

# GCX Series 22mm Plastic Key Switches and Selector Switches

## Key-Operated Selector Switches



**GCX3420**

| Key-Operated Selector Switches    |         |                            |                                                                                                                                                                                                                |
|-----------------------------------|---------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part Number                       | Price   | Drawing Link               | Description                                                                                                                                                                                                    |
| <a href="#"><u>GCX3420</u></a>    | \$15.50 | <a href="#"><u>PDF</u></a> | AutomationDirect selector switch, 22mm, 2-position, maintained, key removable in all positions, (1) N.O. contact(s), plastic base, plastic bezel, Operator: black, key, 30mm, round, plastic.                  |
| <a href="#"><u>GCX3430</u></a>    | \$15.50 | <a href="#"><u>PDF</u></a> | AutomationDirect selector switch, IP65, 22mm, 2-position, spring return from right, key removable left position, (1) N.O. contact(s), plastic base, plastic bezel, Operator: black, key, 30mm, round, plastic. |
| <a href="#"><u>GCX3470-22</u></a> | \$22.50 | <a href="#"><u>PDF</u></a> | AutomationDirect selector switch, 22mm, 3-position, maintained, key removable in all positions, (2) N.O./ (2) N.C. contact(s), plastic base, plastic bezel, Operator: black, key, 30mm, round, plastic.        |



**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.

## Two-Position Selector Switches



**GCX3300**

Knob version

| Two-Position Selector Switches |        |                            |                                                                                                                                                                               |
|--------------------------------|--------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part Number                    | Price  | Drawing Link               | Description                                                                                                                                                                   |
| <a href="#"><u>GCX3300</u></a> | \$8.25 | <a href="#"><u>PDF</u></a> | AutomationDirect selector switch, 22mm, 2-position, maintained, (1) N.O. contact(s), plastic base, plastic bezel, Operator: black, knob, 30mm, round, plastic.                |
| <a href="#"><u>GCX3310</u></a> | \$9.00 | <a href="#"><u>PDF</u></a> | AutomationDirect selector switch, 22mm, 2-position, spring return from right, (1) N.O. contact(s), plastic base, plastic bezel, Operator: black, knob, 30mm, round, plastic.  |
| <a href="#"><u>GCX3350</u></a> | \$9.00 | <a href="#"><u>PDF</u></a> | AutomationDirect selector switch, 22mm, 2-position, maintained, (1) N.O. contact(s), plastic base, plastic bezel, Operator: black, lever, 30mm, round, plastic.               |
| <a href="#"><u>GCX3360</u></a> | \$9.50 | <a href="#"><u>PDF</u></a> | AutomationDirect selector switch, 22mm, 2-position, spring return from right, (1) N.O. contact(s), plastic base, plastic bezel, Operator: black, lever, 30mm, round, plastic. |



**GCX3350**

Lever version

| 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 N.C.                                     | N.C.                                    |       | X                                   |                |
|                                              |                                         | N.C.  | X                                   |                |
| 1 x N.O.                                     | N.O.                                    |       |                                     | X              |
|                                              |                                         | N.O.  |                                     | X              |
| 2 x N.C.                                     | N.C.                                    | N.C.  | XX                                  |                |
| 2 x N.O.                                     | N.O.                                    | N.O.  |                                     | 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**

| Three-Position Selector Switches  |         |                            |                                                                                                                                                                                        |
|-----------------------------------|---------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part Number                       | Price   | Drawing Link               | Description                                                                                                                                                                            |
| <a href="#"><u>GCX3320-22</u></a> | \$16.00 | <a href="#"><u>PDF</u></a> | AutomationDirect selector switch, 22mm, 3-position, maintained, (2) N.O./ (2) N.C. contact(s), plastic base, plastic bezel, Operator: black, knob, 30mm, round, plastic.               |
| <a href="#"><u>GCX3330-22</u></a> | \$16.50 | <a href="#"><u>PDF</u></a> | AutomationDirect selector switch, 22mm, 3-position, spring return to center, (2) N.O./ (2) N.C. contact(s), plastic base, plastic bezel, Operator: black, knob, 30mm, round, plastic.  |
| <a href="#"><u>GCX3370-22</u></a> | \$16.50 | <a href="#"><u>PDF</u></a> | AutomationDirect selector switch, 22mm, 3-position, maintained, (2) N.O./ (2) N.C. contact(s), plastic base, plastic bezel, Operator: black, lever, 30mm, round, plastic.              |
| <a href="#"><u>GCX3380-22</u></a> | \$17.00 | <a href="#"><u>PDF</u></a> | AutomationDirect selector switch, 22mm, 3-position, spring return to center, (2) N.O./ (2) N.C. contact(s), plastic base, plastic bezel, Operator: black, lever, 30mm, round, plastic. |



