

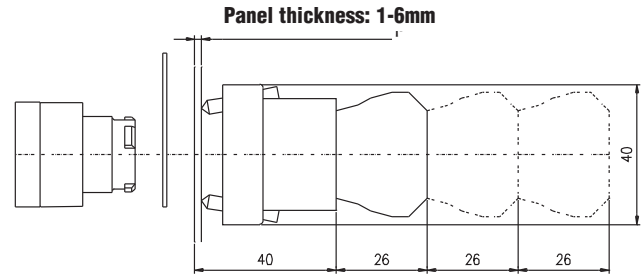
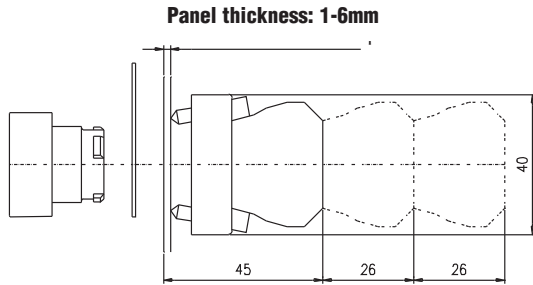
22 mm Plastic Pilot Devices Specifications

Assembly information

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

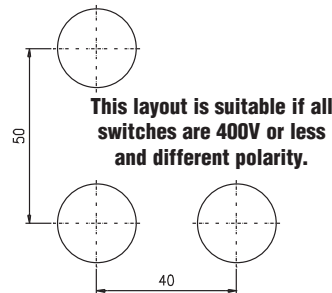
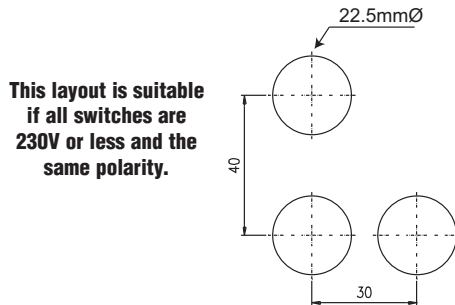
Pushbuttons and selector switches

Lighted pushbuttons and selector switches/pilot lights

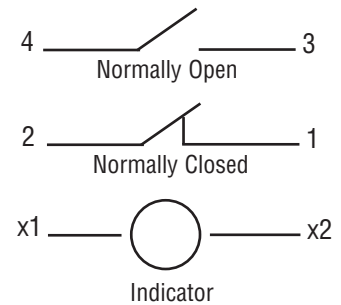


Panel holes

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



Typical Wiring



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

Specifications

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

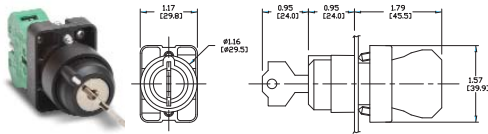
| Physical Specifications | |
|-----------------------------------|--|
| Standards Reference | CEI EN 60947-5-1, CSA C22-2 n.14 |
| Approvals | CSA, IMQ (where specified), UL File E189258 |
| Enclosure Material | Fiberglass reinforced thermoplastic |
| Contacts Material | Gold plated silver |
| Protection Degree | IP 40 for GCX3151-24, GCX3151-120, GCX3153-24 and GCX3153-120. IP 65 for all others. (See Appendix of this catalog for explanation of IP ratings according to IEC 144 CEI 70-1.) |
| Electric Shock Protection | IEC 536, Class II |
| Temperature Ratings | Storage: -40° -to 80°C (-40° to 176° F) Operating: -25° to +70°C (-13° to 158° F) |
| Working Positions | All working positions are allowed |
| Mechanical Life | Pushbuttons, selector switches, joy stick switches: 1,000,000 operations Emergency mushrooms and push-push pushbuttons: 300,000 operations |
| Positive Opening Operation | (according to IEC 947-5-1) All functions incorporating an NC contact are positive opening operation |

| Electrical Specifications | |
|--|--|
| Rated Thermal Current (contact block) | A300, Q300 (Refer to page e25-51 for further information) |
| Rated Insulation Voltage | Ui 660V according to CEI EN 60947-5-1, 300V according to CSA C22-2 n.14 and UL 508 |
| Dielectric Strength | 3KV (1 second) |
| Insulation Resistance | 2MΩ min. (500VDC) |
| Initial Contact Resistance | ≤25mΩ |
| Short-Circuit Protection* | Cartridge fuses gl 10 A-500V 10, 3x38I1 100 KA |
| Terminal Markings | According to CENELEC EN 50013 |
| Connections | Single screw with non-loosening plate clamp, 14AWG max. |
| Contacts Operation | Self-cleaning types EN01 (N.C.) EN 10 (N.O.) slow action, positive opening |
| Operation Frequency | 3600 operations per hour max. |
| Utilization Category | AC15 (Control of AC electromagnetic loads) 24 volts AC at 10 amps 130 volts AC at 6.5 amps |
| | DC13 (Control of DC electromagnetic loads) 24 volts DC at 1.5 amps 110 volts DC at 0.5 amps |
| | |

*Note: Recommended, not supplied

22 mm Indicator Lights and Plastic Key Switches

Key-operated selector switches



GCX3420 (2-position maintained)
 • Keyed switches come with two keys

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



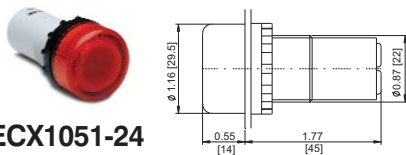
Note: Keyed switches come with two keys. All plastic 22 mm keyed switches are keyed the same. Replacement keys are available. Order part no. ECX1067-2 (pkg. of 2). Keys for plastic 22 mm keyed switches are not compatible with Cutler-Hammer key switches.



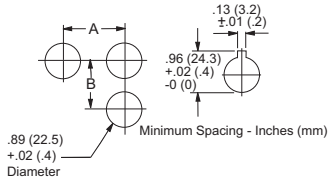
Note: When using switches having two-deep contact blocks (such as, Model GCX3470-22) with the 22 mm plastic enclosures, be sure to use enclosures that are 74 mm deep. 51 mm-deep enclosures are too shallow and the switch body will not fit.

Note: For contact closure sequence, refer to page e25-14.

Plastic incandescent indicator lights



ECX1051-24



These indicators have a key to prevent rotation when mounted.

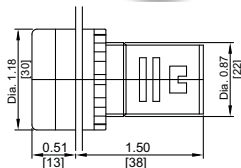
12 models available:

- 24V and 120V with incandescent lamp in six colors
- 24V and 120V lamps can be ordered separately
- Monoblock design for easy mounting
- Side wire entry with back screw terminals for easy wiring and maintenance
- IP20 rated before installation
- IP65 rated after installation

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

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

Plastic LED indicator lights



10 models available:

- 24V and 120V with LED lamp in five colors
- Replacement bulbs are not available for these models.
- IP20 rated before installation
- IP65 rated after installation
- 12 mA @ 120V, 65 mA @ 24V

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

Note: All dimensions are in inches [millimeters].