

The GE push button offering includes a complete line of control units and stations in both full size (30 mm) push buttons and in smaller size (22 mm) devices which are designed to be used in numerous types of industrial applications.

The CR104P full-size, heavy-duty oiltight and watertight line is complete with a variety of accessories and enclosures. These push buttons are especially adapted to heavy duty service in almost any application including those where water and oil coolant is present. All units are suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those applications. Standard contact blocks are supplied with IP 10 back-of-hand protection to comply with UL 508 Section 39A requirements for door mounted devices.

GE's C-2000 22mm Global Push Buttons are designed to be applied in just about any application worldwide. C-2000 push buttons conform to all major world standards and are UL listed and CSA Certified. All devices except the double push button are rated for NEMA 1, 3, 3R, 3S, 4, 4X, 12, 13, and IP66 when mounted in a suitable enclosure. C-2000 push buttons are manufactured in an ISO 9000 facility, assuring you that these products comply with quality standards that are recognized worldwide. Pre-engraved nameplates are available in French, Spanish, Italian, German, and English. The C-2000 push button line is globally available under the same product numbers, packaging, and markings anywhere in the world.

An entire listing of CR2943 and CR2941 standard-duty push button control stations is available, suitable for NEMA Type 1, 4, 4X, and 7 and 9 applications.



## Reference Publications

See Publication Index, Section 17.

### Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons (CR104P)

Introduction and Overview.....	9-2
Standard, Non-Illuminated Push Buttons.....	9-4
Standard, Illuminated Push Buttons.....	9-6
Mushroom Head, Non-Illuminated Push Buttons.....	9-7
Mushroom Head, Illuminated Push Buttons.....	9-8
Key-Operated Push Buttons.....	9-9
Special Function, Non-Illuminated Push Buttons.....	9-10
Special Function, Non-Illuminated Push-Turn Push Buttons.....	9-11
Special Function, Illuminated Push Buttons.....	9-12
Protected Mushroom Head Push Buttons.....	9-13
Pilot Devices, Standard Indicating and Push-to-Test.....	9-15
Pilot Lights, Cluster-Type and Remote Test Lights.....	9-16
Knob Operated, Non-Illuminated Selector Switches.....	9-17
Lever Operated, Non-Illuminated Selector Switches.....	9-19
Key-Operated, Non-Illuminated Selector Switches.....	9-21
Knob Operated, Illuminated Selector Switches.....	9-25
Cam Logic Tables for Selector Switches.....	9-30
Special Operators; Joysticks.....	9-31
Special Operators; Potentiometer Operators.....	9-32
Contact Blocks.....	9-33

Accessories, Components and Kits.....	9-35
Nameplates and Inserts.....	9-40
Kitted Operators (Hot Buttons).....	9-42
Enclosures and Stations, Assembled with Push Buttons.....	9-44
Enclosures and Stations, Assembled Unwired.....	9-45
Enclosures and Stations, Enclosure Only.....	9-46
Enclosure Dimensions.....	9-47
Push Button Stations, Surface Mounted.....	9-48
Push Button Stations, Flush-Mounted.....	9-51
Push Button Stations, Dimensions.....	9-54
Palm Switches.....	9-55
Push Buttons, Technical Data.....	9-56

### Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons (C-2000)

Table of Contents/Quick Reference Guide (Detailed listing for C-2000 Push Buttons).....	9-58
--	------



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

## Section 9

#### Push Buttons

600 Volts Maximum AC/DC

10 Amperes Continuous

#### Description

Standard and illuminated push buttons and selector switches are available as both key and conventional operators. The CR104P line also includes push-to-test and standard pilot lights, mushroom-head push buttons, joysticks, and push-pull and push-push operators.

Chrome-plated octagonal mounting rings project an attractive, high-quality appearance. Positive feel selector switches offer a quality touch in all illuminated and non-illuminated, maintained and spring return units.

#### Application

Especially adapted to machine-tool service or any application where oil or coolant is present. The convenient one-hole mounting makes this line suitable for general-purpose use in equipment of all kinds where panel mounting is possible. This line is ideal for applications where oil-tightness, water-tightness and long life are essential.

All units are suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications. The exception is CR104PTP units, which are suitable for Type 1, 12, and 13 applications only. Although not needed on all Type 4X applications, protective caps provide improved resistance to some corrosive materials. They are not required by UL.

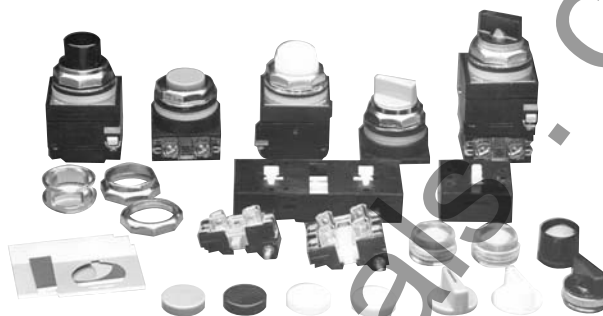
#### Features

- Ease of Assembly: One-screw contact block mounting. Octagonal ring provides ease in front panel mounting and enclosure applications.
- Greater Torque: Due to the eight-sided ring design, greater torque can be developed during assembly and installation to provide oil-tightness.
- Stocking Inventories Reduced: Forms may be furnished as complete units or as components, allowing building-block construction from a minimum of stock. The latter may provide faster service.
- Color Coded: Colored knobs and caps are available in kit forms for easy field conversion.

#### Product Number Selection Instructions

Selection of CR104P push buttons from the following pages is done in one of two ways: (1) one-step selection and pricing, in which items are selected from a single table and (2) step-by-step selection and pricing, in which you follow a sequence of steps to build the product number and list price for the product(s) you need. In either case, follow the instructions provided and order by complete product number.

Example: CR104PBG91B1 at **\$34.20, GO-10P1**. Product numbers and prices do not include nameplates, which must be ordered separately from pages 9-40 and 9-41.



30.5 mm Heavy-Duty Push Buttons

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

#### Push Buttons

#### Lamp Selection

600 Volts Maximum AC/DC

10 Amperes Continuous

#### Lamp Selection

Incandescent, neon, and light emitting diode (LED) lamps are available for use in indicating lights, illuminated push buttons, and illuminated selector switches. Incandescent lamps have traditionally been the most frequently used, but it is wise to review the characteristics of the different types of lamps and select the one that is most appropriate for the application. Although the incandescent lamp offers the lowest initial cost, the LED is usually the most economical over the long term, due to its long life, resistance to shock and vibration, and lower power consumption.

Benefits of LEDs include:

**Resistance to Shock and Vibration**—Since LEDs are sold state, they are completely impervious to the problems associated with shock and vibration that can significantly reduce the life of incandescent lamps by mechanically breaking the filament. The high inrush currents at startup associated with incandescents also act to significantly reduce the life of lamps used in frequent on-off applications.

**Longer Life**—The LEDs used with CR104P push buttons have a service life of 100,000 hours (11 years) compared to 20,000 hours (28 months) for the neon lamps, and 2,000 hours (3 months) for the standard incandescent lamps.

**Reduced Power Consumption**—The LEDs used for the CR104P push buttons consume between 10% and 52% less power than the equivalent incandescent lamp. The table below shows the power consumption of each type.

**Lower Operating Temperature**—Because of the lower power consumption and greater efficiency of LEDs, they operate much cooler than incandescent lamps. Thus, in applications where heat in the enclosure could be a problem, LED lamps are a better choice. Incandescent bulbs are recommended for light-duty applications and panels not subject to shock and vibration. Neon lamps offer a middle ground, at a cost and performance between the LED and the incandescent, but can have problems associated with flicker induced by noise and frequency. LED lamps offer the best overall performance for the long term.

#### Lamp Comparison

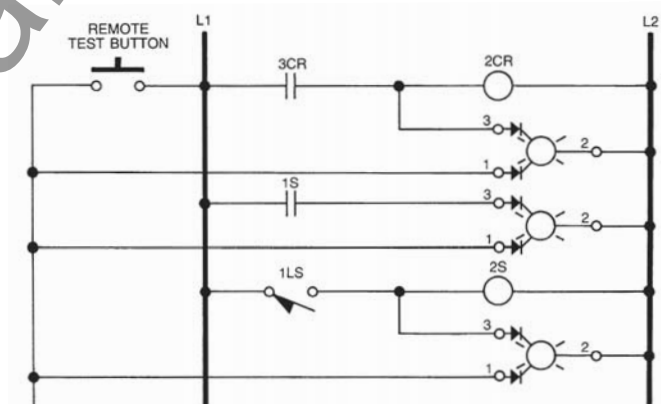
Bulb Type	Lifespan (Hours)	Shock & Vibration Immunity	Operating Temperature	Power Consumption	Brightness
LED	100,000	High	Medium	Medium	Medium
Incandescent	2,000	Low	High	High	High
Neon	20,000	Medium	Low	Low	Low

#### Potentiometers

Resistance	100 ohms $\pm$ 10% (list resistance by product number)
End Resistance	4 ohms maximum
Dielectric Strength	1000 Vac
2 Watts Maximum at 70°C	

#### Dual Input Illuminated Push Buttons (also called Remote Test Lights)

Dual input illuminated push buttons and indicating lights allow a number of lights to be tested from a single test button without operating the control circuit. A dual input illuminated push button without contacts becomes a remote test indicating light.



Typical wiring diagram for remote test of lights using dual input "Remote Test" Lights.

#### Power Consumption

Type	Volts AC/DC	Incandescent CR104P	Watts	LED CR104P	Watts	Neon CR104P	Watts
Full Voltage/Transformer	6120,000 hours)	XA16	.95	XA36*	0.54	—	—
	12 (15,000 hours)	XA12	1.12	XA32*	0.72	—	—
	24 (2,500 hours)	XA14	1.12	XA34*	0.72	—	—
	120 (telephone slide)	XA52	3	—	—	—	—
	130 (miniature bayonet)	XA54	2.6	XA38*	1.2	XA19	0.077
Resistor	240	XA52	3	—	—	—	—
	120	XA15	3	—	—	—	—
Cluster Lights	12	XA22	.96	—	—	—	—
	24	XA24	1.12	—	—	—	—
	6	XA26	1.2	—	—	—	—



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

## Section 9

Standard  
Non-Illuminated  
600 Volts Maximum AC/DC  
10 Amperes Continuous

### Common Forms

One-step selection and pricing of common assembled forms.

Units are supplied factory-assembled when ordered with contact blocks.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.

### Flush Button - Momentary Operator

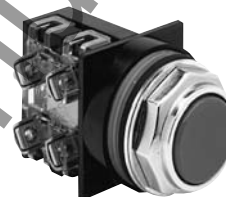
Contact Configuration	Color	Product Number	List Price GO-10P1
None (Operator Only)	Black	CR104PBG00B1	\$16.20
None (Operator Only)	Red	CR104PBG00R1	\$16.20
None (Operator Only)	Green	CR104PBG00G1	\$16.20
None (Operator Only)	1 Each: Red, Green, Yellow, Black	CR104PBG00U1 <sup>1</sup>	\$16.20
None (Operator Only)	1 Each: Brown, Blue, Orange, White	CR104PBG00V1 <sup>1</sup>	\$16.20
None (Operator Only)	Other	CR104PBG00*1 <sup>2</sup>	\$15.90
1NO-1NC	Black	CR104PBG91B1	\$34.20
1NO-1NC	Red	CR104PBG91R1	\$34.20
1NO-1NC	Green	CR104PBG91G1	\$34.20
1NO-1NC	1 Each: Red, Green, Yellow, Black	CR104PBG91U1 <sup>1</sup>	\$34.20
1NO-1NC	1 Each: Brown, Blue, Orange, White	CR104PBG91V1 <sup>1</sup>	\$34.20
1NO-1NC	Other	CR104PBG91*1 <sup>2</sup>	\$33.90
2NO-2NC	Black	CR104PBG92B1	\$52.20
2NO-2NC	Red	CR104PBG92R1	\$52.20
2NO-2NC	Green	CR104PBG92G1	\$52.20
2NO-2NC	1 Each: Red, Green, Yellow, Black	CR104PBG92U1 <sup>1</sup>	\$52.20
2NO-2NC	1 Each: Brown, Blue, Orange, White	CR104PBG92V1 <sup>1</sup>	\$52.20
2NO-2NC	Other	CR104PBG92*1 <sup>2</sup>	\$51.90
1NO	Black	CR104PBG10B1	\$25.20
1NO	Red	CR104PBG10R1	\$25.20
1NO	Green	CR104PBG10G1	\$25.20
1NO	1 Each: Red, Green, Yellow, Black	CR104PBG10U1 <sup>1</sup>	\$25.20
1NO	1 Each: Brown, Blue, Orange, White	CR104PBG10V1 <sup>1</sup>	\$25.20
1NO	Other	CR104PBG10*1 <sup>2</sup>	\$24.90
1NC	Black	CR104PBG01B1	\$25.20
1NC	Red	CR104PBG01R1	\$25.20
1NC	Green	CR104PBG01G1	\$25.20
1NC	1 Each: Red, Green, Yellow, Black	CR104PBG01U1 <sup>1</sup>	\$25.20
1NC	1 Each: Brown, Blue, Orange, White	CR104PBG01V1 <sup>1</sup>	\$25.20
1NC	Other	CR104PBG01*1 <sup>2</sup>	\$24.90

<sup>1</sup>Supplied with 4 caps: Unassembled.

<sup>2</sup>To order assembled units with a different color, substitute the letter below in place of the \* in product number and add required adder to the list price.

### Cap Colors Available\*

Color	Insert in place of asterisk (*)	List Price Adder, GO-10P1 Push Buttons
Yellow	E	\$0.30
Blue	L	\$0.30
Orange	M	\$0.30
Brown	N	\$0.30
White	W	\$0.30
No Cap	A	\$0.00



Flush Button





# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

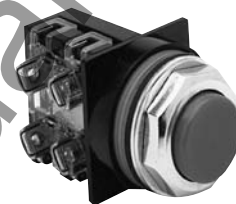
Section 9

Standard  
Non-Illuminated  
600 Volts Maximum AC/DC  
10 Amperes Continuous

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.

#### Extended Button - Momentary Operator

Contact Configuration	Color	Product Number	List Price GO-10P1
None (Operator Only)	Black	CR104PBG00B2	\$16.20
None (Operator Only)	Red	CR104PBG00R2	\$16.20
None (Operator Only)	Green	CR104PBG00G2	\$16.20
None (Operator Only)	1 Each: Red, Green, Yellow, Black	CR104PBG00U2 <sup>1</sup>	\$16.20
None (Operator Only)	1 Each: Brown, Blue, Orange, White	CR104PBG00V2 <sup>1</sup>	\$16.20
None (Operator Only)	Other	CR104PBG00*2 <sup>2</sup>	\$15.90
1NO-1NC	Black	CR104PBG91B2	\$34.20
1NO-1NC	Red	CR104PBG91R2	\$34.20
1NO-1NC	Green	CR104PBG91G2	\$34.20
1NO-1NC	1 Each: Red, Green, Yellow, Black	CR104PBG91U2 <sup>1</sup>	\$34.20
1NO-1NC	1 Each: Brown, Blue, Orange, White	CR104PBG91V2 <sup>1</sup>	\$34.20
1NO-1NC	Other	CR104PBG91*2 <sup>2</sup>	\$33.90
2NO-2NC	Black	CR104PBG92B2	\$52.20
2NO-2NC	Red	CR104PBG92R2	\$52.20
2NO-2NC	Green	CR104PBG92G2	\$52.20
2NO-2NC	1 Each: Red, Green, Yellow, Black	CR104PBG92U2 <sup>1</sup>	\$52.20
2NO-2NC	1 Each: Brown, Blue, Orange, White	CR104PBG92V2 <sup>1</sup>	\$52.20
2NO-2NC	Other	CR104PBG92*2 <sup>2</sup>	\$51.90
1NO	Black	CR104PBG10B2	\$25.20
1NO	Red	CR104PBG10R2	\$25.20
1NO	Green	CR104PBG10G2	\$25.20
1NO	1 Each: Red, Green, Yellow, Black	CR104PBG10U2 <sup>1</sup>	\$25.20
1NO	1 Each: Brown, Blue, Orange, White	CR104PBG10V2 <sup>1</sup>	\$25.20
1NO	Other	CR104PBG10*2 <sup>2</sup>	\$24.90
1NC	Black	CR104PBG01B2	\$25.20
1NC	Red	CR104PBG01R2	\$25.20
1NC	Green	CR104PBG01G2	\$25.20
1NC	1 Each: Red, Green, Yellow, Black	CR104PBG01U2 <sup>1</sup>	\$25.20
1NC	1 Each: Brown, Blue, Orange, White	CR104PBG01V2 <sup>1</sup>	\$25.20
1NC	Other	CR104PBG01*2 <sup>2</sup>	\$24.90



Extended Button

#### Recessed Button - Momentary Operator

Contact Configuration	Color	Product Number	List Price GO-10P1
None (Operator Only)	Black	CR104PBG00B3	\$16.20
None (Operator Only)	Red	CR104PBG00R3	\$16.20
None (Operator Only)	Green	CR104PBG00G3	\$16.20
None (Operator Only)	1 Each: Red, Green, Yellow, Black	CR104PBG00U3 <sup>1</sup>	\$16.20
None (Operator Only)	1 Each: Brown, Blue, Orange, White	CR104PBG00V3 <sup>1</sup>	\$16.20
None (Operator Only)	Other	CR104PBG00*3 <sup>2</sup>	\$15.90
1NO-1NC	Black	CR104PBG91B3	\$34.20
1NO-1NC	Red	CR104PBG91R3	\$34.20
1NO-1NC	Green	CR104PBG91G3	\$34.20
1NO-1NC	1 Each: Red, Green, Yellow, Black	CR104PBG91U3 <sup>1</sup>	\$34.20
1NO-1NC	1 Each: Brown, Blue, Orange, White	CR104PBG91V3 <sup>1</sup>	\$34.20
1NO-1NC	Other	CR104PBG91*3 <sup>2</sup>	\$33.90
2NO-2NC	Black	CR104PBG92B3	\$52.20
2NO-2NC	Red	CR104PBG92R3	\$52.20
2NO-2NC	Green	CR104PBG92G3	\$52.20
2NO-2NC	1 Each: Red, Green, Yellow, Black	CR104PBG92U3 <sup>1</sup>	\$52.20
2NO-2NC	1 Each: Brown, Blue, Orange, White	CR104PBG92V3 <sup>1</sup>	\$52.20
2NO-2NC	Other	CR104PBG92*3 <sup>2</sup>	\$51.90
1NO	Black	CR104PBG10B3	\$25.20
1NO	Red	CR104PBG10R3	\$25.20
1NO	Green	CR104PBG10G3	\$25.20
1NO	1 Each: Red, Green, Yellow, Black	CR104PBG10U3 <sup>1</sup>	\$25.20
1NO	1 Each: Brown, Blue, Orange, White	CR104PBG10V3 <sup>1</sup>	\$25.20
1NO	Other	CR104PBG10*3 <sup>2</sup>	\$24.90
1NC	Black	CR104PBG01B3	\$25.20
1NC	Red	CR104PBG01R3	\$25.20
1NC	Green	CR104PBG01G3	\$25.20
1NC	1 Each: Red, Green, Yellow, Black	CR104PBG01U3 <sup>1</sup>	\$25.20
1NC	1 Each: Brown, Blue, Orange, White	CR104PBG01V3 <sup>1</sup>	\$25.20
1NC	Other	CR104PBG01*3 <sup>2</sup>	\$24.90



Recessed Button

<sup>1</sup>Supplied with 4 caps: Unassembled.

<sup>2</sup>To order assembled units with a different color, substitute the letter below in place of the \* in product number and add required adder to the list price.

#### Cap Colors Available\*

Color	Insert in place of asterisk (*)	List Price Adder, GO-10P1 Push Buttons
Yellow	E	\$0.30
Blue	L	\$0.30
Orange	M	\$0.30
Brown	N	\$0.30
White	W	\$0.30
No Cap	A	\$0.00



Publications and Reference: See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

Standard  
Illuminated  
600 Volts Maximum AC/DC  
10 Amperes Continuous

Suitable for use in NEMA Types 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.

#### Extended Button without Guard - Momentary Operator

Power Supply Type	Supply Voltage	Lamp Type <sup>1</sup>	Contact Configuration	Product Number <sup>2</sup>	List Price GO-10P1
Transformer	120V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*1S2	\$82.20
Transformer	240V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*1S3	\$82.20
Transformer	480V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*1S4	\$82.20
Transformer	600V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*1S5	\$82.20
Full Voltage	6V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBL11*1S6	\$70.20
Full Voltage	12V 50/60 Hz	Incand., 12V, #756	1NO-1NC	CR104PBL11*1S7	\$70.20
Full Voltage	24V 50/60 Hz	Incand., 24V, #1819	1NO-1NC	CR104PBL11*1S8	\$70.20
Full Voltage	120V 50/60 Hz	Incand., 130V	1NO-1NC	CR104PBL11*1S2	\$70.20
Dual Input <sup>3</sup>	120V Dual Input	Incand., 130V	1NO-1NC	CR104PBL91*1H2	\$100.20
Full Voltage	6 VAC/DC	LED, 6V	1NO-1NC	CR104PBL11*1L6	\$88.20
Full Voltage	12 VAC/DC	LED, 12V	1NO-1NC	CR104PBL11*1L7	\$88.20
Full Voltage	24 VAC/DC	LED, 24V	1NO-1NC	CR104PBL11*1L8	\$88.20
Full Voltage	120 VAC/DC	LED, 120V	1NO-1NC	CR104PBL11*1L2	\$88.20



Extended without Guard

#### Extended Button with Guard - Momentary Operator

Power Supply Type	Supply Voltage	Lamp Type <sup>1</sup>	Contact Configuration	Product Number <sup>2</sup>	List Price GO-10P1
Transformer	120V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*3S2	\$88.20
Transformer	240V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*3S3	\$88.20
Transformer	480V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*3S4	\$88.20
Transformer	600V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*3S5	\$88.20
Full Voltage	6V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBL11*3S6	\$76.20
Full Voltage	12V 50/60 Hz	Incand., 12V, #756	1NO-1NC	CR104PBL11*3S7	\$76.20
Full Voltage	24V 50/60 Hz	Incand., 24V, #1819	1NO-1NC	CR104PBL11*3S8	\$76.20
Full Voltage	120V 50/60 Hz	Incand., 130V	1NO-1NC	CR104PBL11*3S2	\$76.20
Dual Input <sup>3</sup>	120V Dual Input	Incand., 130V	1NO-1NC	CR104PBL11*3H2	\$106.20
Full Voltage	6 VAC/DC	LED, 6 V	1NO-1NC	CR104PBL11*3L6	\$94.20
Full Voltage	12 VAC/DC	LED, 12 V	1NO-1NC	CR104PBL11*3L7	\$94.20
Full Voltage	24 VAC/DC	LED, 24 V	1NO-1NC	CR104PBL11*3L8	\$94.20
Full Voltage	120 VAC/DC	LED, 120 V	1NO-1NC	CR104PBL11*3L2	\$94.20



Extended with Guard

<sup>1</sup>All lamps miniature bayonet bases.

<sup>2</sup>Replace asterisk (\*) in product number with letter from chart below.

<sup>3</sup>See page 9-3 for dual input wiring diagram.

#### Push-Push Maintained Operator

The push-push operated units are 2-position, maintained contact push buttons. They are assembled, ready for installation, except for the required nameplate which must be ordered as a separate item. Two single-circuit contact blocks are the maximum number that can be installed on the operator. All normally open contacts must be the early closing type.

Power Supply Type	Voltage (60/50 Hz)	Lamp Type <sup>1</sup>	Contact Configuration <sup>3</sup>	Color	Product Number	List Price GO-10P1
Full Voltage	120 V	Incand., 6V, #755	1NC-1NO	Red	CR104PBT11R1B2	\$100.20
Full Voltage	120 V	Incand., 6V, #755	1NC-1NO	Green	CR104PBT11G1B2	\$100.20
Full Voltage	120 V	Incand., 6V, #755	1NC-1NO	Yellow	CR104PBT11E1B2	\$100.20
Full Voltage	120 V	Incand., 6V, #755	1NC-1NO	Blue	CR104PBT11L1B2	\$100.20
Full Voltage	120 V	Incand., 6V, #755	1NC-1NO	Amber	CR104PBT11M1B2	\$100.20
Full Voltage	120 V	Incand., 6V, #755	1NC-1NO	Clear	CR104PBT11C1B2	\$100.20
Full Voltage	120 V	Incand., 6V, #755	1NC-1NO	White	CR104PBT11W1B2	\$100.20



Push-Push, Illuminated Push Button

Product number and price do not include nameplate. Nameplates must be ordered as separate item from pages 9-40 to 9-41. Resistor-type illuminated push button units are available. Contact your nearest GE Consumer & Industrial Rep.

#### Lens Colors Available\*

Color	Insert in place of asterisk (*)
No Lens Cap	A <sup>4</sup>
Clear <sup>5</sup>	C
Yellow	E
Green	G
Blue	L
Amber	M
Red	R
White	W

<sup>4</sup>Subtract \$4.20.

<sup>5</sup>Not available as LED.

**Lamps:** See pages 9-35

**Nameplates:** See pages 9-40 to 9-41

**Technical Data:** See pages 9-56 to 9-57

**Drilling Plans and Dimensions:** See page 9-57

**Product Number Selection Instructions:** See pages 9-2

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

## Section 9

Mushroom-Head  
Non-Illuminated  
600 Volts Maximum AC/DC  
10 Amperes Continuous

One-step selection and pricing of common assembled forms.

Units are supplied factory-assembled when ordered with contact blocks, except 2 3/8" diameter mushroom-head, which is unattached.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.

#### 1 3/8" Diameter - Momentary Operator

Contact Configuration	Color	Product Number	List Price GO-10P1
None (Operator Only)	Black	CR104PBM00B5	\$34.20
None (Operator Only)	Red	CR104PBM00R5	\$34.20
None (Operator Only)	Other	CR104PBM00*5 <sup>1</sup>	\$28.20
1NO-1NC	Black	CR104PBM91B5	\$52.20
1NO-1NC	Red	CR104PBM91R5	\$52.20
1NO-1NC	Other	CR104PBM91*5 <sup>1</sup>	\$46.20
2NO-2NC	Black	CR104PBM92B5	\$70.20
2NO-2NC	Red	CR104PBM92R5	\$70.20
2NO-2NC	Other	CR104PBM92*5 <sup>1</sup>	\$64.20
1NO	Black	CR104PBM10B5	\$43.20
1NO	Red	CR104PBM10R5	\$43.20
1NO	Other	CR104PBM10*5 <sup>1</sup>	\$37.20
1NC	Black	CR104PBM01B5	\$43.20
1NC	Red	CR104PBM01R5	\$43.20
1NC	Other	CR104PBM01*5 <sup>1</sup>	\$37.20

#### 2 3/8" Diameter - Momentary Operator

Contact Configuration	Color	Product Number	List Price GO-10P1
None (Operator Only)	Black	CR104PBM00B6	\$34.20
None (Operator Only)	Red	CR104PBM00R6	\$34.20
None (Operator Only)	Other	CR104PBM00*6 <sup>1</sup>	\$28.20
1NO-1NC	Black	CR104PBM91B6	\$52.20
1NO-1NC	Red	CR104PBM91R6	\$52.20
1NO-1NC	Other	CR104PBM91*6 <sup>1</sup>	\$46.20
2NO-2NC	Black	CR104PBM92B6	\$70.20
2NO-2NC	Red	CR104PBM92R6	\$70.20
2NO-2NC	Other	CR104PBM92*6 <sup>1</sup>	\$64.20
1NO	Black	CR104PBM10B6	\$43.20
1NO	Red	CR104PBM10R6	\$43.20
1NO	Other	CR104PBM10*6 <sup>1</sup>	\$37.20
1NC	Black	CR104PBM01B6	\$43.20
1NC	Red	CR104PBM01R6	\$43.20
1NC	Other	CR104PBM01*6 <sup>1</sup>	\$37.20

#### 1 3/8" Diameter Push-to-latch, turn-to-release

Contact Configuration	Color	Product Number	List Price GO-10P1
None (Operator Only)	Red	CR104PTR20A0R	\$52.20
1NO-1NC	Red	CR104PTR20A0R91	\$70.20
2NO-2NC	Red	CR104PTR20A0R92	\$88.20
1NO	Red	CR104PTR20A0R1	\$61.20
1NC	Red	CR104PTR20A0R01	\$61.20

<sup>1</sup>To order assembled units with a different color, substitute the letter below in place of the \* in product number and add required adder to the list price.

#### Push-Pull Maintained Operator

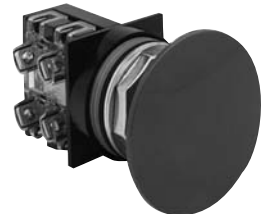
Contact Configuration	Color	Product Number	List Price GO-10P1
1 NC	Red	CR104PBM01R5C	\$61.20
1 NC	Red	CR104PBM01R5D	\$61.20
1 NC	Red	CR104PBM01R5E	\$61.20

#### Cap Colors Available\*

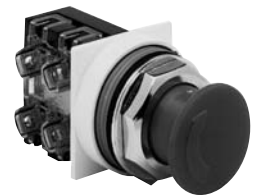
Color	Insert in place of asterisk (*)	List Price Adder, GO-10P1 Mushroom Heads
Yellow	E	\$6.00
Green	G	\$6.00
Blue	L	\$6.00
Orange	M	\$6.00
Brown	N	\$6.00
White	W	\$6.00
No Cap	A	\$0.00



1 3/8" Mushroom Head



2 3/8" Mushroom Head



Push-to-Latch, Turn-to-Release



Publications and Reference: See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

Section 9

Mushroom-Head

600 Volts Maximum AC/DC

10 Amperes Continuous

Suitable for use in NEMA Types 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications.

#### 1 3/8" Diameter Illuminated - Momentary Operator

Power Supply Type	Supply Voltage	Lamp Type <sup>1</sup>	Contact Configuration	Product Number <sup>2</sup>	List Price GO-10P1
Transformer	120V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*5S2	\$96.20
Transformer	240V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*5S3	\$96.20
Transformer	480V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*5S4	\$96.20
Transformer	600V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*5S5	\$96.20
Full Voltage	6V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBL11*5S6	\$84.20
Full Voltage	12V 50/60 Hz	Incand., 12V, #756	1NO-1NC	CR104PBL11*5S7	\$84.20
Full Voltage	120V 50/60 Hz	Incand., 24V, #1819	1NO-1NC	CR104PBL11*5S8	\$84.20
Full Voltage	240V 50/60 Hz	Incand., 130V	1NO-1NC	CR104PBL11L5S2	\$84.20
Full Voltage	6 VAC/DC	LED, 6V	1NO-1NC	CR104PBL11*5L6	\$102.20
Full Voltage	12 VAC/DC	LED, 12V	1NO-1NC	CR104PBL11*5L7	\$102.20
Full Voltage	24 VAC/DC	LED, 24V	1NO-1NC	CR104PBL11*5L8	\$102.20
Full Voltage	120 VAC/DC	LED, 120V	1NO-1NC	CR104PBL11*5L2	\$102.20



Illuminated Mushroom-Head  
Push Button

#### 1 5/8" Diameter Illuminated - Momentary Operator

Power Supply Type	Supply Voltage	Lamp Type <sup>1</sup>	Contact Configuration	Product Number <sup>2, 3</sup>	List Price GO-10P1
Transformer	120V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*7S2	\$96.20
Transformer	240V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*7S3	\$96.20
Transformer	480V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*7S4	\$96.20
Transformer	600V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*7S5	\$96.20
Full Voltage	6V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBL11*7S6	\$84.20
Full Voltage	12V 50/60 Hz	Incand., 12V, #756	1NO-1NC	CR104PBL11*7S7	\$84.20
Full Voltage	120V 50/60 Hz	Incand., 24V, #1819	1NO-1NC	CR104PBL11*7S8	\$84.20
Full Voltage	240V 50/60 Hz	Incand., 130V	1NO-1NC	CR104PBL11*7S2	\$84.20
Full Voltage	6 VAC/DC	LED, 6V	1NO-1NC	CR104PBL11*7L6	\$102.20
Full Voltage	12 VAC/DC	LED, 12V	1NO-1NC	CR104PBL11*7L7	\$102.20
Full Voltage	24 VAC/DC	LED, 24V	1NO-1NC	CR104PBL11*7L8	\$102.20
Full Voltage	120 VAC/DC	LED, 120V	1NO-1NC	CR104PBL11*7L2	\$102.20

<sup>1</sup>All lamps miniature bayonet bases.

<sup>2</sup>Replace asterisk (\*) in product number with letter from chart below.

<sup>3</sup>1 5/8" mushroom-head push buttons are special order—nonstock.

#### Lens Colors Available\*

Color	Insert in place of asterisk (*)
No Lens Cap	A <sup>4</sup>
Clear <sup>5</sup>	C
Yellow	E
Green	G
Blue	L
Amber	M
Red	R
White	W

<sup>4</sup>Subtract \$4.20.

<sup>5</sup>Not available as LED.



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

Section 9

Key Operated  
600 Volts Maximum AC/DC  
10 Amperes Continuous

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item. Four single-circuit or four double-circuit contact blocks are maximum number that can be assembled to cylinder lock operators.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will provide improved corrosion resistance.

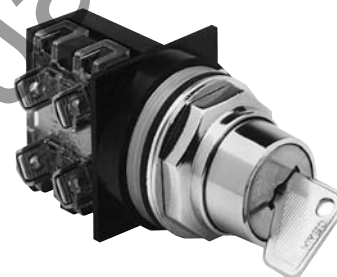
#### Operator Alone

Position Type	Release Type	Product Number	List Price GO-10P1
Lock in Depressed and Free Positions	-	CR104PBK00A1J	\$52.20
Lock Only in Free Position	-	CR104PBK00A1K	\$52.20
Lock Only in Depressed Position	-	CR104PBK00A1L	\$52.20
-	Push-To-Latch, Key Operate To Reset	CR104PBK00A1M	\$52.20

Select contact blocks from page 9-34.

#### Assembled Operator

Position Type	Release Type	Contact Configuration	Product Number	List Price GO-10P1
Lock in Depressed and Free Positions	-	1NO-1NC	CR104PBK91A1J	\$70.20
Lock Only in Free Position	-	1NO-1NC	CR104PBK91A1K	\$70.20
Lock Only in Depressed Position	-	1NO-1NC	CR104PBK91A1L	\$70.20
-	Push-To-Latch, Key Operate To Reset	1NO-1NC	CR104PBK91A1M	\$70.20



Key Operated Push Button



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

## Section 9

Special Function  
Non-Illuminated  
600 Volts Maximum AC/DC  
10 Amperes Continuous

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item. Four single-circuit or four double-circuit contact blocks are maximum number that can be assembled to cylinder lock operators.

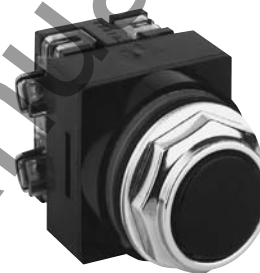
Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will provide improved corrosion resistance.

### Push-Push

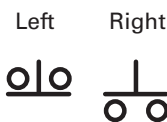
The push-push operated units are 2-position, maintained contact push buttons. They are assembled, ready for installation, except for the required nameplate which must be ordered as a separate item. Two single-circuit contact blocks are the maximum number that can be installed on the operator. All normally open contacts must be the early closing type.

Contact Configuration <sup>1</sup>	Color	Product Number	List Price GO-10P1
1NC-1NO	Black	CR104PBG11B1B	\$52.20
1NC-1NO	Red	CR104PBG11R1B	\$52.20
1NC-1NO	Green	CR104PBG11G1B	\$52.20
1NC-1NO	Yellow	CR104PBG11E1B	\$52.20
1NC-1NO	Blue	CR104PBG11L1B	\$52.20
1NC-1NO	Orange	CR104PBG11M1B	\$52.20
1NC-1NO	Brown	CR104PBG11N1B	\$52.20
1NC-1NO	White	CR104PBG11W1B	\$52.20

<sup>1</sup>Supplied with one NO (early make) and one NC single-circuit contact block.



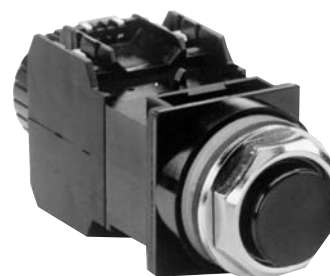
Push-Push, Non-Illuminated  
Push Button



Contact Configuration

### Time-Delay (Adjustable 0.5-30 Seconds)

Contact Configuration	Color	Product Number	List Price GO-10P1
1NO-1NC	Black	CR104PBG99B1	\$106.20
1NO-1NC	Red	CR104PBG99R1	\$106.20
1NO-1NC	Green	CR104PBG99G1	\$106.20
1NO-1NC	No Cap	CR104PBG99A1	\$105.90
1NO-1NC	Yellow	CR104PBG99E1	\$106.20
1NO-1NC	Blue	CR104PBG99L1	\$106.20
1NO-1NC	Orange	CR104PBG99M1	\$106.20
1NO-1NC	Brown	CR104PBG99N1	\$106.20
1NO-1NC	White	CR104PBG99W1	\$106.20



Time-Delay Push Button



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

## Section 9

### CR104P

Special Function

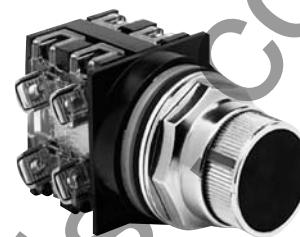
Non-Illuminated

Push-Turn

600 Volts Maximum AC/DC

10 Amperes Continuous

Suitable for use in NEMA Types 1, 12, and 13 applications when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.



Push-Turn Unit

### 2-Position

Contact State		Product Number <sup>1</sup>	List Price GO-10P1
Push Position	Turn Position		
Free		CR104PTP26E0*92	\$70.20
Depressed			
Free		CR104PTP26D0*92	\$70.20
Depressed			
Free		CR104PTP21B0*91	\$52.20
Depressed			
Free		CR104PTP22B0*91	\$52.20
Depressed			
Free		CR104PTP22B0*92	\$70.20
Depressed			
Free		CR104PTP22D0*92	\$70.20
Depressed			
Free		CR104PTP21C0*92	\$70.20
Depressed			
Free		CR104PTP23C0*92	\$70.20
Depressed			
Free		CR104PTP23B0*92	\$70.20
Depressed			
Free		CR104PTP24C0*92	\$70.20
Depressed			
Free		CR104PTP24E3*92	\$70.20
Depressed			
Free		CR104PTP25B3*92	\$70.20
Depressed			

### 3-Position

Contact State		Product Number <sup>1</sup>	List Price GO-10P1
Push Position	Turn Position		
Free		CR104PTP31E0*92	\$70.20
Depressed			
Free		CR104PTP31E2*92	\$70.20
Depressed			
Free		CR104PTP34E6*91	\$52.20
Depressed			
Free		CR104PTP32F2*92	\$70.20
Depressed			
Free		CR104PTP33G2*92	\$70.20
Depressed			

<sup>1</sup>Replace asterisk (\*) in product number with letter from chart below.

### Cap Colors Available\*

Color	Insert in place of asterisk (*)
Black	B
Red	R
Green	G
Yellow	E



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

Section 9

Special Function

Illuminated

600 Volts Maximum AC/DC

10 Amperes Continuous

Suitable for use in NEMA Types 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance. Not available for CR104PBT devices.

#### 2-Position Maintained 1 3/8" diameter

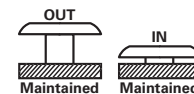
Power Supply Type	Supply Voltage	Lamp Type <sup>1</sup>	Contact Configuration	Product Number <sup>2</sup>	List Price GO-10P1
Transformer	120V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*5C2	\$100.20
Transformer	240V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*5C3	\$100.20
Transformer	480V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*5C4	\$100.20
Transformer	600V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBT11*5C5	\$100.20
Full Voltage	6V 50/60 Hz	Incand., 6V, #755	1NO-1NC	CR104PBL11*5C6	\$88.20
Full Voltage	12V 50/60 Hz	Incand., 12V, #756	1NO-1NC	CR104PBL11*5C7	\$88.20
Full Voltage	24V 50/60 Hz	Incand., 24V, #1819	1NO-1NC	CR104PBL11*5C8	\$88.20
Full Voltage	120V 50/60 Hz	Incand., 130V	1NO-1NC	CR104PBL11*5C2	\$88.20
Resistor	120V 50/60 Hz	Incand., 60V	1NO-1NC	CR104PBL11*5C2	\$88.20
Resistor	240V 50/60 Hz	Incand., 130V	1NO-1NC	CR104PBL11*5C3	\$88.20
Full Voltage	6 VAC/DC	LED, 6V	1NO-1NC	CR104PBL11*5P6	\$106.20
Full Voltage	12 VAC/DC	LED, 12V	1NO-1NC	CR104PBL11*5P7	\$106.20
Full Voltage	24 VAC/DC	LED, 24V	1NO-1NC	CR104PBL11*5P8	\$106.20
Full Voltage	120 VAC/DC	LED, 120V	1NO-1NC	CR104PBL11*5P2	\$106.20



Push-Pull Illuminated Push Button

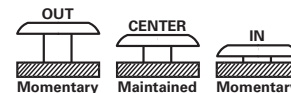
#### Push-Pull 3-Position Momentary Push-Momentary Pull

Power Supply Type	Supply Voltage	Lamp Type <sup>1</sup>	Contact Configuration <sup>4</sup>	Color	Product Number	List Price GO-10P1
Transformer	120V 50/60 Hz	Incand., 6V, #755	1NO-1NC	Red Lens	CR104PBTOLR5D2	\$100.20
Transformer	240V 50/60 Hz	Incand., 6V, #755	1NO-1NC	Red Lens	CR104PBTOLR5D3	\$100.20
Transformer	480V 50/60 Hz	Incand., 6V, #755	1NO-1NC	Red Lens	CR104PBTOLR5D4	\$100.20
Transformer	600V 50/60 Hz	Incand., 6V, #755	1NO-1NC	Red Lens	CR104PBTOLR5D5	\$100.20
Full Voltage	6V 50/60 Hz	Incand., 6V, #755	1NO-1NC	Red Lens	CR104PBL0LR5D6	\$88.20
Full Voltage	12V 50/60 Hz	Incand., 12V, #756	1NO-1NC	Red Lens	CR104PBL0LR5D7	\$88.20
Full Voltage	24V 50/60 Hz	Incand., 24V, #1819	1NO-1NC	Red Lens	CR104PBL0LR5D8	\$88.20
Full Voltage	120V 50/60 Hz	Incand., 130V	1NO-1NC	Red Lens	CR104PBL0LR5D2	\$88.20
Resistor	120V 50/60 Hz	Incand., 60V	1NO-1NC	Red Lens	CR104PBL0LR5D2	\$88.20
Resistor	240V 50/60 Hz	Incand., 130V	1NO-1NC	Red Lens	CR104PBL0LR5D3	\$88.20
Full Voltage	6 VAC/DC	LED, 6V	1NO-1NC	Red Lens	CR104PBL0LR5K6	\$106.20
Full Voltage	12 VAC/DC	LED, 12V	1NO-1NC	Red Lens	CR104PBL0LR5K7	\$106.20
Full Voltage	24 VAC/DC	LED, 24V	1NO-1NC	Red Lens	CR104PBL0LR5K8	\$106.20
Full Voltage	120 VAC/DC	LED, 120V	1NO-1NC	Red Lens	CR104PBL0LR5K2	\$106.20



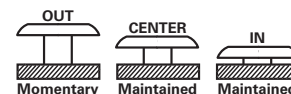
2 Position Maintained

NC X O  
NO O X



Momentary Push - Momentary Pull

NC X X O  
NC X O O



Maintained Push - Momentary Pull

NC X X O  
NC X O O

#### Push-Pull 3-Position Maintained Push-Momentary Pull

Power Supply Type	Supply Voltage	Lamp Type <sup>1</sup>	Contact Configuration <sup>4</sup>	Color	Product Number	List Price GO-10P1
Transformer	120V 50/60 Hz	Incand., 6V, #755	1NO-1NC	Red Lens	CR104PBTOLR5E2	\$100.20
Transformer	240V 50/60 Hz	Incand., 6V, #755	1NO-1NC	Red Lens	CR104PBTOLR5E3	\$100.20
Transformer	480V 50/60 Hz	Incand., 6V, #755	1NO-1NC	Red Lens	CR104PBTOLR5E4	\$100.20
Transformer	600V 50/60 Hz	Incand., 6V, #755	1NO-1NC	Red Lens	CR104PBTOLR5E5	\$100.20
Full Voltage	6V 50/60 Hz	Incand., 6V, #755	1NO-1NC	Red Lens	CR104PBL0LR5E6	\$88.20
Full Voltage	12V 50/60 Hz	Incand., 12V, #756	1NO-1NC	Red Lens	CR104PBL0LR5E7	\$88.20
Full Voltage	24V 50/60 Hz	Incand., 24V, #1819	1NO-1NC	Red Lens	CR104PBL0LR5E8	\$88.20
Full Voltage	120V 50/60 Hz	Incand., 130V	1NO-1NC	Red Lens	CR104PBL0LR5E2	\$88.20
Resistor	120V 50/60 Hz	Incand., 60V	1NO-1NC	Red Lens	CR104PBL0LR5E2	\$88.20
Resistor	240V 50/60 Hz	Incand., 130V	1NO-1NC	Red Lens	CR104PBL0LR5E3	\$88.20
Full Voltage	6 VAC/DC	LED, 6V	1NO-1NC	Red Lens	CR104PBL0LR5M6	\$106.20
Full Voltage	12 VAC/DC	LED, 12V	1NO-1NC	Red Lens	CR104PBL0LR5M7	\$106.20
Full Voltage	24 VAC/DC	LED, 24V	1NO-1NC	Red Lens	CR104PBL0LR5M8	\$106.20
Full Voltage	120 VAC/DC	LED, 120V	1NO-1NC	Red Lens	CR104PBL0LR5M2	\$106.20

<sup>1</sup>All lamps miniature bayonet bases

<sup>2</sup>Replace asterisk (\*) in product number with letter from chart to right.