**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.

## Contact Closure Sequence for Three-Position Switches

| Contact Closure Sequence - 3-Position Switches |                                         |       |                                     |                 |                |
|------------------------------------------------|-----------------------------------------|-------|-------------------------------------|-----------------|----------------|
| 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 N.C.                                       | N.C.                                    |       |                                     | X               | X              |
|                                                |                                         | N.C.  | X                                   | X               |                |
| 1 x N.O.                                       | N.O.                                    |       | X                                   |                 |                |
|                                                |                                         | N.O.  |                                     |                 | X              |
| 2 x N.C.                                       | N.C.                                    | N.C.  | X                                   | X               | X              |
| 2 x N.O.                                       | N.O.                                    | N.O.  | 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.

# 22mm Plastic Pilot Device Accessories

## Replacement Incandescent Bulbs



**ECX1902-5**

## Replacement LED Lamps



**ECX1915-2**

## Hole Plug



**ECX1490**

## Protective Covers for Pushbuttons



**ECX1703-5**

## Knockout Punches



**109225**

## Replacement Keys



**ECX1067-2**

### 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.

### Replacement LED Lamps

| Part Number                      | Color  | Quantity | Price   | Rating                | Description                                                                                                                                                                                                                                                    |
|----------------------------------|--------|----------|---------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#"><u>ECX1911-2</u></a> | Red    | 2        | \$17.50 | 24V@26mA<br>0.6 watts | LED replacement lamp for miniature bayonet bases<br>Works with 22mm switches and indicators, but<br>illumination will not be as even when used with the<br>ECX 22mm indicators<br><br>Note: Will not replace sealed Cutler-Hammer<br>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<br>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 |                       |                                                                                                                                                                                                                                                                |

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

| 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. |

### 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  |                                                                                                                                                                                                                                    |
| <a href="#"><u>ECX1706-5</u></a> | Clear  |          | \$13.00 | Clear silicone protective covers for use with 22mm illuminated and extended pushbuttons only. Will not work with Cutler-Hammer pushbuttons or 22mm mushroom pushbuttons.                                                           |

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

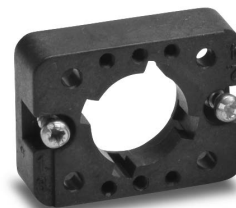
| Part Number                      | Quantity | Price  | Description                                                                                                                                           |
|----------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#"><u>ECX1067-2</u></a> | 2        | \$6.50 | Replacement key for GCX series key-actuated selector switches, pack of 2 sets (2 keys each).<br>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

| Replacement 22mm Support Base    |          |        |                            |                                                                                                                                                                                                         |
|----------------------------------|----------|--------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Part Number                      | Quantity | Price  | Drawing Link               | Description                                                                                                                                                                                             |
| <a href="#"><u>ECX3029-2</u></a> | 1        | \$1.75 | <a href="#"><u>PDF</u></a> | 22mm plastic support base<br>Note: This item is supplied as a replacement part and is not required with any switch assembly.<br>Will not work with Cutler-Hammer 22mm switches sold by AutomationDirect |



[ECX3029-2](#)

## 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.<br>Tightening Torque, terminal screw: 0.8 N-m max<br>mounting screw: 0.5 N-m max<br>Note: Will not work with Cutler-Hammer 22mm switches sold by AutomationDirect |
| <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.)            | Note: Will not work with Cutler-Hammer 22mm switches sold by AutomationDirect                                                                                                                                                           |
| <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 | Use on lighted Push-push button only                                                                                                                                                                                                    |



[ECX1030-2](#)

Note: See electrical specifications on GCX Series 22mm Plastic Pilot Devices

## EMERGENCY STOP Legend Plate

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



[ECX1651](#)

## Two-Position Short Lever Operator

| 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](#)

# 22mm Plastic Pilot Device Accessories

## Three-Position Short Lever Operator

| 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, GVX328 |
| <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](#)

## 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 Plastic Pilot Device Accessories

## Legend Plates

Plastic legend plates for use with 22mm pilot devices. White engraved text on colored background. O-ring included.



