

# ECX Series 22mm Metal Joystick Selector Switches

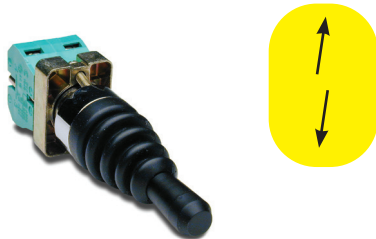
## Joystick Selector Switches

- Four models available

Joystick Selector Switches			
Part Number	Price	Drawing Link	Description
<a href="#"><u>ECX1510</u></a>	\$29.50	PDF	22mm metal joystick-style selector switch, two-position momentary, two N.O. contact blocks
<a href="#"><u>ECX1512</u></a>	\$29.50	PDF	22mm metal joystick-style selector switch, two-position maintained, two N.O. contact blocks
<a href="#"><u>ECX1520</u></a>	\$39.00	PDF	22mm metal joystick-style selector switch, four-position momentary, four N.O. contact blocks
<a href="#"><u>ECX1524</u></a>	\$39.00	PDF	22mm metal joystick-style selector switch, four-position maintained, four N.O. contact blocks

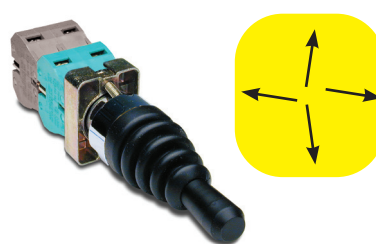
**Note:** Four-position switches use two special contact blocks which are not replaceable.

**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.



### **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.

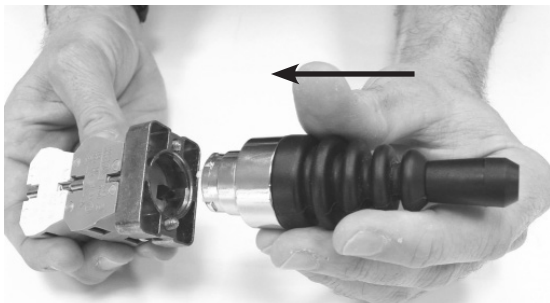


### **ECX1520 (Four-position momentary)** **ECX1524 (Four-position maintained)**

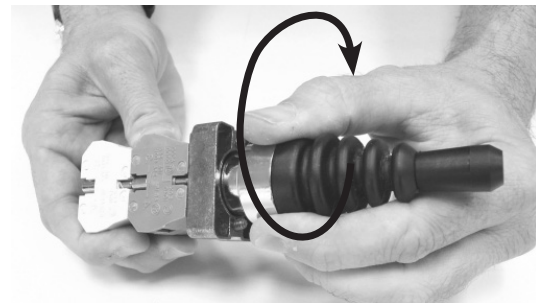
- Moving the joystick UP will close Green contact on one side and moving it DOWN will close Gray contact located behind it.
- Moving the joystick RIGHT will close Green contact on other side and moving it LEFT will close Gray contact located behind it.

## 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).



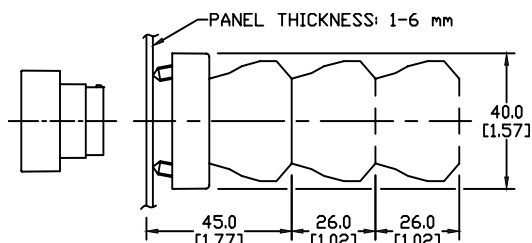
Twist clockwise until it clicks into place. Carefully tighten the securing screws. Do not over-tighten. (4.5 lb-in) If the operator is not "clicked" into position before the screws are tightened, the switch will not work properly.