<sup>3</sup>Supplied with one NO (early closing) and one NC single-circuit contact blocks.

<sup>4</sup>Normally closed, late-breaking contacts.

#### Lens Colors Available\*

Color	Insert in place of asterisk (*)
No Lens Cap	A <sup>5</sup>
Clear <sup>6</sup>	C
Yellow	E
Green	G
Blue	L
Amber	M
Red	R
White	W

<sup>5</sup>Subtract \$4.20.

<sup>6</sup>Not available as LED.

Lamps: See pages 9-35

Nameplates: See pages 9-40 to 9-41

Technical Data: See pages 9-56 to 9-57

Drilling Plans and Dimensions: See page 9-57

Product Number Selection Instructions: See pages 9-2

## Section 9



9-13

Pilot and Signaling Devices  
Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons  
CR104P

Section 9

Protected Mushroom-Head  
600 Volts Max. AC/DC  
10 Amperes Continuous

2-Position



Contact Block	Maintained Pulled Out	Maintained Push In
NC	X	0
NO	0	X

3-Position



Contact Block	Contact Position	Momentary Pull Out	Maintained Center	Momentary Push In
NC	Left	X	0	0
NO	Left	0	0	X
NC	Right	X	X	0
NOEM	Left	0	X	X

NOEM—Normally Open Early Make  
**NOTE:** All other combinations are invalid.



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Pilot Devices

### CR104P

600 Volts Max. AC/DC  
10 Amperes Continuous

Section 9

Suitable for use in NEMA Types 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rates for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.

#### Standard Indicating Lights

Power Supply Type	Supply Voltage	Lamp Type	Product Number <sup>1</sup>	List Price GO-10P1
Transformer	120V 50/60 Hz	Incand., 6V, #755	CR104PLG32*	\$64.20
Transformer	200-208V 60 Hz	Incand., 6V, #755	CR104PLG3A*	\$64.20
Transformer	240V 50/60 Hz	Incand., 6V, #755	CR104PLG33*	\$64.20
Transformer	277V 60 Hz	Incand., 6V, #755	CR104PLG3B*	\$64.20
Transformer	347V 60 Hz	Incand., 6V, #755	CR104PLG3C*	\$64.20
Transformer	480V 50/60 Hz	Incand., 6V, #755	CR104PLG34*	\$64.20
Transformer	600V 50/60 Hz	Incand., 6V, #755	CR104PLG35*	\$64.20
Full Voltage	6V 50/60 Hz	Incand., 6V, #755	CR104PLG16*	\$52.50
Full Voltage	12V 50/60 Hz	Incand., 12V, #756	CR104PLG17*	\$52.50
Full Voltage	24V 50/60 Hz	Incand., 24V, #1819	CR104PLG18*	\$52.50
Full Voltage	120V 50/60 Hz	Incand., 130V	CR104PLG22*	\$52.50
Resistor	120V 50/60 Hz	Incand., 60V	CR104PLG42*	\$52.50
Resistor	240V 50/60 Hz	Incand., 130V	CR104PLG43*	\$52.50
Transformer	120V 50/60 Hz	LED, 6V	CR104PLG92*	\$82.20
Transformer	200-208V 60 Hz	LED, 6V	CR104PLG9A*	\$82.20
Transformer	240V 50/60 Hz	LED, 6V	CR104PLG93*	\$82.20
Transformer	277V 60 Hz	LED, 6V	CR104PLG9B*	\$82.20
Transformer	347V 60 Hz	LED, 6V	CR104PLG9C*	\$82.20
Transformer	480V 50/60 Hz	LED, 6V	CR104PLG94*	\$82.20
Transformer	600V 50/60 Hz	LED, 6V	CR104PLG95*	\$82.20
Full Voltage	6 VAC/DC	LED, 6V	CR104PLG86*	\$70.20
Full Voltage	12 VAC/DC	LED, 12V	CR104PLG87*	\$70.20
Full Voltage	24 VAC/DC	LED, 24V	CR104PLG88*	\$70.20
Full Voltage	120 VAC/DC	LED, 120V	CR104PLG82*	\$70.20
Transformer, Flashing	120V 50/60 Hz	Incand., 6V, #267 Flasher	CR104PLG62*	\$67.20
Transformer, Flashing	200-208V 60 Hz	Incand., 6V, #267 Flasher	CR104PLG6A*	\$67.20
Transformer, Flashing	240V 50/60 Hz	Incand., 6V, #267 Flasher	CR104PLG63*	\$67.20
Transformer, Flashing	277V 60 Hz	Incand., 6V, #267 Flasher	CR104PLG6B*	\$67.20
Transformer, Flashing	347V 60 Hz	Incand., 6V, #267 Flasher	CR104PLG6C*	\$67.20
Transformer, Flashing	480V 50/60 Hz	Incand., 6V, #267 Flasher	CR104PLG64*	\$67.20
Transformer, Flashing	600V 50/60 Hz	Incand., 6V, #267 Flasher	CR104PLG65*	\$67.20
Full Voltage, Flashing	6V 50/60 Hz	Incand., 6V, #267 Flasher	CR104PLG56*	\$70.20
Full Voltage	120V	Neon, 120V, #NE51H-R	CR104PLG72*	\$55.20

Standard



#### Push to Test Indicating Lights

Power Supply Type	Supply Voltage	Lamp Type	Product Number <sup>1</sup>	List Price GO-10P1
Transformer	120V 50/60 Hz	Incand., 6V, #755	CR104PLT32*	\$82.20
Transformer	200-208V 60 Hz	Incand., 6V, #755	CR104PLT3A*	\$82.20
Transformer	240V 50/60 Hz	Incand., 6V, #755	CR104PLT33*	\$82.20
Transformer	277V 60 Hz	Incand., 6V, #755	CR104PLT3B*	\$82.20
Transformer	347V 60 Hz	Incand., 6V, #755	CR104PLT3C*	\$82.20
Transformer	480V 50/60 Hz	Incand., 6V, #755	CR104PLT34*	\$82.20
Transformer	600V 50/60 Hz	Incand., 6V, #755	CR104PLT35*	\$82.20
Full Voltage	6V 50/60 Hz	Incand., 6V, #755	CR104PLT16*	\$70.20
Full Voltage	12V 50/60 Hz	Incand., 12V, #756	CR104PLT17*	\$70.20
Full Voltage	24V 50/60 Hz	Incand., 24V, #1819	CR104PLT18*	\$70.20
Full Voltage	120V 50/60 Hz	Incand., 130V	CR104PLT22*	\$70.20
Resistor	120V 50/60 Hz	Incand., 60V	CR104PLT42*	\$70.20
Resistor	240V 50/60 Hz	Incand., 130V	CR104PLT43*	\$70.20
Transformer	120V 50/60 Hz	LED, 6V	CR104PLT92*	\$100.20
Transformer	200-208V 60 Hz	LED, 6V	CR104PLT9A*	\$100.20
Transformer	240V 50/60 Hz	LED, 6V	CR104PLT93*	\$100.20
Transformer	277V 60 Hz	LED, 6V	CR104PLT9B*	\$100.20
Transformer	347V 60 Hz	LED, 6V	CR104PLT9C*	\$100.20
Transformer	480V 50/60 Hz	LED, 6V	CR104PLT94*	\$100.20
Transformer	600V 50/60 Hz	LED, 6V	CR104PLT95*	\$100.20
Full Voltage	6 VAC/DC	LED, 6V	CR104PLT86*	\$88.20
Full Voltage	12 VAC/DC	LED, 12V	CR104PLT87*	\$88.20
Full Voltage	24 VAC/DC	LED, 24V	CR104PLT88*	\$88.20
Full Voltage	120 VAC/DC	LED, 120V	CR104PLT82*	\$88.20
Transformer, Flashing	120V 50/60 Hz	Incand., 6V, #267 Flasher	CR104PLT62*	\$85.20
Transformer, Flashing	200-208V 60 Hz	Incand., 6V, #267 Flasher	CR104PLT6A*	\$85.20
Transformer, Flashing	240V 50/60 Hz	Incand., 6V, #267 Flasher	CR104PLT63*	\$85.20
Transformer, Flashing	277V 60 Hz	Incand., 6V, #267 Flasher	CR104PLT6B*	\$85.20
Transformer, Flashing	347V 60 Hz	Incand., 6V, #267 Flasher	CR104PLT6C*	\$85.20
Transformer, Flashing	480V 50/60 Hz	Incand., 6V, #267 Flasher	CR104PLT64*	\$85.20
Transformer, Flashing	600V 50/60 Hz	Incand., 6V, #267 Flasher	CR104PLT65*	\$85.20
Full Voltage, Flashing	6V 50/60 Hz	Incand., 6V, #267 Flasher	CR104PLT56*	\$88.20
Full Voltage	120V	Neon, 120V, #NE51H-R	CR104PLT72*	\$73.20

Push-to-Test



#### Lens Colors Available\*

Color	Insert in place of asterisk (*)
No Lens	A <sup>2,3,4</sup>
Clear <sup>4</sup>	C <sup>3</sup>
Yellow	E <sup>4</sup>
Green	G <sup>4</sup>
Blue	L <sup>4</sup>
Amber	M
Red	R
White	W

<sup>2</sup>Subtract \$4.20 from list price with no lens.

<sup>3</sup>Not suitable for use with LED.

<sup>4</sup>Not suitable for use with NEON light.

<sup>1</sup>Replace asterisk (\*) in product number with letter from table on right.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications  
**Lamps:** See page 9-35

www.geelectrical.com

**Nameplates:** See pages 9-40 to 9-41  
**Technical Data:** See pages 9-56 to 9-57  
**Drilling Plans and Dimensions:** See page 9-57

Control Catalog

9-15

Rev. 1/08  
Prices and data subject to change without notice

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

600 Volts Max. AC/DC  
10 Amperes Continuous

Section 9

Suitable for use in NEMA Types 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.

#### Cluster-Type (Steady Light, Miniature Bayonet Lamp Socket)

Power Supply Type	Supply Voltage	Lamp Type	Cluster Type	Product Number	List Price GO-10P1
Full Voltage	6V 50/60 Hz	Incand., 6V, #176B	2-Lamp	CR104PLB16W	\$112.20
Full Voltage	12V 50/60Hz	Incand., 12V, #373	2-Lamp	CR104PLB17W	\$112.20
Full Voltage	24V 50/60 Hz	Incand., 24V, #399	2-Lamp	CR104PLB18W	\$112.20
Full Voltage	6V 50/60 Hz	Incand., 6V, #176B	4-Lamp	CR104PLQ16W	\$238.20
Full Voltage	12V 50/60Hz	Incand., 12V, #373	4-Lamp	CR104PLQ17W	\$238.20
Full Voltage	24V 50/60 Hz	Incand., 24V, #399	4-Lamp	CR104PLQ18W	\$238.20

All cluster lights shipped with one boot of each of the following colors—yellow, green, blue, and red. Bulb extractor available, CR104MG128 at List Price, GO-10P1, \$6.00.

#### Accessories

Cluster lights provide either two or four separate light signals in the same space as one full-size indicating light. Colored boots can provide color distinction to each lamp. Applications should not energize more than two lamps continuously.

Accessory Type	Color	Package Quantity	Product Number	List Price GO-10P1
Lens and Divider (2 Lamp Cluster)	White		CR104PXL02W	\$5.70
Lens and Divider (4 Lamp Cluster)	White		CR104PXL04W	\$5.70
Cluster-Type Pilot Light Boots	Yellow	4	CR104PXL08E	\$0.37
Cluster-Type Pilot Light Boots	Green	4	CR104PXL08G	\$0.37
Cluster-Type Pilot Light Boots	Blue	4	CR104PXL08L	\$0.37
Cluster-Type Pilot Light Boots	Red	4	CR104PXL08R	\$0.37
Cluster-Type Pilot Light Boots	1 Each: Yellow, Green, Blue, Red	Four, 1 each color	CR104PXL08T	\$1.50 per package

#### Remote Test Lights (Dual Input Illuminated Push Buttons)

Dual input illuminated push buttons and indicating lights allow a number of lights to be tested from a single test button without operating the control circuit. A dual input illuminated push button without contacts is a remote test indicating light.

Power Supply Type	Supply Voltage	Lamp Type	Contacts	Product Number <sup>1</sup>	List Price GO-10P1
Full Voltage	120V 50/60 Hz	Incand., 120V, #90MB	with	CR104PBL91*1H2	\$100.20
Full Voltage	120V 50/60 Hz	Incand., 120V, #90MB	without	CR104PBL00*1H2	\$82.20

<sup>1</sup>Replace asterisk (\*) in product number with letter from table below.

#### Lens Colors Available\*

Color	Insert in place of asterisk (*)
No Lens	A <sup>2,3,4</sup>
Clear <sup>4</sup>	C <sup>3</sup>
Yellow	E <sup>4</sup>
Green	G <sup>4</sup>
Blue	L <sup>4</sup>
Amber	M
Red	R
White	W

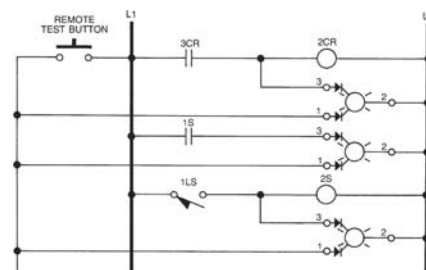
<sup>2</sup>Subtract \$4.20 from list price with no lens.

<sup>3</sup>Not suitable for use with LED.

<sup>4</sup>Not suitable for use with NEON light.



Cluster Lights



Typical wiring diagram for remote test of lights using dual input "remote test" lights.



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

### CR104P

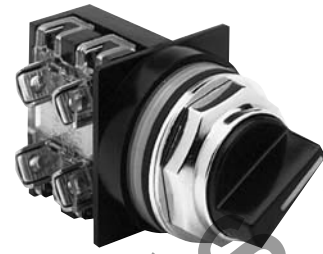
## Section 9

Knob Operated  
Non-Illuminated  
600 Volts Max. AC/DC  
10 Amperes Continuous

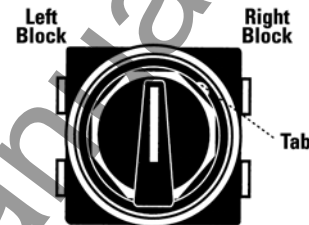
Units are supplied factory-assembled when ordered with contact block.

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.



Knob-Operated Selector Switch



Contacts viewed from front of panel.

### 2-Position - Black Knob<sup>1</sup>

Release Type	2 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Maintained	1	None	CR104PSG21B	\$22.20
Maintained	1	1NO-1NC	CR104PSG21B91	\$40.20
Maintained	1	2NO-2NC	CR104PSG21B92	\$58.20
Spring Return L → C	2	None	CR104PSG12B	\$34.20
Spring Return L → C	2	1NO-1NC	CR104PSG12B91	\$52.20
Spring Return L → C	2	2NO-2NC	CR104PSG12B92	\$70.20
Spring Return R → C	3	None	CR104PSG63B	\$34.20
Spring Return R → C	3	1NO-1NC	CR104PSG63B91	\$52.20
Spring Return R → C	3	2NO-2NC	CR104PSG63B92	\$70.20

<sup>1</sup>To order knob in a color other than black, replace the "B" in listed Product Numbers with E (Yellow), G (Green), L (Blue), or R (Red).

### 2-Position Selector Switches - Non-Illuminated

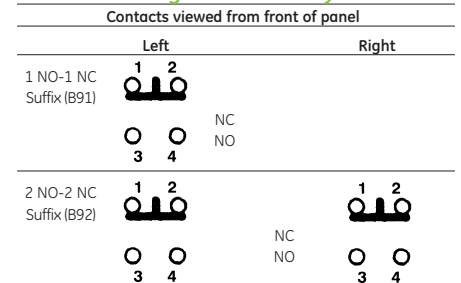
Operator Position	Cam #1			Cam #2			Cam #3		
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block
O	-	X	NO	L or R	-	-	-	-	-
X	-	O	NC	L or R	-	-	-	-	-
X	O	-	-	-	NO	L or R	-	-	-
O	X	-	-	-	NC	L or R	-	-	-
-	O	X	-	-	-	-	NO	L or R	-
-	X	O	-	-	-	-	NC	L or R	-

- : This position is nonexistent or is a "pass through".

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

Example: CR104PSG2 1 B, the cam number is 1.

### Schematic Diagrams - Factory Forms



Numbers and letters are molded into blocks at terminals.

### 3-Position - Black Knob<sup>1</sup> - Maintained

Release Type	3 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Maintained	4	None	CR104PSG34B	\$22.20
Maintained	4	1NO-1NC	CR104PSG34B91	\$40.20
Maintained	4	2NO-2NC	CR104PSG34B92	\$58.20
Maintained	2	None	CR104PSG32B	\$22.20
Maintained	2	1NO-1NC	CR104PSG32B91	\$40.20
Maintained	2	2NO-2NC	CR104PSG32B92	\$58.20
Maintained	3	None	CR104PSG33B	\$22.20
Maintained	3	1NO-1NC	CR104PSG33B91	\$40.20
Maintained	3	2NO-2NC	CR104PSG33B92	\$58.20
Maintained	5	None	CR104PSG35B	\$22.20
Maintained	5	2NO-2NC	CR104PSG35B92	\$58.20
Maintained	6	None	CR104PSG36B	\$22.20
Maintained	6	2NO-2NC	CR104PSG36B92	\$58.20

### 3-Position - Black Knob<sup>1</sup> - Spring Return L→C

Release Type	3 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Spring Return L → C	4	None	CR104PSG74B	\$34.20
Spring Return L → C	4	1NO-1NC	CR104PSG74B91	\$52.20
Spring Return L → C	4	2NO-2NC	CR104PSG74B92	\$70.20
Spring Return L → C	2	None	CR104PSG72B	\$34.20
Spring Return L → C	2	1NO-1NC	CR104PSG72B91	\$52.20
Spring Return L → C	2	2NO-2NC	CR104PSG72B92	\$70.20
Spring Return L → C	3	None	CR104PSG73B	\$34.20
Spring Return L → C	3	1NO-1NC	CR104PSG73B91	\$52.20
Spring Return L → C	3	2NO-2NC	CR104PSG73B92	\$70.20
Spring Return L → C	5	None	CR104PSG75B	\$34.20
Spring Return L → C	5	2NO-2NC	CR104PSG75B92	\$70.20
Spring Return L → C	6	None	CR104PSG76B	\$34.20
Spring Return L → C	6	2NO-2NC	CR104PSG76B92	\$70.20

<sup>1</sup>To order knob in a color other than black, replace the "B" in listed Product Numbers with E (Yellow), G (Green), L (Blue), or R (Red).

### 3-Position Selector Switches - Non-Illuminated

Operator Position	Cam #4			Cam #2			Cam #3			Cam #5			Cam #6		
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block
O	O	X	NO	L or R	-	-	NO	L or R	NO	L or R	NO	Left	-	-	-
O	X	O	-	-	NC	L or R	NC	L or R	NC	Right	-	-	-	-	-
X	O	O	NC	L or R	NO	L or R	-	-	NC	Left	NO	Right	-	-	-
X	X	O	-	-	-	-	-	-	-	-	NC	Left	-	-	-
O	X	X	-	-	-	-	-	-	-	-	NC	Right	-	-	-

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

Example: CR104PSG2 1 B, the cam number is 1.



Publications and Reference: See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

## Section 9

### CR104P

Knob Operated

Non-Illuminated

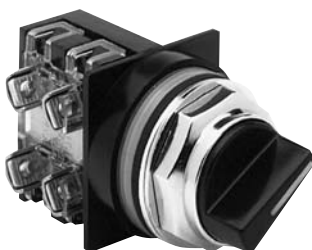
600 Volts Max. AC/DC

10 Amperes Continuous

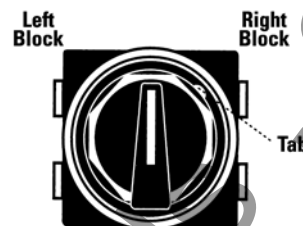
Units are supplied factory-assembled when ordered with contact block.

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications., when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.



Knob-Operated Selector Switch



Contacts viewed from front of panel.

### 3-Position - Black Knob<sup>1</sup> - Spring Return C ← R

Release Type	3 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Spring Return C ← R	4	None	CR104PSG84B	\$34.20
Spring Return C ← R	4	1NO-1NC	CR104PSG84B91	\$52.20
Spring Return C ← R	4	2NO-2NC	CR104PSG84B92	\$70.20
Spring Return C ← R	2	None	CR104PSG82B	\$34.20
Spring Return C ← R	2	1NO-1NC	CR104PSG82B91	\$52.20
Spring Return C ← R	2	2NO-2NC	CR104PSG82B92	\$70.20
Spring Return C ← R	3	None	CR104PSG83B	\$34.20
Spring Return C ← R	3	1NO-1NC	CR104PSG83B91	\$52.20
Spring Return C ← R	3	2NO-2NC	CR104PSG83B92	\$70.20
Spring Return C ← R	5	None	CR104PSG85B	\$34.20
Spring Return C ← R	5	2NO-2NC	CR104PSG85B92	\$70.20
Spring Return C ← R	6	None	CR104PSG86B	\$34.20
Spring Return C ← R	6	2NO-2NC	CR104PSG86B92	\$70.20

### 3-Position - Black Knob<sup>1</sup> - Spring Return L → C ← R

Release Type	3 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Spring Return L → C ← R	4	None	CR104PSG94B	\$34.20
Spring Return L → C ← R	4	1NO-1NC	CR104PSG94B91	\$52.20
Spring Return L → C ← R	4	2NO-2NC	CR104PSG94B92	\$70.20
Spring Return L → C ← R	2	None	CR104PSG92B	\$34.20
Spring Return L → C ← R	2	1NO-1NC	CR104PSG92B91	\$52.20
Spring Return L → C ← R	2	2NO-2NC	CR104PSG92B92	\$70.20
Spring Return L → C ← R	3	None	CR104PSG93B	\$34.20
Spring Return L → C ← R	3	1NO-1NC	CR104PSG93B91	\$52.20
Spring Return L → C ← R	3	2NO-2NC	CR104PSG93B92	\$70.20
Spring Return L → C ← R	5	None	CR104PSG95B	\$34.20
Spring Return L → C ← R	5	2NO-2NC	CR104PSG95B92	\$70.20
Spring Return L → C ← R	6	None	CR104PSG96B	\$34.20
Spring Return L → C ← R	6	2NO-2NC	CR104PSG96B92	\$70.20

<sup>1</sup>To order knob in a color other than black, replace the "B" in listed Product Numbers with E (Yellow), G (Green), L (Blue), or R (Red).

### 3-Position Selector Switches - Non-Illuminated

Operator Position	Cam #4		Cam #2		Cam #3		Cam #5		Cam #6	
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right
O	O	X	NO	L or R	NO	L or R	NO	L or R	NO	Left
O	X	O	NC	L or R	NC	L or R	NC	Right	NC	Right
X	O	O	NC	L or R	NO	L or R	NC	Left	NO	Right
X	X	O	NC	L or R	NC	L or R	NC	Right	NC	Right
O	X	X	NC	L or R	NC	L or R	NC	Right	NC	Right

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

Example: CR104PSG2 1 B, the cam number is 1.

### 4-Position - Black Knob<sup>1</sup>

Release Type	4 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Maintained	7	None	CR104PSG47B <sup>2</sup>	\$22.20
Maintained	7	2NO-2NC	CR104PSG47B92 <sup>2</sup>	\$58.20

<sup>1</sup>To order knob in a color other than black, replace the "B" in listed Product Numbers with E (Yellow), G (Green), L (Blue), or R (Red).

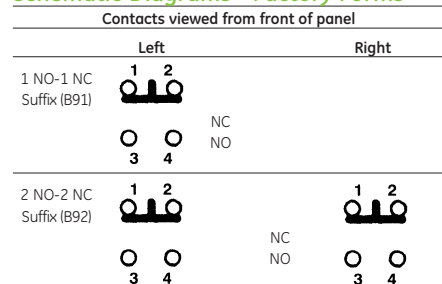
<sup>2</sup>Two double-circuit contact blocks, mounted side-by-side, is standard arrangement.

No more than two contact blocks, single and/or double, may be used with this operator.

### 4-Position Selector Switch - Non-Illuminated

Operator Position	Cam #7			
	Type of Contact Block	Mounting Location Left-Right		
X	O	O	O	NC
O	O	X	O	NO
O	O	O	X	NC
O	X	O	O	NO

### Schematic Diagrams - Factory Forms



Numbers and letters are molded into blocks at terminals.

Nameplates: See pages 9-40 to 9-41

Technical Data: See pages 9-56 to 9-57

Drilling Plans and Dimensions: See page 9-57

Product Number Selection Instructions: See pages 9-2



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

### CR104P

Section 9

Lever Operated  
Non-Illuminated  
600 Volts Max. AC/DC  
10 Amperes Continuous

Units are supplied factory-assembled when ordered with contact block.

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.

#### 2-Position Chrome<sup>1</sup>

Release Type	2 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Maintained	1	None	CR104PSM21	\$22.20
Maintained	1	1NO-1NC	CR104PSM21A91	\$40.20
Maintained	1	2NO-2NC	CR104PSM21A92	\$58.20
Spring Return L → C	2	None	CR104PSM12	\$34.20
Spring Return L → C	2	1NO-1NC	CR104PSM12A91	\$52.20
Spring Return L → C	2	2NO-2NC	CR104PSM12A92	\$70.20
Spring Return R → C	3	None	CR104PSM63	\$34.20
Spring Return R → C	3	1NO-1NC	CR104PSM63A91	\$52.20
Spring Return R → C	3	2NO-2NC	CR104PSM63A92	\$70.20

<sup>1</sup>To order black wing lever, replace "A" in Product Number with "B" before 91 or 92 contact digits. **Example:** the Product Number for a maintained, 1NO-1NC operator with black wing lever is CR104PSM21B91.

#### 2-Position Selector Switches - Non-Illuminated

Operator Position	Cam #1		Cam #2		Cam #3	
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right
O - X	NO	L or R	-	-	-	-
X - O	NC	L or R	-	-	-	-
X O -	-	-	NO	L or R	-	-
O X -	-	-	NC	L or R	-	-
- O X	-	-	-	-	NO	L or R
- X O	-	-	-	-	NC	L or R

- : This position is nonexistent or is a "pass through".

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

**Example:** CR104PSG2 1 B, the cam number is 1.

#### 3-Position Chrome<sup>1</sup> - Maintained

Release Type	3 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Maintained	4	None	CR104PSM34	\$22.20
Maintained	4	1NO-1NC	CR104PSM34A91	\$40.20
Maintained	4	2NO-2NC	CR104PSM34A92	\$58.20
Maintained	2	None	CR104PSM32	\$22.20
Maintained	2	1NO-1NC	CR104PSM32A91	\$40.20
Maintained	2	2NO-2NC	CR104PSM32A92	\$58.20
Maintained	3	None	CR104PSM33	\$22.20
Maintained	3	1NO-1NC	CR104PSM33A91	\$40.20
Maintained	3	2NO-2NC	CR104PSM33A92	\$58.20
Maintained	5	None	CR104PSM35	\$22.20
Maintained	5	2NO-2NC	CR104PSM35A92	\$58.20
Maintained	6	None	CR104PSM36	\$22.20
Maintained	6	2NO-2NC	CR104PSM36A92	\$58.20

#### 3-Position Selector Switches - Non-Illuminated

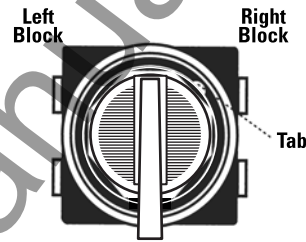
Operator Position	Cam #4		Cam #2		Cam #3		Cam #5		Cam #6	
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right
O O X	NO	L or R	-	-	NO	L or R	NO	L or R	NO	Left
O X O	-	-	NC	L or R	NC	L or R	NC	Right	-	-
X O O	NC	L or R	NO	L or R	-	-	NC	Left	NO	Right
X X O	-	-	-	-	-	-	-	-	NC	Left
O X X	-	-	-	-	-	-	-	-	NC	Right

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

**Example:** CR104PSG2 1 B, the cam number is 1.

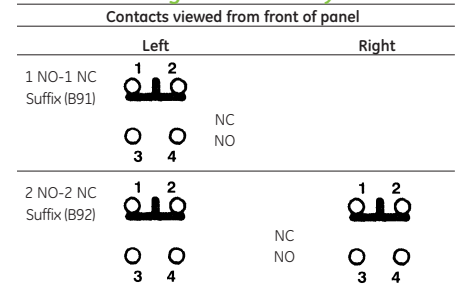


Lever-Operated Selector Switch



Contacts viewed from front of panel.

#### Schematic Diagrams - Factory Forms



Numbers and letters are molded into blocks at terminals.

#### 3-Position Chrome<sup>1</sup> - Spring Return L→C

Release Type	3 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Spring Return L → C	4	None	CR104PSM74	\$34.20
Spring Return L → C	4	1NO-1NC	CR104PSM74A91	\$52.20
Spring Return L → C	4	2NO-2NC	CR104PSM74A92	\$70.20
Spring Return L → C	2	None	CR104PSM72	\$34.20
Spring Return L → C	2	1NO-1NC	CR104PSM72A91	\$52.20
Spring Return L → C	2	2NO-2NC	CR104PSM72A92	\$70.20
Spring Return L → C	3	None	CR104PSM73	\$34.20
Spring Return L → C	3	1NO-1NC	CR104PSM73A91	\$52.20
Spring Return L → C	3	2NO-2NC	CR104PSM73A92	\$70.20
Spring Return L → C	5	None	CR104PSM75	\$34.20
Spring Return L → C	5	2NO-2NC	CR104PSM75A92	\$70.20
Spring Return L → C	6	None	CR104PSM76	\$34.20
Spring Return L → C	6	2NO-2NC	CR104PSM76A92	\$70.20

<sup>1</sup>To order black wing lever, replace "A" in Product Number with "B" before 91 or 92 contact digits. **Example:** the Product Number for a maintained, 1NO-1NC operator with black wing lever is CR104PSM32B91.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

### CR104P

## Section 9

Lever Operated  
Non-Illuminated  
600 Volts Max. AC/DC  
10 Amperes Continuous

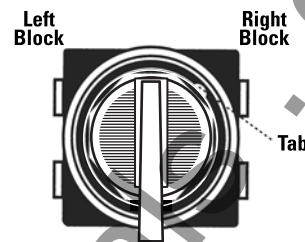
Units are supplied factory-assembled when ordered with contact block.

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.



Lever-Operated Selector Switch



Contacts viewed from front of panel.

### 3-Position Chrome<sup>1</sup> - Spring Return C←R

Release Type	3 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Spring Return C ← R	4	None	CR104PSM84	\$34.20
Spring Return C ← R	4	1NO-1NC	CR104PSM84A91	\$52.20
Spring Return C ← R	4	2NO-2NC	CR104PSM84A92	\$70.20
Spring Return C ← R	2	None	CR104PSM82	\$34.20
Spring Return C ← R	2	1NO-1NC	CR104PSM82A91	\$52.20
Spring Return C ← R	2	2NO-2NC	CR104PSM82A92	\$70.20
Spring Return C ← R	3	None	CR104PSM83	\$34.20
Spring Return C ← R	3	1NO-1NC	CR104PSM83A91	\$52.20
Spring Return C ← R	3	2NO-2NC	CR104PSM83A92	\$70.20
Spring Return C ← R	5	None	CR104PSM85	\$34.20
Spring Return C ← R	5	2NO-2NC	CR104PSM85A92	\$70.20
Spring Return C ← R	6	None	CR104PSM86	\$34.20

### 3-Position Chrome<sup>1</sup> - Spring Return L→C←R

Release Type	3 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Spring Return C ← R	6	2NO-2NC	CR104PSM86A92	\$70.20
Spring Return L → C ← R	4	None	CR104PSM94	\$34.20
Spring Return L → C ← R	4	1NO-1NC	CR104PSM94A91	\$52.20
Spring Return L → C ← R	4	2NO-2NC	CR104PSM94A92	\$70.20
Spring Return L → C ← R	2	None	CR104PSM92	\$34.20
Spring Return L → C ← R	2	1NO-1NC	CR104PSM92A91	\$52.20
Spring Return L → C ← R	2	2NO-2NC	CR104PSM92A92	\$70.20
Spring Return L → C ← R	3	None	CR104PSM93	\$34.20
Spring Return L → C ← R	3	1NO-1NC	CR104PSM93A91	\$52.20
Spring Return L → C ← R	3	2NO-2NC	CR104PSM93A92	\$70.20
Spring Return L → C ← R	5	None	CR104PSM95	\$34.20
Spring Return L → C ← R	5	2NO-2NC	CR104PSM95A92	\$70.20
Spring Return L → C ← R	6	None	CR104PSM96	\$34.20
Spring Return L → C ← R	6	2NO-2NC	CR104PSM96A92	\$70.20

<sup>1</sup>To order black wing lever, replace "A" in Product Number with "B" before 91 or 92 contact digits. **Example:** the Product Number for a maintained, 1NO-1NC operator with black wing lever is CR104PSM32B91.

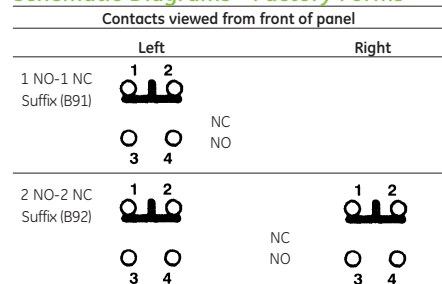
### 3-Position Selector Switches - Non-Illuminated

Operator Position	Cam #4			Cam #2			Cam #3			Cam #5			Cam #6		
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block
O	O	X	NO	L or R	-	-	NO	L or R	NO	L or R	NO	L or R	NO	Left	-
O	X	O	-	-	NC	L or R	NC	L or R	NC	Right	-	-	-	-	-
X	O	O	NC	L or R	NO	L or R	-	-	NC	Left	NO	Right	NO	Right	-
X	X	O	-	-	-	-	-	-	-	-	NC	Left	NC	Left	-
O	X	X	-	-	-	-	-	-	-	-	NC	Right	NC	Right	-

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

**Example:** CR104PSG2 1 B, the cam number is 1.

### Schematic Diagrams - Factory Forms



Numbers and letters are molded into blocks at terminals.

### 4-Position Chrome<sup>1</sup>

Release Type	4 Position Cam Code	Contact Configuration	Product Number <sup>1</sup>	List Price GO-10P1
Maintained	7	None	CR104PSM47	\$22.20
Maintained	9	2NO-2NC	CR104PSM47A92	\$58.20

### 4-Position Selector Switch - Non-Illuminated

Operator Position	Cam #7				Type of Contact Block	Mounting Location Left-Right
	Type of Contact Block	Mounting Location Left-Right	Type of Contact Block	Mounting Location Left-Right		
X	O	O	O	NC	Left	Left
O	O	X	O	NO	Left	Left
O	O	O	X	NC	Right	Right
O	X	O	O	NO	Right	Right

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

### CR104P

Section 9

Key Operated  
Non-Illuminated  
600 Volts Max. AC/DC  
10 Amperes Continuous

Units are supplied factory-assembled when ordered with contact blocks.

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item. Two keys included with each cylinder lock.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.



Key Selector Switch

#### 2-Position - Key Operated

Release Type	2 Position Cam Code	Contact Configuration	Key Removal	Product Number	List Price GO-10P1
Maintained	1	None	Left	CR104PSK21A00L	\$58.20
Maintained	1	None	Right	CR104PSK21A00R	\$58.20
Maintained	1	None	Left and Right	CR104PSK21A00M	\$58.20
Maintained	1	1NO-1NC	Left	CR104PSK21A91L	\$76.20
Maintained	1	1NO-1NC	Right	CR104PSK21A91R	\$76.20
Maintained	1	1NO-1NC	Left and Right	CR104PSK21A91M	\$76.20
Maintained	1	1NO-1NC	Left	CR104PSK21A91L51 <sup>1</sup>	\$88.20
Maintained	1	1NO-1NC	Right	CR104PSK21A91R51 <sup>1</sup>	\$88.20
Maintained	1	1NO-1NC	Left and Right	CR104PSK21A91M51 <sup>1</sup>	\$88.20
Maintained	1	2NO-2NC	Left	CR104PSK21A92L	\$94.20
Maintained	1	2NO-2NC	Right	CR104PSK21A92R	\$94.20
Maintained	1	2NO-2NC	Left and Right	CR104PSK21A92M	\$94.20
Spring Return L → C	2	None	Center	CR104PSK12A00C	\$70.20
Spring Return L → C	2	1NO-1NC	Center	CR104PSK12A91C	\$88.20
Spring Return L → C	2	1NO-1NC	Center	CR104PSK12A91C51 <sup>1</sup>	\$100.20
Spring Return L → C	2	2NO-2NC	Center	CR104PSK12A92C	\$106.20
Spring Return R → C	3	None	Center	CR104PSK63A00C	\$70.20
Spring Return R → C	3	1NO-1NC	Center	CR104PSK63A91C	\$88.20
Spring Return R → C	3	1NO-1NC	Center	CR104PSK63A91C51 <sup>1</sup>	\$100.20
Spring Return R → C	3	2NO-2NC	Center	CR104PSK63A92C	\$106.20

<sup>1</sup>CH501 keyed cylinder lock. Other listed cylinder locks are alike and use identical keys. Dissimilar locks are also available; contact nearest GE Consumer & Industrial Representative.

#### 2-Position Selector Switches - Key Operated

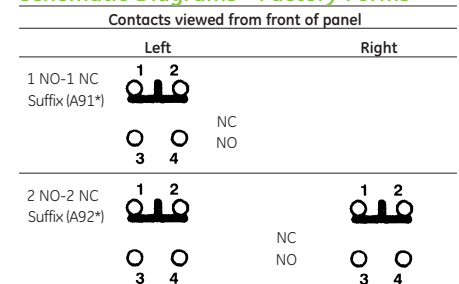
Operator Position		Cam #1		Cam #2		Cam #3	
		Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right
Contact State	O - X	NO	L or R	-	-	-	-
	X - O	NC	L or R	-	-	-	-
	X O -	-	-	NO	L or R	-	-
	O X -	-	-	NC	L or R	-	-
	- O X	-	-	-	-	NO	L or R
	- X O	-	-	-	-	NC	L or R

- : This position is nonexistent or is a "pass through".

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

**Example:** CR104PSG2 1 B, the cam number is 1.

#### Schematic Diagrams - Factory Forms



Numbers and letters are molded into blocks at terminals.

\*Key removal code.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

## Section 9

### CR104P

Key Operated

Non-Illuminated

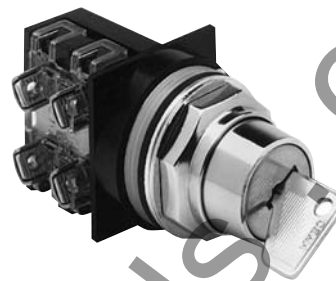
600 Volts Max. AC/DC

10 Amperes Continuous

Units are supplied factory-assembled when ordered with contact blocks.

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item. Two keys included with each cylinder lock.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.