**ECX1670-B07**



**ECX1670-R03**

| Plastic Legend Plates |                |                             |        |                     |
|-----------------------|----------------|-----------------------------|--------|---------------------|
| Legend                | Color of Field | Part Number                 | Price  | Drawing Link        |
| AUTO OFF HAND         | Black          | <a href="#">ECX1670-B46</a> | \$3.75 | <a href="#">PDF</a> |
| Blank Plate           | Black          | <a href="#">ECX1670-B</a>   | \$3.00 | <a href="#">PDF</a> |
| Blank Plate           | Red            | <a href="#">ECX1670-R</a>   | \$3.00 | <a href="#">PDF</a> |
| CLAMP                 | Black          | <a href="#">ECX1670-B24</a> | \$3.75 | <a href="#">PDF</a> |
| CLOSE                 | Black          | <a href="#">ECX1670-B01</a> | \$3.00 | <a href="#">PDF</a> |
| DOWN                  | Black          | <a href="#">ECX1670-B02</a> | \$3.00 | <a href="#">PDF</a> |
| EMERG. STOP           | Red            | <a href="#">ECX1670-R03</a> | \$3.00 | <a href="#">PDF</a> |
| EXTEND                | Black          | <a href="#">ECX1670-B51</a> | \$3.75 | <a href="#">PDF</a> |
| FEEDER OFF            | Black          | <a href="#">ECX1670-B26</a> | \$3.75 | <a href="#">PDF</a> |
| FEEDER ON             | Black          | <a href="#">ECX1670-B25</a> | \$3.75 | <a href="#">PDF</a> |
| FOR OFF REV           | Black          | <a href="#">ECX1670-B19</a> | \$3.00 | <a href="#">PDF</a> |
| FOR-REV               | Black          | <a href="#">ECX1670-B13</a> | \$3.00 | <a href="#">PDF</a> |
| FORWARD               | Black          | <a href="#">ECX1670-B04</a> | \$3.00 | <a href="#">PDF</a> |
| GRIP                  | Black          | <a href="#">ECX1670-B53</a> | \$3.75 | <a href="#">PDF</a> |
| HAND-AUTO             | Black          | <a href="#">ECX1670-B14</a> | \$3.00 | <a href="#">PDF</a> |
| HAND OFF AUTO         | Black          | <a href="#">ECX1670-B20</a> | \$3.00 | <a href="#">PDF</a> |
| HIGH                  | Black          | <a href="#">ECX1670-B27</a> | \$3.75 | <a href="#">PDF</a> |
| HIGH LOW              | Black          | <a href="#">ECX1670-B43</a> | \$3.75 | <a href="#">PDF</a> |
| IN                    | Black          | <a href="#">ECX1670-B28</a> | \$3.75 | <a href="#">PDF</a> |
| INCH                  | Black          | <a href="#">ECX1670-B29</a> | \$3.75 | <a href="#">PDF</a> |
| JOG                   | Black          | <a href="#">ECX1670-B05</a> | \$3.00 | <a href="#">PDF</a> |
| JOG FOR               | Black          | <a href="#">ECX1670-B30</a> | \$3.75 | <a href="#">PDF</a> |
| JOG REV               | Black          | <a href="#">ECX1670-B31</a> | \$3.75 | <a href="#">PDF</a> |
| JOG-RUN               | Black          | <a href="#">ECX1670-B15</a> | \$3.00 | <a href="#">PDF</a> |
| LOW                   | Black          | <a href="#">ECX1670-B32</a> | \$3.75 | <a href="#">PDF</a> |
| LOWER                 | Black          | <a href="#">ECX1670-B33</a> | \$3.75 | <a href="#">PDF</a> |