# GCX Series 22mm Metal Pilot Devices Specifications

## Assembly information

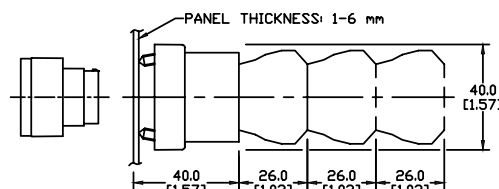
These pushbuttons and indicator lights are supplied with the appropriate contact blocks, unless otherwise indicated. Use these drawings as a guide to make sure there is adequate clearance behind the panel.

### Pushbuttons and selector switches

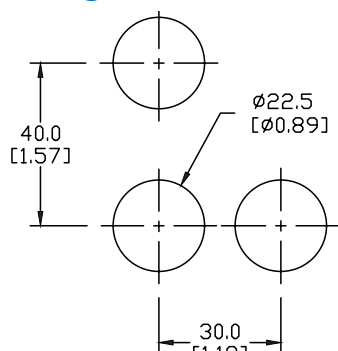


Dimensions: mm [inches]

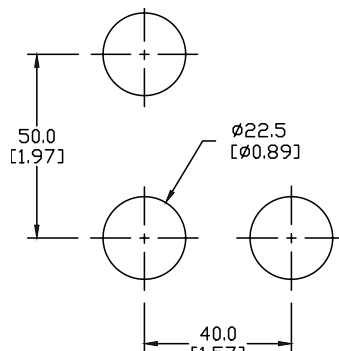
### Illuminated pushbuttons and selector switches/pilot lights



## Mounting



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

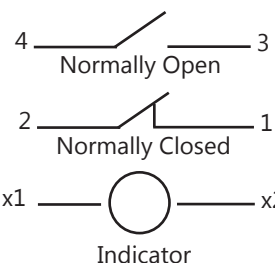


*This layout is suitable if all switches are 400V or less and different polarity.*

**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	
<b>Standards Reference</b>	CEI EN 60947-5-1, CSA C22-2 n.14
<b>Approvals</b>	CSA, IMQ (where specified), UL File E189258
<b>Enclosure Material</b>	Zn + Al + Mg alloy, chromium plated
<b>Contacts Material</b>	Silver
<b>Protection Degree</b>	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.)
<b>Temperature Ratings</b>	Storage: -40 to 80°C (-40 to 176° F) Operating: -25 to +70°C (-13 to 158° F)
<b>Working Positions</b>	All working positions are allowed
<b>Mechanical Life</b>	Pushbuttons, selector switches: Joy stick switches: 1,000,000 operations Mushroom pushbuttons: 300,000 operations

Electrical Specifications	
<b>Rated Thermal Current (contact block)</b>	A300, Q300 (Refer to E22 Series mounting/contact rating section for details)
<b>Rated Insulation Voltage</b>	Ui 660V according to CEI EN 60947-5-1, 300V according to CSA C22-2 n.14
<b>Dielectric Strength</b>	3kV (1 second)
<b>Insulation Resistance</b>	2MΩ min. (500VDC)
<b>Initial Contact Resistance</b>	≤ 25mΩ
<b>Short-Circuit Protection*</b>	Cartridge fuses gl 10A - 500V 10,3x381 100kA
<b>Terminal Markings</b>	According to CENELEC EN 50013
<b>Connections</b>	Single screw with non-loosening plate clamp, 14AWG max.
<b>Contacts Operation</b>	Self-cleaning types EN01 (N.C.) EN 10 (N.O.) slow-action, positive opening
<b>Operation Frequency</b>	3600 operations per hour max.
<b>Utilization Category</b>	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
<a href="#"><u>ECX1900-5</u></a>	5	\$9.50	6V@ 200mA , 1.2 watts	6V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4
<a href="#"><u>ECX1902-5</u></a>	5	\$9.50	24V@ 80mA 2 watts	24V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4
<a href="#"><u>ECX1904-5</u></a>	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
<a href="#"><u>ECX1911-2</u></a>	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.
<a href="#"><u>ECX1912-2</u></a>	Green		\$22.00		
<a href="#"><u>ECX1913-2</u></a>	Yellow		\$17.50		
<a href="#"><u>ECX1914-2</u></a>	Blue		\$23.50		
<a href="#"><u>ECX1915-2</u></a>	White		\$28.00		
<a href="#"><u>ECX1921-2</u></a>	Red		\$17.50	120V@5mA 0.6 watts	
<a href="#"><u>ECX1922-2</u></a>	Green		\$22.00		
<a href="#"><u>ECX1923-2</u></a>	Yellow		\$17.50		
<a href="#"><u>ECX1924-2</u></a>	Blue		\$23.50		
<a href="#"><u>ECX1925-2</u></a>	White		\$28.00		