Key Selector Switch

### 3-Position Maintained - Key Operated

Release Type	3 Position Cam Code	Contact Configuration	Key Removal	Product Number	List Price GO-10P1
Maintained	4	None	Left	CR104PSK34A00L	\$58.20
Maintained	4	None	Center	CR104PSK34A00C	\$58.20
Maintained	4	None	Right	CR104PSK34A00R	\$58.20
Maintained	4	None	Left, Right, and Center	CR104PSK34A00W	\$58.20
Maintained	4	1NO-1NC	Left	CR104PSK34A91L	\$76.20
Maintained	4	1NO-1NC	Center	CR104PSK34A91C	\$76.20
Maintained	4	1NO-1NC	Right	CR104PSK34A91R	\$76.20
Maintained	4	1NO-1NC	Left, Right, and Center	CR104PSK34A91W	\$76.20
Maintained	4	1NO-1NC	Left	CR104PSK34A91L51 <sup>1</sup>	\$88.20
Maintained	4	1NO-1NC	Center	CR104PSK34A91C51 <sup>1</sup>	\$88.20
Maintained	4	1NO-1NC	Right	CR104PSK34A91R51 <sup>1</sup>	\$88.20
Maintained	4	1NO-1NC	Left, Right, and Center	CR104PSK34A91W51 <sup>1</sup>	\$88.20
Maintained	4	2NO-2NC	Left	CR104PSK34A92L	\$94.20
Maintained	4	2NO-2NC	Center	CR104PSK34A92C	\$94.20
Maintained	4	2NO-2NC	Right	CR104PSK34A92R	\$94.20
Maintained	4	2NO-2NC	Left, Right, and Center	CR104PSK34A92W	\$94.20
Maintained	2	None	Left	CR104PSK32A00L	\$58.20
Maintained	2	None	Center	CR104PSK32A00C	\$58.20
Maintained	2	None	Right	CR104PSK32A00R	\$58.20
Maintained	2	None	Left, Right, and Center	CR104PSK32A00W	\$58.20
Maintained	2	1NO-1NC	Left	CR104PSK32A91L	\$76.20
Maintained	2	1NO-1NC	Center	CR104PSK32A91C	\$76.20
Maintained	2	1NO-1NC	Right	CR104PSK32A91R	\$76.20
Maintained	2	1NO-1NC	Left, Right, and Center	CR104PSK32A91W	\$76.20
Maintained	2	2NO-2NC	Left	CR104PSK32A92L	\$94.20
Maintained	2	2NO-2NC	Center	CR104PSK32A92C	\$94.20
Maintained	2	2NO-2NC	Right	CR104PSK32A92R	\$94.20
Maintained	2	2NO-2NC	Left, Right, and Center	CR104PSK32A92W	\$94.20

<sup>1</sup>CH501 keyed cylinder lock. Other listed cylinder locks are alike and use identical keys. Dissimilar locks are also available; contact nearest GE Consumer & Industrial Representative.

### 3-Position Maintained - Key Operated (continued)

Release Type	3 Position Cam Code	Contact Configuration	Key Removal	Product Number <sup>1</sup>	List Price GO-10P1
Maintained	3	None	Left	CR104PSK33A00L	\$58.20
Maintained	3	None	Center	CR104PSK33A00C	\$58.20
Maintained	3	None	Right	CR104PSK33A00R	\$58.20
Maintained	3	None	Left, Right, and Center	CR104PSK33A00W	\$58.20
Maintained	3	1NO-1NC	Left	CR104PSK33A91L	\$76.20
Maintained	3	1NO-1NC	Center	CR104PSK33A91C	\$76.20
Maintained	3	1NO-1NC	Right	CR104PSK33A91R	\$76.20
Maintained	3	1NO-1NC	Left, Right, and Center	CR104PSK33A91W	\$76.20
Maintained	3	2NO-2NC	Left	CR104PSK33A92L	\$94.20
Maintained	3	2NO-2NC	Center	CR104PSK33A92C	\$94.20
Maintained	3	2NO-2NC	Right	CR104PSK33A92R	\$94.20
Maintained	3	2NO-2NC	Left, Right, and Center	CR104PSK33A92W	\$94.20
Maintained	5	None	Left	CR104PSK35A00L	\$58.20
Maintained	5	None	Center	CR104PSK35A00C	\$58.20
Maintained	5	None	Right	CR104PSK35A00R	\$58.20
Maintained	5	None	Left, Right, and Center	CR104PSK35A00W	\$58.20
Maintained	5	2NO-2NC	Left	CR104PSK35A92L	\$94.20
Maintained	5	2NO-2NC	Center	CR104PSK35A92C	\$94.20
Maintained	5	2NO-2NC	Right	CR104PSK35A92R	\$94.20
Maintained	5	2NO-2NC	Left, Right, and Center	CR104PSK35A92W	\$94.20
Maintained	6	None	Left	CR104PSK36A00L	\$58.20
Maintained	6	None	Center	CR104PSK36A00C	\$58.20
Maintained	6	None	Right	CR104PSK36A00R	\$58.20
Maintained	6	None	Left, Right, and Center	CR104PSK36A00W	\$58.20
Maintained	6	2NO-2NC	Left	CR104PSK36A92L	\$94.20
Maintained	6	2NO-2NC	Center	CR104PSK36A92C	\$94.20
Maintained	6	2NO-2NC	Right	CR104PSK36A92R	\$94.20
Maintained	6	2NO-2NC	Left, Right, and Center	CR104PSK36A92W	\$94.20

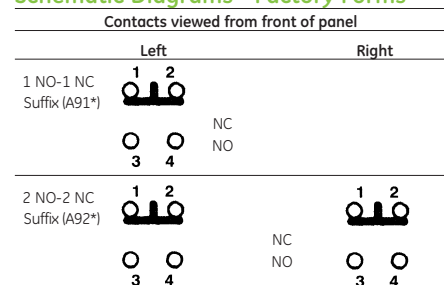
### 3-Position Selector Switches - Key Operated

Operator Position	Cam #4		Cam #2		Cam #3		Cam #5		Cam #6	
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right
Contact State	O O X	NO	L or R	-	NO	L or R	NO	L or R	NO	L or R
	O X O	-	-	NC	L or R	NC	L or R	NC	Right	-
	X O O	NC	L or R	NO	L or R	-	-	NC	Left	NO
	X X O	-	-	-	-	-	-	-	NC	Left
Contact State	O X X	-	-	-	-	-	-	-	NC	Right
	O X X	-	-	-	-	-	-	-	NC	Right

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

Example: CR104PSG2 1 B, the cam number is 1.

### Schematic Diagrams - Factory Forms



Numbers and letters are molded into blocks at terminals.  
\*Key removal code.



Extra Keys: See pages 9-39  
Nameplates: See pages 9-40 to 9-41  
Technical Data: See pages 9-56 to 9-57

Drilling Plans and Dimensions: See page 9-57  
Product Number Selection Instructions: See pages 9-2

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

### CR104P

Section 9

Key Operated  
Non-Illuminated  
600 Volts Max. AC/DC  
10 Amperes Continuous



Key Selector Switch

Units are supplied factory-assembled when ordered with contact blocks.

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item. Two keys included with each cylinder lock.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.

#### 3-Position - Key Operated Spring Return L→C

Release Type	3 Position Cam Code	Contact Configuration	Key Removal	Product Number	List Price GO-10P1
Spring Return L → C	4	None	Center	CR104PSK74A00C	\$70.20
Spring Return L → C	4	None	Right	CR104PSK74A00R	\$70.20
Spring Return L → C	4	None	Center and Right	CR104PSK74A00Q	\$70.20
Spring Return L → C	4	1NO-1NC	Center	CR104PSK74A91C	\$88.20
Spring Return L → C	4	1NO-1NC	Right	CR104PSK74A91R	\$88.20
Spring Return L → C	4	1NO-1NC	Center and Right	CR104PSK74A91Q	\$88.20
Spring Return L → C	4	1NO-1NC	Center	CR104PSK74A91C <sup>1</sup>	\$100.20
Spring Return L → C	4	2NO-2NC	Center	CR104PSK74A92C	\$106.20
Spring Return L → C	4	2NO-2NC	Right	CR104PSK74A92R	\$106.20
Spring Return L → C	4	2NO-2NC	Center and Right	CR104PSK74A92Q	\$106.20
Spring Return L → C	2	None	Center	CR104PSK72A00C	\$70.20
Spring Return L → C	2	None	Right	CR104PSK72A00R	\$70.20
Spring Return L → C	2	None	Center and Right	CR104PSK72A00Q	\$70.20
Spring Return L → C	2	1NO-1NC	Center	CR104PSK72A91C	\$88.20
Spring Return L → C	2	1NO-1NC	Right	CR104PSK72A91R	\$88.20
Spring Return L → C	2	1NO-1NC	Center and Right	CR104PSK72A91Q	\$88.20
Spring Return L → C	2	2NO-2NC	Center	CR104PSK72A92C	\$106.20
Spring Return L → C	2	2NO-2NC	Right	CR104PSK72A92R	\$106.20
Spring Return L → C	2	2NO-2NC	Center and Right	CR104PSK72A92Q	\$106.20

<sup>1</sup>CH501 keyed cylinder lock. Other listed cylinder locks are alike and use identical keys. Dissimilar locks are also available; contact nearest GE Consumer & Industrial Representative.

#### 3-Position - Key Operated Spring Return L→C (continued)

Release Type	3 Position Cam Code	Contact Configuration	Key Removal	Product Number	List Price GO-10P1
Spring Return L → C	3	None	Center	CR104PSK73A00C	\$70.20
Spring Return L → C	3	None	Right	CR104PSK73A00R	\$70.20
Spring Return L → C	3	None	Center and Right	CR104PSK73A00Q	\$70.20
Spring Return L → C	3	1NO-1NC	Center	CR104PSK73A91C	\$88.20
Spring Return L → C	3	1NO-1NC	Right	CR104PSK73A91R	\$88.20
Spring Return L → C	3	1NO-1NC	Center and Right	CR104PSK73A91Q	\$88.20
Spring Return L → C	3	2NO-2NC	Center	CR104PSK73A92C	\$106.20
Spring Return L → C	3	2NO-2NC	Right	CR104PSK73A92R	\$106.20
Spring Return L → C	3	2NO-2NC	Center and Right	CR104PSK73A92Q	\$106.20
Spring Return L → C	5	None	Center	CR104PSK75A00C	\$70.20
Spring Return L → C	5	None	Right	CR104PSK75A00R	\$70.20
Spring Return L → C	5	None	Center and Right	CR104PSK75A00Q	\$70.20
Spring Return L → C	5	2NO-2NC	Center	CR104PSK75A92C	\$70.20
Spring Return L → C	5	2NO-2NC	Right	CR104PSK75A92R	\$70.20
Spring Return L → C	5	2NO-2NC	Center and Right	CR104PSK75A92Q	\$70.20
Spring Return L → C	6	None	Center	CR104PSK76A00C	\$70.20
Spring Return L → C	6	None	Right	CR104PSK76A00R	\$70.20
Spring Return L → C	6	None	Center and Right	CR104PSK76A00Q	\$70.20
Spring Return L → C	6	2NO-2NC	Center	CR104PSK76A92C	\$106.20
Spring Return L → C	6	2NO-2NC	Right	CR104PSK76A92R	\$106.20
Spring Return L → C	6	2NO-2NC	Center and Right	CR104PSK76A92Q	\$106.20

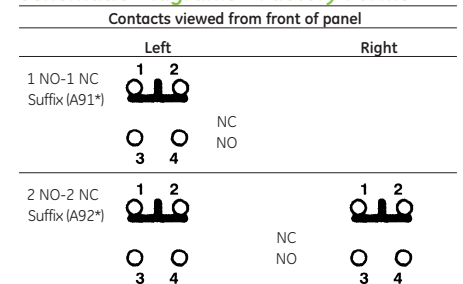
#### 3-Position Selector Switches - Key Operated

Operator Position		Cam #4		Cam #2		Cam #3		Cam #5		Cam #6	
		Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right
Contact State	O	O	X	NO	L or R	—	—	NO	L or R	NO	Left
	O	X	O	—	—	NC	L or R	NC	Right	—	—
	X	O	O	NC	L or R	NO	L or R	—	—	NC	Left
	X	X	O	—	—	—	—	—	—	NC	Right
	O	X	X	—	—	—	—	—	—	NC	Right

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

**Example:** CR104PSG2 1 B, the cam number is 1.

#### Schematic Diagrams - Factory Forms



Numbers and letters are molded into blocks at terminals.  
\*Key removal code.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

### CR104P

Section 9

Key Operated  
Non-Illuminated  
600 Volts Max. AC/DC  
10 Amperes Continuous

Units are supplied factory-assembled when ordered with contact blocks.

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item. Two keys included with each cylinder lock.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.



Key Selector Switch

#### 3-Position - Key Operated Spring Return C ← R

	3 Position				List Price
Release Type	Cam Code	Contact Configuration	Key Removal	Product Number	GO-10P1
Spring Return C ← R	4	None	Left	CR104PSK84A00L	\$70.20
Spring Return C ← R	4	None	Center	CR104PSK84A00C	\$70.20
Spring Return C ← R	4	None	Left and Center	CR104PSK84A00D	\$70.20
Spring Return C ← R	4	1NO-1NC	Left	CR104PSK84A91L	\$88.20
Spring Return C ← R	4	1NO-1NC	Center	CR104PSK84A91C	\$88.20
Spring Return C ← R	4	1NO-1NC	Left and Center	CR104PSK84A91D	\$88.20
Spring Return C ← R	4	1NO-1NC	Center	CR104PSK84A91C51 <sup>1</sup>	\$100.20
Spring Return C ← R	4	2NO-2NC	Left	CR104PSK84A92L	\$106.20
Spring Return C ← R	4	2NO-2NC	Center	CR104PSK84A92C	\$106.20
Spring Return C ← R	4	2NO-2NC	Left and Center	CR104PSK84A92D	\$106.20
Spring Return C ← R	2	None	Left	CR104PSK82A00L	\$70.20
Spring Return C ← R	2	None	Center	CR104PSK82A00C	\$70.20
Spring Return C ← R	2	None	Left and Center	CR104PSK82A00D	\$70.20
Spring Return C ← R	2	1NO-1NC	Left	CR104PSK82A91L	\$88.20
Spring Return C ← R	2	1NO-1NC	Center	CR104PSK82A91C	\$88.20
Spring Return C ← R	2	1NO-1NC	Left and Center	CR104PSK82A91D	\$88.20
Spring Return C ← R	2	2NO-2NC	Left	CR104PSK82A92L	\$106.20
Spring Return C ← R	2	2NO-2NC	Center	CR104PSK82A92C	\$106.20
Spring Return C ← R	2	2NO-2NC	Left and Center	CR104PSK82A92D	\$106.20
Spring Return C ← R	3	None	Left	CR104PSK83A00L	\$70.20
Spring Return C ← R	3	None	Center	CR104PSK83A00C	\$70.20
Spring Return C ← R	3	None	Left and Center	CR104PSK83A00D	\$70.20
Spring Return C ← R	3	1NO-1NC	Left	CR104PSK83A91L	\$88.20
Spring Return C ← R	3	1NO-1NC	Center	CR104PSK83A91C	\$88.20
Spring Return C ← R	3	1NO-1NC	Left and Center	CR104PSK83A91D	\$88.20
Spring Return C ← R	3	2NO-2NC	Left	CR104PSK83A92L	\$106.20
Spring Return C ← R	3	2NO-2NC	Center	CR104PSK83A92C	\$106.20
Spring Return C ← R	3	2NO-2NC	Left and Center	CR104PSK83A92D	\$106.20
Spring Return C ← R	5	None	Left	CR104PSK85A00L	\$70.20
Spring Return C ← R	5	None	Center	CR104PSK85A00C	\$70.20
Spring Return C ← R	5	None	Left and Center	CR104PSK85A00D	\$70.20
Spring Return C ← R	5	2NO-2NC	Left	CR104PSK85A92L	\$106.20
Spring Return C ← R	5	2NO-2NC	Center	CR104PSK85A92C	\$106.20
Spring Return C ← R	5	2NO-2NC	Left and Center	CR104PSK85A92D	\$106.20
Spring Return C ← R	6	None	Left	CR104PSK86A00L	\$70.20
Spring Return C ← R	6	None	Center	CR104PSK86A00C	\$70.20
Spring Return C ← R	6	None	Left and Center	CR104PSK86A00D	\$70.20
Spring Return C ← R	6	2NO-2NC	Left	CR104PSK86A92L	\$106.20
Spring Return C ← R	6	2NO-2NC	Center	CR104PSK86A92C	\$106.20
Spring Return C ← R	6	2NO-2NC	Left and Center	CR104PSK86A92D	\$106.20

<sup>1</sup>CH501 keyed cylinder lock. Other listed cylinder locks are alike and use identical keys. Dissimilar locks are also available; contact nearest GE Consumer & Industrial Representative.

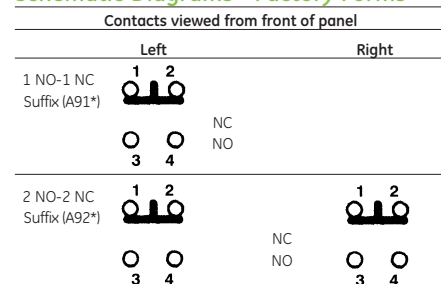
#### 3-Position Selector Switches - Key Operated

Operator Position	Cam #4		Cam #2		Cam #3		Cam #5		Cam #6	
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right
O O X	NO	L or R	-	-	NO	L or R	NO	L or R	NO	Left
O X O	-	-	NC	L or R	NC	L or R	NC	Right	-	-
X O O	NC	L or R	NO	L or R	-	-	NC	Left	NO	Right
X X O	-	-	-	-	-	-	-	NC	Left	Left
O X X	-	-	-	-	-	-	-	NC	Right	Right

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

**Example:** CR104PSG2-1-B, the cam number is 1.

#### Schematic Diagrams - Factory Forms



Numbers and letters are molded into blocks at terminals.  
\*Key removal code.

Extra Keys: See pages 9-39  
Nameplates: See pages 9-40 to 9-41  
Technical Data: See pages 9-56 to 9-57

Drilling Plans and Dimensions: See page 9-57  
Product Number Selection Instructions: See pages 9-2



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

### CR104P

## Section 9

Knob Operated  
Illuminated  
600 Volts Max. AC/DC  
10 Amperes Continuous

Units are supplied factory-assembled when ordered with contact blocks.

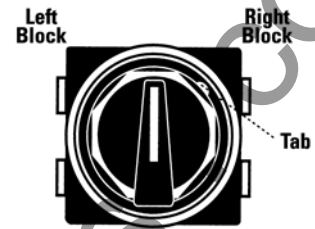
Product Number and price do not include nameplate. All nameplates must be ordered as a separate item.

Resistor forms of 2-position and 3-position illuminated selector switches are available. Contact nearest GE Consumer & Industrial Representative for proper selection and pricing.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.



Knob Operated



Contacts viewed from front of panel.

#### 2-Position - Maintained

2 Position Cam Code	Contact Configuration	Power Supply Type	Input Voltage	Lamp Type <sup>2</sup>	Color	Product Number	List Price GO-10P1
1	None	Transformer	120V	Incand., 6V, #755	Red	CR104PST21R00S2	\$70.20
1	None	Transformer	120V	Incand., 6V, #755	Green	CR104PST21G00S2	\$70.20
1	None	Transformer	120V	Incand., 6V, #755	Yellow	CR104PST21E00S2	\$70.20
1	None	Transformer	120V	Incand., 6V, #755	No Lens	CR104PST21A00S2 <sup>1</sup>	\$66.00
1	1NO-1NC	Transformer	120V	Incand., 6V, #755	Red	CR104PST21R11S2	\$88.20
1	1NO-1NC	Transformer	120V	Incand., 6V, #755	Green	CR104PST21G11S2	\$88.20
1	1NO-1NC	Transformer	120V	Incand., 6V, #755	Yellow	CR104PST21E11S2	\$88.20
1	1NO-1NC	Transformer	120V	Incand., 6V, #755	No Lens	CR104PST21A11S2 <sup>1</sup>	\$84.00
1	None	Transformer	240V	Incand., 6V, #755	Red	CR104PST21R00S3	\$70.20
1	None	Transformer	240V	Incand., 6V, #755	Green	CR104PST21G00S3	\$70.20
1	None	Transformer	240V	Incand., 6V, #755	Yellow	CR104PST21E00S3	\$70.20
1	None	Transformer	240V	Incand., 6V, #755	No Lens	CR104PST21A00S3 <sup>1</sup>	\$66.00
1	1NO-1NC	Transformer	240V	Incand., 6V, #755	Red	CR104PST21R11S3	\$88.20
1	1NO-1NC	Transformer	240V	Incand., 6V, #755	Green	CR104PST21G11S3	\$88.20
1	1NO-1NC	Transformer	240V	Incand., 6V, #755	Yellow	CR104PST21E11S3	\$88.20
1	1NO-1NC	Transformer	240V	Incand., 6V, #755	No Lens	CR104PST21A11S3 <sup>1</sup>	\$84.00
1	None	Full Voltage	6V	Incand., 6V, #755	Red	CR104PSL21R00S6	\$58.20
1	None	Full Voltage	6V	Incand., 6V, #755	Green	CR104PSL21G00S6	\$58.20
1	None	Full Voltage	6V	Incand., 6V, #755	Yellow	CR104PSL21E00S6	\$58.20
1	None	Full Voltage	6V	Incand., 6V, #755	No Lens	CR104PSL21A00S6 <sup>1</sup>	\$54.00
1	1NO-1NC	Full Voltage	6V	Incand., 6V, #755	Red	CR104PSL21R11S6	\$76.20
1	1NO-1NC	Full Voltage	6V	Incand., 6V, #755	Green	CR104PSL21G11S6	\$76.20
1	1NO-1NC	Full Voltage	6V	Incand., 6V, #755	Yellow	CR104PSL21E11S6	\$76.20
1	1NO-1NC	Full Voltage	6V	Incand., 6V, #755	No Lens	CR104PSL21A11S6 <sup>1</sup>	\$72.00
1	None	Full Voltage	24V	Incand., 24V, #1819	Red	CR104PSL21R00S8	\$58.20
1	None	Full Voltage	24V	Incand., 24V, #1819	Green	CR104PSL21G00S8	\$58.20
1	None	Full Voltage	24V	Incand., 24V, #1819	Yellow	CR104PSL21E00S8	\$58.20
1	None	Full Voltage	24V	Incand., 24V, #1819	No Lens	CR104PSL21A00S8 <sup>1</sup>	\$54.00
1	1NO-1NC	Full Voltage	24V	Incand., 24V, #1819	Red	CR104PSL21R11S8	\$76.20
1	1NO-1NC	Full Voltage	24V	Incand., 24V, #1819	Green	CR104PSL21G11S8	\$76.20
1	1NO-1NC	Full Voltage	24V	Incand., 24V, #1819	Yellow	CR104PSL21E11S8	\$76.20
1	1NO-1NC	Full Voltage	24V	Incand., 24V, #1819	No Lens	CR104PSL21A11S8 <sup>1</sup>	\$72.00
1	None	Full Voltage	120V	Incand., 130V	Red	CR104PSL21R00S2	\$58.20
1	None	Full Voltage	120V	Incand., 130V	Green	CR104PSL21G00S2	\$58.20
1	None	Full Voltage	120V	Incand., 130V	Yellow	CR104PSL21E00S2	\$58.20
1	None	Full Voltage	120V	Incand., 130V	No Lens	CR104PSL21A00S2 <sup>1</sup>	\$54.00
1	1NO-1NC	Full Voltage	120V	Incand., 130V	Red	CR104PSL21R11S2	\$76.20
1	1NO-1NC	Full Voltage	120V	Incand., 130V	Green	CR104PSL21G11S2	\$76.20
1	1NO-1NC	Full Voltage	120V	Incand., 130V	Yellow	CR104PSL21E11S2	\$76.20
1	1NO-1NC	Full Voltage	120V	Incand., 130V	No Lens	CR104PSL21A11S2 <sup>1</sup>	\$72.00

<sup>1</sup>Select required lens from page 9-36 and order as separate item. To order assembled units with lens colors not listed above, substitute the following letters in place of "A" in Product Number: L (Blue), M (Amber), W (White), or C (Clear). Price is same as for units with lenses of listed colors.

<sup>2</sup>All lamps miniature bayonet base.

#### 2-Position Selector Switches - Illuminated

Operator Position	Contact State	Cam #1	
		Type of Contact Block	Mounting Location Left/Right
	O - X	NO	Right
	X - O	NC	Left

--: This position is a "pass through".

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

Example: CR104PSG2 1 B, the cam number is 1.

#### Schematic Diagrams - Factory Forms

Contacts viewed from front of panel			
Left		Right	
1 NO-1 NC Suffix (11S*)		3 4	

Numbers and letters are molded into blocks at terminals.

\*Voltage digit.



Publications and Reference: See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

## Section 9

### CR104P

Knob Operated

Illuminated

600 Volts Max. AC/DC

10 Amperes Continuous

Units are supplied factory-assembled when ordered with contact blocks.

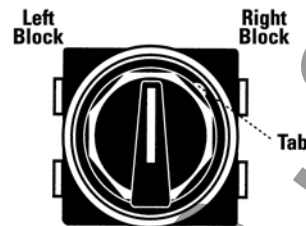
Product Number and price do not include nameplate. All nameplates must be ordered as a separate item.

Resistor forms of 2-position and 3-position illuminated selector switches are available. Contact nearest GE Consumer & Industrial Representative for proper selection and pricing.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.



Transformer



Contacts viewed from front of panel.

### 3-Position Maintained Transformer Type

3 Position Cam Code	Contact Configuration	Input Voltage	Lamp Type <sup>2</sup>	Color	Product Number	List Price GO-10P1
4	None	120V	Incand., 6V, #755	Red	CR104PST34R00S2	\$70.20
4	None	120V	Incand., 6V, #755	Green	CR104PST34G00S2	\$70.20
4	None	120V	Incand., 6V, #755	Yellow	CR104PST34E00S2	\$70.20
4	None	120V	Incand., 6V, #755	No Lens	CR104PST34A00S2 <sup>1</sup>	\$66.00
4	1NO-1NC	120V	Incand., 6V, #755	Red	CR104PST34R11S2	\$88.20
4	1NO-1NC	120V	Incand., 6V, #755	Green	CR104PST34G11S2	\$88.20
4	1NO-1NC	120V	Incand., 6V, #755	Yellow	CR104PST34E11S2	\$88.20
4	1NO-1NC	120V	Incand., 6V, #755	No Lens	CR104PST34A11S2 <sup>1</sup>	\$84.00
4	None	240V	Incand., 6V, #755	Red	CR104PST34R00S3	\$70.20
4	None	240V	Incand., 6V, #755	Green	CR104PST34G00S3	\$70.20
4	None	240V	Incand., 6V, #755	Yellow	CR104PST34E00S3	\$70.20
4	None	240V	Incand., 6V, #755	No Lens	CR104PST34A00S3 <sup>1</sup>	\$66.00
4	1NO-1NC	240V	Incand., 6V, #755	Red	CR104PST34R11S3	\$88.20
4	1NO-1NC	240V	Incand., 6V, #755	Green	CR104PST34G11S3	\$88.20
4	1NO-1NC	240V	Incand., 6V, #755	Yellow	CR104PST34E11S3	\$88.20
4	1NO-1NC	240V	Incand., 6V, #755	No Lens	CR104PST34A11S3 <sup>1</sup>	\$84.00
2	None	120V	Incand., 6V, #755	Red	CR104PST32R00S2	\$70.20
2	None	120V	Incand., 6V, #755	Green	CR104PST32G00S2	\$70.20
2	None	120V	Incand., 6V, #755	Yellow	CR104PST32E00S2	\$70.20
2	None	120V	Incand., 6V, #755	No Lens	CR104PST32A00S2 <sup>1</sup>	\$66.00
2	1NO-1NC	120V	Incand., 6V, #755	Red	CR104PST32R11S2	\$88.20
2	1NO-1NC	120V	Incand., 6V, #755	Green	CR104PST32G11S2	\$88.20
2	1NO-1NC	120V	Incand., 6V, #755	Yellow	CR104PST32E11S2	\$88.20
2	1NO-1NC	120V	Incand., 6V, #755	No Lens	CR104PST32A11S2 <sup>1</sup>	\$84.00
2	None	240V	Incand., 6V, #755	Red	CR104PST32R00S3	\$70.20
2	None	240V	Incand., 6V, #755	Green	CR104PST32G00S3	\$70.20
2	None	240V	Incand., 6V, #755	Yellow	CR104PST32E00S3	\$70.20
2	None	240V	Incand., 6V, #755	No Lens	CR104PST32A00S3 <sup>1</sup>	\$66.00
2	1NO-1NC	240V	Incand., 6V, #755	Red	CR104PST32R11S3	\$88.20
2	1NO-1NC	240V	Incand., 6V, #755	Green	CR104PST32G11S3	\$88.20
2	1NO-1NC	240V	Incand., 6V, #755	Yellow	CR104PST32E11S3	\$88.20
2	1NO-1NC	240V	Incand., 6V, #755	No Lens	CR104PST32A11S3 <sup>1</sup>	\$84.00

### 3-Position Maintained Transformer Type (continued)

3 Position Cam Code	Contact Configuration	Input Voltage	Lamp Type <sup>2</sup>	Color	Product Number	List Price GO-10P1
6	None	120V	Incand., 6V, #755	Red	CR104PST36R00S2	\$70.20
6	None	120V	Incand., 6V, #755	Green	CR104PST36G00S2	\$70.20
6	None	120V	Incand., 6V, #755	Yellow	CR104PST36E00S2	\$70.20
6	None	120V	Incand., 6V, #755	No Lens	CR104PST36A00S2 <sup>1</sup>	\$66.00
6	1NO-1NC	120V	Incand., 6V, #755	Red	CR104PST36R11S2	\$88.20
6	1NO-1NC	120V	Incand., 6V, #755	Green	CR104PST36G11S2	\$88.20
6	1NO-1NC	120V	Incand., 6V, #755	Yellow	CR104PST36E11S2	\$88.20
6	1NO-1NC	120V	Incand., 6V, #755	No Lens	CR104PST36A11S2 <sup>1</sup>	\$84.00
6	None	240V	Incand., 6V, #755	Red	CR104PST36R00S3	\$70.20
6	None	240V	Incand., 6V, #755	Green	CR104PST36G00S3	\$70.20
6	None	240V	Incand., 6V, #755	Yellow	CR104PST36E00S3	\$70.20
6	None	240V	Incand., 6V, #755	No Lens	CR104PST36A00S3 <sup>1</sup>	\$66.00
6	1NO-1NC	240V	Incand., 6V, #755	Red	CR104PST36R11S3	\$88.20
6	1NO-1NC	240V	Incand., 6V, #755	Green	CR104PST36G11S3	\$88.20
6	1NO-1NC	240V	Incand., 6V, #755	Yellow	CR104PST36E11S3	\$88.20
6	1NO-1NC	240V	Incand., 6V, #755	No Lens	CR104PST36A11S3 <sup>1</sup>	\$84.00

<sup>1</sup>Select required lens from page 9-36 and order as separate item. To order assembled units with lens colors not listed above, substitute the following letters in place of "A" in Product Number: L (Blue), M (Amber), W (White), or C (Clear). Price is same as for units with lenses of listed colors.

<sup>2</sup>All lamps miniature bayonet base.

### 3-Position Selector Switches - Illuminated

Operator Position	Cam #2		Cam #4		Cam #6	
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right
	O O X	-	NO	Right	-	-
	O X O	NC	-	-	-	-
	X O O	NO	NC	Left	NO	Right
	X X O	-	-	-	NC	Left
	O X X	-	-	-	-	-

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

Example: CR104PSG2 1 B, the cam number is 1.

### Schematic Diagrams - Factory Forms

Contacts viewed from front of panel	
Left	Right
1 NO-1 NC Suffix (11S*) 	

Numbers and letters are molded into blocks at terminals.  
\*Voltage digit.



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

### CR104P

Section 9

Knob Operated

Illuminated

600 Volts Max. AC/DC

10 Amperes Continuous

Units are supplied factory-assembled when ordered with contact blocks.

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item.

Resistor forms of 2-position and 3-position illuminated selector switches are available. Contact nearest GE Consumer & Industrial Representative for proper selection and pricing.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.




#### 3-Position Maintained Full Voltage Type

3 Position Cam Code	Contact Configuration	Input Voltage	Lamp Type <sup>2</sup>	Color	Product Number	List Price GO-10P1
4	None	6V	Incand., 6V, #755	Red	CR104PSL34R00S6	\$58.20
4	None	6V	Incand., 6V, #755	Green	CR104PSL34G00S6	\$58.20
4	None	6V	Incand., 6V, #755	Yellow	CR104PSL34E00S6	\$58.20
4	None	6V	Incand., 6V, #755	No Lens	CR104PSL34A00S6 <sup>1</sup>	\$54.00
4	1NO-1NC	6V	Incand., 6V, #755	Red	CR104PSL34R11S6	\$76.20
4	1NO-1NC	6V	Incand., 6V, #755	Green	CR104PSL34G11S6	\$76.20
4	1NO-1NC	6V	Incand., 6V, #755	Yellow	CR104PSL34E11S6	\$76.20
4	1NO-1NC	6V	Incand., 6V, #755	No Lens	CR104PSL34A11S6 <sup>1</sup>	\$72.00
4	None	24V	Incand., 24V, #1819	Red	CR104PSL34R00S8	\$58.20
4	None	24V	Incand., 24V, #1819	Green	CR104PSL34G00S8	\$58.20
4	None	24V	Incand., 24V, #1819	Yellow	CR104PSL34E00S8	\$58.20
4	None	24V	Incand., 24V, #1819	No Lens	CR104PSL34A00S8 <sup>1</sup>	\$54.00
4	1NO-1NC	24V	Incand., 24V, #1819	Red	CR104PSL34R11S8	\$76.20
4	1NO-1NC	24V	Incand., 24V, #1819	Green	CR104PSL34G11S8	\$76.20
4	1NO-1NC	24V	Incand., 24V, #1819	Yellow	CR104PSL34E11S8	\$76.20
4	1NO-1NC	24V	Incand., 24V, #1819	No Lens	CR104PSL34A11S8 <sup>1</sup>	\$72.00
4	None	120V	Incand., 130V	Red	CR104PSL34R00S2	\$58.20
4	None	120V	Incand., 130V	Green	CR104PSL34G00S2	\$58.20
4	None	120V	Incand., 130V	Yellow	CR104PSL34E00S2	\$58.20
4	None	120V	Incand., 130V	No Lens	CR104PSL34A00S2 <sup>1</sup>	\$54.00
4	1NO-1NC	120V	Incand., 130V	Red	CR104PSL34R11S2	\$76.20
4	1NO-1NC	120V	Incand., 130V	Green	CR104PSL34G11S2	\$76.20
4	1NO-1NC	120V	Incand., 130V	Yellow	CR104PSL34E11S2	\$76.20
4	1NO-1NC	120V	Incand., 130V	No Lens	CR104PSL34A11S2 <sup>1</sup>	\$72.00
2	None	6V	Incand., 6V, #755	Red	CR104PSL32R00S6	\$58.20
2	None	6V	Incand., 6V, #755	Green	CR104PSL32G00S6	\$58.20
2	None	6V	Incand., 6V, #755	Yellow	CR104PSL32E00S6	\$58.20
2	None	6V	Incand., 6V, #755	No Lens	CR104PSL32A00S6 <sup>1</sup>	\$54.00
2	1NO-1NC	6V	Incand., 6V, #755	Red	CR104PSL32R11S6	\$76.20
2	1NO-1NC	6V	Incand., 6V, #755	Green	CR104PSL32G11S6	\$76.20
2	1NO-1NC	6V	Incand., 6V, #755	Yellow	CR104PSL32E11S6	\$76.20
2	1NO-1NC	6V	Incand., 6V, #755	No Lens	CR104PSL32A11S6 <sup>1</sup>	\$72.00
2	None	24V	Incand., 24V, #1819	Red	CR104PSL32R00S8	\$58.20
2	None	24V	Incand., 24V, #1819	Green	CR104PSL32G00S8	\$58.20
2	None	24V	Incand., 24V, #1819	Yellow	CR104PSL32E00S8	\$58.20
2	None	24V	Incand., 24V, #1819	No Lens	CR104PSL32A00S8 <sup>1</sup>	\$54.00

<sup>1</sup>Select required lens from page 9-36 and order as separate item. To order assembled units with lens colors not listed above, substitute the following letters in place of "A" in Product Number: L (Blue), M (Amber), W (White), or C (Clear). Price is same as for units with lenses of listed colors.

<sup>2</sup>All lamps miniature bayonet base.

#### 3-Position Selector Switches - Illuminated

Operator Position	Cam #2		Cam #4		Cam #6	
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right
	O O X	-	NO	Right	-	-
	O X O	NC	Left	-	-	-
	X O O	NO	Right	NC	Left	Right
Contact State	X X O	-	-	-	NC	Left
	O X X	-	-	-	-	-



In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

Example: CR104PSG2 1 B, the cam number is 1.

#### 3-Position Maintained Full Voltage Type (continued)

3 Position Cam Code	Contact Configuration	Input Voltage	Lamp Type <sup>2</sup>	Color	Product Number	List Price GO-10P1
2	1NO-1NC	24V	Incand., 24V, #1819	Red	CR104PSL32R11S8	\$76.20
2	1NO-1NC	24V	Incand., 24V, #1819	Green	CR104PSL32G11S8	\$76.20
2	1NO-1NC	24V	Incand., 24V, #1819	Yellow	CR104PSL32E11S8	\$76.20
2	1NO-1NC	24V	Incand., 24V, #1819	No Lens	CR104PSL32A11S8 <sup>1</sup>	\$72.00
2	None	120V	Incand., 130V	Red	CR104PSL32R00S2	\$58.20
2	None	120V	Incand., 130V	Green	CR104PSL32G00S2	\$58.20
2	None	120V	Incand., 130V	Yellow	CR104PSL32E00S2	\$58.20
2	None	120V	Incand., 130V	No Lens	CR104PSL32A00S2 <sup>1</sup>	\$54.00
2	1NO-1NC	120V	Incand., 130V	Red	CR104PSL32R11S2	\$76.20
2	1NO-1NC	120V	Incand., 130V	Green	CR104PSL32G11S2	\$76.20
2	1NO-1NC	120V	Incand., 130V	Yellow	CR104PSL32E11S2	\$76.20
2	1NO-1NC	120V	Incand., 130V	No Lens	CR104PSL32A11S2 <sup>1</sup>	\$72.00
6	None	6V	Incand., 6V, #755	Red	CR104PSL36R00S6	\$58.20
6	None	6V	Incand., 6V, #755	Green	CR104PSL36G00S6	\$58.20
6	None	6V	Incand., 6V, #755	Yellow	CR104PSL36E00S6	\$58.20
6	None	6V	Incand., 6V, #755	No Lens	CR104PSL36A00S6 <sup>1</sup>	\$54.00
6	1NO-1NC	6V	Incand., 6V, #755	Red	CR104PSL36R11S6	\$76.20
6	1NO-1NC	6V	Incand., 6V, #755	Green	CR104PSL36G11S6	\$76.20
6	1NO-1NC	6V	Incand., 6V, #755	Yellow	CR104PSL36E11S6	\$76.20
6	1NO-1NC	6V	Incand., 6V, #755	No Lens	CR104PSL36A11S6 <sup>1</sup>	\$72.00
6	None	24V	Incand., 24V, #1819	Red	CR104PSL36R00S8	\$58.20
6	None	24V	Incand., 24V, #1819	Green	CR104PSL36G00S8	\$58.20
6	None	24V	Incand., 24V, #1819	Yellow	CR104PSL36E00S8	\$58.20
6	None	24V	Incand., 24V, #1819	No Lens	CR104PSL36A00S8 <sup>1</sup>	\$54.00
6	1NO-1NC	24V	Incand., 24V, #1819	Red	CR104PSL36R11S8	\$76.20
6	1NO-1NC	24V	Incand., 24V, #1819	Green	CR104PSL36G11S8	\$76.20
6	1NO-1NC	24V	Incand., 24V, #1819	Yellow	CR104PSL36E11S8	\$76.20
6	1NO-1NC	24V	Incand., 24V, #1819	No Lens	CR104PSL36A11S8 <sup>1</sup>	\$72.00
6	None	120V	Incand., 130V	Red	CR104PSL36R00S2	\$58.20
6	None	120V	Incand., 130V	Green	CR104PSL36G00S2	\$58.20
6	None	120V	Incand., 130V	Yellow	CR104PSL36E00S2	\$58.20
6	None	120V	Incand., 130V	No Lens	CR104PSL36A00S2 <sup>1</sup>	\$54.00
6	1NO-1NC	120V	Incand., 130V	Red	CR104PSL36R11S2	\$76.20
6	1NO-1NC	120V	Incand., 130V	Green	CR104PSL36G11S2	\$76.20
6	1NO-1NC	120V	Incand., 130V	Yellow	CR104PSL36E11S2	\$76.20
6	1NO-1NC	120V	Incand., 130V	No Lens	CR104PSL36A11S2 <sup>1</sup>	\$72.00

#### Schematic Diagrams - Factory Forms

Contacts viewed from front of panel	
Left	Right
1 NO-1 NC Suffix (11S*)	3 4
	

Numbers and letters are molded into blocks at terminals.  
\*Voltage digit.



Publications and Reference: See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

### CR104P

Section 9

Knob Operated  
Illuminated  
600 Volts Max. AC/DC  
10 Amperes Continuous

Units are supplied factory-assembled when ordered with contact blocks.

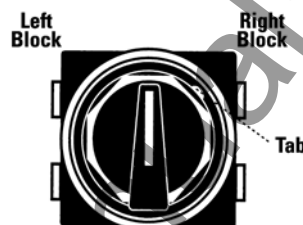
Product Number and price do not include nameplate. All nameplates must be ordered as a separate item.

Resistor forms of 2-position and 3-position illuminated selector switches are available. Contact nearest GE Consumer & Industrial Representative for proper selection and pricing.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.



Transformer



Contacts viewed from front of panel.