Note: Legend plate text is 3mm in height

| Plastic Legend Plates |                |                             |        |                     |
|-----------------------|----------------|-----------------------------|--------|---------------------|
| Legend                | Color of Field | Part Number                 | Price  | Drawing Link        |
| MAN AUTO              | Black          | <a href="#">ECX1670-B44</a> | \$3.75 | <a href="#">PDF</a> |
| MAN OFF AUTO          | Black          | <a href="#">ECX1670-B47</a> | \$3.75 | <a href="#">PDF</a> |
| MOTOR RUN             | Black          | <a href="#">ECX1670-B22</a> | \$3.00 | <a href="#">PDF</a> |
| MOTOR STOP            | Black          | <a href="#">ECX1670-B23</a> | \$3.00 | <a href="#">PDF</a> |
| OFF                   | Black          | <a href="#">ECX1670-B34</a> | \$3.75 | <a href="#">PDF</a> |
| OFF-ON                | Black          | <a href="#">ECX1670-B16</a> | \$3.00 | <a href="#">PDF</a> |
| ON                    | Black          | <a href="#">ECX1670-B06</a> | \$3.00 | <a href="#">PDF</a> |
| OPEN                  | Black          | <a href="#">ECX1670-B07</a> | \$3.00 | <a href="#">PDF</a> |
| OPEN OFF CLOSE        | Black          | <a href="#">ECX1670-B48</a> | \$3.75 | <a href="#">PDF</a> |
| OPEN-CLOSE            | Black          | <a href="#">ECX1670-B17</a> | \$3.00 | <a href="#">PDF</a> |
| OUT                   | Black          | <a href="#">ECX1670-B35</a> | \$3.75 | <a href="#">PDF</a> |
| POWER ON              | Black          | <a href="#">ECX1670-B21</a> | \$3.00 | <a href="#">PDF</a> |
| PULL ON PUSH OFF      | Black          | <a href="#">ECX1670-B50</a> | \$3.75 | <a href="#">PDF</a> |
| RAISE                 | Black          | <a href="#">ECX1670-B36</a> | \$3.75 | <a href="#">PDF</a> |
| READY                 | Black          | <a href="#">ECX1670-B37</a> | \$3.75 | <a href="#">PDF</a> |
| RELEASE               | Black          | <a href="#">ECX1670-B54</a> | \$3.75 | <a href="#">PDF</a> |
| RESET                 | Black          | <a href="#">ECX1670-B38</a> | \$3.75 | <a href="#">PDF</a> |
| RETRACT               | Black          | <a href="#">ECX1670-B52</a> | \$3.75 | <a href="#">PDF</a> |
| REVERSE               | Black          | <a href="#">ECX1670-B08</a> | \$3.00 | <a href="#">PDF</a> |
| RUN                   | Black          | <a href="#">ECX1670-B09</a> | \$3.00 | <a href="#">PDF</a> |
| SAFE RUN              | Black          | <a href="#">ECX1670-B45</a> | \$3.75 | <a href="#">PDF</a> |
| START                 | Black          | <a href="#">ECX1670-B10</a> | \$3.00 | <a href="#">PDF</a> |
| STOP                  | Black          | <a href="#">ECX1670-B11</a> | \$3.00 | <a href="#">PDF</a> |
| STOP                  | Red            | <a href="#">ECX1670-R11</a> | \$3.00 | <a href="#">PDF</a> |
| TEST                  | Black          | <a href="#">ECX1670-B39</a> | \$3.75 | <a href="#">PDF</a> |
| TRANSFER              | Black          | <a href="#">ECX1670-B40</a> | \$3.75 | <a href="#">PDF</a> |
| TRIP                  | Black          | <a href="#">ECX1670-B41</a> | \$3.75 | <a href="#">PDF</a> |
| UNCLAMP               | Black          | <a href="#">ECX1670-B42</a> | \$3.75 | <a href="#">PDF</a> |
| UP                    | Black          | <a href="#">ECX1670-B12</a> | \$3.00 | <a href="#">PDF</a> |
| UP OFF DOWN           | Black          | <a href="#">ECX1670-B49</a> | \$3.75 | <a href="#">PDF</a> |
| UP-DOWN               | Black          | <a href="#">ECX1670-B18</a> | \$3.00 | <a href="#">PDF</a> |

# 22mm Plastic Pilot Device Accessories



**ECX1690-B16**



**ECX1690-R11**

| Jumbo Plastic Legend Plates |                |                                    |        |                            |
|-----------------------------|----------------|------------------------------------|--------|----------------------------|
| Legend                      | Color of Field | Part Number                        | Price  | Drawing Link               |
| Blank Plate                 | Black          | <a href="#"><u>ECX1690-B</u></a>   | \$3.75 | <a href="#"><u>PDF</u></a> |
| Blank Plate                 | Red            | <a href="#"><u>ECX1690-R</u></a>   | \$3.75 | <a href="#"><u>PDF</u></a> |
| EMERG. STOP                 | Red            | <a href="#"><u>ECX1690-R03</u></a> | \$3.75 | <a href="#"><u>PDF</u></a> |
| HAND-OFF-AUTO               | Black          | <a href="#"><u>ECX1690-B20</u></a> | \$3.75 | <a href="#"><u>PDF</u></a> |
| JOG                         | Black          | <a href="#"><u>ECX1690-B05</u></a> | \$3.75 | <a href="#"><u>PDF</u></a> |
| OFF-ON                      | Black          | <a href="#"><u>ECX1690-B16</u></a> | \$3.75 | <a href="#"><u>PDF</u></a> |
| OPEN-CLOSE                  | Black          | <a href="#"><u>ECX1690-B17</u></a> | \$3.75 | <a href="#"><u>PDF</u></a> |
| POWER ON                    | Black          | <a href="#"><u>ECX1690-B21</u></a> | \$3.75 | <a href="#"><u>PDF</u></a> |
| START                       | Black          | <a href="#"><u>ECX1690-B10</u></a> | \$3.75 | <a href="#"><u>PDF</u></a> |
| STOP                        | Red            | <a href="#"><u>ECX1690-R11</u></a> | \$3.75 | <a href="#"><u>PDF</u></a> |

