# **GCX Series 22mm Metal Illuminated Pushbuttons**

## Momentary Pushbuttons with protective plastic ring

All pushbuttons include operator, mounting adapter, chrome plated alloy bezel, 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, N.C.) or ECX1040 (Green, N.O.), sold separately in packages of two or five.

#### 24 models available:

- Protective plastic ring for flush mount pushbutton functionality
- Includes incandescent bulb or LED lamp
- 24V and 120V models
- · Available in six colors



GCX1202-24

Momentary Pushbuttons with Protective Plastic Ring								
Part Number	Lamp Price Drawing Link		Drawing	Description	Replacement Incandescent Bulb [5 per pack]	Replacement LED Lamp [5 per pack]		
Incandescent								
GCX1201-24	Red	\$-0dik:	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.C. contact block	ECX1902-5, 80mA	ECX1911-2, 26mA		
GCX1201-120	Red	\$0dij:	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.C. contact block	ECX1904-5, 20mA	ECX1921-2, 5mA		
GCX1202-24	Green	\$0dk6:	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1912-2, 26mA		
GCX1202-120	Green	\$0dil:	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1922-2, 5mA		
GCX1203-24	Yellow	\$0dk8:	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1913-2, 26mA		
GCX1203-120	Yellow	\$0dk7:	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1923-2, 5mA		
GCX1204-24	Blue	\$0dka:	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1914-2, 26mA		
GCX1204-120	Blue	\$0dk9:	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1924-2, 5mA		
GCX1205-24	Clear	\$0dkc:	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1915-2, 26mA		
GCX1205-120	Clear	\$0dkb:	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1925-2, 5mA		
GCX1206-24	White	\$0dke:	PDF	22mm metal incandescent illuminated pushbutton 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1915-2, 26mA		
GCX1206-120	White	\$0dkd:	PDF	22mm metal incandescent illuminated pushbutton 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1925-2, 5mA		
LED								
GCX1201-24L	Red	\$-0dio:	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.C. contact block	ECX1902-5, 80mA	ECX1911-2, 26mA		
GCX1201-120L	Red	\$-0din:	PDF	22mm metal LED illuminated pushbutton120 VDC/VAC. One N.C. contact block	ECX1904-5, 20mA	ECX1921-2, 5mA		
GCX1202-24L	Green	\$-0diq:	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1912-2, 26mA		
GCX1202-120L	Green	\$-0dip:	PDF	22mm metal LED illuminated pushbutton120 VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1922-2, 5mA		
GCX1203-24L	Yellow	\$;-0dit:	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1913-2, 26mA		
GCX1203-120L	Yellow	\$-0dis:	PDF	22mm metal LED illuminated pushbutton120 VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1923-2, 5mA		
GCX1204-24L	Blue	\$-0div:	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.O. contact block	ECX1902-5,80mA	ECX1914-2, 26mA		
GCX1204-120L	Blue	\$-0diu:	PDF	22mm metal LED illuminated pushbutton120 VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1924-2, 5mA		
GCX1205-24L	Clear	\$-0diy:	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1915-2, 26mA		
GCX1205-120L	Clear	\$-0dix:	<u>PDF</u>	22mm metal LED illuminated pushbutton120 VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1925-2, 5mA		
GCX1206-24L	White	\$;-0di]:	PDF	22mm metal LED illuminated pushbutton 24 VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1915-2, 26mA		
GCX1206-120L	White	\$-0diz:	PDF	22mm metal LED illuminated pushbutton120 VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1925-2, 5mA		

For accessories, see 22mm Metal Pilot Device Accessories in this section.

# **GCX Series 22mm Metal Illuminated Pushbuttons**

#### Momentary Pushbuttons with extended actuator

25 models available:

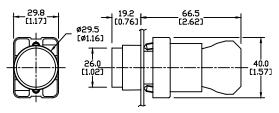
- Protective plastic ring for flush mount pushbutton functionality
- Includes incandescent bulb or LED lamp
- 24V and 120V models
- Available in six colors

All pushbuttons include operator, mounting adapter, chrome plated alloy bezel, 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, N.C.) or ECX1040 (Green, N.O.), sold separately in packages of two or five.



GCX1214-24

Dimensions: mm [inches]