### 3-Position Spring Return L→C←R Transformer Type

3 Position Cam Code	Contact Configuration	Input Voltage	Lamp Type <sup>2</sup>	Color	Product Number	List Price GO-10P1
4	None	120V	Incand., 6V, #755	Red	CR104PST94R00S2	\$82.20
4	None	120V	Incand., 6V, #755	Green	CR104PST94G00S2	\$82.20
4	None	120V	Incand., 6V, #755	Yellow	CR104PST94E00S2	\$82.20
4	None	120V	Incand., 6V, #755	No Lens	CR104PST94A00S2 <sup>1</sup>	\$78.00
4	1NO-1NC	120V	Incand., 6V, #755	Red	CR104PST94R11S2	\$100.20
4	1NO-1NC	120V	Incand., 6V, #755	Green	CR104PST94G11S2	\$100.20
4	1NO-1NC	120V	Incand., 6V, #755	Yellow	CR104PST94E11S2	\$100.20
4	1NO-1NC	120V	Incand., 6V, #755	No Lens	CR104PST94A11S2	\$96.00
4	None	240V	Incand., 6V, #755	Red	CR104PST94R00S3	\$82.20
4	None	240V	Incand., 6V, #755	Green	CR104PST94G00S3	\$82.20
4	None	240V	Incand., 6V, #755	Yellow	CR104PST94E00S3	\$82.20
4	None	240V	Incand., 6V, #755	No Lens	CR104PST94A00S3 <sup>1</sup>	\$78.00
4	1NO-1NC	240V	Incand., 6V, #755	Red	CR104PST94R11S3	\$100.20
4	1NO-1NC	240V	Incand., 6V, #755	Green	CR104PST94G11S3	\$100.20
4	1NO-1NC	240V	Incand., 6V, #755	Yellow	CR104PST94E11S3	\$100.20
4	1NO-1NC	240V	Incand., 6V, #755	No Lens	CR104PST94A11S3 <sup>1</sup>	\$96.00
2	None	120V	Incand., 6V, #755	Red	CR104PST92R00S2	\$82.20
2	None	120V	Incand., 6V, #755	Green	CR104PST92G00S2	\$82.20
2	None	120V	Incand., 6V, #755	Yellow	CR104PST92E00S2	\$82.20
2	None	120V	Incand., 6V, #755	No Lens	CR104PST92A00S2 <sup>1</sup>	\$78.00
2	1NO-1NC	120V	Incand., 6V, #755	Red	CR104PST92R11S2	\$100.20
2	1NO-1NC	120V	Incand., 6V, #755	Green	CR104PST92G11S2	\$100.20
2	1NO-1NC	120V	Incand., 6V, #755	Yellow	CR104PST92E11S2	\$100.20
2	1NO-1NC	120V	Incand., 6V, #755	No Lens	CR104PST92A11S2 <sup>1</sup>	\$96.00
2	None	240V	Incand., 6V, #755	Red	CR104PST92R00S3	\$82.20
2	None	240V	Incand., 6V, #755	Green	CR104PST92G00S3	\$82.20
2	None	240V	Incand., 6V, #755	Yellow	CR104PST92E00S3	\$82.20
2	None	240V	Incand., 6V, #755	No Lens	CR104PST92A00S3 <sup>1</sup>	\$78.00
2	1NO-1NC	240V	Incand., 6V, #755	Red	CR104PST92R11S3	\$100.20
2	1NO-1NC	240V	Incand., 6V, #755	Green	CR104PST92G11S3	\$100.20
2	1NO-1NC	240V	Incand., 6V, #755	Yellow	CR104PST92E11S3	\$100.20
2	1NO-1NC	240V	Incand., 6V, #755	No Lens	CR104PST92A11S3 <sup>1</sup>	\$96.00

### 3-Position Spring Return L→C←R Transformer Type (continued)

3 Position Cam Code	Contact Configuration	Input Voltage	Lamp Type <sup>2</sup>	Color	Product Number	List Price GO-10P1
6	None	120V	Incand., 6V, #755	Red	CR104PST96R00S2	\$82.20
6	None	120V	Incand., 6V, #755	Green	CR104PST96G00S2	\$82.20
6	None	120V	Incand., 6V, #755	Yellow	CR104PST96E00S2	\$82.20
6	None	120V	Incand., 6V, #755	No Lens	CR104PST96A00S2 <sup>1</sup>	\$78.00
6	1NO-1NC	120V	Incand., 6V, #755	Red	CR104PST96R11S2	\$100.20
6	1NO-1NC	120V	Incand., 6V, #755	Green	CR104PST96G11S2	\$100.20
6	1NO-1NC	120V	Incand., 6V, #755	Yellow	CR104PST96E11S2	\$100.20
6	1NO-1NC	120V	Incand., 6V, #755	No Lens	CR104PST96A11S2 <sup>1</sup>	\$96.00
6	None	240V	Incand., 6V, #755	Red	CR104PST96R00S3	\$82.20
6	None	240V	Incand., 6V, #755	Green	CR104PST96G00S3	\$82.20
6	None	240V	Incand., 6V, #755	Yellow	CR104PST96E00S3	\$82.20
6	None	240V	Incand., 6V, #755	No Lens	CR104PST96A00S3 <sup>1</sup>	\$78.00
6	1NO-1NC	240V	Incand., 6V, #755	Red	CR104PST96R11S3	\$100.20
6	1NO-1NC	240V	Incand., 6V, #755	Green	CR104PST96G11S3	\$100.20
6	1NO-1NC	240V	Incand., 6V, #755	Yellow	CR104PST96E11S3	\$100.20
6	1NO-1NC	240V	Incand., 6V, #755	No Lens	CR104PST96A11S3 <sup>1</sup>	\$96.00

<sup>1</sup>Select required lens from page 9-36 and order as separate item. To order assembled units with lens colors not listed above, substitute the following letters in place of "A" in Product Number: L (Blue), M (Amber), W (White), or C (Clear). Price is same as for units with lenses of listed colors.

<sup>2</sup>All lamps miniature bayonet base.

### 3-Position Selector Switches - Illuminated

Operator Position	Cam #2		Cam #4		Cam #6	
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right
O	O	X	—	—	NO	Right
O	X	O	NC	Left	—	—
X	O	O	NO	Right	NC	Left
X	X	O	—	—	—	—
O	X	X	—	—	NC	Left
X	X	X	—	—	—	—

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

**Example:** CR104PSG2 1 B, the cam number is 1.

### Schematic Diagrams - Factory Forms

Contacts viewed from front of panel	
Left	Right
1 NO-1 NC Suffix (11S*)	3 4

Numbers and letters are molded into blocks at terminals.  
\*Voltage digit.

Lamps: See pages 9-35

Nameplates: See pages 9-40 to 9-41

Technical Data: See pages 9-56 to 9-57

Drilling Plans and Dimensions: See page 9-57

Product Number Selection Instructions: See pages 9-2



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

### CR104P

Knob Operated  
Illuminated  
600 Volts Max. AC/DC  
10 Amperes Continuous

Section 9

Units are supplied factory-assembled when ordered with contact blocks.

Product Number and price do not include nameplate. All nameplates must be ordered as a separate item.

Resistor forms of 2-position and 3-position illuminated selector switches are available. Contact nearest GE Consumer & Industrial Representative for proper selection and pricing.

Suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications, when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.

#### 3-Position Spring Return L→C←R Full Voltage Type

3 Position Cam Code	Contact Configuration	Input Voltage	Lamp Type <sup>2</sup>	Color	Product Number	List Price GO-10P1
4	None	6V	Incand., 6V, #755	Red	CR104PSL94R00S6	\$70.20
4	None	6V	Incand., 6V, #755	Green	CR104PSL94G00S6	\$70.20
4	None	6V	Incand., 6V, #755	Yellow	CR104PSL94E00S6	\$70.20
4	None	6V	Incand., 6V, #755	No Lens	CR104PSL94A00S6 <sup>1</sup>	\$66.00
4	1NO-1NC	6V	Incand., 6V, #755	Red	CR104PSL94R11S6	\$88.20
4	1NO-1NC	6V	Incand., 6V, #755	Green	CR104PSL94G11S6	\$88.20
4	1NO-1NC	6V	Incand., 6V, #755	Yellow	CR104PSL94E11S6	\$88.20
4	1NO-1NC	6V	Incand., 6V, #755	No Lens	CR104PSL94A11S6 <sup>1</sup>	\$84.00
4	None	24V	Incand., 24V, #1819	Red	CR104PSL94R00S8	\$70.20
4	None	24V	Incand., 24V, #1819	Green	CR104PSL94G00S8	\$70.20
4	None	24V	Incand., 24V, #1819	Yellow	CR104PSL94E00S8	\$70.20
4	None	24V	Incand., 24V, #1819	No Lens	CR104PSL94A00S8 <sup>1</sup>	\$66.00
4	1NO-1NC	24V	Incand., 24V, #1819	Red	CR104PSL94R11S8	\$88.20
4	1NO-1NC	24V	Incand., 24V, #1819	Green	CR104PSL94G11S8	\$88.20
4	1NO-1NC	24V	Incand., 24V, #1819	Yellow	CR104PSL94E11S8	\$88.20
4	1NO-1NC	24V	Incand., 24V, #1819	No Lens	CR104PSL94A11S8 <sup>1</sup>	\$84.00
4	None	120V	Incand., 130V	Red	CR104PSL94R00S2	\$70.20
4	None	120V	Incand., 130V	Green	CR104PSL94G00S2	\$70.20
4	None	120V	Incand., 130V	Yellow	CR104PSL94E00S2	\$70.20
4	None	120V	Incand., 130V	No Lens	CR104PSL94A00S2 <sup>1</sup>	\$66.00
4	1NO-1NC	120V	Incand., 130V	Red	CR104PSL94R11S2	\$88.20
4	1NO-1NC	120V	Incand., 130V	Green	CR104PSL94G11S2	\$88.20
4	1NO-1NC	120V	Incand., 130V	Yellow	CR104PSL94E11S2	\$88.20
4	1NO-1NC	120V	Incand., 130V	No Lens	CR104PSL94A11S2 <sup>1</sup>	\$84.00
2	None	6V	Incand., 6V, #755	Red	CR104PSL92R00S6	\$70.20
2	None	6V	Incand., 6V, #755	Green	CR104PSL92G00S6	\$70.20
2	None	6V	Incand., 6V, #755	Yellow	CR104PSL92E00S6	\$70.20
2	None	6V	Incand., 6V, #755	No Lens	CR104PSL92A00S6 <sup>1</sup>	\$66.00
2	1NO-1NC	6V	Incand., 6V, #755	Red	CR104PSL92R11S6	\$88.20
2	1NO-1NC	6V	Incand., 6V, #755	Green	CR104PSL92G11S6	\$88.20
2	1NO-1NC	6V	Incand., 6V, #755	Yellow	CR104PSL92E11S6	\$88.20
2	1NO-1NC	6V	Incand., 6V, #755	No Lens	CR104PSL92A11S6 <sup>1</sup>	\$84.00
2	None	24V	Incand., 24V, #1819	Red	CR104PSL92R00S8	\$70.20
2	None	24V	Incand., 24V, #1819	Green	CR104PSL92G00S8	\$70.20
2	None	24V	Incand., 24V, #1819	Yellow	CR104PSL92E00S8	\$70.20
2	None	24V	Incand., 24V, #1819	No Lens	CR104PSL92A00S8 <sup>1</sup>	\$66.00
2	1NO-1NC	24V	Incand., 24V, #1819	Red	CR104PSL92R11S8	\$88.20
2	1NO-1NC	24V	Incand., 24V, #1819	Green	CR104PSL92G11S8	\$88.20
2	1NO-1NC	24V	Incand., 24V, #1819	Yellow	CR104PSL92E11S8	\$88.20
2	1NO-1NC	24V	Incand., 24V, #1819	No Lens	CR104PSL92A11S8 <sup>1</sup>	\$84.00

#### 3-Position Spring Return L→C←R Full Voltage Type (continued)

3 Position Cam Code	Contact Configuration	Input Voltage	Lamp Type <sup>2</sup>	Color	Product Number	List Price GO-10P1
2	None	120V	Incand., 130V	Red	CR104PSL92R00S2	\$70.20
2	None	120V	Incand., 130V	Green	CR104PSL92G00S2	\$70.20
2	None	120V	Incand., 130V	Yellow	CR104PSL92E00S2	\$70.20
2	None	120V	Incand., 130V	No Lens	CR104PSL92A00S2 <sup>1</sup>	\$66.00
2	1NO-1NC	120V	Incand., 130V	Red	CR104PSL92R11S2	\$88.20
2	1NO-1NC	120V	Incand., 130V	Green	CR104PSL92G11S2	\$88.20
2	1NO-1NC	120V	Incand., 130V	Yellow	CR104PSL92E11S2	\$88.20
2	1NO-1NC	120V	Incand., 130V	No Lens	CR104PSL92A11S2 <sup>1</sup>	\$84.00
6	None	6V	Incand., 6V, #755	Red	CR104PSL96R00S6	\$70.20
6	None	6V	Incand., 6V, #755	Green	CR104PSL96G00S6	\$70.20
6	None	6V	Incand., 6V, #755	Yellow	CR104PSL96E00S6	\$70.20
6	None	6V	Incand., 6V, #755	No Lens	CR104PSL96A00S6 <sup>1</sup>	\$66.00
6	1NO-1NC	6V	Incand., 6V, #755	Red	CR104PSL96R11S6	\$88.20
6	1NO-1NC	6V	Incand., 6V, #755	Green	CR104PSL96G11S6	\$88.20
6	1NO-1NC	6V	Incand., 6V, #755	Yellow	CR104PSL96E11S6	\$88.20
6	1NO-1NC	6V	Incand., 6V, #755	No Lens	CR104PSL96A11S6 <sup>1</sup>	\$84.00
6	None	24V	Incand., 24V, #1819	Red	CR104PSL96R00S8	\$70.20
6	None	24V	Incand., 24V, #1819	Green	CR104PSL96G00S8	\$70.20
6	None	24V	Incand., 24V, #1819	Yellow	CR104PSL96E00S8	\$70.20
6	None	24V	Incand., 24V, #1819	No Lens	CR104PSL96A00S8 <sup>1</sup>	\$66.00
6	1NO-1NC	24V	Incand., 24V, #1819	Red	CR104PSL96R11S8	\$88.20
6	1NO-1NC	24V	Incand., 24V, #1819	Green	CR104PSL96G11S8	\$88.20
6	1NO-1NC	24V	Incand., 24V, #1819	Yellow	CR104PSL96E11S8	\$88.20
6	1NO-1NC	24V	Incand., 24V, #1819	No Lens	CR104PSL96A11S8 <sup>1</sup>	\$84.00
6	None	120V	Incand., 130V	Red	CR104PSL96R00S2	\$70.20
6	None	120V	Incand., 130V	Green	CR104PSL96G00S2	\$70.20
6	None	120V	Incand., 130V	Yellow	CR104PSL96E00S2	\$70.20
6	None	120V	Incand., 130V	No Lens	CR104PSL96A00S2 <sup>1</sup>	\$66.00
6	1NO-1NC	120V	Incand., 130V	Red	CR104PSL96R11S2	\$88.20
6	1NO-1NC	120V	Incand., 130V	Green	CR104PSL96G11S2	\$88.20
6	1NO-1NC	120V	Incand., 130V	Yellow	CR104PSL96E11S2	\$88.20
6	1NO-1NC	120V	Incand., 130V	No Lens	CR104PSL96A11S2 <sup>1</sup>	\$84.00

<sup>1</sup>Select required lens from page 9-36 and order as separate item. To order assembled units with lens colors not listed above, substitute the following letters in place of "A" in Product Number: L (Blue), M (Amber), W (White), or C (Clear). Price is same as for units with lenses of listed colors.

<sup>2</sup>All lamps miniature bayonet base.

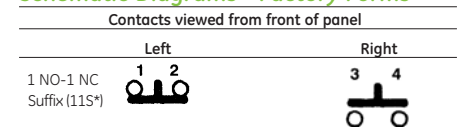
#### 3-Position Selector Switches - Illuminated

Operator Position	Cam #2		Cam #4		Cam #6	
	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right	Type of Contact Block	Mounting Location Left/Right
O	O	X	—	—	—	—
O	X	O	NC	Left	—	—
X	O	O	NO	Right	—	—
X	X	O	—	—	—	—
O	X	X	—	—	—	—

In the product number of a selector switch, the cam is identified by the fifth figure after the "104".

Example: CR104PSG2 1 B, the cam number is 1.

#### Schematic Diagrams - Factory Forms



Numbers and letters are molded into blocks at terminals.  
\*Voltage digit.



Publications and Reference: See Section 17 for a complete list of additional product-related publications



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Selector Switches

### CR104P

Cam Logic

600 Volts max. AC/DC

10 Amperes Continuous

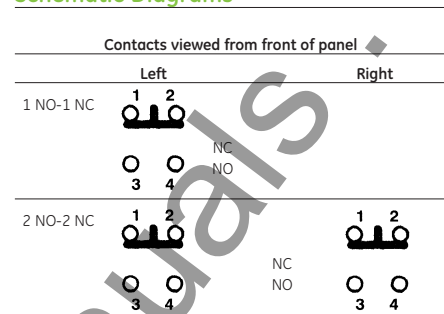
Section 9

#### 2-Position Selector Switches

Operator Position		Illuminated or Nonilluminated		Nonilluminated Only		Nonilluminated Only	
		Cam #1		Cam #2		Cam #3	
		Type of Contact Block	Mounting Location Left-Right	Type of Contact Block	Mounting Location Left-Right	Type of Contact Block	Mounting Location Left-Right
Contact State	O — X	NO	L or R	—	—	—	—
	X — O	NC	L or R	—	—	—	—
	X O —	—	—	NO	L or R	—	—
	O X —	—	—	NC	L or R	—	—
	— O —	—	—	—	—	NO	L or R
	— X —	—	—	—	—	NC	L or R

In the product number of a 2-position selector switch, the cam is identified by the fifth figure after the "104". Example: CR104PSG2 1 B, the cam number is 1.

#### Schematic Diagrams



Numbers and letters are molded into blocks at terminals.

#### 3-Position Selector Switches

Operator Position		Illuminated or Nonilluminated		Nonilluminated Only		Illuminated or Nonilluminated		Nonilluminated Only		Illuminated or Nonilluminated	
		Cam #2		Cam #3		Cam #4		Cam #5		Cam #6	
		Type of Contact Block	Mounting Location Left-Right	Type of Contact Block	Mounting Location Left-Right	Type of Contact Block	Mounting Location Left-Right	Type of Contact Block	Mounting Location Left-Right	Type of Contact Block	Mounting Location Left-Right
Contact State	O O X	—	—	NO	L or R	NO	L or R	NO	L or R	NO	Left
	O X O	NC	L or R	NC	L or R	—	—	NC	Right	2-NC	L+R (IN SERIES) <sup>1</sup>
	X O O	NO	L or R	—	—	NC	L or R	NC	Left	NO	Right
	X X O	1-NO+1-NC	in parallel <sup>1</sup>	—	—	—	—	—	—	NC	Left
	O X X	—	—	1-NO+1-NC	in parallel <sup>1</sup>	—	—	—	—	NC	Right
	X O X	—	—	—	—	1-NO+1-NC	in parallel <sup>1</sup>	NO+NC	Right Left in parallel <sup>1</sup>	2 NO	in parallel <sup>1</sup>

#### 4-Position Selector Switch

				Non-Illuminated Only			
Operator Position					Cam #7		Field Wired
					Type of Contact Block	Mounting Location Left-Right	
Contact State	X	O	O	O	NC	Left	-
	O	O	X	O	NO	Left	-
	O	O	O	X	NC	Right	-
	O	X	O	O	NO	Right	-
	O	O	X	X	NO	Left	2-in parallel
	O	X	O	X	NC	Right	2-in parallel
	O	X	O	X	NO	Right	2-in parallel
	O	X	X	O	NO	Left	2-in parallel
	O	X	X	O	NO	Right	2-in parallel
	X	O	O	X	NC	Left	2-in parallel
	X	O	O	X	NC	Right	2-in parallel
	X	O	X	O	NO	Left	2-in parallel
	X	O	X	O	NC	Left	2-in parallel
	O	X	X	X	NO	Left	3-in parallel
	O	X	X	X	NO	Right	3-in parallel
	O	X	X	X	NC	Right	3-in parallel
	O	X	X	X	NO	Left	3-in parallel
	X	X	X	O	NC	Left	3-in parallel
	X	X	X	O	NO	Right	3-in parallel
	X	X	O	X	NC	Left	3-in parallel
	X	X	O	X	NO	Right	3-in parallel
	X	X	O	X	NC	Right	3-in parallel
	X	O	X	X	NO	Left	3-in parallel
	X	O	X	X	NC	Left	3-in parallel
X	O	X	X	NC	Right	3-in parallel	

X = Contact is closed.

O = Contact is open.

NO = Normally open contact.

NC = Normally closed contact.

— = This position is nonexistent or is a "pass-through" position with no detent to stop or hold the knob there.

<sup>1</sup>Field wired.

In the product number of a 3-position non-illuminated selector switch the fifth figure after the "104" is the cam code number.

**Example:** In CR104PSG3 2 B91, the cam number is 2.

Note that an "open" position for an NO contact may **not** be a closed position for an NC contact at the same location and knob position. The cam may depress the contact plunger only halfway in that position.

Changing cams on operators is not recommended: but, changing contact blocks on operators per above chart may meet a special need.

**Example:** To provide both X O O and O X O operation, simply add a single-circuit NO contact block (L or R) to a CR104PSG3 2 B01.

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Special Operators

### CR104P

Section 9

Joysticks

600 Volts max. AC/DC

10 Amperes Continuous

Suitable for use in NEMA Types 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance. Boot is nitride rubber, check for application suitability. For optional silicone boot, contact factory for availability. Nine-position selector switch contact rating is 10 Amperes at 125/150 Volts ac. Terminals are solder or quick connect type.

#### 3-Position



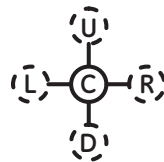
Position	Contact Block	
	Left	Right
R	X	O
C	O	X
L	O	X

Release Type	Product Number	List Price GO-10P1
Maintained	CR104PJJ31	\$142.20
Momentary	CR104PJB31	\$142.20
Maintained with mechanical interlock in center position	CR104PJJ31B	\$148.20
Momentary with mechanical interlock in center position	CR104PJB31B	\$148.20

Momentary



#### 5-Position



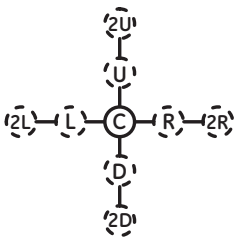
Position	Contact Block	
	Left	Right
U	X	-
R	-	O
C	-	-
D	O	-
L	-	X

Release Type	Product Number	List Price GO-10P1
Maintained	CR104PJCS3	\$166.20
Momentary	CR104PJD53	\$166.20
Maintained with mechanical interlock in center position	CR104PJCS3B	\$172.20
Momentary with mechanical interlock in center position	CR104PJD53B	\$172.20

Maintained



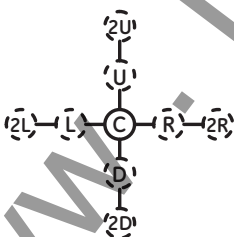
#### 9-Position



Pos.	Contact Block							
	1	2	3	4	5	6	7	8
2U	O	O	X	X	X	X	X	X
U	X	X	O	O	O	O	O	O
2R	X	X	X	X	O	O	X	X
R	X	X	X	X	O	O	X	X
C	X	X	X	X	X	X	X	X
D	O	O	O	O	X	X	X	X
2D	X	X	X	X	O	O	X	X
L	X	X	X	X	O	O	X	X
2L	X	X	X	X	O	O	X	X

Release Type	Product Number	List Price GO-10P1
Maintained	CR104PJL96	\$304.20
Momentary	CR104PJM96	\$304.20
Maintained with mechanical interlock in center position	CR104PJL96B	\$310.20
Momentary with mechanical interlock in center position	CR104PJM96B	\$310.20

Mechanical Interlock



Pos.	Contact Block							
	1	2	3	4	5	6	7	8
2U	O	X	X	X	X	X	X	X
U	X	O	X	X	X	X	X	X
2R	X	X	X	X	O	X	X	X
R	X	X	X	X	O	X	X	X
C	O	O	O	O	O	O	O	O
D	O	O	X	O	O	O	O	O
2D	X	X	X	O	X	X	X	X
L	X	X	X	X	O	X	X	X
2L	X	X	X	X	O	X	X	X

Release Type	Product Number	List Price GO-10P1
Maintained	CR104PJL97	\$304.20
Momentary	CR104PJM97	\$304.20
Maintained with mechanical interlock in center position	CR104PJL97B	\$310.20
Momentary with mechanical interlock in center position	CR104PJM97B	\$310.20

9-Position



Publications and Reference: See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Special Operators

### CR104P

Section 9

Potentiometer Operators  
600 Volts max. AC/DC  
10 Amperes Continuous

Potentiometer operators are designed for 2-watt potentiometers with shafts 2" long and .25" in diameter. Potentiometers offered here fit that description and also are available as Clinostat model 380C1.

Suitable for use in NEMA Types 1, 3, 3R, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.

#### Potentiometer Operators

Ohms	Product Number	List Price
None (Operator Only)	CR104PXP	GO-10P1 \$70.20

#### Assembled Potentiometer Operators

Ohms	Product Number	List Price
100 Ohms	CR104PXP01	GO-10P1 \$118.20
250 Ohms	CR104PXP02	\$118.20
500 Ohms	CR104PXP03	\$118.20
1,000 Ohms	CR104PXP04	\$118.20
2,500 Ohms	CR104PXP05	\$118.20
5,000 Ohms	CR104PXP06	\$118.20
10,000 Ohms	CR104PXP07	\$118.20
25,000 Ohms	CR104PXP08	\$118.20
50,000 Ohms	CR104PXP09	\$118.20
100,000 Ohms	CR104PXP10	\$118.20
250,000 Ohms	CR104PXP11	\$118.20
500,000 Ohms	CR104PXP12	\$118.20
1 million Ohms	CR104PXP13	\$118.20
2.5 million Ohms	CR104PXP14	\$118.20
5 million Ohms	CR104PXP15	\$118.20



Potentiometer Operator



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

## Section 9

### CR104P

Contact Blocks

600 Volts max. AC/DC

10 Amperes Continuous

#### Description

The basic contact block features one normally open/one normally closed (1NO-1NC) contact with a white plunger. There are two types of standard single contact blocks. One contains 1NC contact with a red plunger; the other contains 1NO contact with a green plunger.

#### Application

Gold flashed contacts are recommended for nonarcing, low-level loads (below 48 volts). All standard forms of the CR104P contact blocks are available with gold flashed contacts

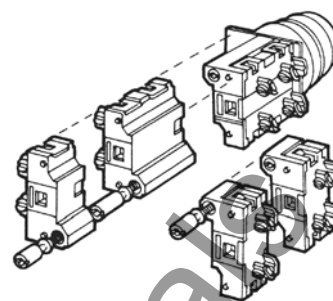
Logic reed contact blocks are specially suited for operations using low voltage levels (24 volts or below) typically available from programmable logic controls or computer systems. They are ideal for use in hostile environments at voltages up to 120 Vac.

#### Installing and Adding Blocks

A single captive screw, coupled with mating projections and recesses, connects each contact block to the operator or to another contact block, and it provides resistance to shock and vibration. These internally threaded screws make mounting to other blocks possible, allowing assembly of side-by-side and piggyback contact blocks. Depending on the capacity of the operator unit, it is possible to obtain a maximum of eight circuits (four on each side).

#### Connections

The terminal screws, equipped with captive saddle clamps, are mounted in offset positions to allow easy accessibility, even when installed with minimum center distance. You need only to strip the wire, place it under the saddle clamp, and tighten it to provide a positive, reliable connection. Standard and gold flashed contact blocks are supplied with IP10 back-of-hand protection to comply with UL508 Section 39A requirement for door mounted devices. Contact blocks are also available with IP20 finger safe protection.



Connections

#### Maximum Contacts

Operator	Single Current		Double Circuit	
	Blocks	Contacts	Blocks	Contacts
Non-illuminated selector switches (excluding 4-position)	6	6	6	12
Combination (push-turn)	6	6	6	12
Non-illuminated momentary push buttons (incl. mushroom-head)	8	8	4	8
Illuminated momentary push buttons	4	4	2	4
Push-to-latch/turn-to-release mushroom-head push buttons	4	4	4	8
Key push buttons	4	4	4	8
Illuminated selector switches	4	4	2	4
3-position & 5-position joysticks	4	4	4	8
Push-pull illuminated mushroom-head push buttons	2	2	2	4
Push-pull non-illuminated mushroom-head push buttons	2	2	2	4
Non-illuminated 4-position selector switches	—	—	2	4
Push-push illuminated push buttons	2	2	—	—



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

### CR104P

Section 9

#### Contact Blocks

600 Volts max. AC/DC

10 Amperes Continuous

Suitable for use in NEMA Types 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications. For some NEMA Type 4X applications, protective caps will improve corrosion resistance.

#### Standard

Contact Configuration	Operating Plunger Color	Protection	Product Number	List Price GO-10P1
1NO-1NC	White	IP10 Back-of-Hand	CR104PXC91	\$18.00
1NO	Green	IP10 Back-of-Hand	CR104PXC1	\$9.00
1NC	Red	IP10 Back-of-Hand	CR104PXC01	\$9.00
1NO (early close)	White	IP10 Back-of-Hand	CR104PXC10E <sup>1</sup>	\$9.00
1NC (late open)	White	IP10 Back-of-Hand	CR104PXC01L <sup>1</sup>	\$9.00
1NO	Green	IP20 Finger	CR104PXC1F	\$12.00
1NC	Red	IP20 Finger	CR104PXC01F	\$12.00
1NO (early close)	White	IP20 Finger	CR104PXC10EF	\$12.00
1NC (late open)	White	IP20 Finger	CR104PXC01LF	\$12.00

<sup>1</sup>Overlapping contacts can be achieved by combining CR104PXC10E, EF and CR104PXC01L, LF.

#### Gold Flashed

Contact Configuration	Operating Plunger Color	Protection	Product Number	List Price GO-10P1
1NO-1NC	White	IP10 Back-of-Hand	CR104PXC91G	\$36.00
1NO	Green	IP10 Back-of-Hand	CR104PXC10G	\$18.00
1NC	Red	IP10 Back-of-Hand	CR104PXC01G	\$18.00
1NO (early close)	White	IP10 Back-of-Hand	CR104PXC10EG <sup>2</sup>	\$18.00
1NC (late open)	White	IP10 Back-of-Hand	CR104PXC01LG <sup>2</sup>	\$18.00
1NO	Green	IP20 Finger	CR104PXC10GF	\$21.00
1NC	Red	IP20 Finger	CR104PXC01GF	\$21.00
1NO (early close)	White	IP20 Finger	CR104PXC10EGF <sup>2</sup>	\$21.00
1NC (late open)	White	IP20 Finger	CR104PXC01LGF <sup>2</sup>	\$21.00

<sup>2</sup>Overlapping contacts can be achieved by combining CR104PXC10EG, EGF and CR104PXC01LG, LGF.

#### Reed Switch

Contact Configuration	Product Number <sup>3</sup>	List Price GO-10P1
1NO	CR104PXC10R	\$18.00
1NC	CR104PXC01R	\$18.00

<sup>3</sup>Sold as components only. Suitable for Class I, Group A,B,C and D, Div. 2, Class II Hazardous Locations; Groups F and G Hazardous Locations when installed in a NEMA Type 4 or 12 enclosure.

#### IP10 Guards For Contact Blocks

For Use With	Product Number <sup>4</sup>	List Price GO-10P1
1NO	CR104PXG117	\$0.50
1NC	CR104PXG118	\$0.50
1NO-1NC	CR104PXG119	\$0.75

<sup>4</sup>Minimum order quantity is 10; package quantity is 10; multiple quantities is 10.

#### IP20 Guards For Contact Blocks

For Use With	Product Number	List Price GO-10P1
1NO	CR104PXG17	\$3.00
1NC	CR104PXG18	\$3.00
1NO-1NC	CR104PXG19	\$6.00

#### Contact Ratings: Standard Blocks-AC Ratings, NEMA A600 Heavy Pilot Duty

Maximum Voltage	Continuous Current Amperes	AC Make Voltamperes @ 60/50 Hz <sup>1</sup>	AC Break Voltamperes @ 60/50 Hz <sup>5</sup>
600 VAC/DC	10	7200	720

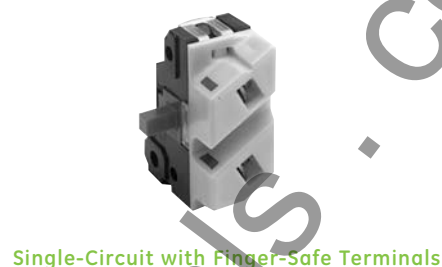
<sup>5</sup>Maximum make and break currents are 60 and 6 amperes respectively for voltages of 120 and below.

#### Contact Ratings: Standard Blocks-DC Ratings, NEMA P600 Heavy Pilot Duty

Maximum Make or Break Amperes @ 125 VDC	Maximum Make or Break Amperes @ 250 VDC	Maximum Make Or Break Amperes @ 600 VDC
1.1	0.55	0.2

#### Contact Ratings: Reed Switch Blocks

AC Operating Voltage	AC Maximum Continuous Current	AC Resistive VA	DC Operating Voltage	DC Maximum Continuous Current	DC Resistive Watts
2-120 VAC	.001-15A	8 VA maximum	2-30 VDC	.001-.15A	4.5 Watts maximum



Single-Circuit with Finger-Safe Terminals



Single Circuit Contact Block



Double Circuit Contact Block



Reed Switch Contact Block

Nameplates: See pages 9-40 to 9-41

Technical Data: See pages 9-56 to 9-57

Product Number Selection Instructions: See pages 9-2



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

### CR104P

Section 9

Accessories, Components and Kits

600 Volts max. AC/DC

10 Amperes Continuous

#### Lamps

Bulb Type	Voltage	Lamp Type	Description	Product Number	List Price GO-10P1
Incandescent with bayonet base	6V	No. 755 Lamp	Transformers and Full-voltage	CR104PXA16	\$3.00
Incandescent with bayonet base	12V	No. 756 Lamp	Full-voltage	CR104PXA12	\$3.00
Incandescent with bayonet base	24V	No. 1819 Lamp	Full-voltage	CR104PXA14	\$3.00
Incandescent with bayonet base	130V		Full-voltage	CR104PXA54	\$3.00
Incandescent with telephone slide base	120V	No. 120PSB Lamp	Full-voltage, 240 V Resistor	CR104PXA52 <sup>1</sup>	\$3.00
Incandescent with bayonet base	60V	No. 1835 Lamp	120V Resistor	CR104PXA15	\$3.00
Incandescent Flasher with bayonet base	6V	No. 267 Lamp	Full-voltage	CR104PXA16F	\$6.00
Incandescent with screw base	6V	No. 1768 Lamp	Cluster light	CR104PXA26	\$3.00
Incandescent with screw base	12V	No. 373 Lamp	Cluster light	CR104PXA22	\$3.00
Incandescent with screw base	24V	No. 399 Lamp	Cluster light	CR104PXA24	\$3.00
Neon with bayonet base	120V	No. NE51H-R Lamp		CR104PXA19	\$3.00

#### Lamps

Bulb Type	Voltage	Lamp Type	Product Number	List Price GO-10GC
LED with bayonet base	6 VAC/DC	Flat Top; replaces No. 755 Lamp	080BA9S6L*	\$18.00
LED with bayonet base	12 VAC/DC	Flat Top	080BA9S12L*	\$18.00
LED with bayonet base	24 VAC/DC	Flat Top	080BA9S24L*	\$18.00
LED with bayonet base	48 VAC/DC	Flat Top	080BA9S48L*	\$18.00
LED with bayonet base	120 VAC/DC	Flat Top	080BA9S120L*	\$18.00

\*Insert LED color from table.

#### LED Colors

Colors	Red	Green	Yellow	Orange	White	Blue
*Color code	R	V	G	A	B	L

<sup>1</sup>For replacement only (GO-11GS).

#### Mushroom-Head Caps

Mushroom-Head Cap Diameter	Depth (max. projection front of panel)	Color	Illumination	For Use With	Product Number	List Price GO-10P1
1-3/8" (34.9 mm)	1.10" (27.9 mm)	Black	Non-Illuminated	Standard operators	CR104PXM03B	\$6.00
1-3/8" (34.9 mm)	1.10" (27.9 mm)	Red	Non-Illuminated	Standard operators	CR104PXM03R	\$6.00
1-3/8" (34.9 mm)	1.10" (27.9 mm)	Yellow	Non-Illuminated	Standard operators	CR104PXM03E	\$6.00
1-3/8" (34.9 mm)	1.10" (27.9 mm)	Green	Non-Illuminated	Standard operators	CR104PXM03G	\$6.00
1-3/8" (34.9 mm)	1.10" (27.9 mm)	Red	Non-Illuminated	Push-turn operators	CR104PXM04R	\$6.00
2-3/8" (60.3 mm)	1.10" (27.9 mm)	Black	Non-Illuminated	Standard operators	CR104PXM06B	\$6.00
2-3/8" (60.3 mm)	1.10" (27.9 mm)	Red	Non-Illuminated	Standard operators	CR104PXM06R	\$6.00
2-3/8" (60.3 mm)	1.10" (27.9 mm)	Yellow	Non-Illuminated	Standard operators	CR104PXM06E	\$6.00
2-3/8" (60.3 mm)	1.10" (27.9 mm)	Green	Non-Illuminated	Standard operators	CR104PXM06G	\$6.00
1 3/8" (34.9 mm)	1.20" (30.5 mm)	Red	Illuminated	Standard operators	CR104PXL06R	\$4.20
1 3/8" (34.9 mm)	1.20" (30.5 mm)	Yellow	Illuminated	Standard operators	CR104PXL06E	\$4.20
1 3/8" (34.9 mm)	1.20" (30.5 mm)	Green	Illuminated	Standard operators	CR104PXL06G	\$4.20
1 3/8" (34.9 mm)	1.20" (30.5 mm)	Blue	Illuminated	Standard operators	CR104PXL06L	\$4.20
1 3/8" (34.9 mm)	1.20" (30.5 mm)	Amber	Illuminated	Standard operators	CR104PXL06M	\$4.20
1 3/8" (34.9 mm)	1.20" (30.5 mm)	White	Illuminated	Standard operators	CR104PXL06W	\$4.20
1 3/8" (34.9 mm)	1.20" (30.5 mm)	Clear	Illuminated	Standard operators	CR104PXL06C	\$4.20
2 3/8" (60.3 mm)	1.20" (30.5 mm)	Red	Non-Illuminated	Key operated	CR104PXM08R	\$6.00
1.58" (40.1 mm)	1.58" (40.1 mm)	Black	Non-Illuminated	CR104PTY protected operators	CR104PTYZ152	\$6.00
1.58" (40.1 mm)	1.58" (40.1 mm)	Red	Illuminated, Non-Illuminated	CR104PTY protected operators	CR104PTYZ153	\$6.00
1.58" (40.1 mm)	1.58" (40.1 mm)	Orange	Illuminated, Non-Illuminated	CR104PTY protected operators	CR104PTYZ154	\$6.00
1.58" (40.1 mm)	1.58" (40.1 mm)	Yellow	Illuminated, Non-Illuminated	CR104PTY protected operators	CR104PTYZ155	\$6.00
1.58" (40.1 mm)	1.58" (40.1 mm)	Green	Illuminated, Non-Illuminated	CR104PTY protected operators	CR104PTYZ156	\$6.00
1.58" (40.1 mm)	1.58" (40.1 mm)	Blue	Illuminated, Non-Illuminated	CR104PTY protected operators	CR104PTYZ157	\$6.00
1.58" (40.1 mm)	1.58" (40.1 mm)	White	Illuminated, Non-Illuminated	CR104PTY protected operators	CR104PTYZ158	\$6.00



Lamps



CR104PXM03\* Mushroom-Head, 1 3/8" dia.



CR104PXM06\* Mushroom-Head, 2 3/8" dia.



CR104PXL06\* Mushroom-Head, 1 3/8" dia., Illuminated



CR104XM08R 2 3/8" dia., for Key-Operated Push Buttons



CR104PTZ15\* Replacement heads for protected Mushroom-Heads



Publications and Reference: See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

### CR104P

## Section 9

Accessories, Components and Kits  
600 Volts max. AC/DC  
10 Amperes Continuous

### Selector Switch Knobs

Depth (max. projection front of panel)	Color	Illumination	Product Number	List Price GO-10P1
1.16" (29.5 mm)	Black	Non-Illuminated	CR104PXM02B	\$ .75
1.16" (29.5 mm)	Red	Non-Illuminated	CR104PXM02R	\$ .75
1.16" (29.5 mm)	Yellow	Non-Illuminated	CR104PXM02E	\$ .75
1.16" (29.5 mm)	Green	Non-Illuminated	CR104PXM02G	\$ .75
1.16" (29.5 mm)	Blue	Non-Illuminated	CR104PXM02L	\$ .75
1.11" (28.2 mm)	Red	Illuminated	CR104PXL03R	\$4.20
1.11" (28.2 mm)	Yellow	Illuminated	CR104PXL03E	\$4.20
1.11" (28.2 mm)	Green	Illuminated	CR104PXL03G	\$4.20
1.11" (28.2 mm)	Blue	Illuminated	CR104PXL03L	\$4.20
1.11" (28.2 mm)	Amber	Illuminated	CR104PXL03M	\$4.20
1.11" (28.2 mm)	White	Illuminated	CR104PXL03W	\$4.20
1.11" (28.2 mm)	Clear	Illuminated	CR104PXL03C	\$4.20

CR104PXM02\* Non-Illuminated Knob

### Lenses

Depth (max. projection front of panel)	Color	Illumination	For use with	Product Number	List Price GO-10P1
1.20" (30.5 mm)	Red	Illuminated	Push Buttons	CR104PXL05R	\$4.20
1.20" (30.5 mm)	Yellow	Illuminated	Push Buttons	CR104PXL05E	\$4.20
1.20" (30.5 mm)	Green	Illuminated	Push Buttons	CR104PXL05G	\$4.20
1.20" (30.5 mm)	Blue	Illuminated	Push Buttons	CR104PXL05L	\$4.20
1.20" (30.5 mm)	Amber	Illuminated	Push Buttons	CR104PXL05M	\$4.20
1.20" (30.5 mm)	White	Illuminated	Push Buttons	CR104PXL05W	\$4.20
1.20" (30.5 mm)	Clear	Illuminated	Push Buttons	CR104PXL05C	\$4.20
0.92" (23.4 mm)	Red		Standard Pilot Lights	CR104PXL01R	\$4.20
0.92" (23.4 mm)	Yellow		Standard Pilot Lights	CR104PXL01E	\$4.20
0.92" (23.4 mm)	Green		Standard Pilot Lights	CR104PXL01G	\$4.20
0.92" (23.4 mm)	Blue		Standard Pilot Lights	CR104PXL01L	\$4.20
0.92" (23.4 mm)	Amber		Standard Pilot Lights	CR104PXL01M	\$4.20
0.92" (23.4 mm)	White		Standard Pilot Lights	CR104PXL01W	\$4.20
0.92" (23.4 mm)	Clear		Standard Pilot Lights	CR104PXL01C	\$4.20
1.20" (30.5 mm)	Red		Push-to-test Pilot Lights	CR104PXL07R	\$4.20
1.20" (30.5 mm)	Yellow		Push-to-test Pilot Lights	CR104PXL07E	\$4.20
1.20" (30.5 mm)	Green		Push-to-test Pilot Lights	CR104PXL07G	\$4.20
1.20" (30.5 mm)	Blue		Push-to-test Pilot Lights	CR104PXL07L	\$4.20
1.20" (30.5 mm)	Amber		Push-to-test Pilot Lights	CR104PXL07M	\$4.20
1.20" (30.5 mm)	White		Push-to-test Pilot Lights	CR104PXL07W	\$4.20
1.20" (30.5 mm)	Clear		Push-to-test Pilot Lights	CR104PXL07C	\$4.20

CR104PXL05\* Push Button Lens

CR104PXL01\* Standard Pilot Light Lens

### Lens and Divider

Color	For use with	Product Number	List Price GO-10P1
White	Cluster Type Pilot Lights	CR104PXL02W	\$5.70
White	Cluster Type Pilot Lights	CR104PXL04W	\$5.70

CR104PXL07\* Push-to-Test Pilot Light Lens

CR104XL02\* Cluster Type Lens and Divider

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

### CR104P

Accessories, Components and Kits  
600 Volts max. AC/DC  
10 Amperes Continuous

Section 9

#### Protective Caps

Description	Protective Caps Material	Color	Package Quantity	Product Number	List Price GO-10P1
Lever for combination (push/turn) units				CR104PXM07	\$6.00
Protective cap for standard push button	Neoprene rubber	Black		CR104PXB01B <sup>1</sup>	\$12.00
Protective cap for standard push button	Neoprene rubber	Red		CR104PXB01R <sup>1</sup>	\$12.00
Protective cap for standard push button	Neoprene rubber	Yellow		CR104PXB01E <sup>1</sup>	\$12.00
Protective cap for standard push button	Neoprene rubber	Green		CR104PXB01G <sup>1</sup>	\$12.00
Protective cap for standard push button	Silicone	Transparent		CR104PXB01C <sup>1</sup>	\$12.00
Protective cap for illuminated push button or push-to-test pilot light	Silicone	Transparent		CR104PXB02C <sup>1</sup>	\$18.00
Protective cap for knob-operated selector switches	Neoprene rubber with transparent actuator	Black		CR104PXB03C <sup>1</sup>	\$12.00
Protective cap for lever-operated selector switches	Neoprene rubber	Black		CR104PXB04B <sup>1</sup>	\$12.00
Painted plug for unused mounting hole				CR104PXG103 <sup>2</sup>	\$6.00
Chrome plated plug for unused mounting hole				CR104PXG113 <sup>3</sup>	\$6.00
Color cap kits for standard push buttons	1 Each: Red, Green, Yellow, Black		Pkg. of 4	CR104PXM01U	\$1.50 per package
Color cap kits for standard push buttons	1 Each: Brown, Blue, Orange, White		Pkg. of 4	CR104PXM01V	\$1.50 per package
Color cap kits for standard push buttons	Black		Pkg. of 10	CR104PXM01B <sup>4</sup>	\$3.00
Color cap kits for standard push buttons	Red		Pkg. of 10	CR104PXM01R <sup>4</sup>	\$3.00
Color cap kits for standard push buttons	Yellow		Pkg. of 10	CR104PXM01E <sup>4</sup>	\$3.00
Color cap kits for standard push buttons	Green		Pkg. of 10	CR104PXM01G <sup>4</sup>	\$3.00
Color cap kits for standard push buttons	White		Pkg. of 10	CR104PXM01W <sup>4</sup>	\$3.00
Color cap kits for standard push buttons	Blue		Pkg. of 10	CR104PXM01L <sup>4</sup>	\$3.00
Color cap kits for standard push buttons	Orange		Pkg. of 10	CR104PXM01M <sup>4</sup>	\$3.00
Color cap kits for standard push buttons	Clear		Pkg. of 10	CR104PXM01C <sup>4</sup>	\$3.00
Color cap kits for standard push buttons	Brown		Pkg. of 10	CR104PXM01N <sup>4</sup>	\$3.00

<sup>1</sup>Replaces octagonal ring.