Note: Legend plate text is 3mm in height

# GCX Series 22mm Plastic Pilot Devices

## Specifications

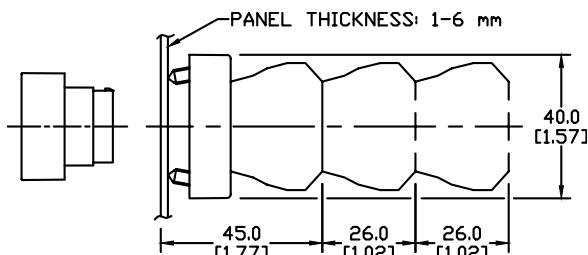
### Assembly information

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]

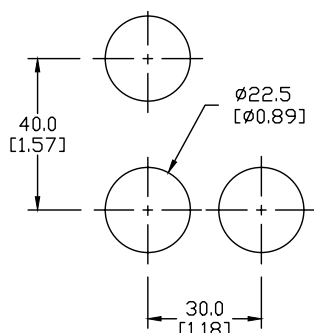
**Pushbuttons and selector switches**



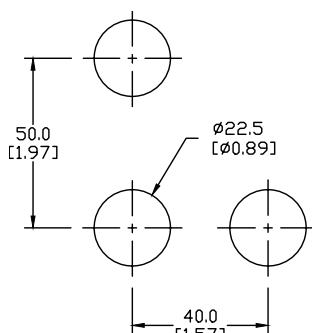
**Illuminated pushbuttons and selector switches/indicator lights**



### Mounting



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

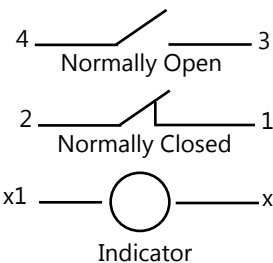


**This layout is suitable if all switches are 400V or less and different polarity.**

**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.

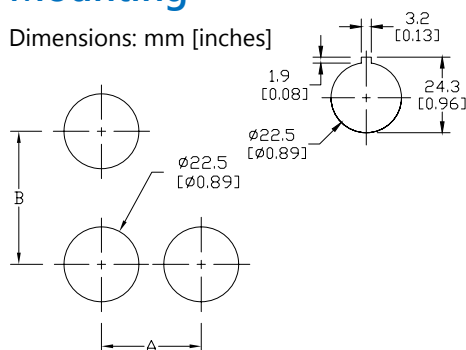
| Physical Specifications           |                                                                                                                                                                                | Electrical Specifications                    |                                                                                                                                                                                                       |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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)<br>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<br>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)<br>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)<br>24 volts AC at 10 amps<br>130 volts AC at 6.5 amps<br>DC13 (Control of DC electromagnetic loads)<br>24 volts DC at 1.5 amps<br>110 volts DC at 0.5 amps |

\*Note: Recommended, not supplied

# E22 Mounting / NEMA Aux Contact Ratings

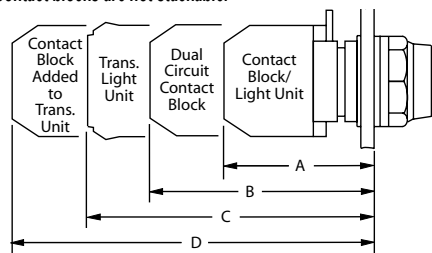
## Mounting

Dimensions: mm [inches]



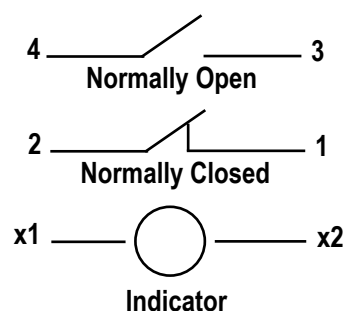
## Back-of-panel extensions

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



## Control Circuit Contact Electrical Ratings and Wiring

### Typical Wiring



| 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 |
| <b>Pushbuttons (All Types and Push-Pull)</b>           |                            |                        |                                                         |
| 51 [2.0]                                               | 66 (2.6)                   | 74 (2.91)              | 94 (3.7)                                                |
| <b>Key and Knob Selector Switches</b>                  |                            |                        |                                                         |
| 57 [2.2]                                               | 72 (2.83)                  | 80 (3.15)              | 99 (3.9)                                                |

## 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.