Momentary Pushbuttons with Extended Actuator								
Part Number	Lamp Color	Price	Description	Replacement Incandescent Bulb [5 per pack]	Replacement LED Lamp [5 per pack]			
Incandescent								
GCX1211-24	Red	\$0dkg:	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.C. contact block	ECX1902-5, 80mA	ECX1911-2, 26mA			
GCX1211-120	Red	\$;0dkf:	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.C. contact block	ECX1904-5, 20mA	ECX1921-2, 5mA			
GCX1212-24	Green	\$-0dki:	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1912-2, 26mA			
GCX1212-120	Green	\$0dkh:	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1922-2, 5mA			
GCX1213-24	Yellow	\$0dkk:	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1913-2, 26mA			
GCX1213-120	Yellow	\$-0dkj:	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1923-2, 5mA			
GCX1214-24	Blue	\$0dkn:	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1914-2, 26mA			
GCX1214-120	Blue	\$-0dkl:	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1924-2, 5mA			
GCX1215-24	Clear	\$0dkp:	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1915-2, 26mA			
GCX1215-120	Clear	\$0dko:	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1925-2, 5mA			
GCX1216-24	White	\$0dks:	22mm metal extended incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1915-2, 26mA			
GCX1216-120	White	\$0dkq:	22mm metal extended incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1925-2, 5mA			
LED								
GCX1211-24L	Red	\$-0di#:	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.C. contact block	ECX1902-5, 80mA	ECX1911-2, 26mA			
GCX1211-120L	Red	\$;-0di[:	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.C. contact block	ECX1904-5, 20mA	ECX1921-2,5mA			
GCX1211-120LA	Red	\$-0di_:	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1912-2,5mA			
GCX1212-24L	Green	\$-0di?:	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1912-2, 26mA			
GCX1212-120L	Green	\$;-0di!:	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1922-2, 5mA			
GCX1213-24L	Yellow	\$-0dj0:	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1913-2, 26mA			
GCX1213-120L	Yellow	\$;-0di,:	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1923-2, 5mA			
GCX1214-24L	Blue	\$-0dj2:	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1914-2, 26mA			
GCX1214-120L	Blue	\$-0dj1:	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1924-2, 5mA			
GCX1215-24L	Clear	\$-0dj4:	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1915-2, 26mA			
GCX1215-120L	Clear	\$-0dj3:	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1925-2, 5mA			
GCX1216-24L	White	\$-0dj6:	22mm metal extended LED illuminated pushbutton, 24VDC/VAC. One N.O. contact block	ECX1902-5, 80mA	ECX1915-2, 26mA			
GCX1216-120L	White	\$-0dj5:	22mm metal extended LED illuminated pushbutton, 120VDC/VAC. One N.O. contact block	ECX1904-5, 20mA	ECX1925-2, 5mA			

For accessories, see 22mm Metal Pilot Device Accessories in this section.

# **GCX Series 22mm Metal Illuminated Pushbuttons**

## Push-Push Style Pushbuttons with protective plastic ring

24 models available:

- Protective plastic ring for flush mount pushbutton functionality
- Includes incandescent bulb or LED lamp
- 24V and 120V models
- Available in six colors
- These switches are supplied with a special N.O. contact block designed for use with this actuator, but they also work with standard N.C. contacts



GCX1194-24

	Push-Push Style Pushbuttons with Protective Plastic Ring								
Part Number	rt Number Lamp Color Price Drawing Link			Description	Replacement Incandescent Bulb [5 per pack]	Replacement LED Lamp [5 per pack]			
Incandescent									
GCX1191-24	Red	\$-0djc:	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5, 80mA	ECX1911-2, 26mA			
GCX1191-120	Red	\$-0djb:	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5, 20mA	ECX1921-2, 5mA			
GCX1192-24	Green	\$-0dje:	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5, 80mA	ECX1912-2, 26mA			
GCX1192-120	Green	\$-0djd:	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5, 20mA	ECX1922-22, 5mA			
GCX1193-24	Yellow	\$-0djg:	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5, 80mA	ECX1913-2, 26mA			
GCX1193-120	Yellow	\$;-0djf:	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5, 20mA	ECX1923-2, 5mA			
GCX1194-24	Blue	\$0dji:	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5, 80mA	ECX1914-2, 26mA			
GCX1194-120	Blue	\$-0djh:	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5, 20mA	ECX1924-2, 5mA			
GCX1195-24	Clear	\$-0djk:	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5, 80mA	ECX1915-2, 26mA			
GCX1195-120	Clear	\$0djj:	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5, 20mA	ECX1925-2,5mA			
GCX1196-24	White	\$-0djn:	PDF	22mm metal incandescent illuminated pushbutton, 24VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1902-5, 80mA	ECX1915-2, 26mA			
GCX1196-120	White	\$0djl:	PDF	22mm metal incandescent illuminated pushbutton, 120VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring.	ECX1904-5, 20mA	ECX1925-2, 5mA			

All switches in this series use replacement contact block <u>ECX1042-2</u> (Brown, N.O.) or <u>ECX1030-5</u> or <u>ECX1030-2</u> (Red, N.C.), sold separately. LED on the following page.