[ECX1915-2](#)

## Hole plug

Hole Plug			
Part Number	Color	Price	Description
<a href="#"><u>ECX1490</u></a>	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
<a href="#"><u>PL1170PR-5</u></a>	Red	\$7.00	22mm metallic series pilot light replacement lens, 5/pk	Part numbers starting with GCX123
<a href="#"><u>PL1170PV-5</u></a>	Green	\$7.00	22mm metallic series pilot light replacement lens, 5/pk	
<a href="#"><u>PL1170PG-5</u></a>	Yellow	\$7.00	22mm metallic series pilot light replacement lens, 5/pk	
<a href="#"><u>PL1170PB-5</u></a>	Blue	\$7.00	22mm metallic series pilot light replacement lens, 5/pk	
<a href="#"><u>PL1170PN-5</u></a>	Clear	\$7.00	22mm metallic series pilot light replacement lens, 5/pk	
<a href="#"><u>PL1170PW-5</u></a>	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
<a href="#"><u>ECX1700-5</u></a>	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.
<a href="#"><u>ECX1701-5</u></a>	Red		\$7.50	
<a href="#"><u>ECX1702-5</u></a>	Green		\$7.50	
<a href="#"><u>ECX1703-5</u></a>	Yellow		\$7.50	
<a href="#"><u>ECX1704-5</u></a>	Blue		\$7.50	
<a href="#"><u>ECX1705-5</u></a>	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.
<a href="#"><u>ECX1706-5</u></a>	Clear		\$13.00	



[ECX1703-5](#)

## Replacement 22mm Support Base

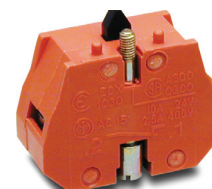
Replacement 22mm Support Base				
Part Number	Quantity	Price	Drawing Link	Description
<a href="#"><u>ECX1029-2</u></a>	1	\$7.00	<a href="#"><u>PDF</u></a>	22mm metal support base Note: This item is supplied as a replacement part and is not required with any switch assembly. Will not work with Cutler-Hammer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



[ECX1029-2](#)

## Replacement Contact Blocks

Replacement Contact Blocks					
Part Number	Quantity	Price	Drawing Link	Contacts	Description
<a href="#"><u>ECX1030-2</u></a>	2	\$7.25	<a href="#"><u>PDF</u></a>	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.
<a href="#"><u>ECX1030-5</u></a>	5	\$17.00	<a href="#"><u>PDF</u></a>		
<a href="#"><u>ECX1040-2</u></a>	2	\$7.25	<a href="#"><u>PDF</u></a>	Green, normally-open (N.O.)	
<a href="#"><u>ECX1040-5</u></a>	5	\$17.00	<a href="#"><u>PDF</u></a>		
<a href="#"><u>ECX1042-2</u></a>	2	\$7.25	<a href="#"><u>PDF</u></a>	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
<a href="#"><u>ECX1067-2</u></a>	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
<a href="#"><u>ECX1651</u></a>	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.

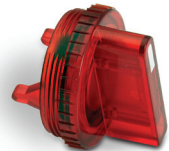
Note: Part number [109225](#) is recommended when punching holes for 22mm pilot devices.



