

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
ECX1700-5	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.
ECX1701-5	Red		\$7.50	
ECX1702-5	Green		\$7.50	
ECX1703-5	Yellow		\$7.50	
ECX1704-5	Blue		\$7.50	
ECX1705-5	Clear		\$7.50	
ECX1706-5	Clear		\$13.00	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.



[ECX1703-5](#)

Replacement 22mm Support Base

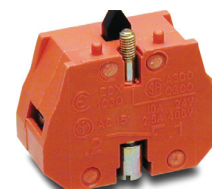
Replacement 22mm Support Base				
Part Number	Quantity	Price	Drawing Link	Description
ECX1029-2	1	\$7.00	PDF	22mm metal support base Note: This item is supplied as a replacement part and is not required with any switch assembly. Will not work with Cutler-Hammer 22mm switches sold by AutomationDirect



[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
ECX1067-2	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.

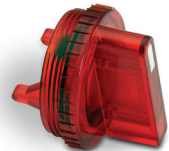
Note: Part number [109225](#) is recommended when punching holes for 22mm pilot devices.



[109225](#)

Two-Position Short Lever Operator

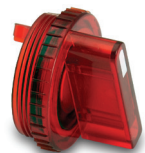
2-Position Short Lever Replacement Operator				
Part Number	Lamp Color	Price	2-Position	Use with
<u>GR1172PR-5</u>	Red	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX124, GCX125 GCX324, GCX325
<u>GR1172PV-5</u>	Green	\$16.50	22mm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

GCX Series 22mm Plastic Pilot Devices Specifications

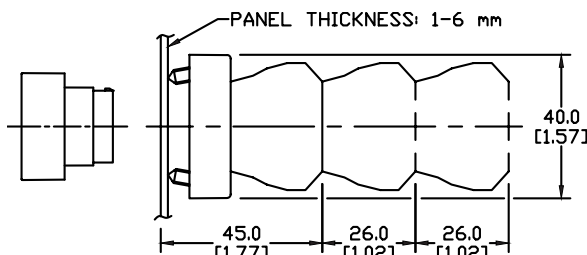
Assembly information

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]

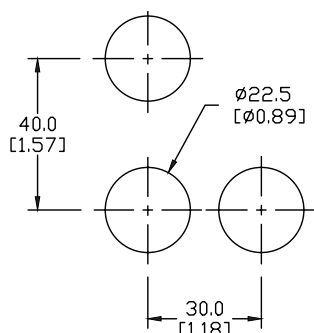
Pushbuttons and selector switches



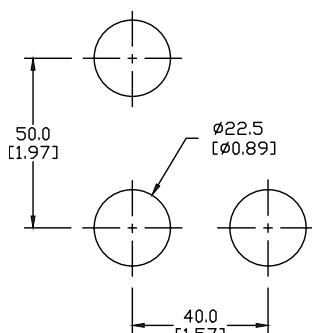
Illuminated pushbuttons and selector switches/indicator lights



Mounting



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

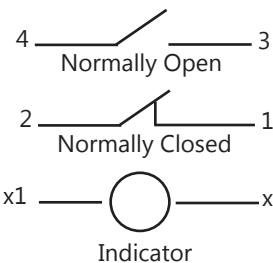


This layout is suitable if all switches are 400V or less and different polarity.

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