<sup>2</sup>Recommended for use on painted steel enclosures.

<sup>3</sup>Recommended for use on stainless steel enclosures.

<sup>4</sup>This price per each, packaged in quantities of 10 of one color. Must be ordered in multiples of 10.



CR104PXM07  
Lever for Combination (push/turn) Units



CR104PXB01\*  
For Standard Push Button



CR104PXB02C For Illuminated or  
Push-to-Test Push Button



CR104PXB03C  
For Knob-Operated Selector Switches



CR104PXB04B  
For Lever-Operated Selector Switches



CR104PXG1\_3  
Plug for Unused Mounting Hole



CR104PXM01\*  
Color Cap Kits for Standard Push Buttons



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

### CR104P

## Section 9

Accessories, Components and Kits  
600 Volts max. AC/DC  
10 Amperes Continuous

### Mushroom-Head Guards

Mushroom-Head Cap Diameter	Depth (max. projection front of panel)	Product Number	List Price GO-10P1
1 3/8", OD = 1.66" (42.2 mm)	1.38" (35.1 mm)	CR104PXG14	\$24.00
2 3/8", OD = 2.64" (67.1 mm)	1.38" (35.1 mm)	CR104PXG15	\$24.00

CR104PXG14 Mushroom-Head Guard

### Cluster-Type Pilot Light Boots

Color	Package Quantity	Product Number	List Price GO-10P1
Yellow	4	CR104PXL08E <sup>1</sup>	\$0.37
Green	4	CR104PXL08G <sup>1</sup>	\$0.37
Blue	4	CR104PXL08L <sup>1</sup>	\$0.37
Red	4	CR104PXL08R <sup>1</sup>	\$0.37
1 Each: Yellow, Green, Blue, Red	Four, 1 each color	CR104PXL08T	\$1.50
			per package

CR104PXL08\* Cluster Light Boots

<sup>1</sup>This price per each, packaged in quantities of 4. Must be ordered in multiples of 4.

### Octagonal Operator Mounting Rings

For use with	Depth (max. projection front of panel)	Description	Product Number	List Price GO-10P1
Standard Flush Push Buttons, Push-to-test Pilot Lights, Mushroom-Head Push Buttons			CR104PXG01	\$1.20
Extended Push Buttons, Key-Operated Push Buttons, Push-to-latch/turn-to-release Push Buttons			CR104PXG02	\$1.20
Recessed Push Buttons	0.71" (19.0 mm)		CR104PXG03	\$1.20
Guarded Illuminated Push Buttons	1.20" (30.5 mm)		CR104PXG04	\$6.00
Combination (push/turn) Units			CR104PXG06	\$1.80
Non-illuminated Selector Switches, Joysticks, Potentiometer Operators			CR104PXG07	\$1.20
Standard Pilot Lights, Illuminated Selector Switches			CR104PXG08	\$1.20
Cluster Pilot Lights (2- and 4-lamp)			CR104PXG09	\$1.20
Octagonal Rings		CR104P octagonal ring wrench	CR104PXG104	\$18.00

CR104PXG01 Octagonal Mounting Ring for Standard Flush and Mushroom-Head Push Buttons, and Push to Test Pilot Lights

CR104PXG04 Octagonal Mounting Ring for Guarded Illuminated Push Buttons

### Stainless Steel Flush Plate

Package Quantity	Product Number	List Price GO-10P8
1	CR2940BD201D	\$18.00

CR104PXG07 Octagonal Mounting Ring for Non-Illuminated Selector Switches, Joysticks and Potentiometer Operators

CR104PXG104 Octagonal Ring Wrench

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

### CR104P

Accessories, Components and Kits

600 Volts max. AC/DC

10 Amperes Continuous

Section 9

#### Keys

Description	For use with	Product Number	List Price GO-10P1
Spare standard cylinder lock key	Key-Operated Selection Switches	CR104PXK95	\$3.60
Spare CH501 cylinder lock key	Key-Operated Selection Switches	CR104PXK51	\$3.60
1.5 mm hex key	Push-turn Switch Levers	CR104PXG107	\$1.50
2.0 mm hex key	Standard Push Buttons, Push-turn Mushroom-head Push Buttons	CR104PXG108	\$1.50
2.5 mm hex key	Potentiometer Operators, Push-turn Mushroom-head Push Buttons	CR104PXG109	\$1.50

#### Display Panels

Description	Product Number	List Price GO-10P1
Assembled display panel- 4 operators	CR104PD001B	\$130.00
Assembled display panel - 12 operators	CR104PD001A	\$300.00

#### Terminals

Description	Product Number	List Price GO-10P1
100 quick-connect terminals For 9-position joystick contact blocks	CR104PXG102	\$68.40

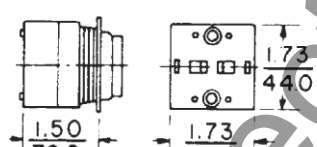
#### Modification Kits

Kit Type	Description	Product Number	List Price GO-10P1
Push-on/Push-off	Converts standard momentary operator to push-on/push-off	CR104PXF11 <sup>1,2</sup>	\$18.00
Maintained Mechanical Latch for Two Push Buttons	Makes one standard or 1 3/8" mushroom-head push button a latch, another a release	CR104PXF21 <sup>2</sup>	\$18.00
Mechanical Interlock	Prevents simultaneous operation Prevents simultaneous operation	CR104PXF23 <sup>2</sup>	\$18.00
Push-pull	Converts momentary mushroom-head push button to push-to-latch/pull-to-release	CR104PXF12 <sup>2</sup>	\$18.00
Lockout Attachment	Padlockable device to hold standard flush or extended push button in depressed position	CR104PXG13	\$18.00
Locking Cover	Padlockable clear cover for standard knob-operated selector switch	CR104PXG16	\$18.00

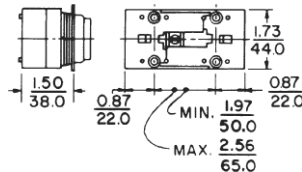
<sup>1</sup>This kit can only be used with CR104PXC01 (NC) and/or CR104PXC10E (NO early closing contact blocks).

<sup>2</sup>Not for use with illuminated forms.

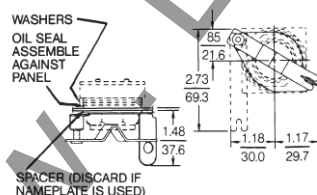
#### Outlines, Dimensions (in./mm) (For Estimating Only)



CR104PXF11, CR104PXF12  
Modification Kit



CR104PXF21, CR104PXF23  
Modification Kit



CR104PXG13  
Modification Kit



CR104PD001A Display Panel  
- 12 Operators



CR104PXF11 Modification Kit  
- Push on/Push off



CR104PXF21 Modification Kit -  
Maintained Mech. Latch for  
2 Push Buttons



CR104PXG13 Lockout Attachment



CR104PXG16 Locking Cover



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

## Section 9

### CR104P

Nameplates and Legend Inserts

600 Volts max. AC/DC

10 Amperes Continuous

#### Nameplates—Standard Lithographed

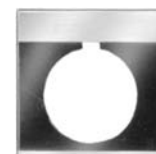
Unless otherwise indicated, all nameplates are black and available in Sizes 1-3 only. To select size, replace asterisk (\*) in product number with appropriate digit from Sizes table.

Nameplate Marking	Product Number	List Price GO-10P1
Blank (Sizes 1-5)	CR104PXN*B	\$1.80
Blank (Red, sizes 1-5)	CR104PXN*R	\$1.80
Blank (with round)	CR104PXN6E	\$2.50
CLOSE	CR104PXN*BP006	\$1.80
DECREASE	CR104PXN*BP007	\$1.80
DOWN	CR104PXN*BP008	\$1.80
EMERGENCY STOP (Red)	CR104PXN*RP009	\$1.80
FAST	CR104PXN*BP010	\$1.80
FORWARD	CR104PXN*BP011	\$1.80
HIGH	CR104PXN*BP012	\$1.80
IN	CR104PXN*BP013	\$1.80
INCH	CR104PXN*BP014	\$1.80
INCREASE	CR104PXN*BP017	\$1.80
JOG	CR104PXN*BP018	\$1.80
JOG FORWARD	CR104PXN*BP019	\$1.80
JOG REVERSE	CR104PXN*BP020	\$1.80
LEFT	CR104PXN*BP021	\$1.80
LOW	CR104PXN*BP022	\$1.80
LOWER	CR104PXN*BP023	\$1.80
OFF	CR104PXN*BP024	\$1.80
ON	CR104PXN*BP025	\$1.80
OPEN	CR104PXN*BP026	\$1.80
OUT	CR104PXN*BP027	\$1.80
POWER ON	CR104PXN*BP084	\$1.80
RAISE	CR104PXN*BP028	\$1.80
RESET	CR104PXN*BP030	\$1.80
RETURN	CR104PXN*BP031	\$1.80
REVERSE	CR104PXN*BP032	\$1.80
RIGHT	CR104PXN*BP033	\$1.80
RUN	CR104PXN*BP034	\$1.80
SLOW	CR104PXN*BP036	\$1.80
START	CR104PXN*BP037	\$1.80
START CYCLE	CR104PXN*BP038	\$1.80
STOP (Red)	CR104PXN*RP040	\$1.80
STOP CYCLE (Red)	CR104PXN*RP041	\$1.80
TEST	CR104PXN*BP043	\$1.80
UP	CR104PXN*BP047	\$1.80
EMERGENCY STOP PULL TO TEST (Red)	CR104PXN*RP048	\$1.80
PUSH TO STOP PULL TO START	CR104PXN*BP085	\$1.80
FOR REV	CR104PXN*BP050	\$1.80
HAND AUTO	CR104PXN*BP051	\$1.80
HIGH LOW	CR104PXN*BP052	\$1.80
JOG RUN	CR104PXN*BP053	\$1.80
LEFT RIGHT	CR104PXN*BP054	\$1.80
LOW HIGH	CR104PXN*BP055	\$1.80
LOWER RAISE	CR104PXN*BP056	\$1.80
OFF ON	CR104PXN*BP057	\$1.80
OPEN CLOSE	CR104PXN*BP058	\$1.80
RAISE LOWER	CR104PXN*BP059	\$1.80
REV FOR	CR104PXN*BP060	\$1.80
RUN JOG	CR104PXN*BP061	\$1.80
SAFE RUN	CR104PXN*BP062	\$1.80
SAFE STOP RUN	CR104PXN*BP063	\$1.80
SLOW FAST	CR104PXN*BP064	\$1.80
START JOG	CR104PXN*BP087	\$1.80
START STOP	CR104PXN*BP086	\$1.80
STOP START	CR104PXN*BP065	\$1.80
UP DOWN	CR104PXN*BP066	\$1.80
OFF COOLANT ON	CR104PXN*BP067	\$1.80
AUTO OFF-HAND	CR104PXN*BP083	\$1.80
FOR OFF REV	CR104PXN*BP068	\$1.80
FOR STOP REV	CR104PXN*BP069	\$1.80
HAND OFF AUTO	CR104PXN*BP070	\$1.80
JOG OFF RUN	CR104PXN*BP071	\$1.80
JOG SAFE RUN	CR104PXN*BP072	\$1.80
LOW OFF HIGH	CR104PXN*BP073	\$1.80
LOWER OFF RAISE	CR104PXN*BP074	\$1.80
MAN OFF AUTO	CR104PXN*BP076	\$1.80
OPEN OFF CLOSE	CR104PXN*BP077	\$1.80
REV OFF FOR	CR104PXN*BP079	\$1.80
SLOW OFF FAST	CR104PXN*BP080	\$1.80
SLOW STOP FAST	CR104PXN*BP081	\$1.80
POTENTIOMETER MARKINGS	CR104PXN*BP082	\$1.80
OFF AUTO	CR104PXN1BP090	\$1.80
ON OFF AUTO	CR104PXN1BP091	\$1.80
PUSH TO STOP - TURN TO RESET (Round w/ Yellow Background)	CR104PXN6EP092	\$2.50
Yellow Background Emergency Stop	CR104PXN6EP009	\$2.50

#### Sizes\*

Nameplate	Dimensions (H x W, Inches)	*Product No. Digit
Standard (Size 1)	1.98 x 1.93	1
Large (Size 2)	1.98 x 2.63	2
Extra-large, automotive (Size 3)	2.40 x 2.44	3 <sup>1</sup>
Small joystick (Size 4; available for XN*R and XN*B only)	2.32 x 2.32	4 <sup>1</sup>
Large joystick (Size 5; available for XN*R and XN*B only)	2.92 x 2.92	5 <sup>1</sup>

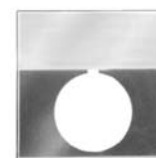
<sup>1</sup>These nameplates do not fit standard enclosures.



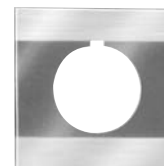
Standard (Size 1)



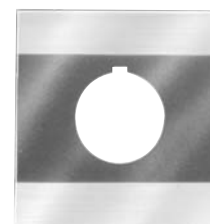
Large (Size 2)



Extra-large Automotive (Size 3)



Small Joystick (Size 4; available for XN\*R and XN\*B only)



Large Joystick (Size 5; available for XN\*R and XN\*B only)

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories











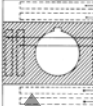

### CR104P

Nameplates and Legend Inserts  
600 Volts max. AC/DC  
10 Amperes Continuous

Section 9

#### Nameplates—Nonstandard Engraved







Note limitations on number of characters per field. Specify marking desired, by field, for each nameplate ordered. To select color, replace asterisk (\*) in product number with **B** for black field and letters and with **R** for red field and letters. For overall dimensions by nameplate size, see Sizes table, page 9-40.

Style	Nameplate Size	Max. Characters per Field	Product Number	List Price GO-10P1
	1	Field 1: 13	CR104PXN1*B001	\$7.80
	2	Field 1: 16	CR104PXN2*B001	\$7.80
	3	Field 1: 10	CR104PXN3*B001	\$7.80
	1	Fields 1-2: 13	CR104PXN1*C001	\$7.80
	2	Fields 1-2: 15	CR104PXN2*C001	\$7.80
	3	Fields 1-2: 10	CR104PXN3*C001	\$7.80
	1	Field 1: 13; Field 2: 7	CR104PXN1*D001	\$7.80
	2	Field 1: 15; Field 2: 8	CR104PXN2*D001	\$7.80
	3	Field 1: 10; Field 2: 5	CR104PXN3*D001	\$7.80
	1	Field 1: 13; Field 2: 7	CR104PXN1*E001	\$7.80
	2	Field 1: 15; Field 2: 8	CR104PXN2*E001	\$7.80
	3	Field 1: 10; Field 2: 5	CR104PXN3*E001	\$7.80
	1	Fields 1-2: 7	CR104PXN1*F001	\$7.80
	2	Fields 1-2: 8	CR104PXN2*F001	\$7.80
	3	Fields 1-2: 5	CR104PXN3*F001	\$7.80
	1	Field 1: 13; Fields 2-3: 7	CR104PXN1*G001	\$7.80
	2	Field 1: 15; Fields 2-3: 8	CR104PXN2*G001	\$7.80
	3	Field 1: 10; Fields 2-3: 5	CR104PXN3*G001	\$7.80
	1	Fields 1-4: 5	CR104PXN1*H001	\$7.80
	2	Fields 1-4: 6	CR104PXN2*H001	\$7.80
	3	Fields 1-4: 4	CR104PXN3*H001	\$7.80
	4	Fields 1-2: 16	CR104PXN4*J001	\$7.80
	4	Fields 1-2: 16; Fields 3-4: 8	CR104PXN4*K001	\$7.80
	5	Fields 1-4: 18	CR104PXN5*L001	\$7.80
	5	Fields 1-4: 18; Fields 5-8: 11	CR104PXN5*M001	\$7.80
	1	Field 1: 13	CR104PXN1*N001	\$7.80
	2	Field 1: 16	CR104PXN2*N001	\$7.80
	3	Field 1: 10	CR104PXN3*N001	\$7.80

#### Legend Inserts

Legend insert kits for standard push buttons with clear caps feature three 2-sided inserts per kit.

Product Number	List Price GO-10P1
CR104PXG101	\$1.80

Insert	Side 1	Side 2
1		
2		
3		

Legend Inserts

Publications and Reference: See Section 17 for a complete list of additional product-related publications



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Kitted Operators

### CR104P

Hot Buttons  
Push Buttons  
600 Volts max. AC/DC  
10 Amperes Continuous

## Section 9

### Description

Hot Buttons make it easier and faster than ever for you to get the most popular push buttons, pilot lights and selector switches. GE has taken its proven CR104P Heavy-Duty Oiltight push buttons, matched them with their logical and most often-used contacts and nameplates, and put them together. One product number, one box, one price.

### Standard Flush Non-Illuminated

Contact Configuration	Marking	Color	Product Number	List Price GO-10P1
1NO	START	1 Each: Red, Green, Yellow, Black	CR104PBG10U1A1	\$27.00
1NO	RUN	1 Each: Red, Green, Yellow, Black	CR104PBG10U1A2	\$27.00
1NO	ON	1 Each: Red, Green, Yellow, Black	CR104PBG10U1A3	\$27.00
1NC	STOP	1 Each: Red, Green, Yellow, Black	CR104PBG01U1A1	\$27.00
1NC	OFF	1 Each: Red, Green, Yellow, Black	CR104PBG01U1A2	\$27.00

### Standard Extended Illuminated

Guard	Contact Configuration	Marking	Color	Voltage	Product Number	List Price GO-10P1
with Guard	1NO-1NC	START	Green	Transformer 120V	CR104PBT11G3S2A1	\$90.00
with Guard	1NO-1NC	RUN	Green	Transformer 120V	CR104PBT11G3S2A2	\$90.00
with Guard	1NO-1NC	ON	Green	Transformer 120V	CR104PBT11G3S2A3	\$90.00
with Guard	1NO-1NC	STOP	Red	Transformer 120V	CR104PBT11R3S2A1	\$90.00
with Guard	1NO-1NC	OFF	Red	Transformer 120V	CR104PBT11R3S2A2	\$90.00

### Mushroom-Head Non-Illuminated

Head Size	Contact Configuration	Marking	Color	Product Number	List Price GO-10P1
1 3/8" dia.	1NC	EMERGENCY STOP	Red	CR104PBM01R5A	\$63.00

### Special Function Non-Illuminated

Special Function Type	Contact Configuration	Marking	Color	Product Number	List Price GO-10P1
Push-Pull	1NC	PUSH TO STOP PULL TO START	Red	CR104PBM01R5CA1	\$63.00
Push-Pull	1NC	EMERGENCY STOP	Red	CR104PBM01R5CA2	\$63.00
Push-Turn-to-Release	1NC	EMERGENCY STOP	Red	CR104PTR20A0R01A	\$63.00

### Special Function Illuminated

Special Function Type	Contact Configuration	Marking	Color	Voltage	Product Number	List Price GO-10P1
Push-Pull	1NO-1NC	PUSH TO STOP PULL TO START	Red	Transformer 120 V	CR104PBT11R5C2A1	\$102.00
Push-Pull	1NO-1NC	EMERGENCY STOP	Red	Transformer 120 V	CR104PBT11R5C2A2	\$102.00



Standard Non-Illuminated Push Button



Standard Illuminated Push Button with Guard



Mushroom-Head Non-Illuminated Push Button



Mushroom-Head Non-Illuminated Push-Pull Push Button



Mushroom-Head Non-Illuminated Push-Turn-to-Release Push Button



Mushroom-Head Illuminated Push-Pull Push Button

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Kitted Operators

### CR104P

Section 9

Hot Buttons

600 Volts max. AC/DC

10 Amperes Continuous

#### Knob Selector Switches

Position Type	Marking	Contact Configuration	Product Number	List Price GO-10P1
2-Position Maintained	OFF-ON	1NO-1NC	CR104PSG21B91A	\$42.00
3-Position Maintained	HAND-OFF-AUTO	1NO-1NC	CR104PSG34B91A	\$42.00

#### Standard Pilot Lights

Power Supply Type	Supply Voltage	Lamp Type	Marking	Color	Product Number	List Price GO-10P1
Transformer	120V 50/60 Hz	Incand., 6V, #755	ON	Red	CR104PLG32RA1	\$66.00
Full Voltage	120V 50/60 Hz	Incand., 130V	ON	Red	CR104PLG22RA1	\$54.00
Transformer	120V 50/60 Hz	Incand., 6V, #755	OFF	Red	CR104PLG32RA2	\$66.00
Full Voltage	120V 50/60 Hz	Incand., 130V	OFF	Red	CR104PLG22RA2	\$54.00
Transformer	120V 50/60 Hz	Incand., 6V, #755	OFF	Green	CR104PLG32GA2	\$66.00
Full Voltage	120V 50/60 Hz	Incand., 130V	OFF	Green	CR104PLG22GA2	\$54.00
Transformer	120V 50/60 Hz	Incand., 6V, #755	ON	Green	CR104PLG32GA1	\$66.00
Full Voltage	120V 50/60 Hz	Incand., 130V	ON	Green	CR104PLG22GA1	\$54.00

#### Push to Test Pilot Lights

Power Supply Type	Supply Voltage	Lamp Type	Contact Configuration	Marking	Color	Product Number	List Price GO-10P1
Transformer	120V 50/60 Hz	Incand., 6V, #755	1NO-1NC	ON	Red	CR104PLT32RA	\$84.00
Full Voltage	120V 50/60 Hz	Incand., 130V	1NO-1NC	ON	Red	CR104PLT22RA	\$72.00
Transformer	120V 50/60 Hz	Incand., 6V, #755	1NO-1NC	OFF	Green	CR104PLT32GA	\$84.00
Full Voltage	120V 50/60 Hz	Incand., 130V	1NO-1NC	OFF	Green	CR104PLT22GA	\$72.00

#### Hot Buttons Display Rack

This convenient display allows Hot Buttons to be easily selected. The display may be a freestanding counter display or may be hung on the wall. The display (28"W x 15"H x 5"D) allows the distributor to showcase Hot Buttons to the customer and makes easy selection of the desired function. The display has a clear front, which allows ready view for stock replenishment. Also included are an attractive poster and a counter literature rack with promotional leaflets.

Product Number	List Price GO-10P1
CR104PHBDISPLAY	\$200.00



2-Position Maintained Selector Switch



3-Position Maintained Selector Switch



Standard Pilot Light



Press-to-Test Pilot Light



Hot Buttons Display Rack



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

### CR104P

## Section 9

Enclosures and Stations  
600 Volts Max. AC/DC  
10 Amperes Continuous

#### Product Number Selection Instructions

**CR104PE enclosures** are available in painted sheet steel or in stainless steel, with from one to 25 operator openings. Choose the enclosure only or the enclosure assembled with your choice of unwired operators.

**Assembled stations**, as well as unassembled, are available in the following NEMA types:

- NEMA 1 (CR104PEX11C)
- NEMA 12 and 13 (CR104PEG11C)
- NEMA 4, 4X, 12, and 13 (CR104PES11C)

Inclusion of a CR104PTP push button does not allow a NEMA 3, 3R, 4, or 4X rating.

Some common combinations of devices may be ordered by complete part number for NEMA enclosures as listed in the table below.

One-step selection and pricing.



1 Unit Painted Steel Station

#### Assembled with Push Buttons and Fixed Legends NEMA Type 1

Units per Station	Nameplate Marking	Color	Other Features <sup>1</sup>	Product Number	List Price GO-10P1
1	START	Green		CR104PEX11C	\$84.00
1	STOP	Red	Extended button	CR104PEX11D	\$84.00
1	EMERGENCY STOP	Red	Red Mushroom-Head	CR104PEX11S	\$102.00
1	JOG	Black		CR104PEX11R	\$84.00
1	HAND-AUTO	Black	2-position selector switch	CR104PEX11T	\$90.00
1	FORWARD-REVERSE	Black	2-position selector switch	CR104PEX11W	\$90.00
1	OFF-ON	Black	2-position selector switch	CR104PEX11B1	\$90.00
1	OPEN-CLOSE	Black	2-position selector switch	CR104PEX11C1	\$90.00
1	HAND-OFF-AUTO	Black	3-position selector switch	CR104PEX11E	\$90.00
2	START-STOP	Green - Red	Extended red stop button	CR104PEX12G	\$122.00
2	FORWARD-REVERSE	Black - Black		CR104PEX12H	\$122.00
2	RAISE-LOWER	Black - Black		CR104PEX12J	\$122.00
2	OPEN-CLOSE	Black - Black		CR104PEX12K	\$122.00
2	START-STOP	Green - Red	Maintained contact button	CR104PEX12D1	\$122.00
3	FORWARD-REVERSE-STOP	Black - Black - Red	Extended red stop button	CR104PEX13M	\$170.00
3	RAISE-LOWER-STOP	Black - Black - Red	Extended red stop button	CR104PEX13N	\$170.00
3	OPEN-CLOSE-STOP	Black - Black - Red	Extended red stop button	CR104PEX13P	\$170.00
3	START-STOP	Green - Red	FV 110-125V red light at top; extended red stop button	CR104PEX13E1	\$188.00



2 Unit Station

#### Assembled with Push Buttons and Fixed Legends NEMA Type 12

Units per Station	Nameplate Marking	Color	Other Features <sup>1</sup>	Product Number	List Price GO-10P1
1	START	Green		CR104PEG11C	\$96.00
1	STOP	Red	Extended button	CR104PEG11D	\$96.00
1	EMERGENCY STOP	Red	Red Mushroom-Head	CR104PEG11S	\$114.00
1	JOG	Black		CR104PEG11R	\$96.00
1	HAND-AUTO	Black	2-position selector switch	CR104PEG11T	\$102.00
1	FORWARD-REVERSE	Black	2-position selector switch	CR104PEG11W	\$102.00
1	OFF-ON	Black	2-position selector switch	CR104PEG11B1	\$102.00
1	OPEN-CLOSE	Black	2-position selector switch	CR104PEG11C1	\$102.00
1	HAND-OFF-AUTO	Black	3-position selector switch	CR104PEG11E	\$102.00
2	START-STOP	Green - Red	Extended red stop button	CR104PEG12G	\$138.00
2	FORWARD-REVERSE	Black - Black		CR104PEG12H	\$138.00
2	RAISE-LOWER	Black - Black		CR104PEG12J	\$138.00
2	OPEN-CLOSE	Black - Black		CR104PEG12K	\$138.00
2	START-STOP	Green - Red	Maintained contact button	CR104PEG12D1	\$138.00
3	FORWARD-REVERSE-STOP	Black - Black - Red	Extended red stop button	CR104PEG13M	\$186.00
3	RAISE-LOWER-STOP	Black - Black - Red	Extended red stop button	CR104PEG13N	\$186.00
3	OPEN-CLOSE-STOP	Black - Black - Red	Extended red stop button	CR104PEG13P	\$186.00
3	START-STOP	Green - Red	FV 110-125V red light at top; extended red stop button	CR104PEG13E1	\$204.00

<sup>1</sup>All units include 1NO-1NC contact, each device.

Nameplates: See pages 9-40 to 9-41  
Technical Data: See pages 9-56 to 9-57  
Drilling Plan and Dimensions: See pages 9-57



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

### CR104P

Section 9

Enclosures and Stations  
600 Volts max. AC/DC  
10 Amperes Continuous

To order 104P Push button enclosures, choose the product number in the following tables. Then specify operator by hole number (see page 9-47) as indicated in the corresponding diagram. Add all the operator list prices to the assembled, unwired station to arrive at the total list price, GO-10P1, for your unit.

#### Assembled Unwired—Surface Mounted

Enclosure Type	Enclosure Material	Enclosure Holes	Product Number	List Price GO-10P1
NEMA Type 1	Sheet Steel	1	CR104PEX11B	\$48.00
NEMA Type 1	Sheet Steel	2	CR104PEX12B	\$56.00
NEMA Type 1	Sheet Steel	3	CR104PEX13B	\$68.00
NEMA Type 1	Sheet Steel	4	CR104PEX14B <sup>1</sup>	\$100.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	1	CR104PEG11B	\$60.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	2	CR104PEG12B	\$72.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	3	CR104PEG13B	\$84.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	4	CR104PEG14B <sup>1</sup>	\$102.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	4	CR104PEG22B	\$102.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	6	CR104PEG23B	\$126.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	9	CR104PEG33B	\$162.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	12	CR104PEG34B	\$204.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	16	CR104PEG44B	\$258.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	20	CR104PEG45B	\$312.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	25	CR104PEG55B	\$372.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	1	CR104PES11B	\$126.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	2	CR104PES12B	\$138.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	3	CR104PES13B	\$186.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	4	CR104PES14B <sup>1</sup>	\$240.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	4	CR104PES22B	\$240.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	6	CR104PES23B	\$348.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	9	CR104PES33B	\$438.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	12	CR104PES34B	\$534.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	16	CR104PES44B	\$702.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	20	CR104PES45B	\$792.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	25	CR104PES55B	\$1032.00

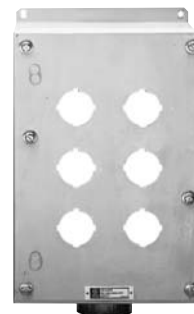
Does not include push buttons: see ordering instructions above.

Price listed for Assembled Unwired Station is for devices.

<sup>1</sup>Four vertical openings.



Painted Sheet Steel Enclosure



Stainless Steel Enclosure



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

### CR104P

## Section 9

Enclosures and Stations  
600 Volts max. AC/DC  
10 Amperes Continuous

To order 104P Push button enclosures, choose the product number in the following tables. Then specify operator by hole number (see page 9-47) as indicated in the corresponding diagram. Add all the operator list prices to the assembled, unwired station to arrive at the total list price, GO-10P1, for your unit.

#### Enclosure Only—Surface Mounted

Enclosure Type	Enclosure Material	Enclosure Holes	Product Number	List Price GO-10P1
NEMA Type 1	Sheet Steel	1	CR104PEX11	\$30.00
NEMA Type 1	Sheet Steel	2	CR104PEX12	\$32.00
NEMA Type 1	Sheet Steel	3	CR104PEX13	\$38.00
NEMA Type 1	Sheet Steel	4	CR104PEX14 <sup>1</sup>	\$64.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	1	CR104PEG11	\$42.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	2	CR104PEG12	\$48.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	3	CR104PEG13	\$54.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	4	CR104PEG14 <sup>1</sup>	\$66.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	4	CR104PEG22	\$66.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	6	CR104PEG23	\$78.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	9	CR104PEG33	\$96.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	12	CR104PEG34	\$120.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	16	CR104PEG44	\$150.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	20	CR104PEG45	\$180.00
NEMA Type 1, 3, 3R, 12, 13	Painted Sheet Steel	25	CR104PEG55	\$210.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	1	CR104PES11	\$108.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	2	CR104PES12	\$114.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	3	CR104PES13	\$156.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	4	CR104PES14 <sup>1</sup>	\$204.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	4	CR104PES22	\$204.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	6	CR104PES23	\$300.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	9	CR104PES33	\$372.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	12	CR104PES34	\$450.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	16	CR104PES44	\$594.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	20	CR104PES45	\$660.00
NEMA Type 3, 3R, 4, 4X, 12, 13	Stainless Steel	25	CR104PES55	\$840.00

Does not include push buttons: see ordering instructions above.

<sup>1</sup>Four vertical openings.



Painted Sheet Steel Enclosure



Stainless Steel Enclosure



Nameplates: See pages 9-40 to 9-41  
Technical Data: See pages 9-56 to 9-57  
Drilling Plan and Dimensions: See pages 9-57

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Accessories

### CR104P

Section 9

#### Enclosures

Outlines and Dimensions in. (mm) (For Estimating Only)

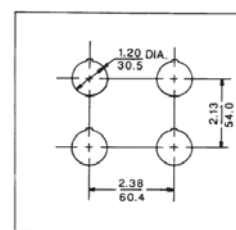
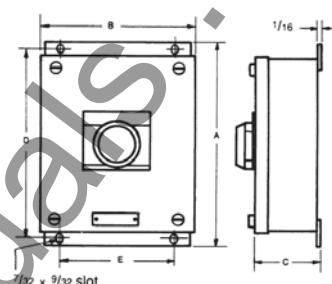
600 Volts max. AC/DC

10 Amperes Continuous

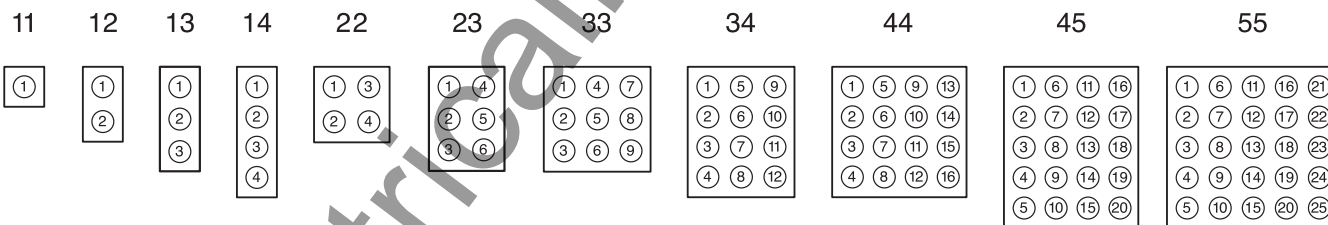
#### Enclosure Dimensions

Enclosure Holes	Dimension A in. (mm)	Dimension B in. (mm)	Dimension C in. (mm)	Dimension D in. (mm)	Dimension E in. (mm)	Hub Dimension (in)
1	5.50 (139.7)	3.50 (88.9)	4.25 (108.0)	5.00 (127.0)	2.38 (60.4)	0.75
2	7.75 (196.8)	3.50 (88.9)	4.25 (108.0)	7.25 (184.2)	2.38 (60.4)	0.75
3	10.00 (254.0)	3.50 (88.9)	4.25 (108.0)	9.50 (241.3)	2.38 (60.4)	0.75
4 <sup>1</sup>	13.38 (339.8)	3.50 (88.9)	4.25 (108.0)	12.88 (327.2)	2.38 (60.4)	1
4	8.25 (209.6)	6.50 (165.1)	4.25 (108.0)	7.75 (196.8)	5.38 (136.6)	1
6	10.50 (266.7)	7.00 (177.8)	4.25 (108.0)	10.00 (254.0)	5.88 (149.4)	1.25
9	10.50 (266.7)	9.25 (235.0)	4.25 (108.0)	10.00 (254.0)	8.19 (208.0)	1.5
12	12.75 (323.8)	9.25 (235.0)	4.25 (108.0)	12.25 (311.2)	8.19 (208.0)	1.5
16	12.75 (323.8)	11.50 (292.1)	4.25 (108.0)	12.25 (311.2)	10.38 (263.6)	1.5
20	15.00 (381.0)	11.50 (292.1)	4.25 (108.0)	14.50 (368.3)	10.38 (263.6)	1.5
25	15.00 (381.0)	13.75 (249.2)	4.25 (108.0)	14.50 (368.3)	12.63 (320.8)	1.5

<sup>1</sup>Four vertical openings.



Enclosure Dimensions and Hole Spacing in Listed Standard Enclosures



Product Numbers: Position of Units CR104PEG\_\_ or S \_\_ \*

\*Add Suffix B for assembled unwired station.



Publications and Reference: See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Button Stations

Section 9

### CR2943, CR2941

Push Button Stations

600 Volts max. AC/DC

10 Amperes Continuous

#### Application

Standard-duty push button stations are designed for all normal START-STOP and REVERSE operations with ac magnetic starters, NEMA Sizes 00-4. Contact ratings are 10 Amperes carry, 600 Volts maximum, 30 amperes make and three amperes break at 100-125 Volts ac.

#### Features

- Easy-to-operate buttons**—large concave buttons operate easily, even when gloves are worn.
- Long-life contact**—large silver contacts provide positive closure and assure a good connection.
- Positive make and break**—strong springs behind buttons reduce the chances of contact freezing or accidental closure from machine vibration.
- Extra safety**—an insulating strip between the terminals and back of the enclosure helps prevent electrical shorting.

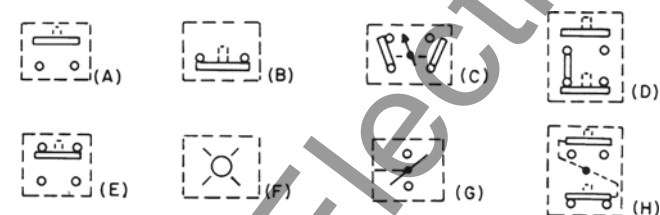
#### Product Number Selection Instructions

Order push button station by complete Product Number.

1. Example: CR2943NJ202A at **\$114.00, GO-10P4**.
2. Example: CR2943NB302—START-STOP Station at **\$51.00, GO-10P4**. CR2943XB332A—Wall box for START-STOP Station at **\$21.00, GO-10P4**.

#### Contact Ratings

Volts	Carry Continuous Amperes	Make Momentary Amperes	Break-Amperes	
			AC Circuits	DC Inductive Circuits
110-125	10	30	3.0	1.1
220-250	10	15	1.5	0.55
440-480	10	7.5	.75	—
550-600	10	.6	.6	0.2



Wiring Symbols (As noted in tables)

#### Reference Publications

Instructions	GEH-1092
Renewal parts	GEF-4064



CR2943 General-Purpose Surface-Mounted Station



CR2943 General-Purpose Flush-Mounted Station



CR2943 Flush-Mounted Station with Wall Box Attached



Wall Box



CR2943 Flush-Mounted Station with Miniature Unit

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Button Stations

### CR2943, CR2941

Section 9

Push Button Stations  
Surface-Mounted  
600 Volts max. AC/DC  
10 Amperes Continuous

#### One-Unit Stations (momentary contact—except selector switches)

Enclosure Type	Function	Nameplate Marking	Color	Wiring Symbol Reference <sup>5</sup>	Position Type	Contact Arrangement	Lockable	Product Number	List Price GO-10P4
NEMA Type 1	Push Button	START	Black	(A)	-	-	-	CR2943NA101E	\$36.00
NEMA Type 1	Push Button	(As Specified)	Black	(A)	-	-	-	CR2943AA101B <sup>1</sup>	\$36.00
NEMA Type 1	Push Button	STOP	Red	(B)	-	-	-	CR2943NA101F	\$36.00
NEMA Type 1	Push Button	(As Specified)	Red	(B)	-	-	-	CR2943AA101A <sup>1</sup>	\$36.00
NEMA Type 1	Push Button	STOP	Red	(B)	-	-	Device Included	CR2943NA101G	\$54.00
NEMA Type 1	Push Button	(As Specified)	Red	(B)	-	-	Device Included	CR2943AA101E <sup>1</sup>	\$54.00
NEMA Type 1	Selector Switch	(As Specified)	Black	(C)	2-Position	SPDT	-	CR2943AA101S <sup>2</sup>	\$36.00
NEMA Type 1	Selector Switch	(As Specified)	Black	(C)	3-Position	SPDT	-	CR2943AA101M <sup>3</sup>	\$36.00
NEMA Type 4	Push Button	START	Black	(A)	-	-	-	CR2943NJ201B	\$114.00
NEMA Type 4	Push Button	(As Specified)	Black	(A)	-	-	-	CR2943AJ201B	\$114.00
NEMA Type 4	Push Button	STOP	Red	(B)	-	-	Device Included	CR2943NJ201A <sup>4</sup>	\$114.00
NEMA Type 4	Push Button	(As Specified)	Red	(B)	-	-	Device Included	CR2943AJ201A <sup>4</sup>	\$114.00
NEMA Type 4X	Push Button	START	Black	(A)	-	-	-	CR2943NJ301B	\$114.00
NEMA Type 4X	Push Button	(As Specified)	Black	(A)	-	-	-	CR2943AJ301B <sup>1</sup>	\$114.00
NEMA Type 4X	Push Button	STOP	Red	(B)	-	-	-	CR2943NJ301A	\$114.00
NEMA Type 4X	Push Button	(As Specified)	Red	(B)	-	-	-	CR2943AJ301A <sup>1</sup>	\$114.00
NEMA Type 4X	Push Button	STOP	Red	(B)	-	-	Device Included	CR2943NJ301C	\$114.00
NEMA Type 4X	Push Button	(As Specified)	Red	(B)	-	-	Device Included	CR2943AJ301C <sup>1</sup>	\$114.00
NEMA Type 7	Push Button	START	Black	(A)	-	-	-	CR2941NA101B	\$138.00
NEMA Type 9									
NEMA Type 7	Push Button	(As Specified)	Black	(A)	-	-	-	CR2941AA101T <sup>1</sup>	\$138.00
NEMA Type 9									
NEMA Type 7	Push Button	STOP	Red	(B)	-	-	Device Included	CR2941NA101A <sup>4</sup>	\$138.00
NEMA Type 9									

<sup>1</sup>Add \$6.00, GO-10P4 per station for any nameplate markings or arrangements not shown.