# **GCX Series 22mm Metal Illuminated Pushbuttons**

	Push-Push Style Pushbuttons with Protective Plastic Ring									
Part Number	art Number Lamp Price Drawing Link			Description	Replacement Incandescent Bulb [5 per pack]	Replacement LED Lamp [5 per pack]				
LED										
GCX1191-24L	Red	\$-0djp:	PDF	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5, 80mA	ECX1911-2, 26mA				
GCX1191-120L	Red	\$-0djo:	PDF	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block.Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5, 20mA	ECX1921-2, 5mA				
GCX1192-24L	Green	\$-0djs:	PDF	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5, 80mA	ECX1912-2, 26mA				
GCX1192-120L	Green	\$-0djq:	PDF	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block.Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5, 20mA	ECX1922-22, 5mA				
GCX1193-24L	Yellow	\$-0dju:	PDF	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5, 80mA	ECX1913-2, 26mA				
GCX1193-120L	Yellow	\$;-0djt:	PDF	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block.Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5, 20mA	ECX1923-2, 5mA				
GCX1194-24L	Blue	\$-0djx:	PDF	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5, 80mA	ECX1914-2, 26mA				
GCX1194-120L	Blue	\$-0djv:	PDF	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block.Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5, 20mA	ECX1924-2, 5mA				
GCX1195-24L	Clear	\$-0djz:	PDF	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5, 80mA	ECX1915-2, 26mA				
GCX1195-120L	Clear	\$-0djy:	PDF	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block.Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5, 20mA	ECX1925-2,5mA				
GCX1196-24L	White	\$;-0dj[:	PDF	22mm metal LED illuminated pushbutton, 24 VDC/VAC. One N.O. contact block. Flush Push ON - Push OFF operator with colored plastic ring	ECX1902-5, 80mA	ECX1915-2, 26mA				
GCX1196-120L	White	\$;-0dj]:	PDF	22mm metal LED illuminated pushbutton, 120 VDC/VAC. One N.O. contact block.Flush Push ON - Push OFF operator with colored plastic ring	ECX1904-5, 20mA	ECX1925-2, 5mA				

All switches in this series use replacement contact block ECX1042-2 (Brown, N.O.) or ECX1030-5 or ECX1030-2 (Red, N.C.), sold separately.

# GCX Series 22mm Metal Illuminated Pushbuttons

#### **Mushroom-Style Illuminated Pushbuttons**

All pushbuttons include operator, mounting adapter, chrome plated alloy bezel, 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, N.C.) or ECX1040 (Green, N.O.), sold separately in packages of two or five.



GCX1221-24

	Mushroom Style Illuminated Pushbuttons							
Part Number	Lamp Color	Price	Drawing Link	Description	Replacement Bulbs			
Incandescent								
GCX1221-24	Red	\$0dii:	PDF	22mm metal incandescent momentary pushbutton with incandescent illuminated 40mm mushroom actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA			
GCX1221-120	Red	\$-0dih:	PDF	22mm metal incandescent momentary pushbutton with incandescent illuminated 40mm mushroom actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5, 5/pk 20mA			
GCX1226-24	Red	\$-0dic:	PDF	22mm metal incandescent pushbutton with incandescent illuminated 40mm mushroom twist-to-release actuator, 24VDC/VAC, one N.C. contact block	ECX1902-5 5/pk 80mA			
GCX1226-120	Red	\$-0dib:	PDF	22mm metal incandescent pushbutton with incandescent illuminated 40mm mushroom twist-to-release actuator, 120VDC/VAC, one N.C. contact block	ECX1904-5, 5/pk 20mA			
LED								
GCX1221-24L	Red	\$-0dj8:	<u>PDF</u>	22 mm metal momentary pushbutton with LED illuminated 40 mm mushroom actuator, 24VDC/VAC, one N.C. contact block	ECX1911-2 2/pk 26mA			
GCX1221-120L	Red	\$-0dj7:	PDF	22 mm metal momentary pushbutton with LED illuminated 40 mm mushroom actuator, 120VDC/VAC, one N.C. contact block	ECX1921-2 2/pk 5mA			
GCX1226-24L	Red	\$-0dja:	PDF	22 mm metal pushbutton with LED illuminated 40 mm mushroom twist-to-release actuator, 24VDC/VAC, one N.C. contact block	ECX1911-2 2/pk 26mA			
GCX1226-120L	Red	\$-0dj9:	<u>PDF</u>	22 mm metal pushbutton with LED illuminated 40 mm mushroom twist-to-release actuator, 120VDC/VAC, one N.C. contact block	ECX1921-22 2/pk 5mA			

#### Non-Illuminated Mushroom Pushbuttons

60mm dia. actuator and mounts in standard 22mm hole

Non-Illuminated Mushroom Pushbuttons						
Part Number Color Price Drawing Link Description						
GCX1131	Red	\$-0di8:	<u>PDF</u>	Twist-to-release actuator with one N.C. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator.		
<u>GCX1134</u>	Black	\$-0did:	PDF	Momentary action with one N.O. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator.		
<u>GCX1135</u>	Red	\$-0die:	PDF	Momentary action with one N.C. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator. "Emergency" legend plate available (see Accessories).		
<u>GCX1136</u>	Red	\$-0di9:	PDF	Twist-to-release actuator with one N.C. contact block, fits in 22mm dia. hole. 60mm mushroom-style actuator.		
GCX1137	Red	\$;-0dif:	PDF	Momentary action with one N.C. contact block, fits in 22mm dia. hole, has large 60mm dia. mushroom-style. "Emergency" legend plate available (see Accessories).		
GCX1139	Yellow	\$-0dig:	PDF	Momentary action with one N.O. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator.		
GCX1141	Red	\$-0dia:	PDF	Key operated release with one N.C. contact block, fits in 22mm dia. hole, has large 40mm dia. mushroom-style actuator. "Emergency" legend plate available (see Accessories).		



