Black	Silver	<u>ECX1670A-B29</u>	\$3.75	<u>PDF</u>
JOG	Black	Black	Silver	<u>ECX1670A-B05</u>	\$3.75	<u>PDF</u>
JOG FOR	Black	Black	Silver	<u>ECX1670A-B30</u>	\$3.75	<u>PDF</u>
JOG REV	Black	Black	Silver	<u>ECX1670A-B31</u>	\$3.75	<u>PDF</u>
JOG RUN	Black	Black	Silver	<u>ECX1670A-B15</u>	\$3.75	<u>PDF</u>
LOW	Black	Black	Silver	<u>ECX1670A-B32</u>	\$3.75	<u>PDF</u>
LOWER	Black	Black	Silver	<u>ECX1670A-B33</u>	\$3.75	<u>PDF</u>
MAN AUTO	Black	Black	Silver	<u>ECX1670A-B44</u>	\$3.75	<u>PDF</u>

Note: Legend plate text is 3mm in height
Continued on next page

22mm Metal Pilot Device Accessories

**ECX1670A-B48****ECX1670A-R11**

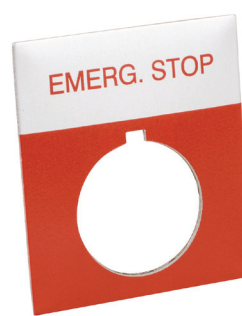
Aluminum Legend Plates (continued)						
Legend	Color of Field	Text Color	Background Color	Part Number	Price	Drawing Link
MAN OFF AUTO	Black	Black	Silver	<u>ECX1670A-B47</u>	\$3.75	<u>PDF</u>
MOTOR RUN	Black	Black	Silver	<u>ECX1670A-B22</u>	\$3.75	<u>PDF</u>
MOTOR STOP	Black	Black	Silver	<u>ECX1670A-B23</u>	\$3.75	<u>PDF</u>
OFF	Black	Black	Silver	<u>ECX1670A-B34</u>	\$3.75	<u>PDF</u>
OFF ON	Black	Black	Silver	<u>ECX1670A-B16</u>	\$3.75	<u>PDF</u>
ON	Black	Black	Silver	<u>ECX1670A-B06</u>	\$3.75	<u>PDF</u>
OPEN	Black	Black	Silver	<u>ECX1670A-B07</u>	\$3.75	<u>PDF</u>
OPEN OFF CLOSE	Black	Black	Silver	<u>ECX1670A-B48</u>	\$3.75	<u>PDF</u>
OPEN CLOSE	Black	Black	Silver	<u>ECX1670A-B17</u>	\$3.75	<u>PDF</u>
OUT	Black	Black	Silver	<u>ECX1670A-B35</u>	\$3.75	<u>PDF</u>
POWER ON	Black	Black	Silver	<u>ECX1670A-B21</u>	\$3.75	<u>PDF</u>
PULL ON PUSH OFF	Black	Black	Silver	<u>ECX1670A-B50</u>	\$3.75	<u>PDF</u>
RAISE	Black	Black	Silver	<u>ECX1670A-B36</u>	\$3.75	<u>PDF</u>
READY	Black	Black	Silver	<u>ECX1670A-B37</u>	\$3.75	<u>PDF</u>
RELEASE	Black	Black	Silver	<u>ECX1670A-B54</u>	\$3.75	<u>PDF</u>
RESET	Black	Black	Silver	<u>ECX1670A-B38</u>	\$3.75	<u>PDF</u>
RETRACT	Black	Black	Silver	<u>ECX1670A-B52</u>	\$3.75	<u>PDF</u>
REVERSE	Black	Black	Silver	<u>ECX1670A-B08</u>	\$3.75	<u>PDF</u>
RUN	Black	Black	Silver	<u>ECX1670A-B09</u>	\$3.75	<u>PDF</u>
SAFE RUN	Black	Black	Silver	<u>ECX1670A-B45</u>	\$3.75	<u>PDF</u>
START	Black	Black	Silver	<u>ECX1670A-B10</u>	\$3.75	<u>PDF</u>
STOP	Black	Black	Silver	<u>ECX1670A-B11</u>	\$3.75	<u>PDF</u>
STOP	Red	Red	Silver	<u>ECX1670A-R11</u>	\$3.75	<u>PDF</u>
TEST	Black	Black	Silver	<u>ECX1670A-B39</u>	\$3.75	<u>PDF</u>
TRANSFER	Black	Black	Silver	<u>ECX1670A-B40</u>	\$3.75	<u>PDF</u>
TRIP	Black	Black	Silver	<u>ECX1670A-B41</u>	\$3.75	<u>PDF</u>
UNCLAMP	Black	Black	Silver	<u>ECX1670A-B42</u>	\$3.75	<u>PDF</u>
UP	Black	Black	Silver	<u>ECX1670A-B12</u>	\$3.75	<u>PDF</u>
UP OFF DOWN	Black	Black	Silver	<u>ECX1670A-B49</u>	\$3.75	<u>PDF</u>
UP DOWN	Black	Black	Silver	<u>ECX1670A-B18</u>	\$3.75	<u>PDF</u>