[109225](#)

## Two-Position Short Lever Operator

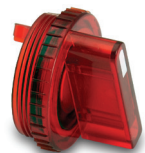
2-Position Short Lever Replacement Operator				
Part Number	Lamp Color	Price	2-Position	Use with
<a href="#"><u>GR1172PR-5</u></a>	Red	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX124, GCX125 GCX324, GCX325
<a href="#"><u>GR1172PV-5</u></a>	Green	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#"><u>GR1172PG-5</u></a>	Yellow	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#"><u>GR1172PB-5</u></a>	Blue	\$16.50	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#"><u>GR1172PN-5</u></a>	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
<a href="#"><u>GR1288PR-5</u></a>	Red	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX126, GCX128 GCX326, GCX328
<a href="#"><u>GR1288PV-5</u></a>	Green	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#"><u>GR1288PG-5</u></a>	Yellow	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#"><u>GR1288PB-5</u></a>	Blue	\$16.50	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	
<a href="#"><u>GR1288PN-5</u></a>	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
<a href="#"><u>PL1171PR-5</u></a>	Red	\$7.25	22mm, illuminated momentary Mushroom switch replacement operator, red, 5/pk	Part numbers starting with GCX1221, GCX3221 mushroom-style illuminated pushbuttons
<a href="#"><u>PL1298P-5</u></a>	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
<a href="#"><u>GR1168PR-5</u></a>	Red	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	Part numbers starting with GCX119, GCX120 GCX319, GCX320
<a href="#"><u>GR1168PV-5</u></a>	Green	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<a href="#"><u>GR1168PG-5</u></a>	Yellow	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<a href="#"><u>GR1168PB-5</u></a>	Blue	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<a href="#"><u>GR1168PN-5</u></a>	Clear	\$9.00	22mm illuminated flush pushbutton replacement operator, 5/pk	
<a href="#"><u>GR1168PW-5</u></a>	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
<a href="#"><u>PL1308PR-5</u></a>	Red	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	Part numbers starting with GCX121, GCX321
<a href="#"><u>PL1308PV-5</u></a>	Green	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<a href="#"><u>PL1308PG-5</u></a>	Yellow	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<a href="#"><u>PL1308PB-5</u></a>	Blue	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<a href="#"><u>PL1308PN-5</u></a>	Clear	\$7.00	22mm illuminated extended pushbutton, replacement operator, 5/pk	
<a href="#"><u>PL1308PW-5</u></a>	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
<b>AUTO OFF HAND</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B46</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>Blank Plate</b>	Black	-	Silver	<a href="#"><u>ECX1670A-B</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>Blank Plate</b>	Red	-	Silver	<a href="#"><u>ECX1670A-R</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>CLAMP</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B24</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>CLOSE</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B01</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>DOWN</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B02</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>EMERG. STOP</b>	Red	Red	Silver	<a href="#"><u>ECX1670A-R03</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>EXTEND</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B51</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>FEEDER OFF</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B26</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>FEEDER ON</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B25</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>FOR OFF REV</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B19</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>FOR REV</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B13</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>FORWARD</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B04</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>GRIP</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B53</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>HAND-AUTO</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B14</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>HAND OFF AUTO</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B20</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>HIGH</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B27</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>HIGH LOW</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B43</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>IN</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B28</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>INCH</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B29</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>JOG</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B05</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>JOG FOR</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B30</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>JOG REV</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B31</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>JOG RUN</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B15</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>LOW</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B32</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>LOWER</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B33</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
<b>MAN AUTO</b>	Black	Black	Silver	<a href="#"><u>ECX1670A-B44</u></a>	\$3.75	<a href="#"><u>PDF</u></a>