GCX1137



GCX1141 (key operated)



Note: Keyed switches come with two keys. All metal 22mm keyed switches are keyed alike. Replacement keys are available.

Order part no. ECX1067-2 (pkg. of 2).

For accessories, see 22mm Metal Pilot Device Accessories in this section.

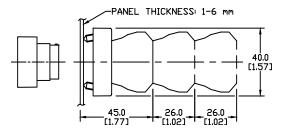
# GCX Series 22mm Metal Pilot Devices Specifications

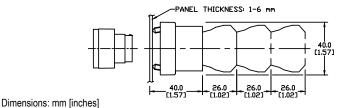
#### **Assembly information**

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.

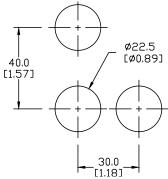
#### **Pushbuttons and selector switches**

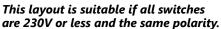
#### Illuminated pushbuttons and selector switches/pilot lights

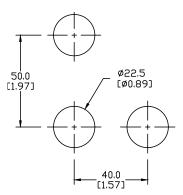




#### Mounting

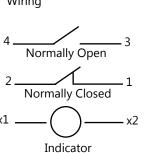






This layout is suitable if all switches are 400V or less and different polarity.

# 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				
Standards Reference	CEI EN 60947-5-1, CSA C22-2 n.14			
Approvals	CSA, IMQ (where specified), UL File E189258			
Enclosure Material	Zn + Al + Mg alloy, chromium plated			
Contacts Material	Silver			
Protection Degree	IP40 for GCX3151-24,GCX3151-120, GCX3153-24 and GCX3153-120. IP65 for all others. (See Appendix of this catalog for explanation of IP ratings according to IEC 144 CEI 70-1.)			
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 Mushroom pushbuttons: 300,000 operations			

Electrica	l Specifications	
Rated Thermal Current (contact block)	A300, Q300 (Refer to E22 Series mounting/contact rating section for details)	
Rated Insulation Voltage	Ui 660V according to CEI EN 60947-5-1, 300V according to CSA C22-2 n.14	
Dielectric Strength	3kV (1 second)	
Insulation Resistance	2MΩ min. (500VDC)	
Initial Contact Resistance	≤ 25mΩ	
Short-Circuit Protection*	Cartridge fuses gl 10A - 500V 10,3x38l1 100kA	
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

### **Replacement Incandescent Bulbs**

	Replacement Incandescent Bulbs							
Part Number	Quantity	Price	Rating	Description				
ECX1900-5	5	\$0ec1:	6V@ 200mA , 1.2 watts	6V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4				
ECX1902-5	5	\$0ec2:	24V@ 80mA 2 watts	24V replacement bulb for 22mm switches and indicators.  Miniature bayonet base T31/4				
ECX1904-5	5	\$0ec3:	130V@20mA 2.6 watts	120V replacement bulb for 22mm switches and indicators. Miniature bayonet base T31/4				



ECX1902-5

Note: Bulb removal tool available. Order part number HT8LAMPTOOL.

### **Replacement LED Lamps**

Replacement LED Lamps								
Part Number	Color	Quantity	Price	Rating	Description			
ECX1911-2	Red		\$0e9c:					
ECX1912-2	Green		\$0e9d:	0.01.000				
ECX1913-2	Yellow		\$0e9e:	24V@26mA 0.6 watts				
ECX1914-2	Blue		\$;0e9f:		LED replacement lamp for miniature bayonet bases Works with 22mm switches and indicators, but			
ECX1915-2	White		\$0e9g:		illumination will not be as even when used with the			
ECX1921-2	Red	2	\$0e9h:		ECX 22mm indicators			
ECX1922-2	Green		\$-0e9i:		Note: Will not replace sealed Cutler-Hammer monoblock LED indicators.			
ECX1923-2	Yellow		\$-0e9j:	120V@5mA 0.6 watts	monosiosi EED indicatoro.			
ECX1924-2	Blue		\$0e9k:	0.0 Walls				
ECX1925-2	White		\$-0e9I:					



### Hole plug

Hole Plug					
Part Number	Color	Price	Description		
ECX1490	Black	\$;6b!:	Plastic hole plug for 22.5 mm openings in panels and enclosures; supplied with O-ring and mounting screw. Two plugs per package.		