<sup>2</sup>Five N.P.'s included: OFF-ON, FORWARD-REVERSE, HAND-AUTO, SLOW-FAST and OPEN-CLOSE.

<sup>3</sup>Three N.P.'s included: HAND-OFF-AUTO, FORWARD-OFF-REVERSE and OPEN-OFF-CLOSE.

<sup>4</sup>Includes hole for padlock on STOP.

<sup>5</sup>See page 9-48 for Wiring Symbols.

#### Two-Unit Stations (momentary contact)

Enclosure Type	Function	Nameplate Marking	Color	Wiring Symbol Reference <sup>5</sup>	Lockable	Product Number	List Price GO-10P4
NEMA Type 1	Push Button	START-STOP	Black - Red	(D)	-	CR2943NA102A	\$36.00
NEMA Type 1	Push Button	START-STOP	Black - Red	(D)	Bar Included	CR2943NA102C	\$54.00
NEMA Type 1	Push Button	(As Specified)	Black - Red	(A), (B)	-	CR2943AA102H <sup>1</sup>	\$36.00
NEMA Type 1	Push Button	(As Specified)	Black - Red	(A), (B)	Device Included	CR2943AA102AF <sup>1</sup>	\$54.00
NEMA Type 1	Push Button	RAISE-LOWER	Black - Black	(A), (A)	-	CR2943NA102B	\$45.00
NEMA Type 1	Push Button	FORWARD-REVERSE	Black - Black	(A), (A)	-	CR2943NA102D	\$45.00
NEMA Type 1	Push Button	UP-DOWN	Black - Black	(A), (A)	-	CR2943NA102E	\$45.00
NEMA Type 1	Push Button	OPEN-CLOSE	Black - Black	(A), (A)	-	CR2943NA102G	\$45.00
NEMA Type 1	Push Button	(As Specified)	Black - Black	(A), (A)	-	CR2943AA102A <sup>1</sup>	\$45.00
NEMA Type 4	Push Button	START-STOP	Black - Red	(A), (B)	Device Included	CR2943NJ202A <sup>4</sup>	\$114.00
NEMA Type 4	Push Button	(As Specified)	Black - Red	(A), (B)	Device Included	CR2943AJ202A <sup>4</sup>	\$114.00
NEMA Type 4	Push Button	RAISE-LOWER	Black - Black	(A), (A)	-	CR2943NJ202F	\$114.00
NEMA Type 4	Push Button	FORWARD-REVERSE	Black - Black	(A), (A)	-	CR2943NJ202E	\$114.00
NEMA Type 4	Push Button	UP-DOWN	Black - Black	(A), (A)	-	CR2943NJ202G	\$114.00
NEMA Type 4	Push Button	OPEN-CLOSE	Black - Black	(A), (A)	-	CR2943NJ202H	\$114.00
NEMA Type 4	Push Button	(As Specified)	Black - Black	(A), (A)	-	CR2943AJ202B	\$114.00
NEMA Type 4X	Push Button	(As Specified)	Black - Red	(A), (B)	-	CR2943AJ302B <sup>1</sup>	\$114.00
NEMA Type 4X	Push Button	START-STOP	Black - Red	(A), (B)	Device Included	CR2943NJ302A	\$114.00
NEMA Type 4X	Push Button	(As Specified)	Black - Red	(A), (B)	Device Included	CR2943AJ302A <sup>1</sup>	\$114.00
NEMA Type 4X	Push Button	RAISE-LOWER	Black - Black	(A), (A)	-	CR2943NJ302F	\$114.00
NEMA Type 4X	Push Button	FORWARD-REVERSE	Black - Black	(A), (A)	-	CR2943NJ302E	\$114.00
NEMA Type 4X	Push Button	UP-DOWN	Black - Black	(A), (A)	-	CR2943NJ302G	\$114.00
NEMA Type 4X	Push Button	OPEN-CLOSE	Black - Black	(A), (A)	-	CR2943NJ302H	\$114.00
NEMA Type 4X	Push Button	(As Specified)	Black - Black	(A), (A)	-	CR2943AJ302C <sup>1</sup>	\$114.00
NEMA Type 7	Push Button	START-STOP	Black - Red	(A), (B)	Device Included	CR2941NA102B <sup>4</sup>	\$138.00
NEMA Type 9							
NEMA Type 7	Push Button	RAISE-LOWER	Black - Black	(A), (A)	-	CR2941NA102G	\$138.00
NEMA Type 9							
NEMA Type 7	Push Button	FORWARD-REVERSE	Black - Black	(A), (A)	-	CR2941NA102F	\$138.00
NEMA Type 9							
NEMA Type 7	Push Button	UP-DOWN	Black - Black	(A), (A)	-	CR2941NA102H	\$138.00
NEMA Type 9							
NEMA Type 7	Push Button	OPEN-CLOSE	Black - Black	(A), (A)	-	CR2941NA102J	\$138.00
NEMA Type 9							
NEMA Type 7	Push Button	(As Specified)	Black - Black	(A), (A)	-	CR2941AA102B <sup>1</sup>	\$138.00
NEMA Type 9							

<sup>1</sup>Add \$6.00, GO-10P4 per station for any nameplate markings or arrangements not shown.

<sup>4</sup>Includes hole for padlock on STOP.

<sup>5</sup>See page 9-48 for Wiring Symbols. If two references, first is for left button color; second is for second button color, shown on right.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications



# Pilot and Signaling Devices

## Section 9

### Heavy-Duty 30.5 mm Watertight/Oiltight Push Button Stations

#### CR2943, CR2941

Push Button Stations  
Surface-Mounted  
600 Volts max. AC/DC  
10 Amperes Continuous

#### Two-Unit Stations (maintained contact)

Enclosure Type	Function	Nameplate Marking	Color	Wiring Symbol Reference <sup>2</sup>	Lockable	Product Number	List Price GO-10P4
NEMA Type 1	Push Button	START-STOP	Black - Red	(H)	-	CR2943NA102W	\$54.00
NEMA Type 1	Push Button	ON-OFF	Black - Black	(H)	-	CR2943NA102X	\$54.00

<sup>2</sup>See page 9-48 for Wiring Symbols.

#### Three-Unit Stations (momentary contact)

Enclosure Type	Function	Nameplate Marking	Color	Wiring Symbol Reference <sup>2</sup>	Lockable	Voltage	Product Number	List Price GO-10P4
NEMA Type 1	Push Button	UP-DOWN-STOP	Black - Black - Red	(E), (E), (B)	-	-	CR2943NA103F	\$72.00
NEMA Type 1	Push Button	RAISE-LOWER-STOP	Black - Black - Red	(E), (E), (B)	-	-	CR2943NA103G	\$72.00
NEMA Type 1	Push Button	FAST-SLOW-STOP	Black - Black - Red	(E), (E), (B)	-	-	CR2943NA103H	\$72.00
NEMA Type 1	Push Button	FORWARD-REVERSE-STOP	Black - Black - Red	(E), (E), (B)	-	-	CR2943NA103J	\$72.00
NEMA Type 1	Push Button	OPEN-CLOSE-STOP	Black - Black - Red	(E), (E), (B)	-	-	CR2943NA103K	\$72.00
NEMA Type 1	Push Button	START-JOG-STOP	Black - Black - Red	(E), (E), (B)	-	-	CR2943NA103L	\$72.00
NEMA Type 1	Push Button	(As Specified)	Black - Black - Red	(E), (E), (B)	-	-	CR2943AA103AA <sup>1</sup>	\$72.00
NEMA Type 1	Push Button	(As Specified)	Black - Black - Red	(E), (E), (B)	Bar Included	-	CR2943AA103C <sup>1</sup>	\$90.00
NEMA Type 1	Pilot Light	START-STOP	Red - Black	(B), (F), (A)	-	115/230V	CR2943NA103V	\$132.00

<sup>1</sup>Add \$6.00, GO-10P4 per station for any nameplate markings or arrangements not shown.

<sup>2</sup>See page 9-48 for Wiring Symbols. If three references are shown, first reference is for first button color (left), second for center button color, and third for right button color.

#### Three-Unit Stations (maintained contact)

Enclosure type	Function <sup>2</sup>	Nameplate Marking	Color	Wiring Symbol Reference <sup>2</sup>	Voltage	Product Number	List Price GO-10P4
NEMA Type 1	Pilot Light (F)	START-STOP	Black - Red	(H)	115/230V	CR2943NA103Y	\$150.00

<sup>2</sup>See page 9-48 for Wiring Symbols.

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Button Stations

### CR2943

Section 9

Push Button Stations  
Flush-Mounted  
NEMA Type 1  
600 Volts max. AC/DC  
10 Amperes Continuous

#### Wall Boxes

Separate wall boxes are available for use with flush-mounted stations listed below as "less wall box." They can be installed during wall construction.

Units per Station	Product Number	List Price GO-10P4
1, 2	CR2943XB332A	\$21.00
3	CR2943XB333A	\$21.00

#### One-Unit Stations (momentary contact—except selector switches)

Flush Plate Form	With Wall Box	Function	Nameplate Marking	Color	Wiring Symbol Reference <sup>2</sup>	Position Type	Contact Arrangement	Lockable	Product Number	List Price GO-10P4
Gray	No	Push Button	START	Black	(A)	-	-	-	CR2943NB301A	\$45.00
Gray	No	Push Button	(As Specified)	Black	(A)	-	-	-	CR2943AB301A <sup>1</sup>	\$45.00
Gray	No	Push Button	STOP	Red	(B)	-	-	-	CR2943NB301B	\$45.00
Gray	No	Push Button	(As Specified)	Red	(B)	-	-	-	CR2943AB301B <sup>1</sup>	\$45.00
Gray	No	Push Button	STOP	Red	(B)	-	-	Bar Included	CR2943NB301C	\$63.00
Gray	No	Push Button	(As Specified)	Red	(B)	-	-	Bar Included	CR2943AB301C <sup>1</sup>	\$63.00
Gray	No	Selector Switch	STOP-START	-	(C)	2-Position	SPDT	-	CR2943NB301D	\$45.00
Gray	No	Selector Switch	OFF-ON	-	(C)	2-Position	SPDT	-	CR2943NB301E	\$45.00
Gray	No	Selector Switch	(As Specified)	-	(C)	2-Position	SPDT	-	CR2943AB301D <sup>1</sup>	\$45.00
Gray	No	Selector Switch	HAND-OFF-AUTO	-	(C)	3-Position	SPDT	-	CR2943NB301F	\$45.00
Gray	No	Selector Switch	(As Specified)	-	(C)	3-Position	SPDT	-	CR2943AB301E <sup>1</sup>	\$45.00
Gray	Yes	Push Button	START	Black	(A)	-	-	-	CR2943NB331A	\$66.00
Gray	Yes	Push Button	(As Specified)	Black	(A)	-	-	-	CR2943AB331A <sup>1</sup>	\$66.00
Gray	Yes	Push Button	STOP	Red	(B)	-	-	-	CR2943NB331B	\$66.00
Gray	Yes	Push Button	(As Specified)	Red	(B)	-	-	-	CR2943AB331B <sup>1</sup>	\$66.00
Gray	Yes	Push Button	STOP	Red	(B)	-	-	Bar Included	CR2943NB331C	\$84.00
Gray	Yes	Push Button	(As Specified)	Red	(B)	-	-	Bar Included	CR2943AB331C <sup>1</sup>	\$84.00
Gray	Yes	Selector Switch	STOP-START	-	(C)	2-Position	SPDT	-	CR2943NB331D	\$66.00
Gray	Yes	Selector Switch	OFF-ON	-	(C)	2-Position	SPDT	-	CR2943NB331E	\$66.00
Gray	Yes	Selector Switch	(As Specified)	-	(C)	2-Position	SPDT	-	CR2943AB331D <sup>1</sup>	\$66.00
Gray	Yes	Selector Switch	HAND-OFF-AUTO	-	(C)	3-Position	SPDT	-	CR2943NB331F	\$66.00
Gray	Yes	Selector Switch	(As Specified)	-	(C)	3-Position	SPDT	-	CR2943AB331E <sup>1</sup>	\$66.00
Stainless-Steel	No	Push Button	START	Black	(A)	-	-	-	CR2943NB301G	\$48.00
Stainless-Steel	No	Push Button	(As Specified)	Black	(A)	-	-	-	CR2943AB301G <sup>1</sup>	\$48.00
Stainless-Steel	No	Push Button	STOP	Red	(B)	-	-	-	CR2943NB301H	\$48.00
Stainless-Steel	No	Push Button	(As Specified)	Red	(B)	-	-	-	CR2943AB301H <sup>1</sup>	\$48.00
Stainless-Steel	No	Push Button	STOP	Red	(B)	-	-	Bar Included	CR2943NB301J	\$66.00
Stainless-Steel	No	Push Button	(As Specified)	Red	(B)	-	-	Bar Included	CR2943AB301J <sup>1</sup>	\$66.00
Stainless-Steel	No	Selector Switch	STOP-START	-	(C)	2-Position	SPDT	-	CR2943NB301K	\$48.00
Stainless-Steel	No	Selector Switch	OFF-ON	-	(C)	2-Position	SPDT	-	CR2943NB301L	\$48.00
Stainless-Steel	No	Selector Switch	(As Specified)	-	(C)	2-Position	SPDT	-	CR2943AB301K <sup>1</sup>	\$48.00
Stainless-Steel	No	Selector Switch	HAND-OFF-AUTO	-	(C)	3-Position	SPDT	-	CR2943NB301M	\$48.00
Stainless-Steel	No	Selector Switch	(As Specified)	-	(C)	3-Position	SPDT	-	CR2943AB301L <sup>1</sup>	\$48.00
Stainless-Steel	Yes	Push Button	START	Black	(A)	-	-	-	CR2943NB331G	\$69.00
Stainless-Steel	Yes	Push Button	(As Specified)	Black	(A)	-	-	-	CR2943AB331F <sup>1</sup>	\$69.00
Stainless-Steel	Yes	Push Button	STOP	Red	(B)	-	-	-	CR2943NB331H	\$69.00
Stainless-Steel	Yes	Push Button	(As Specified)	Red	(B)	-	-	-	CR2943AB331G <sup>1</sup>	\$69.00
Stainless-Steel	Yes	Push Button	STOP	Red	(B)	-	-	Bar Included	CR2943NB331J	\$87.00
Stainless-Steel	Yes	Push Button	(As Specified)	Red	(B)	-	-	Bar Included	CR2943AB331J <sup>1</sup>	\$87.00
Stainless-Steel	Yes	Selector Switch	STOP-START	-	(C)	2-Position	SPDT	-	CR2943NB331K	\$69.00
Stainless-Steel	Yes	Selector Switch	OFF-ON	-	(C)	2-Position	SPDT	-	CR2943NB331L	\$69.00
Stainless-Steel	Yes	Selector Switch	(As Specified)	-	(C)	2-Position	SPDT	-	CR2943AB331K <sup>1</sup>	\$69.00
Stainless-Steel	Yes	Selector Switch	HAND-OFF-AUTO	-	(C)	3-Position	SPDT	-	CR2943NB331M	\$69.00
Stainless-Steel	Yes	Selector Switch	(As Specified)	-	(C)	3-Position	SPDT	-	CR2943AB331H <sup>1</sup>	\$69.00

<sup>1</sup>Add \$9.00, GO-10P4 per station for any nameplate markings or arrangements not shown.

<sup>2</sup>See page 9-48 for Wiring Symbols.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Section 9

### Heavy-Duty 30.5 mm Watertight/Oiltight Push Button Stations

#### CR2943

Push Button Stations

Flush-Mounted

NEMA Type 1

600 Volts max. AC/DC

10 Amperes Continuous

#### Two-Unit Stations (momentary contact)

Flush Plate Form	With Wall Box	Function	Nameplate Marking	Color	Wiring Symbol Reference <sup>2</sup>	Lockable	Product Number	List Price GO-10P4
Gray	No	Push Button	START-STOP	Black - Red	(D)	-	CR2943NB302A	\$45.00
Gray	No	Push Button	(As Specified)	Black - Red	(D)	-	CR2943AB302A <sup>1</sup>	\$45.00
Gray	No	Push Button	START-STOP	Black - Red	(D)	Bar Included	CR2943NB302B	\$63.00
Gray	No	Push Button	(As Specified)	Black - Red	(D)	Bar Included	CR2943AB302B <sup>1</sup>	\$63.00
Gray	No	Push Button	RAISE-LOWER	Black - Black	(A), (A)	-	CR2943NB302D	\$54.00
Gray	No	Push Button	FORWARD-REVERSE	Black - Black	(A), (A)	-	CR2943NB302C	\$54.00
Gray	No	Push Button	UP-DOWN	Black - Black	(A), (A)	-	CR2943NB302E	\$54.00
Gray	No	Push Button	OPEN-CLOSE	Black - Black	(A), (A)	-	CR2943NB302F	\$54.00
Gray	No	Push Button	(As Specified)	Black - Black	(A), (A)	-	CR2943AB302C <sup>1</sup>	\$54.00
Gray	Yes	Push Button	START-STOP	Black - Red	(D)	-	CR2943NB332A	\$66.00
Gray	Yes	Push Button	(As Specified)	Black - Red	(D)	-	CR2943AB332A <sup>1</sup>	\$66.00
Gray	Yes	Push Button	START-STOP	Black - Red	(D)	Bar Included	CR2943NB332B	\$84.00
Gray	Yes	Push Button	(As Specified)	Black - Red	(D)	Bar Included	CR2943AB332B <sup>1</sup>	\$84.00
Gray	Yes	Push Button	RAISE-LOWER	Black - Black	(A), (A)	-	CR2943NB332D	\$75.00
Gray	Yes	Push Button	FORWARD-REVERSE	Black - Black	(A), (A)	-	CR2943NB332C	\$75.00
Gray	Yes	Push Button	UP-DOWN	Black - Black	(A), (A)	-	CR2943NB332E	\$75.00
Gray	Yes	Push Button	OPEN-CLOSE	Black - Black	(A), (A)	-	CR2943NB332F	\$75.00
Gray	Yes	Push Button	(As Specified)	Black - Black	(A), (A)	-	CR2943AB332C <sup>1</sup>	\$75.00
Stainless-Steel	No	Push Button	START-STOP	Black - Red	(D)	-	CR2943NB302G	\$51.00
Stainless-Steel	No	Push Button	(As Specified)	Black - Red	(D)	-	CR2943AB302E <sup>1</sup>	\$51.00
Stainless-Steel	No	Push Button	START-STOP	Black - Red	(D)	Bar Included	CR2943NB302H	\$69.00
Stainless-Steel	No	Push Button	(As Specified)	Black - Red	(D)	Bar Included	CR2943AB302H <sup>1</sup>	\$69.00
Stainless-Steel	No	Push Button	RAISE-LOWER	Black - Black	(A), (A)	-	CR2943NB302K	\$60.00
Stainless-Steel	No	Push Button	FORWARD-REVERSE	Black - Black	(A), (A)	-	CR2943NB302J	\$60.00
Stainless-Steel	No	Push Button	UP-DOWN	Black - Black	(A), (A)	-	CR2943NB302L	\$60.00
Stainless-Steel	No	Push Button	OPEN-CLOSE	Black - Black	(A), (A)	-	CR2943NB302M	\$60.00
Stainless-Steel	No	Push Button	(As Specified)	Black - Black	(A), (A)	-	CR2943AB302D <sup>1</sup>	\$60.00
Stainless-Steel	Yes	Push Button	START-STOP	Black - Red	(D)	-	CR2943NB332G	\$72.00
Stainless-Steel	Yes	Push Button	(As Specified)	Black - Red	(D)	-	CR2943AB332G <sup>1</sup>	\$72.00
Stainless-Steel	Yes	Push Button	START-STOP	Black - Red	(D)	Bar Included	CR2943NB332H	\$90.00
Stainless-Steel	Yes	Push Button	(As Specified)	Black - Red	(D)	Bar Included	CR2943AB332H <sup>1</sup>	\$90.00
Stainless-Steel	Yes	Push Button	RAISE-LOWER	Black - Black	(A), (A)	-	CR2943NB332K	\$81.00
Stainless-Steel	Yes	Push Button	FORWARD-REVERSE	Black - Black	(A), (A)	-	CR2943NB332J	\$81.00
Stainless-Steel	Yes	Push Button	UP-DOWN	Black - Black	(A), (A)	-	CR2943NB332L	\$81.00
Stainless-Steel	Yes	Push Button	OPEN-CLOSE	Black - Black	(A), (A)	-	CR2943NB332M	\$81.00
Stainless-Steel	Yes	Push Button	(As Specified)	Black - Black	(A), (A)	-	CR2943AB332D <sup>1</sup>	\$81.00

<sup>1</sup>Add \$9.00, GO-10P4 per station for any nameplate markings or arrangements not shown.

<sup>2</sup>See page 9-48 for Wiring Symbols. If two references are shown, first reference is left button color; second is right button color.

#### Two-Unit Stations (maintained contact)

Flush Plate Form	With Wall Box	Function	Nameplate Marking	Color	Wiring Symbol Reference <sup>2</sup>	Product Number	List Price GO-10P4
Gray	No	Push Button	START-STOP	Black - Red	(H)	CR2943NB302Q	\$63.00
Gray	No	Push Button	(As Specified)	Black - Red	(H)	CR2943AB302M <sup>1</sup>	\$63.00
Gray	No	Push Button	ON-OFF	Black - Black	(H)	CR2943NB302R	\$63.00
Gray	Yes	Push Button	START-STOP	Black - Red	(H)	CR2943NB332T	\$84.00
Gray	Yes	Push Button	(As Specified)	Black - Red	(H)	CR2943AB332E <sup>1</sup>	\$84.00
Gray	Yes	Push Button	ON-OFF	Black - Black	(H)	CR2943NB332R	\$84.00
Stainless-Steel	No	Push Button	START-STOP	Black - Red	(H)	CR2943NB302N	\$69.00
Stainless-Steel	No	Push Button	(As Specified)	Black - Red	(H)	CR2943AB302K <sup>1</sup>	\$69.00
Stainless-Steel	No	Push Button	ON-OFF	Black - Black	(H)	CR2943NB302P	\$69.00
Stainless-Steel	Yes	Push Button	START-STOP	Black - Red	(H)	CR2943NB332S	\$90.00
Stainless-Steel	Yes	Push Button	(As Specified)	Black - Red	(H)	CR2943AB332K <sup>1</sup>	\$90.00
Stainless-Steel	Yes	Push Button	ON-OFF	Black - Black	(H)	CR2943NB332V	\$90.00

<sup>1</sup>Add \$9.00, GO-10P4 per station for any nameplate markings or arrangements not shown.

<sup>2</sup>See page 9-48 for Wiring Symbols.

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Button Stations

### CR2943

Section 9

Push Button Stations  
Flush-Mounted  
NEMA Type 1  
600 Volts max. AC/DC  
10 Amperes Continuous

#### Three-Unit Stations (momentary contact)

Flush Plate Form	With Wall Box	Function	Nameplate Marking	Color	Wiring Symbol Reference <sup>2</sup>	Voltage	Product Number	List Price GO-10P4
Gray	No	Push Button	UP-DOWN-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303D	\$81.00
Gray	No	Push Button	RAISE-LOWER-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303F	\$81.00
Gray	No	Push Button	FAST-SLOW-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303E	\$81.00
Gray	No	Push Button	FORWARD-REVERSE-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303B	\$81.00
Gray	No	Push Button	OPEN-CLOSE-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303C	\$81.00
Gray	No	Push Button	(As Specified)	Black - Black - Red	(E), (E), (B)		CR2943AB303B <sup>1</sup>	\$81.00
Gray	No	Pilot Light (F)	START-STOP	Black - Red	(A), (B)	115/230V	CR2943NB303A	\$132.00
Gray	No	Pilot Light (F)	(As Specified)	Black - Red	(A), (B)	115/230V	CR2943AB303A <sup>1</sup>	\$132.00
Gray	Yes	Push Button	UP-DOWN-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303D	\$102.00
Gray	Yes	Push Button	RAISE-LOWER-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303F	\$102.00
Gray	Yes	Push Button	FAST-SLOW-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303E	\$102.00
Gray	Yes	Push Button	FORWARD-REVERSE-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303B	\$102.00
Gray	Yes	Push Button	OPEN-CLOSE-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303C	\$102.00
Gray	Yes	Push Button	(As Specified)	Black - Black - Red	(E), (E), (B)		CR2943AB303B <sup>1</sup>	\$102.00
Gray	Yes	Pilot Light (F)	START-STOP	Black - Red	(A), (B)	115/230V	CR2943NB303A	\$153.00
Gray	Yes	Pilot Light (F)	(As Specified)	Black - Red	(A), (B)	115/230V	CR2943AB303A <sup>1</sup>	\$153.00
Stainless-Steel	No	Push Button	UP-DOWN-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303K	\$90.00
Stainless-Steel	No	Push Button	RAISE-LOWER-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303M	\$90.00
Stainless-Steel	No	Push Button	FAST-SLOW-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303L	\$90.00
Stainless-Steel	No	Push Button	FORWARD-REVERSE-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303H	\$90.00
Stainless-Steel	No	Push Button	OPEN-CLOSE-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303J	\$90.00
Stainless-Steel	No	Push Button	(As Specified)	Black - Black - Red	(E), (E), (B)		CR2943AB303C <sup>1</sup>	\$90.00
Stainless-Steel	No	Pilot Light (F)	START-STOP	Black - Red	(A), (B)	115/230V	CR2943NB303G	\$141.00
Stainless-Steel	No	Pilot Light (F)	(As Specified)	Black - Red	(A), (B)	115/230V	CR2943AB303D <sup>1</sup>	\$141.00
Stainless-Steel	Yes	Push Button	UP-DOWN-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303K	\$111.00
Stainless-Steel	Yes	Push Button	RAISE-LOWER-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303M	\$111.00
Stainless-Steel	Yes	Push Button	FAST-SLOW-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303L	\$111.00
Stainless-Steel	Yes	Push Button	FORWARD-REVERSE-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303H	\$111.00
Stainless-Steel	Yes	Push Button	OPEN-CLOSE-STOP	Black - Black - Red	(E), (E), (B)		CR2943NB303J	\$111.00
Stainless-Steel	Yes	Push Button	(As Specified)	Black - Black - Red	(E), (E), (B)		CR2943AB303C <sup>1</sup>	\$111.00
Stainless-Steel	Yes	Pilot Light (F)	START-STOP	Black - Red	(A), (B)	115/230V	CR2943NB303G	\$162.00
Stainless-Steel	Yes	Pilot Light (F)	(As Specified)	Black - Red	(A), (B)	115/230V	CR2943AB303D <sup>1</sup>	\$162.00

<sup>1</sup>Add \$9.00, GO-10P4 per station for any nameplate markings or arrangements not shown.

<sup>2</sup>See page 9-48 for Wiring Symbols. If three references are shown, first reference is for first button color (left), second for center button color, and third for right button color.

#### Three-Unit Stations (maintained contact)

Flush Plate Form	With Wall Box	Function	Nameplate Marking	Color	Wiring Symbol Reference <sup>2</sup>	Voltage	Product Number	List Price GO-10P4
Gray	No	Pilot Light (F)	START-STOP	Black - Red	(H)	115/230V	CR2943NB303P	\$150.00
Gray	Yes	Pilot Light (F)	START-STOP	Black - Red	(H)	115/230V	CR2943NB303V	\$171.00
Stainless-Steel	No	Pilot Light (F)	START-STOP	Black - Red	(H)	115/230V	CR2943NB303N	\$159.00
Stainless-Steel	Yes	Pilot Light (F)	START-STOP	Black - Red	(H)	115/230V	CR2943NB303R	\$180.00

<sup>2</sup>See page 9-48 for Wiring Symbols.

#### Stations with Miniature Units

With Wall Box	Function	Nameplate Marking	Color	Wiring Symbol Reference <sup>2</sup>	Position Type	Contact Arrangement	Voltage	Product Number	List Price GO-10P4
Yes	Pilot Light (F)	START-STOP	Black - Red	(D)	-	-	115/230V	CR2943NB203A	\$114.00
Yes	Toggle Switch	ON-OFF	-	(G)	2-Position	SPST	-	CR2943NB201A	\$48.00
Yes	Toggle Switch with Pilot Light (F)	ON-OFF	-	(G)	2-Position	SPST	115/230V	CR2943NB202B	\$114.00

<sup>2</sup>See page 9-48 for Wiring Symbols.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Button Stations

### CR2943, CR2941

Section 9

Push Button Stations

Dimensions in. (mm) and Weights (For Estimating Only)

600 Volts max. AC/DC

10 Amperes Continuous

#### Surface-Mounted NEMA Type 1

Push Button Station Device Model	Approx. Height (in/mm)	Approx. Width (in/mm)	Approx. Depth (in/mm)	Conduit Size Each End (in.)	Approximate Shipping Weight (lbs)
One-Unit Stations	4.56 (115.8)	2.66 (67.6)	2.88 (73.2)	1/2-3/4 KO's	1
Two-Unit Stations	4.56 (115.8)	2.66 (67.6)	2.88 (73.2)	1/2-3/4 KO's	1
Three-Unit Stations	7.38 (187.4)	2.66 (67.6)	2.63 (66.8)	3/4-1 KO's	2 1/2

#### Flush-Mounted NEMA Type 1

Push Button Station Device Model	Approx. Height (in/mm)	Approx. Width (in/mm)	Approx. Depth (in/mm)	Conduit Size Each End (in.)	Approximate Shipping Weight (lbs)
One-Unit Stations	5.62 (142.7)	3.13 (79.5)	3.25 (82.6)	1/2-3/4 KO's	1 1/2
Two-Unit Stations	5.62 (142.7)	3.13 (79.5)	3.25 (82.6)	1/2-3/4 KO's	1 1/2
Three-Unit Stations	8.62 (218.9)	3.38 (85.8)	3.25 (82.6)	3/4-1 KO's	3

#### NEMA Type 4

Push Button Station Device Model	Approx. Height (in/mm)	Approx. Width (in/mm)	Approx. Depth (in/mm)	Conduit Size (in.)	Approximate Shipping Weight (lbs)
One-Unit Stations	5.75 (146.0)	2.69 (68.3)	3.28 (83.3)	Pipe Tap Bottom; 1/2	2
Two-Unit Stations	5.75 (146.0)	2.69 (68.3)	3.28 (83.3)	Pipe Tap Bottom; 1/2	2

#### NEMA Type 4X

Push Button Station Device Model	Approx. Height (in/mm)	Approx. Width (in/mm)	Approx. Depth (in/mm)	Conduit Size (in.)	Approximate Shipping Weight (lbs)
One-Unit Stations	6.13 (155.7)	3.25 (82.6)	3.00 (76.2)	Pipe Tap Bottom; 3/4	2
Two-Unit Stations	6.13 (155.7)	3.25 (82.6)	3.00 (76.2)	Pipe Tap Bottom; 3/4	2

#### NEMA Type 7 NEMA Type 9

Push Button Station Device Model	Approx. Height (in/mm)	Approx. Width (in/mm)	Approx. Depth (in/mm)	Conduit Size Each End (in.)	Approximate Shipping Weight (lbs)
One-Unit Stations	6.62 (168.1)	4.75 (120.6)	4.75 (120.6)	Pipe Tap Top and Bottom; 3/4	6
Two-Unit Stations	6.62 (168.1)	4.75 (120.6)	4.75 (120.6)	Pipe Tap Top and Bottom; 3/4	6



CR2943 Water and Dust-Tight Station, NEMA Type 4



CR2943 Corrosion-Resistant Station, NEMA Type 4X



CR2941 Hazardous-Location Station, NEMA Type 7



CR2943 Flush-Mounted Forms Less Wall Box

Product Number Selection Instructions: See pages 9-48



# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Button Stations

Section 9

### PA Palm Switches

Palm Switches should be ordered from:

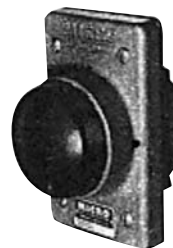
GE Parts SuperCenter 1 (800) PART-4GE  
 1400 Horizon Way 1 (800) 727-8443  
 Mt. Laurel, NJ 08054 Fax: 1 (800) FAX-TO-GE  
 1 (800) 329-8643

Rugged, industrial manual switches for machine control.

Features include:

- Large 2.25" (57.2 mm) diameter button;
- Momentary contact
- Mounts on standard "FD" and "FS" enclosure\*
- 60 ampere inrush
- Four button colors
- Oiltight sealed
- Two-circuit double-break circuitry

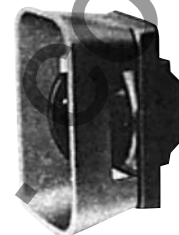
\*Not available from MICRO SWITCH.



2PH



3PH



4PH

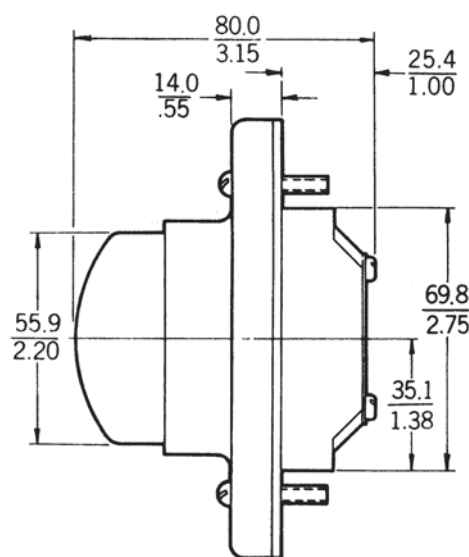
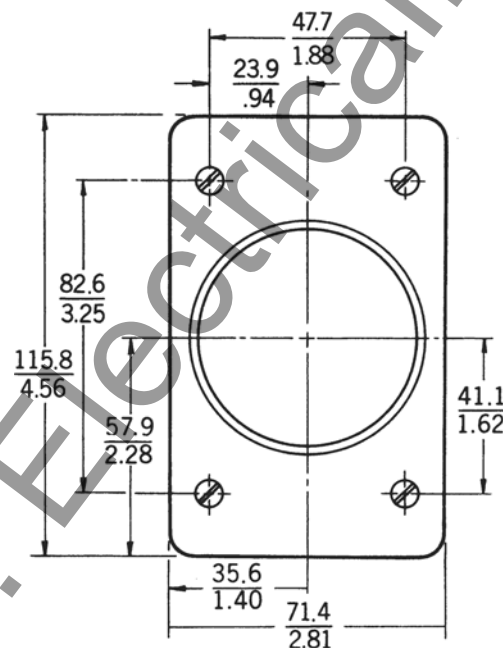
### Order Guide

Circuitry	Electrical Data
One- or Two-Circuit Double-Break 1 NC-1 NO	Pilot Duty Rating: 6 amps normal and 60 amps inrush, 125 Vac; 3 amps normal and 30 amps inrush, 250 Vac; 1.5 amps normal and 15 amps inrush, 480 Vac; 1.2 amps normal and 12 amps inrush, 600 Vac.

NC and NO contacts should be connected to the same polarity.

Description	Product Listing
Black Button	2PH1
Red Button	2PH2
Green Button	2PH3
Yellow Button	2PH4
Guard	3PH1
Black Button and Guard	4PH1
Green Button and Guard	4PH3
Black Button, One Circuit, 1 NO, Double Break	8PH1
Red Button, One Circuit, 1 NC, Double Break	8PH2

### Dimensions (mm/in.) (For Estimating Only)



Dimensions shown are for reference only.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

Technical Data  
600 Volts Max. AC/DC  
10 Amperes Continuous

## Section 9

### General Specifications

Standards and Approvals	UL Listed—File Number E2403 C-UL-CSA Cert. LR—15492	
	NEMA—ICS2—1988, IEC 947.5.1, VDE 0660	
Enclosure Ratings	All units are suitable for use in NEMA Type 1, 3, 3R, 4, 4X, 12, and 13 applications when mounted in enclosures rated for those same applications. For some NEMA 4X applications, protective caps will provide improved corrosion resistance.	
Finger Protection at Terminals	IP2X according to IEC 529 Terminal identification per CENELEC EN 50013	
Operating temperature range	-25° to +70°C, -13° to +158°F	
Storage Temperature Range	-40° to +70°C, -40° to +158°F	
Climate Specs		
Climate Type	Temperature	Relative Humidity
Temperate	74°F (23°C)	50%
Wet	74°F (23°C)	83%
Hot Wet	104°F (40°C)	92%
Variable Wet	74° to 104°F (23° to 40°C)	83%-92%
Resistance to Shock	50g, 11ms	
Frequency Range	1-100 Hz	
Vibration Amplitude	1-13.2 Hz—displacement ±1mm, 13.2-100 Hz—acceleration ±0.7g	
Operating Force Without Contact Blocks - Recessed	1.625 lb./f.	
Operating Force Without Contact Blocks Flush	2.5 lb./f.	
Operating Force With 1 NO Contact Block - Recessed	2.5 lb./f.	
Operating Force With 1 NO Contact Block - Flush	2.875 lb./f.	
Operating Force With 2 NO Contact Blocks - Recessed	3.5 lb./f.	
Operating Force With 2 NO Contact Blocks Flush	3.5 lb./f.	
Operating Force With 3 NO Contact Blocks - Recessed	4.0 lb./f.	
Operating Force With 3 NO Contact Blocks Flush	4.375 lb./f.	
Wire Size	22-12 AWG stranded or solid copper wire	
Torque Requirements	Terminal screws: 10-14 in./lb. Contact block mounting screws: 10-14 in./lb.	

### Contacts

<b>Electrical Reliability Data</b>	With indicating light loads, tested for 5,000,000 operations at 40mA and 115 V resistive loads with no failures observed.
<b>Thermal Current</b>	10A per IEC 947 5-1
<b>Insulation Voltage</b>	Ui = 660 Vac/dc
<b>Protection from Electrical Shock</b>	Class 1 per IEC 536 for metal operators; Class II (double insulation) per IEC 536 for plastic operators
<b>Insulation Category</b>	Group C per VDE 0110
<b>Dielectric strength</b>	2500 V
<b>Short-circuit protection</b>	10A time-delay fuse gG per IEC 269.1 & 269.3
<b>Finger Safe Terminals</b>	Available for silver and gold single- and double-circuit contact blocks, as components and as assembled versions.
<b>Contact Characteristics</b>	
NC: slow make, double break (positive opening)	
NO: slow make, double break	
Opposite polarity	
Self-cleaning below 300 volts	
NO and NC snap action (for use on joysticks)	

### Pilot Duty Ratings for Standard Contact Blocks

<b>A600</b> (maximum make volt-amperes = 7200; maximum break volt-amperes = 720; PF = .25)								
<b>Volts (V)</b>	12	24	48	60	120	240	480	600
<b>Continuous (A)</b>	10	10	10	10	10	10	10	10
<b>Making (A)</b>	60	60	60	60	60	30	15	12
<b>Breaking (A)</b>	10	10	10	10	6	3	1.5	1.2
<b>P300</b> (maximum make or break volt-amperes = 69)								
<b>Volts (V)</b>	12	24	48	60	125	250	300	
<b>Continuous (A)</b>	5	5	5	5	5	5	5	
<b>Making (A)</b>	5	5	2.8	2.3	1.1	0.55	0.46	
<b>Breaking (A)</b>	5	5	2.8	2.3	1.1	0.55	0.46	

### Reed Switch Block Ratings

<b>AC Operating Voltage</b>	2-120 Vac
<b>AC Maximum Continuous Current</b>	.001-.15A
<b>AC Resistive Watts</b>	8 VA maximum
<b>DC Operating Voltage</b>	2-30 Vdc
<b>DC Maximum Continuous Current</b>	.001-.15A
<b>DC Resistive Watts</b>	4.5 VA maximum

### Power Supply Resistor Values

<b>Resistor Value @ 120 Vac/dc</b>	750 ohms ±5%, 5 watts, 2 resistors in series
<b>Resistor Value @ 240 Vac/dc</b>	2700 ohms ±5%, 5 watts, 2 resistors in series

# Pilot and Signaling Devices

## Heavy-Duty 30.5 mm Watertight/Oiltight Push Buttons

### CR104P

## Section 9

### Technical Data

600 Volts Max. AC/DC

10 Amperes Continuous

### Materials List

Component	Material
Cap (non-illuminated)	Unfilled polyacetal
Cap (illuminated)	Polycarbonate
Metal housings	Chromium- or zinc-plated zinc ingot
Plastic housing	Nylon
White plunger	Unfilled polyacetal
Flange	Nylon
Grease	Good for temperatures of -42° to +204°C
Plate spacer	Polycarbonate
Locking plate	Chromium-plated zinc ingot
Locking ring	Chromium-plated zinc ingot
Hexagonal ring	Chromium-plated zinc ingot
Contact block housing	Nylon
Cam	Unfilled Polyacetal
Cam follower	Unfilled Polyacetal
Joystick protective housings	Vinyl nitrile
Terminal screw size	#6-32
Gasket	Vinyl nitrile
Contacts	Silver alloy
Push button guards	Chromium-plated zinc ingot
Wobble stick	Aluminum
Key	Brass
Protective caps	Silicon rubber
Locking attachment	Polycarbonate

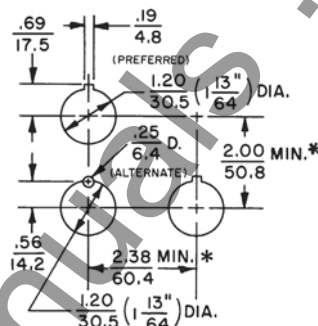
### Mechanical Life Ratings

Operator	Number of Operations
Standard push buttons	3,000,000
Illuminated push buttons (including push on/push off)	1,000,000
Momentary mushroom-head push buttons	3,000,000
Maintained and push-to-latch, turn-to-release mushroom-head push buttons	500,000
Selector switches (all)	1,000,000
Joysticks	500,000
Toggle switches	500,000
Wobble switches	1,000,000
Key-operated push buttons	500,000
Selector push buttons	1,000,000
Time-delay push buttons	1,000,000

### Electrical Life Ratings

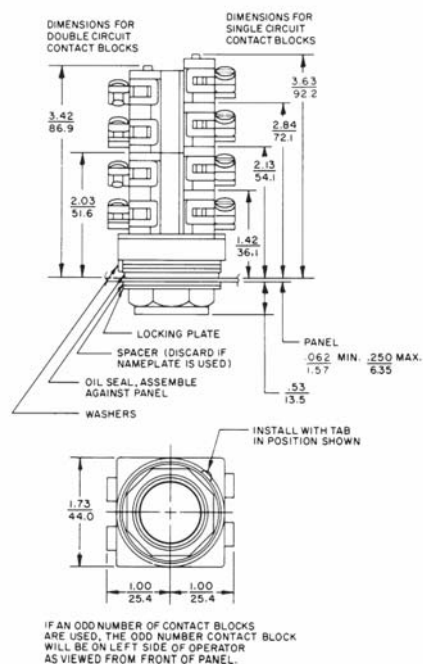
Operator	Number of Operations
Push buttons	5,000,000
Selector switches	500,000

### Outlines, Dimensions (in./mm) (For Estimating Only)



### Drilling Plan Dual Dimensions

CR104P push buttons are designed for front mounting, with or without nameplates, in 1 13/64" (30.5 mm) diameter holes. Operators are provided with an octagonal ring, spacers, and gaskets to ensure an oiltight, uniform front protrusion. Acceptable Panel Thickness: 0.04 - 0.25 inches (1.02 - 6.35 mm)



### Outline and Dimensions

For dimensional information on other operators, contact nearest GE Consumer & Industrial Representative. Manufacturing tolerances apply to all untoleranced dimensions.

