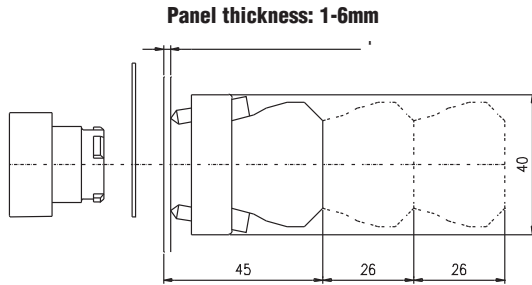


22 mm Plastic Pilot Devices Specifications

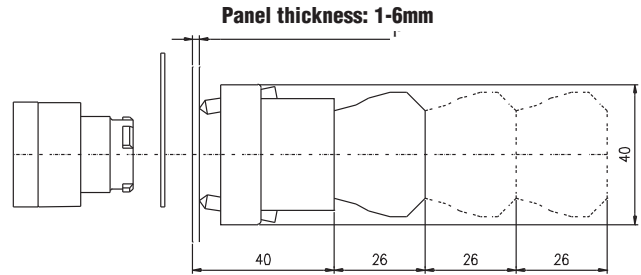
Assembly information

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

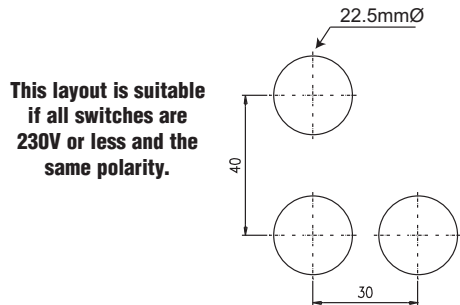


Lighted pushbuttons and selector switches/pilot lights

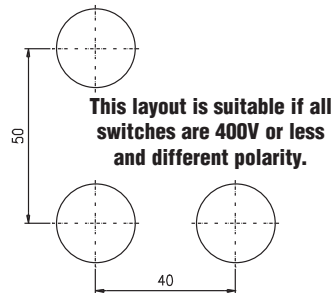


Panel holes

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

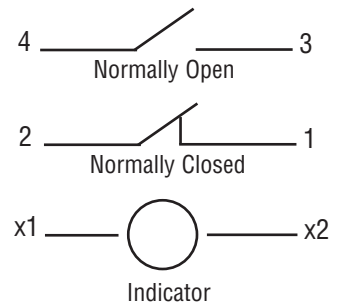


This layout is suitable if all switches are 230V or less and the same polarity.



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

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 e24-51 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, 3x3811 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

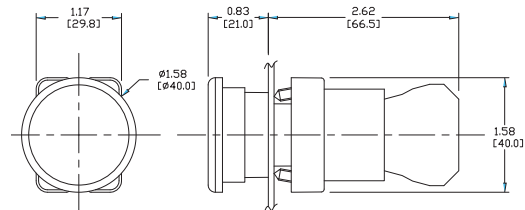
22 mm Plastic Illuminated Pushbuttons

Mushroom-style illuminated pushbuttons

All pushbuttons include operator, support base, indicating bulb (if applicable) and contact block. They are shipped unassembled. Legend plate is not included and must be ordered separately. All switches in this series use replacement contact block ECX1030 (Red, NC) or ECX1040 (Green, N.O.), sold separately in packages of two or five.



GCX3221-24



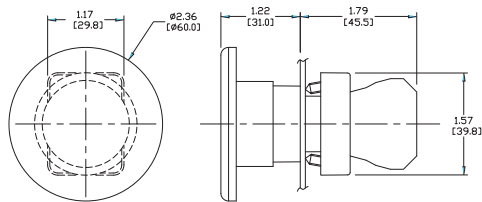
Part Number	Lamp Color	Price	Mushroom-style Illuminated Pushbuttons Description	Replacement Incandescent Bulbs	Replacement LED Bulbs
Incandescent					
GCX3221-24	Red	<--->	22 mm plastic momentary pushbutton with incandescent illuminated 40 mm mushroom actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk, 26mA
GCX3221-120	Red	<--->	22 mm plastic momentary pushbutton with incandescent illuminated 40 mm mushroom actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk, 5mA
GCX3226-24	Red	<--->	22 mm plastic pushbutton with incandescent illuminated 40 mm mushroom twist-to-release actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk, 26mA
GCX3226-120	Red	<--->	22 mm plastic pushbutton with incandescent illuminated 40 mm mushroom twist-to-release actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk, 5mA
LED					
GCX3221-24L	Red	<--->	22 mm plastic momentary pushbutton with LED illuminated 40 mm mushroom actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3221-120L	Red	<--->	22 mm plastic momentary pushbutton with LED illuminated 40 mm mushroom actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA
GCX3226-24L	Red	<--->	22 mm plastic pushbutton with LED illuminated 40 mm mushroom twist-to-release actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA	ECX1911-2 2/pk 26mA
GCX3226-120L	Red	<--->	22 mm plastic pushbutton with LED illuminated 40 mm mushroom twist-to-release actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5 5/pk 20mA	ECX1921-2 2/pk 5mA

Non-illuminated mushroom pushbuttons

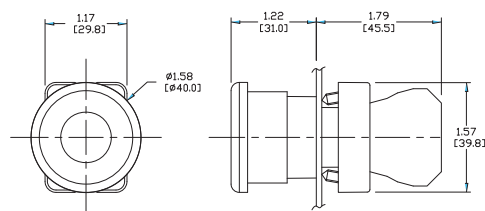
Feature large 60 mm dia. actuator and mount in standard 22 mm hole.



GCX3137



GCX3141
(key operated)



Note: Keyed switches come with two keys. All plastic 22 mm keyed switches are keyed alike. Replacement keys are available. Order part no. ECX1067-2 (pkg. of 2).

Part Number	Color	Description	Price
GCX3131	Red	Twist-to-release actuator with one N.C. contact block, fits in 22 mm dia. hole. Has large 40 mm dia. mushroom-style actuator. Not CE EN 418 compliant when used as an emergency stop control device.	<--->
GCX3134	Black	Momentary action with one N.O. contact block, fits in 22 mm dia. hole, has large 40 mm dia. mushroom-style actuator.	<--->
GCX3135	Red	Momentary action with one N.C. contact block, fits in 22 mm dia. hole, has large 40 mm dia. mushroom-style actuator. EMERGENCY legend plate available (see Accessories).	<--->
GCX3136	Red	Twist-to-release actuator with one N.C. contact block, fits in 22 mm dia. hole. 60 mm dia. mushroom-style actuator. Not CE EN 418 compliant when used as an emergency stop control device.	<--->
GCX3137	Red	Momentary action with one N.C. contact block, fits in 22 mm dia. hole, has large 60 mm dia. mushroom-style actuator. EMERGENCY legend plate available (see Accessories).	<--->
GCX3139	Yellow	Momentary action with one N.O. contact block, fits in 22 mm dia. hole, has large 40 mm dia. mushroom-style actuator.	<--->
GCX3141	Red	Key operated release with one N.C. contact block, fits in 22 mm dia. hole, has large 40 mm dia. mushroom-style actuator. EMERGENCY legend plate available (see Accessories). Not CE EN 418 compliant when used as an emergency stop control device.	<--->

Note: All dimensions are in inches [millimeters].

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