### **Pilot Light Replacement Lens**

Pilot Light Replacement Lens							
Part Number Lamp Color Price Description		Use with					
<u>PL1170PR-5</u>	Red	\$;-dfi:	22mm metallic series pilot light replacement lens, 5/pk				
PL1170PV-5	Green	\$;-dfj:	22mm metallic series pilot light replacement lens, 5/pk				
PL1170PG-5	Yellow	\$;dfy:	22mm metallic series pilot light replacement lens, 5/pk	Part numbers starting with			
PL1170PB-5	Blue	\$;dfx:	22mm metallic series pilot light replacement lens, 5/pk	GCX123			
PL1170PN-5	Clear	\$;dfz:	22mm metallic series pilot light replacement lens, 5/pk	1			
PL1170PW-5	White	\$;dfk:	22mm metallic series pilot light replacement lens, 5/pk				



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#### **Protective Covers for Pushbuttons**

Protective Covers for Pushbuttons							
Part Number	Color	Quantity	Price	Description			
ECX1700-5	Black		\$-4j9:				
ECX1701-5	Red		\$-4ja:	Ciliana protective covers for use with 20mm standard size flush such buttons			
ECX1702-5	Green		\$-4jb:	Silicone protective covers for use with 22mm standard-size flush pushbuttons.			
ECX1703-5	Yellow		\$-4jc:	Will not work with Cutler-Hammer pushbuttons, 22mm plastic illuminated or			
ECX1704-5	Blue	5	\$-4jd:	extended pushbuttons, or 22mm plastic pushbuttons with 40mm actuator face.			
ECX1705-5	Clear		\$-4je:				
ECX1706-5	Clear		\$;-04jf:	Clear silicone protective covers for use with 2 mm illuminated and extended pushbuttons only.  Will not work with Cutler-Hammer pushbuttons or 22mm mushroom pushbuttons.			



ECX1703-5

### **Replacement 22mm Support Base**

	Replacement 22mm Support Base						
Part Number	Quantity	Price	Drawing Link	Description			
ECX1029-2	1	\$eaa:	<u>PDF</u>	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					
ECX1030-2	2	\$dg3:	PDF	Red,	Replacement contact block for 22mm pushbuttons and selector					
ECX1030-5	5	\$0dg4:	PDF	normally-closed (N.C.)	switches.					
ECX1040-2	2	\$dg5:	PDF	Green,	Tightening Torque, terminal screw: 0.8Nm max mounting screw: 0.5Nm max					
ECX1040-5	5	\$0dg6:	PDF	normally-open (N.O.)	Note: Will not work with Cutler-Hammer 22mm switches.					
ECX1042-2	2	\$dg7:	<u>PDF</u>	Brown, normally-open (N.O.), push-push	Replacement normally open push-push contact blocks for 22mm pushbutton and selector switches, pack of 2. Note: Will not work with Cutler-Hammer 22mm switches.					



ECX1030-2

Note: See electrical specifications on ECX Series 22mm Metal Pilot Devices Specifications page at beginning of this section.

### **Replacement Keys**

Replacement Keys					
Part Number	Quantity	Price	Description		
ECX1067-2	Pkg of 2 sets (2 keys per set)	\$;6u]:	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.

#### **EMERGENCY STOP Legend Plate**

EMERGENCY STOP Legend Plate							
Part Number Quantity Price Drawing Link			Drawing Link	Description			
ECX1651	1	\$-6bl:	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.



#### **Two-Position Short Lever Operator**

2-Position Short Lever Replacement Operator								
Part Number Lamp Color Price		Price	2-Position	Use with				
<u>GR1172PR-5</u>	Red	\$;0df0:	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk					
<u>GR1172PV-5</u>	Green	\$;0df1:	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with				
<u>GR1172PG-5</u>	Yellow	\$0de?:	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk	GCX124, GCX125 GCX324, GCX325				
GR1172PB-5	Blue	\$;0de!:	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk					
GR1172PN-5	Clear	\$;0de,:	22mm 2-position selector switch illuminated short lever replacement operator, 5/pk					



**Three-Position Short Lever Operator** 

3-Position Short Lever Replacement Operator								
Part Number	Lamp Color	Price	3-Position	Use with				
GR1288PR-5	Red	\$;0df5:	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk					
<u>GR1288PV-5</u>	Green	\$;0dfv:	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk					
<u>GR1288PG-5</u>	Yellow	\$;0df3:	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	Part numbers starting with GCX126, GCX128 GCX326, GCX328				
GR1288PB-5	Blue	\$;0df2:	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk	00/020, 00/020				
<u>GR1288PN-5</u>	Clear	\$;0df4:	22mm 3-position selector switch illuminated short lever replacement operator, 5/pk					



GR1288PR-5

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### **Mushroom Switch Replacement Operator**

Mushroom Switch Replacement Operator									
Part Number	Lamp Color	Price	Description	Use with					
PL1171PR-5	Red	\$;-dfl:	22mm, illuminated momentary Mushroom switch replacement operator, red, 5/pk	Part numbers starting with GCX1221, GCX3221 mushroom-style illuminated pushbuttons					
PL1298P-5	Red	\$;dfn:	22mm illuminated twist-to-release mushroom switch replacement operator, red, 5/pk	Part numbers starting with GCX1226, GCX3226 mushroom-style illuminated pushbuttons					