Panel thickness (inches)	No. of washers required
.062	3
.093	2
.125	2
.188	1
.25	0



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

Pilot and Signaling Devices  
Heavy-Duty 22.5 mm Watertight/Oiltight Pilot Devices  
C-2000

600 VAC Max., 300 VDC Max.  
10 Amps Continuous AC, 2.5 Amps Continuous DC

C-2000 Push Buttons Reveal the Beauty of Simplicity in Every Detail

Back-tightened locking rings discourage tampering, accommodate a range of panel thickness, and tighten down with either a custom wrench or any flat-bladed screwdriver.

A removable orientation tab allows universal mounting in either notched or round 22.5 mm holes.

With 4-point contact, flanges snap securely onto the operator.

Ultrasonically welded contact block housings hold up longer and resist contamination better, even in the dustiest environments. Double bridge sliding contacts provide excellent performance, even in low-voltage applications. Terminals (both screw and quick-connect) can be wired off the operator, then snapped on. Contacts are rated A600, Q300.

Four operator styles—round polished and satin chrome, round and square engineered plastic—all reflect a sleek, distinctive European style and give you precisely the look and function you want in your push buttons. Ergonomic design adds ease of assembly and operation.

The permanently bonded front gasket provides superior sealing against contaminants and makes installation nearly foolproof.

Markings are easy to read and, because they're laser-etched, they'll remain legible—permanently.

Like contact blocks, power supplies just snap onto the mounting flange. Installation is quicker, labor costs are reduced. Choose from full-voltage, resistor and transformer power supplies with incandescent, LED or neon lamps.

C-2000 push buttons bring the beauty of simplicity to heavy-duty 22 mm push buttons. You'll see it in their outstanding appearance, thoughtful ergonomics, expansive selection, innovative contact blocks, modular versatility, long-term reliability, and global applicability.

Quick Reference Guide to C-2000 Push Buttons

Introduction, Quick Reference Guide .....	9-58, 9-59
How to Select, Price and Order .....	9-60, 9-61
Nomenclature Keys .....	9-62 to 9-64
Standard Push Buttons .....	9-65
Illuminated Push Buttons .....	9-67
Mushroom-Head Push Buttons, Emergency Push Button .....	9-69
Illuminated Mushroom-Head Push Buttons .....	9-71
Special Function, Non-Illuminated Push Buttons .....	9-72
Special Function, Illuminated Push Buttons .....	9-74
Key-Operated & Selector Push Buttons .....	9-76 to 9-77
Multi-Function Push Buttons .....	9-78
Selector Switches .....	9-79
Pilot Lights .....	9-93
Push-to-Test Pilot Lights .....	9-94
Special Operators .....	9-96
Power Supplies & Contact Blocks .....	9-100
Nameplates .....	9-103
Specially Marked Push Button Caps; Diffusers & Inserts .....	9-107
Caps, Heads, Lenses & Handles .....	9-111
Plastic Enclosures, Nameplates, Contact Blocks & Power Supplies for Base-Mounted Pilot Devices .....	9-113
Die-Cast Aluminum Enclosures .....	9-115
Sheet Steel & Stainless Steel Enclosures .....	9-116
Accessories .....	9-118
Lamps .....	9-119
Assembled Forms .....	9-121
Technical Data .....	9-127 to 9-133

# Pilot and Signaling Devices

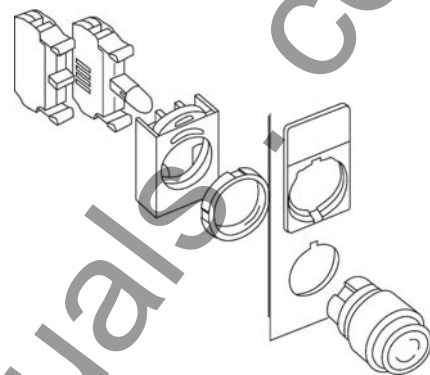
## Heavy-Duty 22.5 mm Watertight/Oiltight Pilot Devices

### C-2000

Section 9

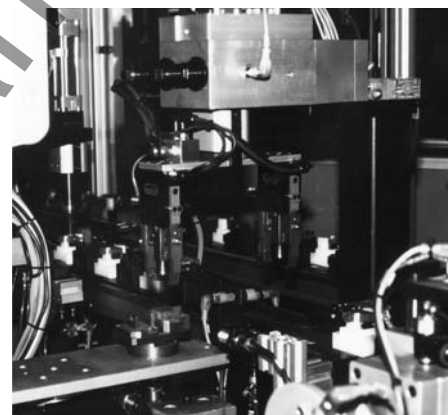
#### True Modularity, Real Simplicity

Because all operators, flanges, contact blocks, and power supplies simply snap together, installation is fast, inventory requirements are slashed, and application flexibility is greatly increased. You can wire terminals off the operator, then snap the block on when you're done. Disassembly is just as easy.



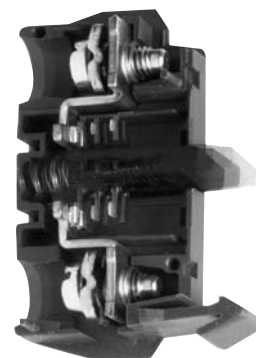
#### Designed and Built for Reliability

Quality is built into every component using advanced design and manufacturing technologies. 100% on-line inspection assures you of the reliability you need.



#### Innovative Contact Blocks

Unique, patented double bridge wiping contacts in ultrasonically welded housings provide long life and superior contact fidelity, even in low voltage applications.



#### Worldwide Approval and Availability

C-2000 push buttons are truly global. Around the world their product numbers follow the same logical nomenclature that simplifies identification and specification. Around the world, they're readily available. Around the world, they meet the standards.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Pilot Devices

### C-2000

## Section 9

#### How To Select, Price And Order C-2000 Push Buttons

This catalog contains virtually all of the information you'll need to understand, evaluate, select, price, and apply C-2000 push buttons.

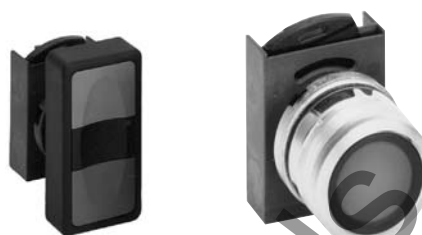
**Technical data**, on pages 9-127 to 9-133, provides complete specifications, terminal and contact data, mechanical and electrical life ratings, materials, power supply information, maximum contacts by operator, and lamp selection tips. Guideform specifications appear on page 9-133.

**A guide to C-2000 push button nomenclature** (pages 9-62 to 9-64) offers insight into this logical product numbering system. This will be helpful in understanding how the nomenclature works, and useful in deciphering particular product numbers, but should not be used to develop a specific product number, as not all possible combinations of product number digits produce available devices. To find a product number for a specific product, use the data beginning on page 9-65.

**To select modular components**, see pages 9-65 to 9-120. You'll find ordering modular components—as well as assembling and stocking them—fast and easy. **To select assembled devices**, see pages 9-121 to 9-126. Assembled devices provide a single product number for complete devices (which is a handy reference in certain circumstances, even if you order modular components). To develop a product number and list price for assembled components, just follow the step-by-step process explained in that section. Note that there is a **\$5.00 (List Price, GO-10GC)** assembly surcharge for assembled devices.

Many assembled devices are available from GE Consumer & Industrial stock. In the case that a required device is not available, **the components to assemble it will generally be stocked**. A third alternative may be to choose a similar assembled device and the required parts to modify it.

**To order**, contact your GE Consumer & Industrial distributor or the nearest GE Consumer & Industrial Representative.



Outstanding appearance and ergonomics. The beauty of C-2000 push buttons adds class to any panel. But their distinctive European styling also incorporates ergonomic design features that provide a sure, easy touch for the people who use them.



**Huge selection.** With four operator styles, a vast array of operator types, a complete selection of contact blocks and power supplies, your choice of nameplates and enclosures, lamps for every need, and a multitude of useful accessories, you'll find in C-2000 push buttons exactly what you're looking for.

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Pilot Devices

### C-2000

#### Selecting Guide

#### Section 9

#### Product Prefix and Description

The selection process is mapped out on the first page of each Operator Type, directing you in the steps necessary to specify a single device. Color coding speeds and simplifies the location of data for each step.

Select Operators based on Style and Type. Make any Product Number digits substitutions required (e.g. for colors or keys) using accompanying options tables. List Prices appear to the right of the Product Number.

#### Pilot and Signaling Devices Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

#### Section 9

C-2000™  
Standard  
Non-Illuminated  
600 VAC Max., 300 VDC Max.  
10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process



#### Operators

Standard Push Button Type	Operator Style	Product Number	List Price
Flush	Round Polished Chrome	PC0000	\$4.50
Flush	Round Satin Chrome	PC0001	\$4.50
Flush	Round Engineered Plastic	PC0002	\$4.50
Flush	Square Engineered Plastic	PC0003	\$4.50
Extended	Round Polished Chrome	PE0000	\$4.50
Extended	Round Satin Chrome	PE0001	\$4.50
Extended	Round Engineered Plastic	PE0002	\$4.50
Extended	Square Engineered Plastic	PE0003	\$4.50
Recessed	Round Polished Chrome	PR0000	\$4.50
Recessed	Round Satin Chrome	PR0001	\$4.50

Replace asterisk (\*) in product number with color code from table below

*Colors	Black	Red	Green	Yellow	Blue	White	Brown	Gray	No Code
Color code	B	R	G	Y	B	W	Br	Gr	

\*When ordering operator with no cap, deduct \$1.00 from List Price.

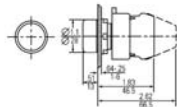
Color caps are listed on page 9-111.

Where available, example product photographs appear to the right of the Operator Selection Tables.

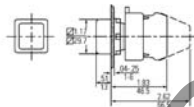
#### Pilot and Signaling Devices Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

#### Section 9

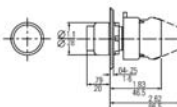
C-2000™  
Standard  
Non-Illuminated  
Outlines and Dimensions (inches) (For Estimating Only)  
600 VAC Max., 300 VDC Max.  
10 Amps Continuous AC, 2.5 Amps Continuous DC



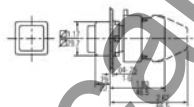
Round Flush Push Button



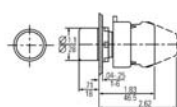
Square Flush Push Button



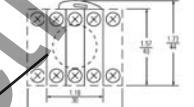
Round Extended Push Button



Square Extended Push Button



Round Recessed Push Button



Typical Back Side View

Product Number Selection Instructions: See pages 9-65

9-66

Control Catalog

www.greelectrical.com

Rev. 05/06

Prices and data subject to change without notice



Recessed



Flush

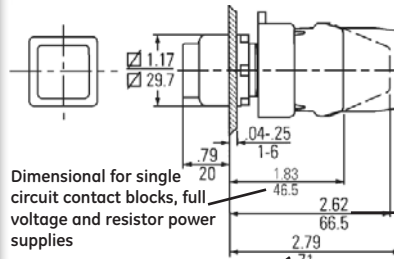


Extended



Square Engineered Plastic

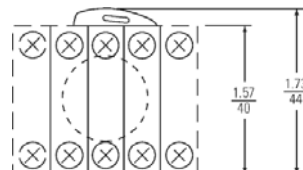
Publication and page References make location of associated information easy.



Dimensional for single circuit contact blocks, full voltage and resistor power supplies

Dimensions for double circuit contact blocks

Dimensions for transformer power supplies



Dimension for 3-position flange (comes standard with all operators)

Dimension for 5-position flange (must be ordered separately)

Selected Dimensional Drawings follow each Operator Type Selection Table page. These typically include dimensional information and backside terminal configurations.

**Publications and Reference:** See Section 17 for a complete list of additional product-related publications



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Pilot Devices

### C-2000

## Section 9

#### Nomenclature

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

For use in interpreting product numbers only. Do not use for developing product numbers.

#### Standard & Illuminated Push Buttons

Style		Illumination		Cap Color	Push Button Type	Lens Type
P	9		P			
C = Polished chrome M = Satin chrome X = Round plastic S = Square plastic		N = Nonilluminated L = Illuminated		0 = No Cap N = Black R = Red V = Green G = Yellow L = Blue B = White M = Brown H = Gray A = Orange I = Clear	G = Flush S = Extended E = Recessed	D = Diffused R = Refracted 0 = No lens

#### Pilot Lights

Style		Cap Color	Lens Type
P	9		L
C = Polished chrome M = Satin chrome X = Round plastic S = Square plastic		R = Red V = Green G = Yellow L = Blue B = White I = Clear A = Orange 0 = No cap	D = Diffused R = Refracted V = Glass 0 = No lens

#### Mushroom-Head Push Buttons

Style		Type	Mushroom-Head Diameter	Cap Color	Illumination	Position Type (1 Digit) or Key Selection (2 Digits)	
P	9		E				
C = Polished chrome M = Satin chrome X = Round plastic S = Square plastic		M = Momentary T = Push/Pull R = Turn-to-reset C = Key-to-reset	3 = 28mm 4 = 40mm 6 = 60mm	N = Black R = Red V = Green G = Yellow L = Blue B = White I = Clear A = Orange	N = Nonilluminated A = Positive-action, nonilluminated L = Illuminated	<b>Position type</b> 1 = 2-position push/pull 2 = 3-position, maintained push/momentary pull 3 = 3-position, push/pull, spring return to center <b>Keys</b> See keys selection table on page 9-64	

#### Knob- & Lever-Operated Selector Switches

Style		Operator Type	Cam	Spring Return	Cap Color
P	9		S		
C = Polished chrome M = Satin chrome X = Round plastic S = Square plastic		M = Knob V = Lever L = Illuminated knob	D, I, or H = 2-position E, L, U, or Z = 3-position X or W = 4-position Y = 5-position	0 = Fixed 1 = From left 3 = From left & right 5 = From right	0 = No knob or lever N = Black R = Red V = Green G = Yellow L = Blue B = White I = Clear A = Orange

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Pilot Devices

### C-2000

## Section 9

#### Nomenclature

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

For use in interpreting product numbers only. Do not use for developing product numbers.

#### Key-Operated Selector Switches

Style					Cam	Spring Return	Key Removal	Key Selection
P	9		S	C				

**C** = Polished chrome  
**M** = Satin chrome  
**X** = Round plastic  
**S** = Square plastic

**D, I, or H** = 2-position  
**E, L, U, or Z** = 3-position  
**X** = 4-position

**0** = Fixed  
**1** = From left  
**3** = From left & right  
**5** = From right

See key removal table on page 8-64

See key selection table on page 9-64

#### Special Operators

Style			Operator Type	Operator-Specific Digits For Various Options		
P	9					

**C** = Polished chrome  
**M** = Satin chrome  
**X** = Round plastic  
**S** = Square plastic

**M** = Joystick  
**C** = Toggle switch  
**W** = Wobble stick  
**Z** = Potentiometer operator  
**R** = Reset push button  
**B** = Buzzer

#### Multi-Function Push Buttons

				Illumination	Top Color	Bottom Color	Guard	ISO Symbols	
P	9	D	P						

**N** = Nonilluminated  
**L** = Illuminated

**N** = Black  
**V** = Green

**R** = Red

**G** = Flush  
**S** = Top flush, bottom extended

**00** = No Symbols  
**01** = 1 (top) / 0 (bottom)

#### Key-Operated Push Buttons

Style					Lock position	Key removal	Key selection
P	9	P	C	N			

**C** = Polished chrome  
**M** = Satin chrome  
**X** = Round plastic

**1** = Normal  
**2** = Depressed  
**3** = Normal & depressed

**E** = Right  
**K** = Left & right

See key selection table on page 9-64

#### Selector Push Buttons

Style					Function		
P	9		P	S			G

**C** = Polished chrome  
**M** = Satin chrome

**2-position**  
**21** = Function 201  
**22** = Function 231  
**23** = Function 235

**3-position**  
**34** = Function 301  
**35** = Function 323



Publications and Reference: See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Pilot Devices

### C-2000

## Section 9

#### Nomenclature

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

For use in interpreting product numbers only. Do not use for developing product numbers.

#### Power Supplies

Type	Style	Terminal Type	Voltage	Lamp
<b>P</b>	<b>9</b>	<b>P</b>		
<b>D</b> = Full voltage <b>T</b> = Transformer <b>R</b> = Resistor	<b>N</b> = Normal <b>D</b> = Diode <b>L</b> = Long life <b>T</b> = Test <b>M</b> = Multi-function (continuous/ blinking) <b>H</b> = For use with Logic Reed Flange	<b>V</b> = Standard screw <b>F</b> = Quick-connect <b>B</b> = Base-mount screw	See voltage table below	<b>L</b> = LED <b>N</b> = Neon

#### Contact Blocks

Normally Open Contacts	Normally Closed Contacts	Terminal Type	Contact Type
<b>P</b>	<b>9</b>	<b>B</b>	
<b>0</b> = 0NO <b>1</b> = 1NO	<b>0</b> = 0NC <b>1</b> = 1NC	<b>V</b> = Standard screw <b>F</b> = Quick-connect <b>B</b> = Base-mount screw <b>T</b> = Time-delay, screw	<b>N</b> = Normal <b>A</b> = Early make <b>R</b> = Late opening <b>3</b> = Time-delay, 0.1-30 sec. <b>B</b> = Time-delay, 10-180 sec. <b>H</b> = Logic Reed (F terminal only)

#### Accessories and Enclosures

Style	Items & Options
<b>P</b>	<b>9</b>
<b>A</b>	
<b>R</b> = Round operator accessory <b>S</b> = Square operator accessory <b>C</b> = Common accessory (round & square) <b>M</b> = Multi-function operator accessory <b>E</b> = Base-mount enclosure or nameplate	See individual catalog selections

#### Key Selection

Key Number	Std.	Special										Colored					
	3095	9901	9902	9903	9904	9905	9910	9916	9919	3353	R455 (Ronis)	73033 (Yellow)	73034 (Black)	73037 (Red)	73038 (Blue)	73040 (Orange)	
Key Code	95	01	02	03	04	05	10	16	19	53	55	33	34	37	38	40	

#### Key Removal

Key Removal Position from Keyed Operators																			
2- & 3-Position	L	—	C	—	R	—	L-C	—	L-R	—	—	C-R	—	—	—	L-C-R	—	—	—
4-Position	2L	L	—	R	2R	2L-L	—	2L-R	2L-2R	L-R	L-2R	—	2-2R	2L-L-R	2L-L-2R	—	2L-R-2R	L-R-2R	2L-L-R-2R
Key Removal Code	A	B	C	D	E	F	H	J	K	L	M	N	P	R	S	T	U	V	Z

#### Voltage

Voltage	No lamp	6	12	24	48	60	110	120	110-120	130	220	220-240	220-250	280	380	415-440	480-500	550-600
Voltage code	0	A	B	D	G	H	I	J	J	L	M	N	N	R	U	W	Y	Z



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9

Standard

Non-Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below + Select contact block(s) from page 9-101 + Select nameplate, if required, from pages 9-103 to 9-105 = Complete Unit



#### Operators

Standard Push Button Type	Operator Style	Product Number	List Price GO-10GC
Flush	Round Polished Chrome	P9CPN*G	\$8.50
Flush	Round Satin Chrome	P9MPN*G	\$8.50
Flush	Round Engineered Plastic	P9XPN*G	\$8.50
Flush	Square Engineered Plastic	P9SPN*G	\$8.50
Extended	Round Polished Chrome	P9CPN*S	\$8.50
Extended	Round Satin Chrome	P9MPN*S	\$8.50
Extended	Round Engineered Plastic	P9XPN*S	\$8.50
Extended	Square Engineered Plastic	P9SPN*S	\$8.50
Recessed	Round Polished Chrome	P9CPN*E	\$8.50
Recessed	Round Satin Chrome	P9MPN*E	\$8.50

Replace asterisk (\*) in product number with color code from table below

#### \*Colors

Colors	Black	Red	Green	Yellow	Blue	White	Brown	Gray	No Cap <sup>1</sup>
*Color code	N	R	V	G	L	B	M	H	0

<sup>1</sup>When ordering operator with no cap, deduct \$1.00 from List Price.

Color caps are listed on page 9-111.



Recessed



Flush



Extended



Square Engineered Plastic



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

## Section 9

### C-2000

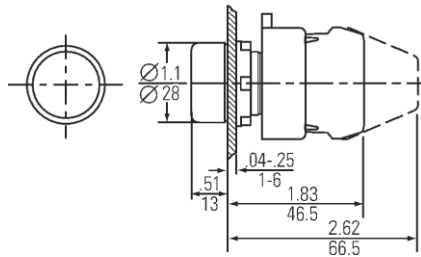
Standard

Non-Illuminated

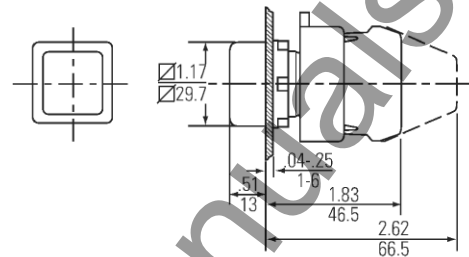
Outlines and Dimensions ( $\frac{\text{in}}{\text{mm}}\text{ (For Estimating Only)}$ )

600 VAC Max., 300 VDC Max.

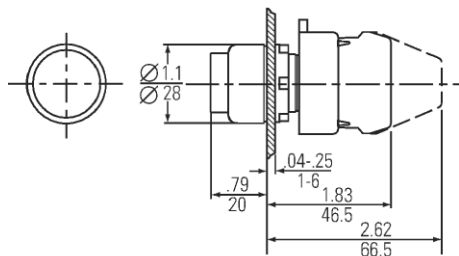
10 Amps Continuous AC, 2.5 Amps Continuous DC



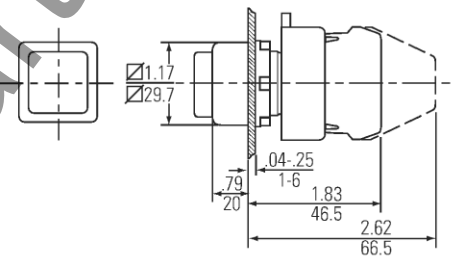
Round Flush Push Button



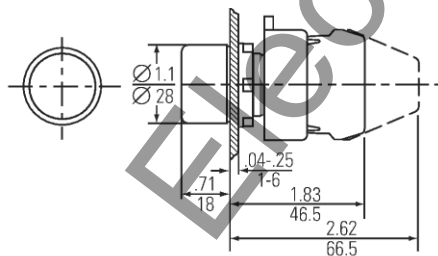
Square Flush Push Button



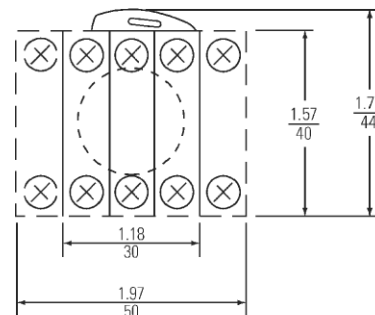
Round Extended Push Button



Square Extended Push Button



Round Recessed Push Button



Typical Back Side View

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9

Standard

Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below	+	Select power supply from pages 9-100 & 9-101	+	Select contact block from page 9-101	+	Select nameplate, if required, from pages 9-103 to 9-105	=	Complete unit
-----------------------	---	--	---	--------------------------------------	---	--	---	---------------



Flush

#### Operators

Standard Push Button Type	Operator Style	Lens Type	Product Number	List Price GO-10GC
Flush	Round Polished Chrome	Diffused	P9CPL*GD	\$11.50
Flush	Round Satin Chrome	Diffused	P9MPL*GD	\$11.50
Flush	Round Engineered Plastic	Diffused	P9XPL*GD	\$11.50
Flush	Squared Engineered Plastic	Diffused	P9SPL*GD	\$11.50
Extended	Round Polished Chrome	Diffused	P9CPL*SD	\$10.50
Extended	Round Satin Chrome	Diffused	P9MPL*SD	\$10.50
Extended	Round Engineered Plastic	Diffused	P9XPL*SD	\$10.50
Extended	Squared Engineered Plastic	Diffused	P9SPL*SD	\$10.50
Recessed	Round Polished Chrome	Diffused	P9CPL*ED	\$11.50
Recessed	Round Satin Chrome	Diffused	P9MPL*ED	\$11.50
Recessed	Round Engineered Plastic	Diffused	P9XPL*ED	\$11.50
Recessed	Squared Engineered Plastic	Diffused	P9SPL*ED	\$11.50



Recessed

Replace asterisk (\*) in product number with color code from table below

#### \*Colors

Colors	Red	Green	Yellow	Blue	White	Orange	Clear	No Lens <sup>1</sup>
*Color code	R	V	G	L	B	A	I	O

<sup>1</sup>When ordering illuminated push buttons with no lens, change eighth digit in product number from D to O and deduct **\$1.00** from **List Price**.

Color lenses are listed separately on page 9-112.



Square Extended



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

## Section 9

C-2000

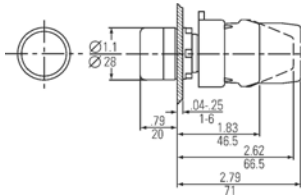
Standard

Illuminated

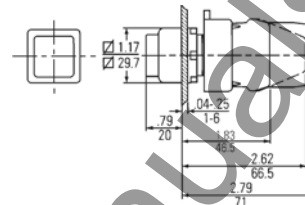
Outlines and Dimensions (mm) (For Estimating Only)

600 VAC Max., 300 VDC Max.

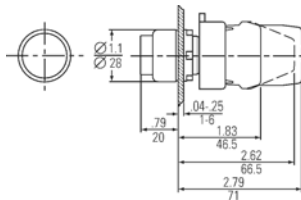
10 Amps Continuous AC, 2.5 Amps Continuous DC



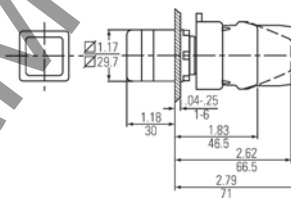
Round Illuminated Flush Push Button



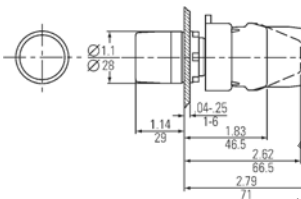
Square Illuminated Extended Push Button



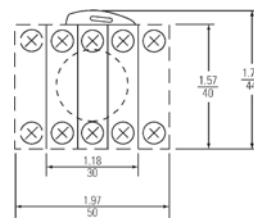
Round Illuminated Extended Push Button



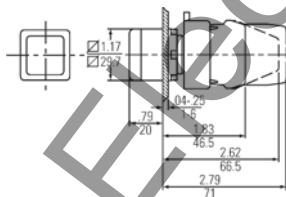
Square Illuminated Recessed Push Button



Round Illuminated Recessed Push Button



Typical Back Side View



Square Illuminated Flush Push Button

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9




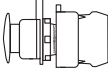
Mushroom-Head

Non-Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below	+	Select contact block(s) from page 9-101	+	Select nameplate, if required, from pages 9-103 to 9-105	=	Complete Unit
						



#### Momentary Operators

Head Size	Operator Style	Product Number	List Price GO-10GC
28 mm dia.	Round Polished Chrome	P9CEM3*N	\$16.50
40 mm dia.	Round Polished Chrome	P9CEM4*N	\$16.50
60 mm dia.	Round Polished Chrome	P9CEM6*N	\$18.50
28 mm dia.	Round Satin Chrome	P9MEM3*N	\$16.50
40 mm dia.	Round Satin Chrome	P9MEM4*N	\$16.50
60 mm dia.	Round Satin Chrome	P9MEM6*N	\$18.50
28 mm dia.	Round Engineered Plastic	P9XEM3*N	\$18.50
40 mm dia.	Round Engineered Plastic	P9XEM4*N	\$16.50
60 mm dia.	Round Engineered Plastic	P9XEM6*N	\$18.50
29.7 mm sq.	Square Engineered Plastic	P9SEM3*N	\$16.50

Non-Illuminated Mushroom-Head Push Button

Replace asterisk (\*) in product number with color code from table below

#### \*Colors

Colors	Black	Red	Green	Yellow
*Color code	N	R	V	G

#### Emergency Push Button

Description	Product Number	Pack Qty.	List Price GO-10GC
Pushbutton E-Stop Latch T-R EN418	P9XER4RAN	5	\$28.20
Pushbutton E-Stop L-T-R EN418 Flag Ind	P9XER4RAW	5	\$33.20
Pushbutton E-Stop Latch Key-R EN418	P9XER4RA95N <sup>1</sup>	5	\$65.60
E-Stop Ass.Station EN418 Latch T-R	P9EPAG1Y01N	1	\$69.41
E-Stop Ass.Station EN418 L-T-R Flag Ind	P9EPAG1Y01W	1	\$74.41
E-Stop Ass.Station EN418 Latch Key-R	P9EPAG1Y06N	1	\$116.05

<sup>1</sup> With 2 keys code 3095

Emergency Push-Button

#### Technical Data

- Positive opening:** Over center device provides positive action even if the actuator is partially depressed (anti-tease). Contacts open only after latching mechanism operates. Tamperproof mechanism is sealed to prevent interference.
- Compliance with standards:** IEC 947.5.1 – VDE0660 – UTE – BSI – NEMA – CENELEC EN 50007
- Approvals:** UL – CSA
- Degree of protection:** IP66 in accordance with CENELEC EN 60529 suitable for use in enclosures type 1-3-3R-3S-4-4X-12-13 to UL 508
- Rated insulation voltage:** 690V AC/DC according to EN 60947.1
- Impulse withstand voltage:** 4kV according to EN 60947.1
- Electrical rating:** rated thermal current I<sub>th</sub> = 10 A

##### Performances according to IEC 947.5.1

###### Category AC 15

Voltage	Ue (V)	24	48	60	110	220	380	500	600
Current	Ie (A)	10	10	10	6	3	2	1.5	1.2

###### Category DC 13

Voltage	Ue (V)	24	48	60	110	220	300
Current	Ie (A)	2.5	1.4	1	0.55	0.27	0.2

##### Performances according to CSA and UL

AC Heavy Duty	(A600)
DC Standard Duty	(Q300)

##### Temperature ranges:

Operation	-25°C to + 70°C
Storage	-40°C to + 70°C

##### Climatic conditions:

The standard versions are suitable for use in the following climates:

Temperate climate	cat. 23/50 (DIN 50014)
Wet climate	cat. 23/83 (DIN 50015)
Hot wet climate	cat. 40/92 (DIN 50015)
Variable wet climate	FW24 (DIN 50016)

##### Mechanical life: 0.3 million operations

##### Max. number of contact blocks:

Screw terminal	max. 2 for a total of 4 electrical contacts
Faston terminal	max. 2 for a total of 2 electrical contacts



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

**Outlines and Dimensions:** See page 9-70

**Accessories:** See page 9-110 to 9-119

**Technical Data:** See page 9-127 to 9-133



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

## Section 9

### C-2000

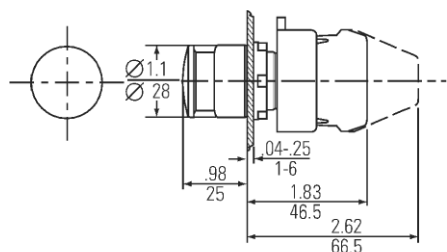
Mushroom-Head

Non-Illuminated

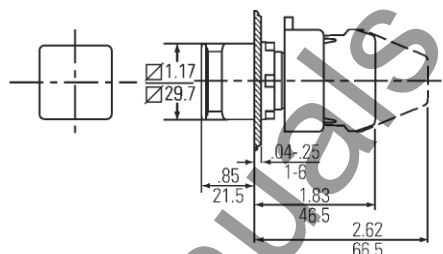
Outlines and Dimensions ( $\frac{\text{in}}{\text{mm}}$ ) (For Estimating Only)

600 VAC Max., 300 VDC Max.

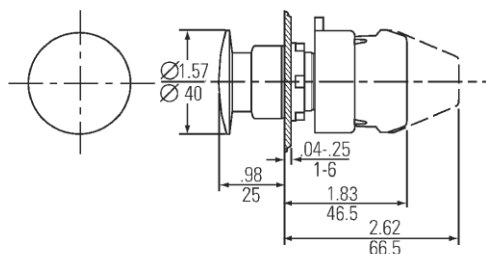
10 Amps Continuous AC, 2.5 Amps Continuous DC



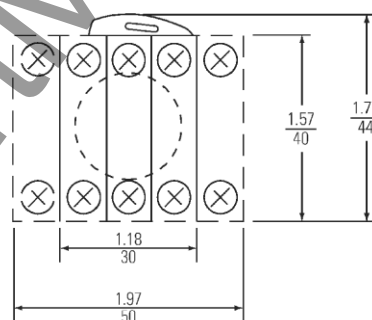
Round Mushroom-Head Push Button (28 mm)



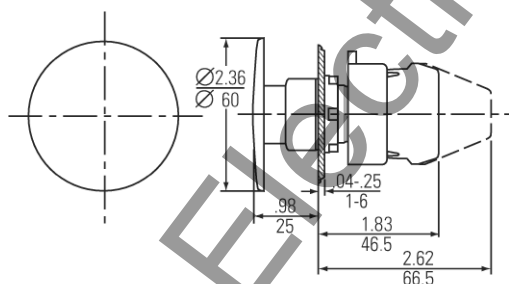
Square Mushroom-Head Push Button



Round Mushroom-Head Push Button (40 mm)



Typical Back Side View



Round Mushroom-Head Push Button (60 mm)

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9





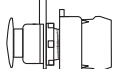
Mushroom-Head

Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below	+	Select power supply from pages 9-100 & 9-101	+	Select contact block from page 9-101	+	Select nameplate, if required, from pages 9-103 to 9-105	=	Complete unit
								



Illuminated Mushroom-Head Push Buttons

#### Momentary Operators

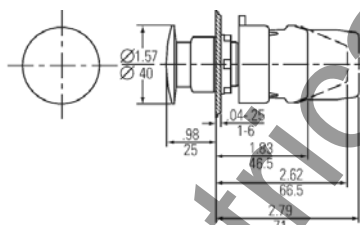
Head Size	Operator Style	Product Number	List Price, GO-10GC
40 mm dia.	Round Polished Chrome	P9CEM4*L	\$16.50
40 mm dia.	Round Satin Chrome	P9MEM4*L	\$16.50
40 mm dia.	Round Engineered Plastic	P9XEM4*L	\$16.50
29.7 mm sq.	Square Engineered Plastic	P9SEM3*L	\$16.50

Replace asterisk (\*) in product number with color code from table below

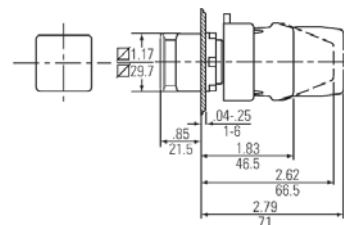
#### \*Colors

Colors	Red	Green	Yellow	Blue	White	Orange	Clear
*Color code	R	V	G	L	B	A	I

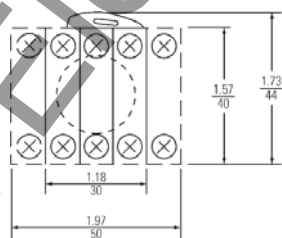
#### Outlines and Dimensions (in./mm) (For Estimating Only)



Round Illuminated Mushroom-Head Push Button (40 mm)



Square Illuminated Mushroom-Head Push Button



Typical Back Side View



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

## Section 9

#### Special Function

#### Non-Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below + Select contact block(s) from page 9-101 + Select nameplate, if required, from pages 9-103 to 9-105 = Complete Unit



Non-Illuminated Special Function Push Buttons

#### Push-To-Latch (Red)

Release Type	Head Size	Operator Style	Product Number	List Price GO-10GC
Turn-to-Release	28 mm dia.	Round Polished Chrome	P9CER3RN	\$38.50
Turn-to-Release	40 mm dia.	Round Polished Chrome	P9CER4RN	\$38.50
Turn-to-Release	28 mm dia.	Round Satin Chrome	P9MER3RN	\$38.50
Turn-to-Release	40 mm dia.	Round Satin Chrome	P9MER4RN	\$38.50
Turn-to-Release	40 mm dia.	Round Engineered Plastic	P9XER4RA <sup>1</sup>	\$38.50
Turn-to-Release	28 mm dia.	Square Engineered Plastic	P9XER4RN	\$38.50
Turn-to-Release	40 mm dia.	Square Engineered Plastic	P9SER4RA <sup>1</sup>	\$38.50
Key-to-Release	40 mm dia.	Round Polished Chrome	P9CEC4RN†	\$53.50
Key-to-Release	40 mm dia.	Round Satin Chrome	P9MEC4RN†	\$53.50
Key-to-Release	40 mm dia.	Round Engineered Plastic	P9XEC4RA† <sup>1</sup>	\$53.50
Key-to-Release	40 mm dia.	Square Engineered Plastic	P9SEC4RA† <sup>1</sup>	\$53.50

<sup>1</sup>Direct snap action push buttons per EN 418. Fully depressing the button will ensure that the NC contacts have been opened by purely mechanical means. Less than full depression of the button will not change contact state.

Replace dagger (†) in product number with key code from Keys table below.

#### Keys (Set of 2)†

Key	Std.	Special <sup>1</sup>									
Number	3095	9901	9902	9903	9904	9905	9910	9916	9919	3353	R455 (Ronis)
†Key Code	95	01	02	03	04	05	10	16	19	53	55

Key	Colored <sup>1</sup>				
Number	73033 (Yellow)	73034 (Black)	73037 (Red)	73038 (Blue)	73040 (Orange)
†Key Code	33	34	37	38	40

<sup>1</sup>To order with other than standard key code (95), add \$4.00 to List Price, GO-10GC. Minimum quantity order on Key Codes 95, 55, and 33 is one; for all others, minimum quantity order is ten.