Note: Legend plate text is 3mm in height

22mm Metal Pilot Device Accessories



ECX1680A-B17



ECX1680A-R03

Jumbo Aluminum Legend Plates						
Legend	Color of Field	Text Color	Background Color	Part Number	Price	Drawing Link
Blank Plate	Black	-	Silver	<u>ECX1680A-B</u>	\$4.25	<u>PDF</u>
Blank Plate	Red	-	Silver	<u>ECX1680A-R</u>	\$4.25	<u>PDF</u>
EMERG. STOP	Red	Red	Silver	<u>ECX1680A-R03</u>	\$4.25	<u>PDF</u>
HAND OFF AUTO	Black	Black	Silver	<u>ECX1680A-B20</u>	\$4.25	<u>PDF</u>
JOG	Black	Black	Silver	<u>ECX1680A-B05</u>	\$4.25	<u>PDF</u>
OFF ON	Black	Black	Silver	<u>ECX1680A-B16</u>	\$4.25	<u>PDF</u>
OPEN CLOSE	Black	Black	Silver	<u>ECX1680A-B17</u>	\$4.25	<u>PDF</u>
POWER ON	Black	Black	Silver	<u>ECX1680A-B21</u>	\$4.25	<u>PDF</u>
START	Black	Black	Silver	<u>ECX1680A-B10</u>	\$4.25	<u>PDF</u>
STOP	Red	Red	Silver	<u>ECX1680A-R11</u>	\$4.25	<u>PDF</u>

Note: Legend plate text is 3mm in height

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	P9XPNG10N0	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	800DPL5 800E2RL5 800E3X10	ZA2BW15 ZA2B2061120	P9XPLASD P9PRNVJ P9PDNVD	3SB02-UPR1P 3SB1910-0DD 3SB1400-0B

GCX Series 22mm Metal Pilot Devices

Features

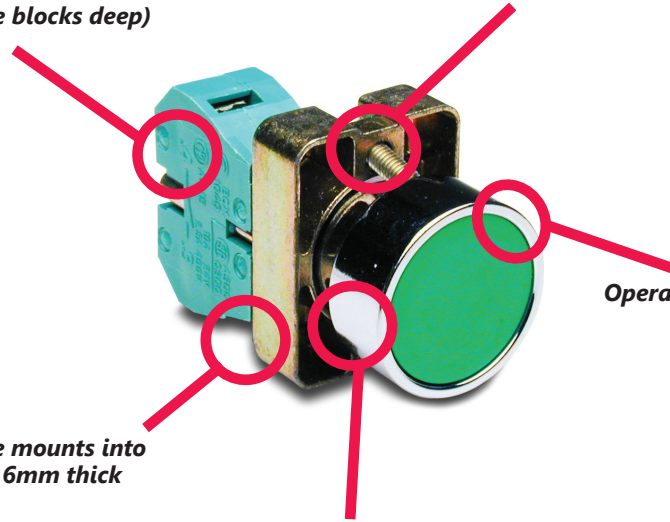
Any combination of contact blocks is allowed, up to a total of six (two blocks wide and three blocks deep)