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	<a href="#"><u>ECX1670A-B47</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
MOTOR RUN	Black	Black	Silver	<a href="#"><u>ECX1670A-B22</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
MOTOR STOP	Black	Black	Silver	<a href="#"><u>ECX1670A-B23</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
OFF	Black	Black	Silver	<a href="#"><u>ECX1670A-B34</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
OFF ON	Black	Black	Silver	<a href="#"><u>ECX1670A-B16</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
ON	Black	Black	Silver	<a href="#"><u>ECX1670A-B06</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
OPEN	Black	Black	Silver	<a href="#"><u>ECX1670A-B07</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
OPEN OFF CLOSE	Black	Black	Silver	<a href="#"><u>ECX1670A-B48</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
OPEN CLOSE	Black	Black	Silver	<a href="#"><u>ECX1670A-B17</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
OUT	Black	Black	Silver	<a href="#"><u>ECX1670A-B35</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
POWER ON	Black	Black	Silver	<a href="#"><u>ECX1670A-B21</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
PULL ON PUSH OFF	Black	Black	Silver	<a href="#"><u>ECX1670A-B50</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
RAISE	Black	Black	Silver	<a href="#"><u>ECX1670A-B36</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
READY	Black	Black	Silver	<a href="#"><u>ECX1670A-B37</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
RELEASE	Black	Black	Silver	<a href="#"><u>ECX1670A-B54</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
RESET	Black	Black	Silver	<a href="#"><u>ECX1670A-B38</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
RETRACT	Black	Black	Silver	<a href="#"><u>ECX1670A-B52</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
REVERSE	Black	Black	Silver	<a href="#"><u>ECX1670A-B08</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
RUN	Black	Black	Silver	<a href="#"><u>ECX1670A-B09</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
SAFE RUN	Black	Black	Silver	<a href="#"><u>ECX1670A-B45</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
START	Black	Black	Silver	<a href="#"><u>ECX1670A-B10</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
STOP	Black	Black	Silver	<a href="#"><u>ECX1670A-B11</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
STOP	Red	Red	Silver	<a href="#"><u>ECX1670A-R11</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
TEST	Black	Black	Silver	<a href="#"><u>ECX1670A-B39</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
TRANSFER	Black	Black	Silver	<a href="#"><u>ECX1670A-B40</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
TRIP	Black	Black	Silver	<a href="#"><u>ECX1670A-B41</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
UNCLAMP	Black	Black	Silver	<a href="#"><u>ECX1670A-B42</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
UP	Black	Black	Silver	<a href="#"><u>ECX1670A-B12</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
UP OFF DOWN	Black	Black	Silver	<a href="#"><u>ECX1670A-B49</u></a>	\$3.75	<a href="#"><u>PDF</u></a>
UP DOWN	Black	Black	Silver	<a href="#"><u>ECX1670A-B18</u></a>	\$3.75	<a href="#"><u>PDF</u></a>

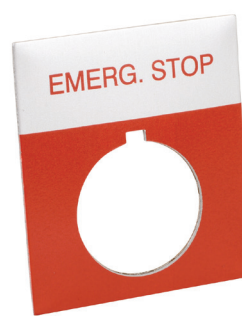
Note: Legend plate text is 3mm in height



# 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	<a href="#"><u>ECX1680A-B</u></a>	\$4.25	<a href="#"><u>PDF</u></a>
Blank Plate	Red	-	Silver	<a href="#"><u>ECX1680A-R</u></a>	\$4.25	<a href="#"><u>PDF</u></a>
EMERG. STOP	Red	Red	Silver	<a href="#"><u>ECX1680A-R03</u></a>	\$4.25	<a href="#"><u>PDF</u></a>
HAND OFF AUTO	Black	Black	Silver	<a href="#"><u>ECX1680A-B20</u></a>	\$4.25	<a href="#"><u>PDF</u></a>
JOG	Black	Black	Silver	<a href="#"><u>ECX1680A-B05</u></a>	\$4.25	<a href="#"><u>PDF</u></a>
OFF ON	Black	Black	Silver	<a href="#"><u>ECX1680A-B16</u></a>	\$4.25	<a href="#"><u>PDF</u></a>
OPEN CLOSE	Black	Black	Silver	<a href="#"><u>ECX1680A-B17</u></a>	\$4.25	<a href="#"><u>PDF</u></a>
POWER ON	Black	Black	Silver	<a href="#"><u>ECX1680A-B21</u></a>	\$4.25	<a href="#"><u>PDF</u></a>
START	Black	Black	Silver	<a href="#"><u>ECX1680A-B10</u></a>	\$4.25	<a href="#"><u>PDF</u></a>
STOP	Red	Red	Silver	<a href="#"><u>ECX1680A-R11</u></a>	\$4.25	<a href="#"><u>PDF</u></a>