### Flush Pushbutton Replacement Operator

	Flush Pushbutton Replacement Operator								
Part Number	Lamp Color	Use with							
GR1168PR-5	Red	\$;0de[:	22mm illuminated flush pushbutton replacement operator, 5/pk						
GR1168PV-5	Green	\$0de_:	22mm illuminated flush pushbutton replacement operator, 5/pk						
GR1168PG-5	Yellow	\$0dez:	22mm illuminated flush pushbutton replacement operator, 5/pk	Part numbers starting with					
GR1168PB-5	Blue	\$0dey:	22mm illuminated flush pushbutton replacement operator, 5/pk	GCX119, GCX120 GCX319, GCX320					
<u>GR1168PN-5</u>	Clear	\$;0de]:	22mm illuminated flush pushbutton replacement operator, 5/pk						
<u>GR1168PW-5</u>	White	\$0de#:	22mm illuminated flush pushbutton replacement operator, 5/pk						



### **Extended Pushbutton Replacement Operator**

Extended Pushbutton Replacement Operator								
Part Number	Lamp Color	Price	Description	Use with				
PL1308PR-5	Red	\$;dfs:	22mm illuminated extended pushbutton, replacement operator, 5/pk					
PL1308PV-5	Green	\$;;dft:	22mm illuminated extended pushbutton, replacement operator, 5/pk					
PL1308PG-5	Yellow	\$;dfp:	22mm illuminated extended pushbutton, replacement operator, 5/pk	Part numbers starting with				
PL1308PB-5	Blue	\$;dfo:	22mm illuminated extended pushbutton, replacement operator, 5/pk	GCX121, GCX321				
PL1308PN-5	Clear	\$;dfq:	22mm illuminated extended pushbutton, replacement operator, 5/pk					
PL1308PW-5	White	\$;dfu:	22mm illuminated extended pushbutton, replacement operator, 5/pk					



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### **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				
AUTO OFF HAND	Black	Black	Silver	ECX1670A-B46	\$;3,1x:	PDF				
Blank Plate	Black	-	Silver	ECX1670A-B	\$;3,0x:	PDF				
Blank Plate	Red	-	Silver	ECX1670A-R	\$;;3,1,:	PDF				
CLAMP	Black	Black	Silver	ECX1670A-B24	\$;3,18:	PDF				
CLOSE	Black	Black	Silver	ECX1670A-B01	\$;3,0y:	PDF				
DOWN	Black	Black	Silver	ECX1670A-B02	\$;3,0z:	PDF				
EMERG. STOP	Red	Red	Silver	ECX1670A-R03	\$;3,20:	PDF				
EXTEND	Black	Black	Silver	ECX1670A-B51	\$;3,1_:	PDF				
FEEDER OFF	Black	Black	Silver	ECX1670A-B26	\$;3,1a:	PDF				
FEEDER ON	Black	Black	Silver	ECX1670A-B25	\$;3,19:	PDF				
FOR OFF REV	Black	Black	Silver	ECX1670A-B19	\$;3,13:	PDF				
FOR REV	Black	Black	Silver	ECX1670A-B13	\$;;3,0!:	PDF				
FORWARD	Black	Black	Silver	ECX1670A-B04	\$;;3,0]:	PDF				
GRIP	Black	Black	Silver	ECX1670A-B53	\$;;3,1!:	PDF				
HAND-AUTO	Black	Black	Silver	ECX1670A-B14	\$;3,0?:	PDF				
HAND OFF AUTO	Black	Black	Silver	ECX1670A-B20	\$;3,14:	PDF				
HIGH	Black	Black	Silver	ECX1670A-B27	\$;3,1b:	PDF				
HIGH LOW	Black	Black	Silver	ECX1670A-B43	\$;;3,1t:	PDF				
IN	Black	Black	Silver	ECX1670A-B28	\$;3,1c:	PDF				
INCH	Black	Black	Silver	ECX1670A-B29	\$;3,1d:	PDF				
JOG	Black	Black	Silver	ECX1670A-B05	\$;;3,0[:	PDF				
JOG FOR	Black	Black	Silver	ECX1670A-B30	\$;3,1e:	PDF				
JOG REV	Black	Black	Silver	ECX1670A-B31	\$;;3,1f:	PDF				
JOG RUN	Black	Black	Silver	ECX1670A-B15	\$;;3,0,:	PDF				
LOW	Black	Black	Silver	ECX1670A-B32	\$;3,1g:	PDF				
LOWER	Black	Black	Silver	ECX1670A-B33	\$;3,1h:	PDF				
MAN AUTO	Black	Black	Silver	ECX1670A-B44	\$;3,1u:	PDF				