Secure mounting method eliminates twisting in mounting hole

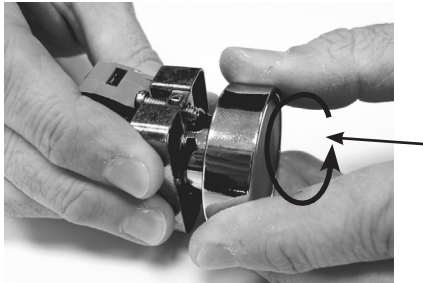
Support base mounts into panels up to 6mm thick

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

Operators are protected to IP65



Easy installation

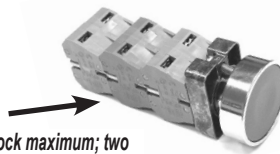


To remove operator, press toward support base and twist counterclockwise.



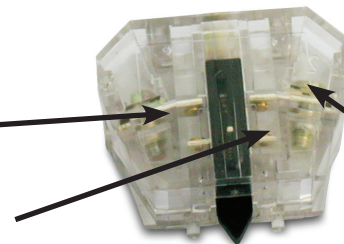
To install switch, place support base against rear of panel (not shown here), insert the operator and twist clockwise until it clicks into place. Carefully tighten the securing screws. Do not over-tighten.

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)*

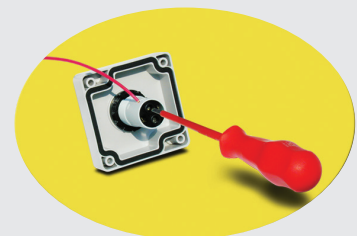


Pressure plate wiring terminals for easy, secure wiring, accepting up to 14 AWG wire

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 Series 22mm Plastic Pilot Devices

Specifications

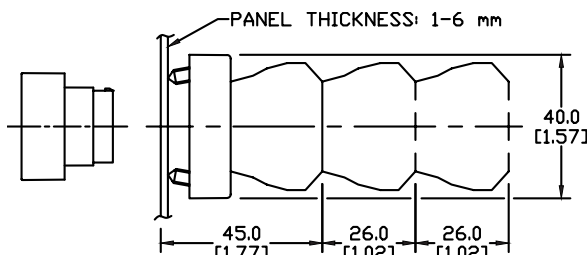
Assembly information

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.

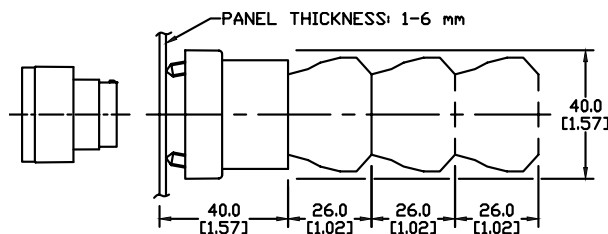
Dimensions

mm
[inches]

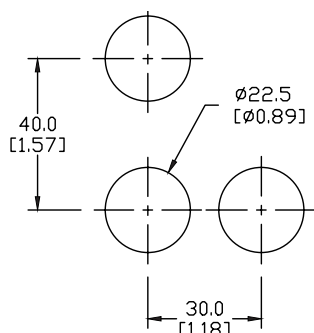
Pushbuttons and selector switches



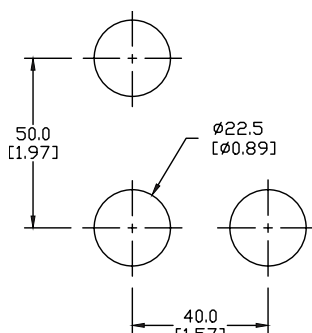
Illuminated pushbuttons and selector switches/indicator lights



Mounting



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

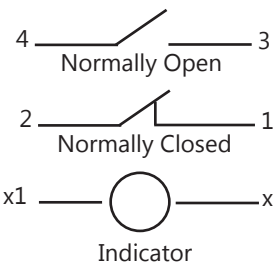


This layout is suitable if all switches are 400V or less and different polarity.

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	IP40 for GCX3151-24, GCX3151-120, GCX3153-24 and GCX3153-120. IP65 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