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				
<a href="#">E22PB1A</a>	800EPF2 800E3LX10	ZA2BA2 ZA2BZ101	P9XPNG10N0	3SB1000-0AB01 3SB02-CBH 3SB1400-0B
<a href="#">E22PB3A</a>	800EPF3 800E3LX10	ZA2BA3 ZA2BZ101	P9XPNG10N0	3SB1000-0AE01 3SB02-CBH 3SB1400-0B
<a href="#">E22EB2B</a>	800EPE4 800E3LX01	ZA2BL4 ZA2BZ102	P9XPNRS20N0	3SB1000-0LC01 3SB02-CBH 3SB1400-0B
<a href="#">E22ASB204</a>	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				
<a href="#">E22TB2X4B</a>	800EPL4 800E3DL3 800E3X01	ZA2BW14 ZA2BW06224	P9XPLRSDN12NADI	3SB1001-0LC01 3SB02-CBH 3SB1400-0C 3SB1400-2H
<a href="#">E22TB3X4A</a>	800EPL3 800E3DL3 800E3X10	ZA2B213 AZ2B206124	P9XPLVSDN12NADI	3SB1001-0LE01 3SB02-CBH 3SB1400-0B 3SB1440-2H
<a href="#">E22TB9X4A</a>	800EPL5 800E3DL3 800E3X10	ZA2BW15 ZA2BW06124	P9XPLASDN12NADI	3SB1001-0LD01 3SB02-CBH 3SB1400-0B 3SB1400-2H
<a href="#">E22TB2X10B</a>	800EPL4 800E2RL5 800E3X01	ZA2BW14 ZA2BW062120	P9XPLRSB P9PRNVJ P9PDNVD	3SB1001-0LC01 3SB02-CBH 3SB1400-0C
<a href="#">E22TB3X10A</a>	800EPL3 800E2RL5 800E3X10	ZA2BW13 ZA2BW061120	P9XPLVSD P9PRNVJ P9PDNVD	3SB02-UPR1P 3SB1910-0DE 3SB1400-0B
<a href="#">E22TB9X10A</a>	800DPL5 800E2RL5 800E3X10	ZA2BW15 ZA2B2061120	P9XPLASD P9PRNVJ P9PDNVD	3SB02-UPR1P 3SB1910-0DD 3SB1400-0B

# GCX Series 22mm Metal Pilot Devices

## Features

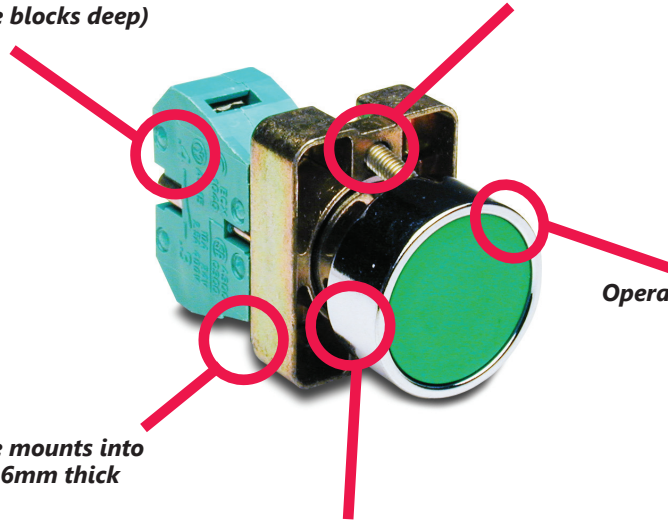
*Any combination of contact blocks is allowed, up to a total of six (two blocks wide and three blocks deep)*