Note: Legend plate text is 3mm in height

Continued on next page





ECX1670A-R11

	Alumin	um Leg	jend Plates (c	ontinued)				
Legend	Color of Field	Text Color	Background Color	Part Number	Price	Drawing Link		
MAN OFF AUTO	Black	Black	Silver	ECX1670A-B47	\$;3,1y:	PDF		
MOTOR RUN	Black	Black	Silver	ECX1670A-B22	\$;3,16:	PDF		
MOTOR STOP	Black	Black	Silver	ECX1670A-B23	\$;3,17:	PDF		
OFF	Black	Black	Silver	ECX1670A-B34	\$;-3,1i:	PDF		
OFF ON	Black	Black	Silver	ECX1670A-B16	\$;3,10:	PDF		
ON	Black	Black	Silver	ECX1670A-B06	\$;3,0q:	PDF		
OPEN	Black	Black	Silver	ECX1670A-B07	\$;3,0s:	PDF		
OPEN OFF CLOSE	Black	Black	Silver	ECX1670A-B48	\$;3,1z:	PDF		
OPEN CLOSE	Black	Black	Silver	ECX1670A-B17	\$;3,11:	PDF		
оит	Black	Black	Silver	ECX1670A-B35	\$;-3,1j:	PDF		
POWER ON	Black	Black	Silver	ECX1670A-B21	\$;3,15:	PDF		
PULL ON PUSH OFF	Black	Black	Silver	ECX1670A-B50	\$;;3,1[:	PDF		
RAISE	Black	Black	Silver	ECX1670A-B36	\$;3,1k:	PDF		
READY	Black	Black	Silver	ECX1670A-B37	\$;-3,11:	PDF		
RELEASE	Black	Black	Silver	ECX1670A-B54	\$;3,1?:	PDF		
RESET	Black	Black	Silver	ECX1670A-B38	\$;3,1n:	PDF		
RETRACT	Black	Black	Silver	ECX1670A-B52	\$;3,1#:	PDF		
REVERSE	Black	Black	Silver	ECX1670A-B08	\$;;3,0t:	PDF		
RUN	Black	Black	Silver	ECX1670A-B09	\$;3,0u:	PDF		
SAFE RUN	Black	Black	Silver	ECX1670A-B45	\$;3,1v:	PDF		
START	Black	Black	Silver	ECX1670A-B10	\$;3,0v:	PDF		
STOP	Black	Black	Silver	ECX1670A-B11	\$;3,0_:	PDF		
STOP	Red	Red	Silver	ECX1670A-R11	\$;3,21:	PDF		
TEST	Black	Black	Silver	ECX1670A-B39	\$;3,1o:	PDF		
TRANSFER	Black	Black	Silver	ECX1670A-B40	\$;3,1p:	PDF		
TRIP	Black	Black	Silver	ECX1670A-B41	\$;3,1q:	PDF		
UNCLAMP	Black	Black	Silver	ECX1670A-B42	\$;3,1s:	PDF		
UP	Black	Black	Silver	ECX1670A-B12	\$;3,0#:	PDF		
UP OFF DOWN	Black	Black	Silver	ECX1670A-B49	\$;;3,1]:	PDF		
UP DOWN	Black	Black	Silver	ECX1670A-B18	\$;3,12:	PDF		

Note: Legend plate text is 3mm in height





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	ECX1680A-B	\$;-3,3j:	PDF
Blank Plate	Red	1	Silver	ECX1680A-R	\$;3,3s:	PDF
EMERG. STOP	Red	Red	Silver	ECX1680A-R03	\$;;3,3t:	PDF
HAND OFF AUTO	Black	Black	Silver	ECX1680A-B20	\$;3,3p:	PDF
JOG	Black	Black	Silver	ECX1680A-B05	\$;3,3k:	PDF
OFF ON	Black	Black	Silver	ECX1680A-B16	\$;3,3n:	PDF
OPEN CLOSE	Black	Black	Silver	ECX1680A-B17	\$;3,30:	PDF
POWER ON	Black	Black	Silver	ECX1680A-B21	\$;3,3q:	PDF
START	Black	Black	Silver	ECX1680A-B10	\$;-3,31:	PDF
STOP	Red	Red	Silver	ECX1680A-R11	\$;3,3u:	<u>PDF</u>

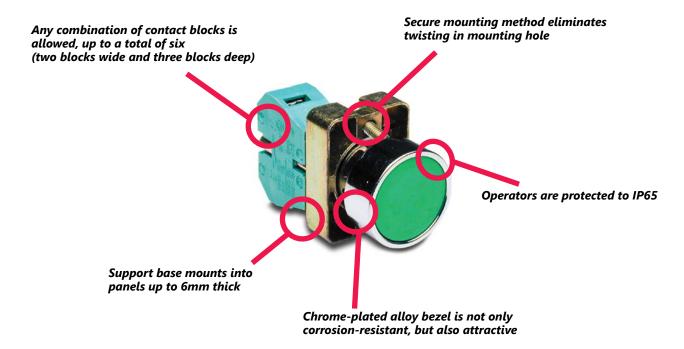
Note: Legend plate text is 3mm in height