*Secure mounting method eliminates twisting in mounting hole*

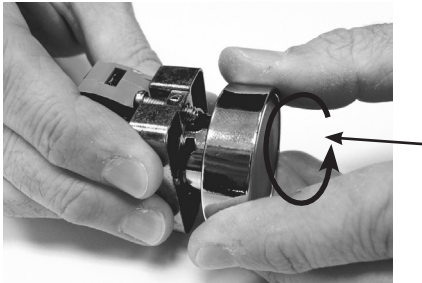
*Support base mounts into panels up to 6mm thick*

*Operators are protected to IP65*

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



## Easy installation

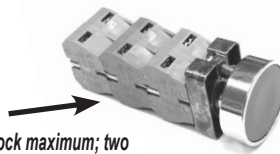


To remove operator, press toward support base and twist counterclockwise.



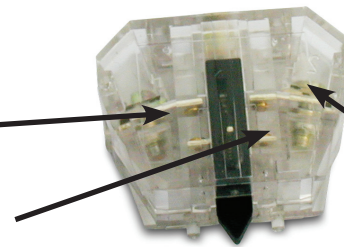
To install switch, place support base against rear of panel (not shown here), insert the operator and twist clockwise until it clicks into place. Carefully tighten the securing screws. Do not over-tighten.

*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)*

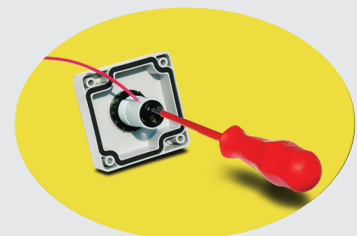


*Pressure plate wiring terminals for easy, secure wiring, accepting up to 14 AWG wire*

*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 Series 22mm Plastic Pilot Devices Specifications

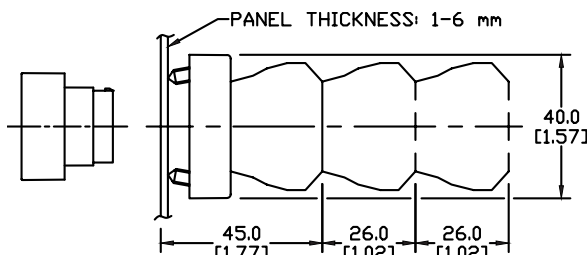
## Assembly information

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]

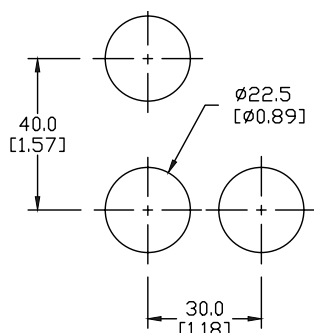
**Pushbuttons and selector switches**



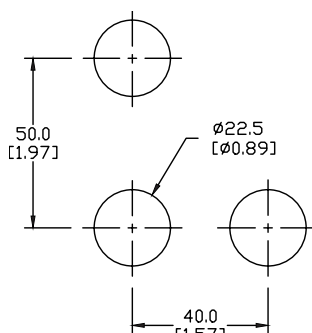
**Illuminated pushbuttons and selector switches/indicator lights**



## Mounting



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

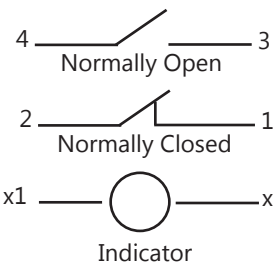


**This layout is suitable if all switches are 400V or less and different polarity.**

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