## **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					
<u>E22PB1A</u>	800EPF2 800E3LX10	ZA2BA2 ZA2BZ101	P9XPNNG10N0	3SB1000-0AB01 3SB02-CBH 3SB1400-0B		
<u>E22PB3A</u>	800EPF3 800E3LX10	ZA2BA3 ZA2BZ101	P9XPNVG10N0	3SB1000-0AE01 3SB02-CBH 3SB1400-0B		
<u>E22EB2B</u>	800EPE4 800E3LX01	ZA2BL4 ZA2BZ102	P9XPNRS20N0	3SB1000-0LC01 3SB02-CBH 3SB1400-0B		
E22ASB204	ENCLSR: 800E-2P 800EP-F3 800E-2LX10 800EP-E4 800E-2LX01 800E-34BE208 800E-34R212	XALB211 Both flush - stop is not extended	P9CPNRSN20NO P9CPNVGN10NO P9EPB02 P9AEPN201 P9AEPN202	3SB02-S21		
	Illuminated Pushbuttons					
E22TB2X4B	800EPLE4 800E3DL3 800E3X01	ZA2BW14 ZA2BW06224	P9XPLRSDN12NADI	3SB1001-OLC01 3SB02-CBH 3SB1400-0C 3SB1400-2H		
E22TB3X4A	800EPLE3 800E3DL3 800E3X10	ZA2B213 AZ2B206124	P9XPLVSDN12NADI	3SB1001-0LE01 3SB02-CBH 3SB1400-0B 3SB1440-2H		
E22TB9X4A	800EPLE5 800E3DL3 800E3X10	ZA2BW15 ZA2BW06124	P9XPLASDN12NADI	3SB1001-0LD01 3SB02-CBH 3SB1400-0B 3SB1400-2H		
E22TB2X10B	800EPLE4 800E2RL5 800E3X01	ZA2BW14 ZA2BW062120	P9XPLRSB P9PRNVJ P9PDNVD	3SB1001-0LC01 3SB02-CBH 3SB1400-0C		
E22TB3X10A	800EPLE3 800E2RL5 800E3X10	ZA2BW13 ZA2BW061120	P9XPLVSD P9PRNVJ P9PDNVD	3SB02-UPR1P 3SB1910-0DE 3SB1400-OB		
E22TB9X10A	800DPLE5 800E2RL5 800E3X10	ZA2BW15 ZA2B2061120	P9XPLASD P9PRNVJ P9PDNVD	3SB02-UPR1P 3SB1910-0DD 3SB1400-0B		

## **GCX Series 22mm Metal Pilot Devices**

#### **Features**



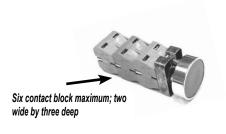
#### **Easy installation**

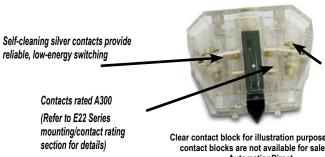


To remove operator, press toward support base and twist counterclockwise.



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.



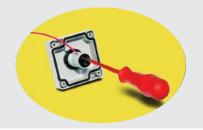


Clear contact block for illustration purposes. Clear contact blocks are not available for sale from AutomationDirect.

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

> Minimum current rating 15mA @ 24vdc

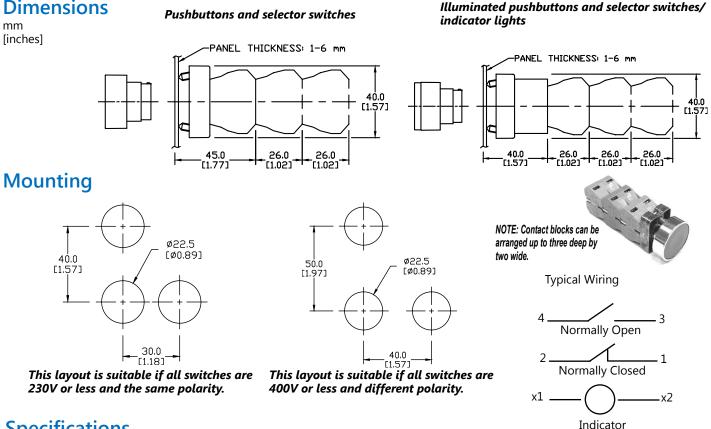
All indicators offer side wire entry with back screw terminals for easy wiring



## **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.



#### **Specifications**

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

Physical Specifications			
Standards Reference	CEI EN 60947-5-1, CSA C22-2 n.14		
Approvals	UL File E189258, IMQ (where specified)		
Enclosure Material	Fiberglass reinforced thermoplastic		
Contacts Material	Silver		
Protection Degree	IP40 for GCX3151-24, GCX3151-120, GCX3153-24 and GCX3153-120. IP65 for all others. (See Appendix of this catalog for explanation of IP ratings according to IEC 144 CEI 70-1.)		
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 E22 Series mounting/contact rating section for details)		
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, 3x38l1 100 KA		
Terminal Markings	According to CENELEC EN 50013		
Connections	Single screw with non-loosening plate clamp,14AWG max.,Tighten to 0.8Nm 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