#### Push-Pull

Position Type	Operator Style	Head Size	Product Number	List Price GO-10GC
2-Position Maintained	Round Polished Chrome	40 mm dia.	P9CET4*N1	\$21.50
2-Position Maintained	Round Satin Chrome	40 mm dia.	P9MET4*N1	\$21.50
2-Position Maintained	Round Engineered Plastic	40 mm dia.	P9XET4*N1	\$21.50
2-Position Maintained	Square Engineered Plastic	40 mm dia.	P9SET4*N1	\$21.50
3-Position Maintained Push—Momentary Pull	Round Polished Chrome	40 mm dia.	P9CET4*N2	\$31.00
3-Position Maintained Push—Momentary Pull	Round Satin Chrome	40 mm dia.	P9MET4*N2	\$31.00
3-Position Maintained Push—Momentary Pull	Round Engineered Plastic	40 mm dia.	P9XET4*N2	\$31.00
3-Position Maintained Push—Momentary Pull	Square Engineered Plastic	40 mm dia.	P9SET4*N2	\$31.00
3-Position Momentary Push—Momentary Pull	Round Polished Chrome	40 mm dia.	P9CET4*N3	\$31.00
3-Position Momentary Push—Momentary Pull	Round Satin Chrome	40 mm dia.	P9MET4*N3	\$31.00
3-Position Momentary Push—Momentary Pull	Round Engineered Plastic	40 mm dia.	P9XET4*N3	\$31.00
3-Position Momentary Push—Momentary Pull	Square Engineered Plastic	40 mm dia.	P9SET4*N3	\$31.00

Replace asterisk (\*) in product number with color code from table below

#### \*Colors

Colors	Black	Red	Green	Yellow
*Color code	N	R	V	G

Accessories: See page 9-110 to 9-119  
Technical Data: See page 9-127 to 9-133

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### Section 9

#### C-2000

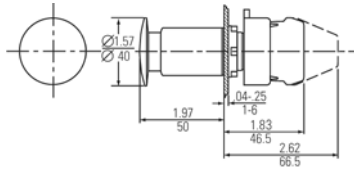
Special Function

Non-Illuminated

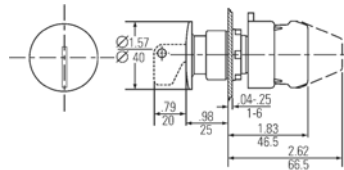
Outlines and Dimensions (mm) (For Estimating Only)

600 VAC Max., 300 VDC Max.

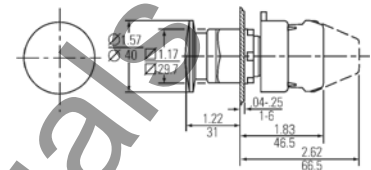
10 Amps Continuous AC, 2.5 Amps Continuous DC



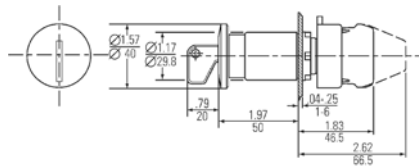
Round Plastic Emergency  
Stop Turn-to-Release



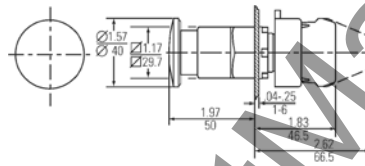
Round Metal Emergency  
Stop Key-to-Release



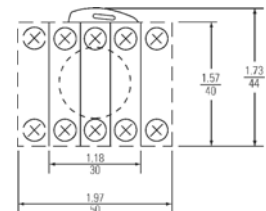
Square Push-Pull Mushroom-  
Head Push Button



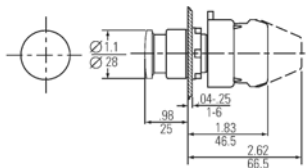
Round Plastic Emergency  
Stop Key-to-Release



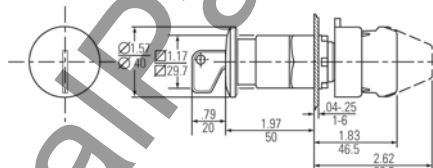
Square Emergency Stop  
Turn-to-Release



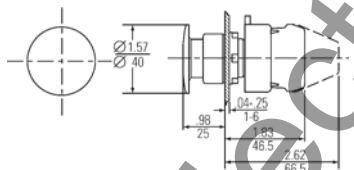
Typical Back  
Side View



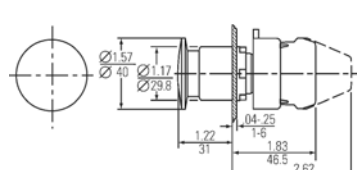
Round Metal Emergency  
Stop Turn-to-Release (28 mm)



Square Emergency Stop  
Key-to-Release



Round Metal Emergency  
Stop Turn-to-Release (40 mm)



Round Push-Pull  
Mushroom-Head Push Button



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9






Special Function

Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below	+	Select power supply from pages 9-100 & 9-101	+	Select contact block from page 9-101	+	Select nameplate, if required, from pages 9-103 to 9-105	=	Complete unit
								



Illuminated Special Function Push Buttons

#### Push-Pull

Position Type	Head Size	Operator Style	Product Number	List Price GO-10GC
2-Position Maintained	40 mm dia.	Round Polished Chrome	P9CET4*L1	\$23.50
2-Position Maintained	40 mm dia.	Round Satin Chrome	P9MET4*L1	\$23.50
2-Position Maintained	40 mm dia.	Round Engineered Plastic	P9XET4*L1	\$23.50
2-Position Maintained	40 mm dia.	Square Engineered Plastic	P9SET4*L1	\$23.50
3-Position Maintained Push—Momentary Pull	40 mm dia.	Round Polished Chrome	P9CET4*L2	\$31.00
3-Position Maintained Push—Momentary Pull	40 mm dia.	Round Satin Chrome	P9MET4*L2	\$31.00
3-Position Maintained Push—Momentary Pull	40 mm dia.	Round Engineered Plastic	P9XET4*L2	\$31.00
3-Position Maintained Push—Momentary Pull	40 mm dia.	Square Engineered Plastic	P9SET4*L2	\$31.00
3-Position Momentary Push—Momentary Pull	40 mm dia.	Round Polished Chrome	P9CET4*L3	\$31.00
3-Position Momentary Push—Momentary Pull	40 mm dia.	Round Satin Chrome	P9MET4*L3	\$31.00
3-Position Momentary Push—Momentary Pull	40 mm dia.	Round Engineered Plastic	P9XET4*L3	\$31.00
3-Position Momentary Push—Momentary Pull	40 mm dia.	Square Engineered Plastic	P9SET4*L3	\$31.00

Replace asterisk (\*) in product number with color code from table below

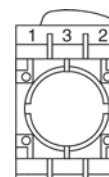
#### \*Colors

Colors	Red	Green	Yellow	Blue	White	Orange	Clear
*Color code	R	V	G	L	B	A	I

#### Cams - 3 Position Buttons

Note selection and position of contact block(s).

Operator Type Cam	Position			Screw Terminal Contact Block		Quick-Connect Contact Block	
	Push	Center	Pull	Position 1	Position 2	Position 1	Position 2
Maintained Push—	O	X	X	P9B01VR	—	—	—
Momentary Pull	O	O	X	—	P9B01VN	—	—
Momentary Push—	X	O	O	—	P9B10VN	—	P9B10FN
Momentary Pull	O	O	X	P9B01VN	—	P9B01FN	—
	X	O	O	P9B11VN	—	—	—
	O	O	X	P9B11VN	—	—	—



Contact Block Positions (viewed from rear)

Accessories: See page 9-110 to 9-119  
Technical Data: See page 9-127 to 9-133



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9

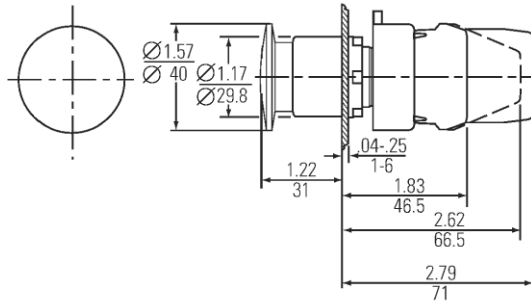
Special Function

Illuminated

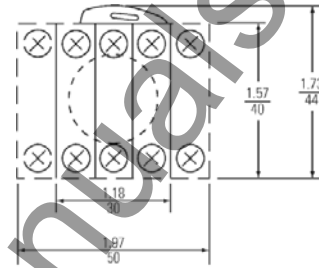
600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

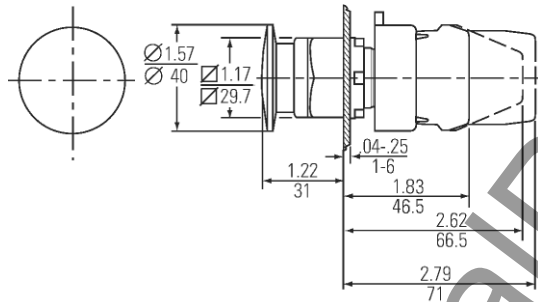
Outlines, Dimensions (in/mm) (For Estimating Only)



Round Illuminated Push-Pull Mushroom-Head Push Button



Typical Back Side View



Square Illuminated Push-Pull Mushroom-Head Push Button<sup>1</sup>

<sup>1</sup>Color heads-lenses are listed separately on page 9-112.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9

Key Operated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Operators

Lockable Position	Operator Style	Key Removal	Product Number	List Price GO-10GC
Normal	Round Polished Chrome	Right	P9CPCN1E†	\$50.50
Normal	Round Polished Chrome	Left and Right	P9CPCN1K†	\$50.50
Normal	Round Satin Chrome	Right	P9MPCN1E†	\$50.50
Normal	Round Satin Chrome	Left and Right	P9MPCN1K†	\$50.50
Normal	Round Engineered Plastic	Right	P9XPCN1E†	\$50.50
Normal	Round Engineered Plastic	Left and Right	P9XPCN1K†	\$50.50
Depressed	Round Polished Chrome	Right	P9CPCN2E†	\$50.50
Depressed	Round Polished Chrome	Left and Right	P9CPCN2K†	\$50.50
Depressed	Round Satin Chrome	Right	P9MPCN2E†	\$50.50
Depressed	Round Satin Chrome	Left and Right	P9MPCN2K†	\$50.50
Depressed	Round Engineered Plastic	Right	P9XPCN2E†	\$50.50
Depressed	Round Engineered Plastic	Left and Right	P9XPCN2K†	\$50.50
Normal & Depressed	Round Polished Chrome	Right	P9CPCN3E†	\$50.50
Normal & Depressed	Round Polished Chrome	Left and Right	P9CPCN3K†	\$50.50
Normal & Depressed	Round Satin Chrome	Right	P9MPCN3E†	\$50.50
Normal & Depressed	Round Satin Chrome	Left and Right	P9MPCN3K†	\$50.50
Normal & Depressed	Round Engineered Plastic	Right	P9XPCN3E†	\$50.50
Normal & Depressed	Round Engineered Plastic	Left and Right	P9XPCN3K†	\$50.50



Key Operated Push Button

Replace dagger (†) in product number with key code digit from Keys table below

#### †Keys (Set of 2)

Key	Std.	Special <sup>1</sup>									
Number	3095	9901	9902	9903	9904	9905	9910	9916	9919	3353	R455 (Ronis)
†Key Code	95	01	02	03	04	05	10	16	19	53	55

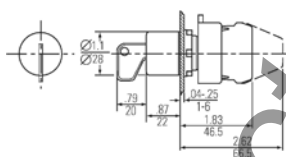
#### Key Colored<sup>1</sup>

Key	73033 (Yellow)	73034 (Black)	73037 (Red)	73038 (Blue)	73040 (Orange)
†Key Code	33	34	37	38	40

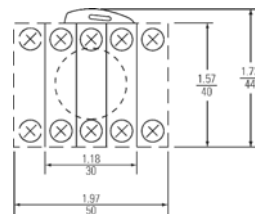
<sup>1</sup>To order with other than standard key code (95), add \$4.00 to List Price, GO-10GC.

Minimum quantity order on Key Codes 95, 55 and 33 is one; for all others minimum quantity order is ten.

#### Outlines and Dimensions (in mm) (For Estimating Only)



Round Key Push Button



Typical Back Side View

Accessories: See page 9-110 to 9-119  
Technical Data: See page 9-127 to 9-133

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9

Selector Operated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Operators

Operator Style	Product Number	List Price CO-10GC
Round Polished Chrome	P9CPS†G	\$26.50
Round Satin Chrome	P9MPS†G	\$26.50

Replace double dagger (†) in product number with cam code digits from keys table below

#### †Cams

Cam	201	231	235	301	323
†Cam Code	21	22	23	34	35
Positions	2	2	2	3	3



Selector Push Button

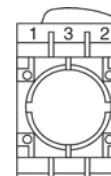
#### Cam Logic

Note selection and position of contact block(s) for cam.

Positions	Cam Code	Selector Position						Screw Terminal Contact Block	
		Left		Center		Right		Position 1	Position 2
		Out	In	Out	In	Out	In		
2	21	O	O	—	—	O	X	P9B11VN	—
		X	X	—	—	X	O		
		O	X	—	—	O	O		
		X	O	—	—	X	X		
	22	O	X	—	—	O	X	P9B11VN	—
		X	O	—	—	X	O		
		O	O	—	—	X	X		
		X	X	—	—	O	O		
	23	O	X	—	—	O	N/A <sup>1</sup>	P9B11VN	—
		X	O	—	—	X	N/A <sup>1</sup>		
		O	O	—	—	X	N/A <sup>1</sup>		
		X	X	—	—	O	O		
3	34	O	O	O	X	O	X	P9B11VN	—
		X	X	X	O	X	O		
		O	X	O	X	O	O		
		X	O	X	O	X	X		
	35	O	O	O	N/A <sup>2</sup>	O	X	P9B11VN	—
		X	X	O	N/A <sup>2</sup>	O	O		
		O	X	O	N/A <sup>2</sup>	O	O		
		O	O	O	N/A <sup>2</sup>	X	X		

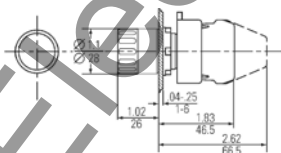
<sup>1</sup>Cam 23 cannot be depressed in right position.

<sup>2</sup>Cam 35 cannot be depressed in center position.

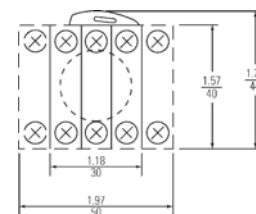


Contact Block Positions  
(viewed from rear)

#### Outlines and Dimensions (in. (mm)) (For Estimating Only)



Round Selector Push Button



Typical Back Side View



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9





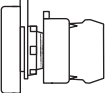
Multi Function

Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below	+	Select power supply from pages 9-100 & 9-101	+	Select contact block from page 9-101	+	Select nameplate, if required, from pages 9-103 to 9-105	=	Complete unit
		optional 						



#### NEMA 1 Operators

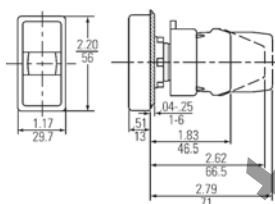
Color	Special Function Type	Marking	Product Number	List Price GO-10GC
Black Top - Red Bottom	Flush	None	P9DPLNRG00	\$21.50
Black Top - Red Bottom	Flush	Top—I, Bottom—O	P9DPLNRG01	\$21.50
Black Top - Red Bottom	Flush Top, Extended Bottom	None	P9DPLNRS00	\$21.50
Black Top - Red Bottom	Flush Top, Extended Bottom	Top—I, Bottom—O	P9DPLNRS01	\$21.50
Green Top - Red Bottom	Flush	None	P9DPLVRG00	\$21.50
Green Top - Red Bottom	Flush	Top—I, Bottom—O	P9DPLVRG01	\$21.50
Green Top - Red Bottom	Flush Top, Extended Bottom	None	P9DPLVRS00	\$21.50
Green Top - Red Bottom	Flush Top, Extended Bottom	Top—I, Bottom—O	P9DPLVRS01	\$21.50

Multi Function Push Buttons

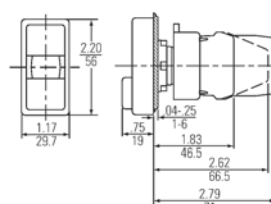
#### Accessories

Description	Operator Type	Product Number	List Price GO-10GC
Silicone rubber boot For conversion to NEMA 3, 3R, 3S, 4, 4X, 12 & 13, and IP66	Flush	O80CPDT	\$5.00
Silicone rubber boot For conversion to NEMA 3, 3R, 3S, 4, 4X, 12 & 13, and IP66	Flush Top/Extended Bottom	P9ADCST	\$5.00

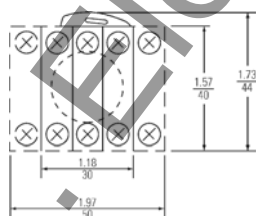
#### Outlines and Dimensions (mm) (For Estimating Only)



Double Push Button (Top & Bottom Flush)



Double Push Button (Top Flush & Bottom Extended)



Typical Back Side View

Accessories: See page 9-110 to 9-119  
Technical Data: See page 9-127 to 9-133

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

2-Position Knob Operated Selector Switches

Non-Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below + Select contact block(s) from page 9-101 + Select nameplate, if required, from pages 9-103 to 9-105 = Complete Unit



#### Knob 2 Position

Position Type	Operator Style	Release Type	Cam Code	Product Number	List Price GO-10GC
2-Position	Round Polished Chrome	Maintained	D, I, H	P9CSM10*	\$14.50
2-Position	Round Satin Chrome	Maintained	D, I, H	P9MSM10*	\$14.50
2-Position	Round Engineered Plastic	Maintained	D, I, H	P9XSM10*	\$14.50
2-Position	Square Engineered Plastic	Maintained	D, I, H	P9SSM10*	\$14.50
2-Position	Round Polished Chrome	Spring Return L → C	H	P9CSMH1*	\$16.50
2-Position	Round Satin Chrome	Spring Return L → C	H	P9MSMH1*	\$16.50
2-Position	Round Engineered Plastic	Spring Return L → C	H	P9XSMH1*	\$16.50
2-Position	Square Engineered Plastic	Spring Return L → C	H	P9SSMH1*	\$16.50
2-Position	Round Polished Chrome	Spring Return L ← R	D	P9CSMD5*	\$16.50
2-Position	Round Satin Chrome	Spring Return L ← R	D	P9MSMD5*	\$16.50
2-Position	Round Engineered Plastic	Spring Return L ← R	D	P9XSMMD5*	\$16.50
2-Position	Square Engineered Plastic	Spring Return L ← R	D	P9SSMD5*	\$16.50
2-Position	Round Polished Chrome	Spring Return C ← R	I	P9CSMI5*	\$16.50
2-Position	Round Satin Chrome	Spring Return C ← R	I	P9MSMI5*	\$16.50
2-Position	Round Engineered Plastic	Spring Return C ← R	I	P9XSMI5*	\$16.50
2-Position	Square Engineered Plastic	Spring Return C ← R	I	P9SSMI5*	\$16.50

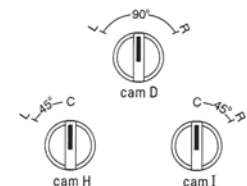
2-Position Selector Switches

Replace double dagger (§) in maintained product number with cam code from cams table below.

#### Cams

Choose desired cam. Note selection and position of contact block(s).

§Cam Code	Screw Terminal Contact Block			Quick-Connect Terminal Contact Block	
	Position 1	Position 2	Position 1	Position 2	Position 2
D	O — X	P9B10VN	—	P9B10FN	—
	X — O	—	P9B01FN	—	—
	O — X	P9B11VN	—	—	—
	X — O	—	—	—	—
I	— O X	P9B10VN	—	P9B10FN	—
	— X O	P9B01VN	—	P9B01FN	—
	— O X	P9B11VN	—	—	—
	— X O	—	—	—	—
H	X O —	P9B10VN	—	P9B10FN	—
	O X —	P9B01VN	—	P9B01FN	—
	X O —	P9B11VN	—	—	—
	O X —	—	—	—	—



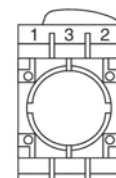
Operator Positions

Replace asterisk (\*) in product number with color code from colors table below.

#### \*Colors

Colors	Black	Red	Green	Yellow	Blue	No Knob <sup>1</sup>
*Color code	N	R	V	G	L	0

<sup>1</sup>Subtract \$3.00 from List Price, GO-10GC, for selector switches ordered without knobs. Color knobs are listed separately on page 9-111.



Contact Block Positions (viewed from rear)





# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

Section 9

2-Position Lever Operated Selector Switches

Non-Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC




#### Black Lever 2-Position

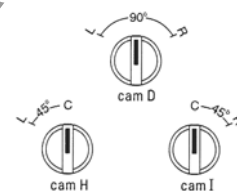
Position Type	Operator Style	Release Type	Cam Code	Product Number	List Price GO-10GC
2-Position	Round Polished Chrome	Maintained	D, I, H	P9CSV#0N	\$14.50
2-Position	Round Satin Chrome	Maintained	D, I, H	P9MSV#0N	\$14.50
2-Position	Round Engineered Plastic	Maintained	D, I, H	P9XSV#0N	\$14.50
2-Position	Round Polished Chrome	Spring Return L → C	H	P9CSVH1N	\$16.50
2-Position	Round Satin Chrome	Spring Return L → C	H	P9MSVH1N	\$16.50
2-Position	Round Engineered Plastic	Spring Return L → C	H	P9XSVH1N	\$16.50
2-Position	Round Polished Chrome	Spring Return L ← R	D	P9CSVDSN	\$16.50
2-Position	Round Satin Chrome	Spring Return L ← R	D	P9MSVDSN	\$16.50
2-Position	Round Engineered Plastic	Spring Return L ← R	D	P9XSVDSN	\$16.50
2-Position	Round Polished Chrome	Spring Return C ← R	I	P9CSVI5N	\$16.50
2-Position	Round Satin Chrome	Spring Return C ← R	I	P9MSVI5N	\$16.50
2-Position	Round Engineered Plastic	Spring Return C ← R	I	P9XSVI5N	\$16.50

Replace double dagger (§) in maintained product number with cam code from cams table below.

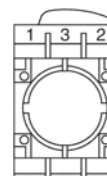
#### Cams

Choose desired cam. Note selection and position of contact block(s).

§Cam Code				Screw Terminal Contact Block		Quick-Connect Terminal Contact Block	
				Position 1	Position 2	Position 1	Position 2
D	O	—	X	—	P9B10VN	—	P9B10FN
	X	—	O	P9B01VN	—	P9B01FN	—
	O	—	X	P9B11VN	—	—	—
	X	—	O	—	—	—	—
I	—	O	X	—	P9B10VN	—	P9B10FN
	—	X	O	P9B01VN	—	P9B01FN	—
	—	O	X	P9B11VN	—	—	—
	—	X	O	—	—	—	—
H	X	O	—	—	P9B10VN	—	P9B10FN
	O	X	—	P9B01VN	—	P9B01FN	—
	X	O	—	P9B11VN	—	—	—
	O	X	—	—	—	—	—



Operator Positions



Contact Block Positions  
(viewed from rear)



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

Section 9

3-Position Knob Operated Selector Switches

Non-Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below + Select contact block(s) from page 9-101 + Select nameplate, if required, from pages 9-103 to 9-105 = Complete Unit



#### Knob 3-Position

Position Type	Operator Style	Release Type	Cam Codes	Product Number	List Price GO-10GC
3-Position	Round Polished Chrome	Maintained	Z, E, L, U	P9CSM#0*	\$14.50
3-Position	Round Satin Chrome	Maintained	Z, E, L, U	P9MSM#0*	\$14.50
3-Position	Round Engineered Plastic	Maintained	Z, E, L, U	P9XSM#0*	\$14.50
3-Position	Square Engineered Plastic	Maintained	Z, E, L, U	P9SSM#0*	\$14.50
3-Position	Round Polished Chrome	Spring Return L → C	Z, E, L, U	P9CSM#1*	\$16.50
3-Position	Round Satin Chrome	Spring Return L → C	Z, E, L, U	P9MSM#1*	\$16.50
3-Position	Round Engineered Plastic	Spring Return L → C	Z, E, L, U	P9XSM#1*	\$16.50
3-Position	Square Engineered Plastic	Spring Return L → C	Z, E, L, U	P9SSM#1*	\$16.50
3-Position	Round Polished Chrome	Spring Return C ← R	Z, E, L, U	P9CSM#5*	\$16.50
3-Position	Round Satin Chrome	Spring Return C ← R	Z, E, L, U	P9MSM#5*	\$16.50
3-Position	Round Engineered Plastic	Spring Return C ← R	Z, E, L, U	P9XSM#5*	\$16.50
3-Position	Square Engineered Plastic	Spring Return C ← R	Z, E, L, U	P9SSM#5*	\$16.50
3-Position	Round Polished Chrome	Spring Return L → C ← R	Z, E, L, U	P9CSM#3*	\$16.50
3-Position	Round Satin Chrome	Spring Return L → C ← R	Z, E, L, U	P9MSM#3*	\$16.50
3-Position	Round Engineered Plastic	Spring Return L → C ← R	Z, E, L, U	P9XSM#3*	\$16.50
3-Position	Square Engineered Plastic	Spring Return L → C ← R	Z, E, L, U	P9SSM#3*	\$16.50

Replace double dagger (§) in product number with cam code from cams table below.

#### Cams

Choose desired cam. Note selection and position of contact block(s).

§Cam Code				Screw Terminal Contact Block		Quick-Connect Terminal Contact Block	
				Position 1	Position 2	Position 1	Position 2
Z	0	0	X	P9B10VN	—	P9B10FN	—
	X	0	0	—	P9B10VN	—	P9B10FN
	X	X	0	P9B01VN	—	P9B01FN	—
	0	X	X	—	P9B01VN	—	P9B01FN
	0	0	X	P9B11VN	—	—	—
	X	X	0	—	—	—	—
	X	0	0	—	P9B11VN	—	—
	0	X	X	—	—	—	—
E	0	0	X	—	P9B01VN	—	P9B01FN
	0	X	0	P9B10VN	—	P9B10FN	—
	0	0	X	P9B11VN	—	—	—
	0	0	X	—	—	—	—
L	X	0	0	—	P9B10VN	—	P9B10FN
	0	X	0	P9B01VN	—	P9B01FN	—
	X	0	0	P9B11VN	—	—	—
	0	X	0	—	—	—	—
U	0	0	X	P9B11VN	—	—	—
	0	X	0	—	—	—	—
	0	0	X	—	P9B11VN	—	—
	X	0	0	—	—	—	—

Replace asterisk (\*) in product number with color code from colors table below.

#### \*Colors

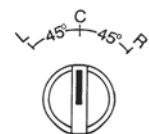
Colors	Black	Red	Green	Yellow	Blue	No Knob <sup>1</sup>
*Color code	N	R	V	G	L	0

<sup>1</sup>Subtract \$3.00 from List Price, GO-10GC, for selector switches ordered without knobs.

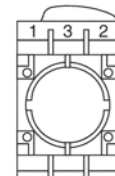
Color knobs are listed separately on page 9-111.



3-Position Selector Switches



Operator Positions



Contact Block Positions (viewed from rear)



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

**Outlines and Dimensions:** See page 9-85  
**Accessories:** See page 9-110 to 9-119  
**Technical Data:** See page 9-127 to 9-133

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

Section 9

3-Position Lever Operated Selector Switches

Non-Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Black Lever 3-Position

Position Type	Operator Style	Release Type	Cam Codes	Product Number	List Price GO-10GC
3-Position	Round Polished Chrome	Maintained	Z, E, L, U	P9CSV#0N	\$14.50
3-Position	Round Satin Chrome	Maintained	Z, E, L, U	P9MSV#0N	\$14.50
3-Position	Round Engineered Plastic	Maintained	Z, E, L, U	P9XSV#0N	\$14.50
3-Position	Round Polished Chrome	Spring Return L → C	Z, E, L, U	P9CSV#1N	\$16.50
3-Position	Round Satin Chrome	Spring Return L → C	Z, E, L, U	P9MSV#1N	\$16.50
3-Position	Round Engineered Plastic	Spring Return L → C	Z, E, L, U	P9XSV#1N	\$16.50
3-Position	Round Polished Chrome	Spring Return C ← R	Z, E, L, U	P9CSV#5N	\$16.50
3-Position	Round Satin Chrome	Spring Return C ← R	Z, E, L, U	P9MSV#5N	\$16.50
3-Position	Round Engineered Plastic	Spring Return C ← R	Z, E, L, U	P9XSV#5N	\$16.50
3-Position	Round Polished Chrome	Spring Return L → C ← R	Z, E, L, U	P9CSV#3N	\$16.50
3-Position	Round Satin Chrome	Spring Return L → C ← R	Z, E, L, U	P9MSV#3N	\$16.50
3-Position	Round Engineered Plastic	Spring Return L → C ← R	Z, E, L, U	P9XSV#3N	\$16.50

Replace double dagger (§) in product number with cam code from cams table below.

#### Cams

Choose desired cam. Note selection and position of contact block(s).

§Cam Code				Screw Terminal Contact Block		Quick-Connect Terminal Contact Block	
				Position 1	Position 2	Position 1	Position 2
Z	0	0	X	P9B10VN	—	P9B10FN	—
	X	0	0	—	P9B10VN	—	P9B10FN
	X	X	0	P9B01VN	—	P9B01FN	—
	0	X	X	—	P9B01VN	—	P9B01FN
	0	0	X	—	—	—	—
	X	X	0	P9B11VN	—	—	—
	X	0	0	—	P9B11VN	—	—
E	0	X	X	—	P9B01VN	—	P9B01FN
	0	0	X	P9B10VN	—	P9B10FN	—
	0	0	X	P9B11VN	—	—	—
	0	0	X	—	—	—	—
L	X	0	0	—	P9B10VN	—	P9B10FN
	0	X	0	P9B01VN	—	P9B01FN	—
	X	0	0	—	—	—	—
	0	X	0	P9B11VN	—	—	—
U	0	0	X	P9B11VN	—	—	—
	0	X	0	—	—	—	—
	0	0	X	—	P9B11VN	—	—
	X	0	0	—	—	—	—



Operator Positions



Contact Block Positions  
(viewed from rear)



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

Section 9

4-Position Knob and Lever Operated Selector Switches

Non-Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below	+	Select contact block(s) from page 9-101	+	Select nameplate, if required, from pages 9-103 to 9-105	=	Complete Unit
						



#### Knob 4-Position

Position Type	Operator Style	Release Type	Cam Code	Product Number	List Price GO-10GC
4-Position	Round Polished Chrome	Maintained	X	P9CSMX0*	\$14.50
4-Position	Round Satin Chrome	Maintained	X	P9MSMX0*	\$14.50
4-Position	Round Engineered Plastic	Maintained	X	P9XSMX0*	\$14.50
4-Position	Square Engineered Plastic	Maintained	X	P9SSMX0*	\$14.50
4-Position	Round Polished Chrome	Spring Return R ← 2R	X	P9CSMX5*	\$18.50
4-Position	Round Satin Chrome	Spring Return R ← 2R	X	P9MSMX5*	\$18.50
4-Position	Round Engineered Plastic	Spring Return R ← 2R	X	P9XSMX5*	\$18.50
4-Position	Square Engineered Plastic	Spring Return R ← 2R	X	P9SSMX5*	\$18.50


#### 4-Position Selector Switches

#### Black Lever 4-Position

Position Type	Operator Style	Release Type	Cam Code	Product Number	List Price GO-10GC
4-Position	Round Polished Chrome	Maintained	X	P9CSVX0N	\$14.50
4-Position	Round Satin Chrome	Maintained	X	P9MSVX0N	\$14.50
4-Position	Round Engineered Plastic	Maintained	X	P9XSVX0N	\$14.50
4-Position	Round Polished Chrome	Spring Return R ← 2R	X	P9CSVX5N	\$18.50
4-Position	Round Satin Chrome	Spring Return R ← 2R	X	P9MSVX5N	\$18.50
4-Position	Round Engineered Plastic	Spring Return R ← 2R	X	P9XSVX5N	\$18.50

#### Cams

Note selection and position of contact block(s).

Cam Code					Screw Terminal Contact Block	
					Position 1	Position 2
X	0	X	0	0	P9B11VN	—
	0	0	0	X		
	0	0	X	0		
	X	0	0	0	—	P9B11VN



Operator Positions

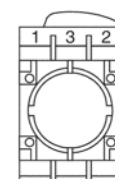
Replace asterisk (\*) in product number with color code from colors table below.

#### \*Colors

Colors	Black	Red	Green	Yellow	Blue	No Knob <sup>1</sup>
*Color code	N	R	V	G	L	0

<sup>1</sup>Subtract \$3.00 from List Price, GO-10GC, for selector switches ordered without knobs.

Color knobs are listed separately on page 9-111.



Contact Block Positions (viewed from rear)



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

Section 9

5-Position Knob and Lever Operated Selector Switches

Non-Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below + Select contact block(s) from page 9-101 + Select nameplate, if required, from pages 9-103 to 9-105 = Complete Unit



#### Knob 5-Position

Position Type	Operator Style	Release Type	Cam Code	Product Number	List Price GO-10GC
5-Position	Round Polished Chrome	Maintained	X, Y	P9CSM‡0*	\$26.00
5-Position	Round Satin Chrome	Maintained	X, Y	P9MSM‡0*	\$26.00
5-Position	Round Engineered Plastic	Maintained	X, Y	P9XSM‡0*	\$26.00
5-Position	Square Engineered Plastic	Maintained	X, Y	P9SSM‡0*	\$26.00

5-Position Selector Switches

#### Black Lever 5-Position

Position Type	Operator Style	Release Type	Cam Code	Product Number	List Price GO-10GC
5-Position	Round Polished Chrome	Maintained	X, Y	P9CSV‡0N	\$26.00
5-Position	Round Satin Chrome	Maintained	X, Y	P9MSV‡0N	\$26.00
5-Position	Round Engineered Plastic	Maintained	X, Y	P9XSV‡0N	\$26.00

Replace double dagger (‡) in maintained product number with cam code from cams table below.

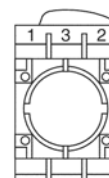
#### Cams

Choose desired cam. Note selection and position of contact block(s).

		Screw Terminal Contact Block				
‡Cam Code		Position 1				
		Position 2				
W	0	0	X	0	0	P9B11VN
	0	0	0	0	X	P9B11VN
	0	0	0	0	0	P9B11VN
Y	0	X	0	0	0	P9B11VN
	0	0	0	0	X	P9B11VN
	0	0	0	X	0	P9B11VN
	X	0	0	0	0	P9B11VN



Operator Positions



Contact Block Positions  
(viewed from rear)

Replace asterisk (\*) in product number with color code from colors table below.

#### \*Colors

Colors	Black	Red	Green	Yellow	Blue	No Knob <sup>1</sup>
*Color code	N	R	V	G	L	0

<sup>1</sup>Subtract \$3.00 from List Price, GO-10GC, for selector switches ordered without knobs.

Color knobs are listed separately on page 9-111.

Outlines and Dimensions: See page 9-85

Accessories: See page 9-110 to 9-119

Technical Data: See page 9-127 to 9-133



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

Section 9

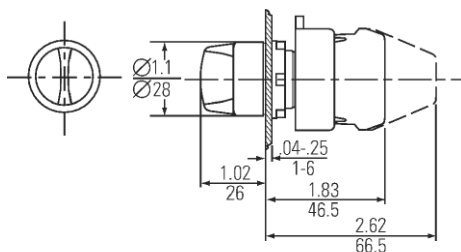
Knob and Lever Operated

Non-Illuminated

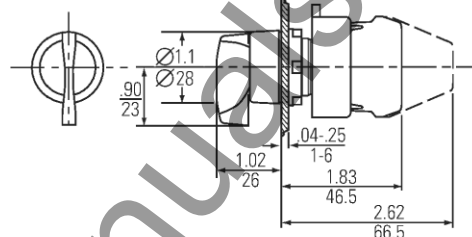
Outlines and Dimensions (in/mm) (For Estimating Only)

600 VAC Max., 300 VDC Max.

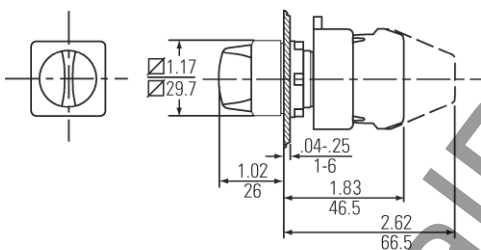
10 Amps Continuous AC, 2.5 Amps Continuous DC



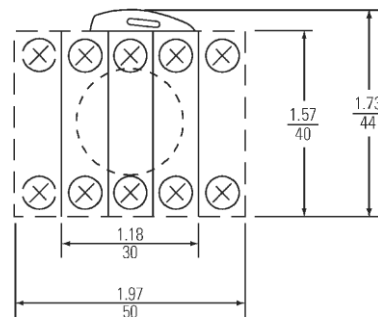
Round Knob Selector Switch



Round Lever Selector Switch



Square Knob Selector Switch



Typical Back Side View



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

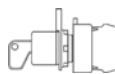
### C-2000

## Section 9

2-Position Key Operated Selector Switches  
Non-Illuminated  
600 VAC Max., 300 VDC Max.  
10 Amps Continuous AC, 2.5 Amps Continuous DC

### Selection Process

Select operator below + Select contact block(s) from page 9-101 + Select nameplate, if required, from pages 9-103 to 9-105 = Complete Unit



2-Position Key Selector Switches

### Key 2-Position

Position Type	Release Type	Cam Code	Key Removal	Product Number	List Price GO-10GC
2-Position	Maintained	D	Left	P9#SCD0A†	\$43.50
2-Position	Maintained	D	Right	P9#SCD0E†	\$43.50
2-Position	Maintained	D	Left and Right	P9#SCD0K†	\$43.50
2-Position	Maintained	I	Center	P9#SCI0C†	\$43.50
2-Position	Maintained	I	Right	P9#SCI0E†	\$43.50
2-Position	Maintained	I	Center and Right	P9#SCI0N†	\$43.50
2-Position	Maintained	H	Left	P9#SCH0A†	\$43.50
2-Position	Maintained	H	Center	P9#SCH0C†	\$43.50
2-Position	Maintained	H	Left and Center	P9#SCH0H†	\$43.50
2-Position	Spring Return L → C	H	Center	P9#SCH1C†	\$56.50
2-Position	Spring Return C ← R	D	Left	P9#SCD5A†	\$56.50
2-Position	Spring Return C ← R	I	Center	P9#SCI5C†	\$56.50

Replace pound sign (#) in product number with style code from Styles table.

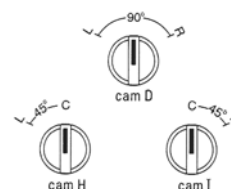
### #Styles

Style	Polished Chrome	Satin Chrome	Round Engineered Plastic	Square Engineered Plastic
#Style Code	C	M	X	S

### Cams

Note position of contact block for cam selection.

Cam Code				Screw Terminal Contact Block		Quick-Connect Terminal Contact Block	
				Position 1	Position 2	Position 1	Position 2
D	0	—	X	—	P9B10VN	—	P9B10FN
	X	—	0	P9B01VN	—	P9B01FN	—
	0	—	X	P9B11VN	—	—	—
	X	—	0	—	—	—	—
I	—	0	X	—	P9B10VN	—	P9B10FN
	—	X	0	P9B01VN	—	P9B01FN	—
	—	0	X	P9B11VN	—	—	—
	—	X	0	—	—	—	—
H	X	0	—	—	P9B10VN	—	P9B10FN
	0	X	—	P9B01VN	—	P9B01FN	—
	X	0	—	P9B11VN	—	—	—
	0	X	—	—	—	—	—



Operator Positions



Contact Block Positions  
(viewed from rear)

Replace dagger (†) in product number with key code from Keys table.

### †Keys

Key	Std.	Special <sup>1</sup>									
Number	3095	9901	9902	9903	9904	9905	9910	9916	9919	3353	R455 (Ronis)
†Key Code	95	01	02	03	04	05	10	16	19	53	55
Key	Colored <sup>1</sup>										
Number	73033 (Yellow)			73034 (Black)		73037 (Red)		73038 (Blue)		73040 (Orange)	
†Key Code	33			34		37		38		40	

<sup>1</sup>To order with other than standard key code (95), add \$4.00 to List Price, GO-10GC.

Minimum quantity order on Key Codes 95, 55 and 33 is one; for all others minimum quantity order is ten.

Outlines and Dimensions: See page 9-90  
Accessories: See page 9-110 to 9-119  
Technical Data: See page 9-127 to 9-133

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

Section 9

3-Position Key Operated Selector Switches

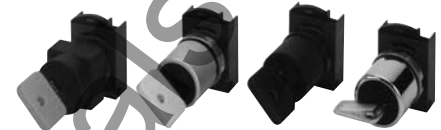
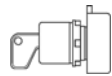
Non-Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below + Select contact block(s) from page 9-101 + Select nameplate, if required, from pages 9-103 to 9-105 = Complete Unit



#### Key Operated 3-Position

3-Position Key Selector Switches

Position Type	Release Type	Cam Code	Key Removal	Product Number	List Price GO-10GC
3-Position	Maintained	Z	Left	P9#SCZ0A†	\$43.50
3-Position	Maintained	Z	Center	P9#SCZ0C†	\$43.50
3-Position	Maintained	Z	Right	P9#SCZ0E†	\$43.50
3-Position	Maintained	Z	Left and Center	P9#SCZ0H†	\$43.50
3-Position	Maintained	Z	Left and Right	P9#SCZ0K†	\$43.50
3-Position	Maintained	Z	Center and Right	P9#SCZ0N†	\$43.50
3-Position	Maintained	Z	Left, Center and Right	P9#SCZ0T†	\$43.50
3-Position	Maintained	E	Left	P9#SCE0A†	\$43.50
3-Position	Maintained	E	Center	P9#SCE0C†	\$43.50
3-Position	Maintained	E	Right	P9#SCE0E†	\$43.50
3-Position	Maintained	E	Left and Center	P9#SCE0H†	\$43.50
3-Position	Maintained	E	Left and Right	P9#SCE0K†	\$43.50
3-Position	Maintained	E	Center and Right	P9#SCE0N†	\$43.50
3-Position	Maintained	E	Left, Center and Right	P9#SCE0T†	\$43.50
3-Position	Maintained	L	Left	P9#SCL0A†	\$43.50
3-Position	Maintained	L	Center	P9#SCL0C†	\$43.50
3-Position	Maintained	L	Right	P9#SCL0E†	\$43.50
3-Position	Maintained	L	Left and Center	P9#SCL0H†	\$43.50
3-Position	Maintained	L	Left and Right	P9#SCL0K†	\$43.50
3-Position	Maintained	L	Center and Right	P9#SCL0N†	\$43.50
3-Position	Maintained	L	Left, Center and Right	P9#SCL0T†	\$43.50
3-Position	Maintained	U	Left	P9#SCU0A†	\$43.50
3-Position	Maintained	U	Center	P9#SCU0C†	\$43.50
3-Position	Maintained	U	Right	P9#SCU0E†	\$43.50
3-Position	Maintained	U	Left and Center	P9#SCU0H†	\$43.50
3-Position	Maintained	U	Left and Right	P9#SCU0K†	\$43.50
3-Position	Maintained	U	Center and Right	P9#SCU0N†	\$43.50
3-Position	Maintained	U	Left, Center and Right	P9#SCU0T†	\$43.50
3-Position	Spring Return L → C	Z	Center	P9#SCZ1C†	\$56.50
3-Position	Spring Return L → C	Z	Right	P9#SCZ1E†	\$56.50
3-Position	Spring Return L → C	Z	Center and Right	P9#SCZ1N†	\$56.50
3-Position	Spring Return L → C	E	Center	P9#SCE1C†	\$56.50
3-Position	Spring Return L → C	E	Right	P9#SCE1E†	\$56.50
3-Position	Spring Return L → C	E	Center and Right	P9#SCE1N†	\$56.50
3-Position	Spring Return L → C	L	Center	P9#SCL1C†	\$56.50
3-Position	Spring Return L → C	L	Right	P9#SCL1E†	\$56.50
3-Position	Spring Return L → C	L	Center and Right	P9#SCL1N†	\$56.50
3-Position	Spring Return L → C	U	Center	P9#SCU1C†	\$56.50
3-Position	Spring Return L → C	U	Right	P9#SCU1E†	\$56.50
3-Position	Spring Return L → C	U	Center and Right	P9#SCU1N†	\$56.50
3-Position	Spring Return C ← R	Z	Left	P9#SCZ5A†	\$56.50
3-Position	Spring Return C ← R	Z	Center	P9#SCZ5C†	\$56.50
3-Position	Spring Return C ← R	Z	Left and Center	P9#SCZ5H†	\$56.50
3-Position	Spring Return C ← R	E	Left	P9#SCE5A†	\$56.50
3-Position	Spring Return C ← R	E	Center	P9#SCE5C†	\$56.50
3-Position	Spring Return C ← R	E	Left and Center	P9#SCE5H†	\$56.50
3-Position	Spring Return C ← R	L	Left	P9#SCL5A†	\$56.50
3-Position	Spring Return C ← R	L	Center	P9#SCL5C†	\$56.50
3-Position	Spring Return C ← R	L	Left and Center	P9#SCL5H†	\$56.50
3-Position	Spring Return C ← R	U	Left	P9#SCU5A†	\$56.50
3-Position	Spring Return C ← R	U	Center	P9#SCU5C†	\$56.50
3-Position	Spring Return C ← R	U	Left and Center	P9#SCU5H†	\$56.50
3-Position	Spring Return L → C ← R	Z	Center	P9#SCZ3C†	\$56.50
3-Position	Spring Return L → C ← R	E	Center	P9#SCE3C†	\$56.50
3-Position	Spring Return L → C ← R	L	Center	P9#SCL3C†	\$56.50
3-Position	Spring Return L → C ← R	U	Center	P9#SCU3C†	\$56.50

Replace pound sign (#) in product number with style code from Styles table on page 9-88.

Replace dagger (†) in product number with key code from Keys table on page 9-88.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

**Outlines and Dimensions:** See page 9-90

**Accessories:** See page 9-110 to 9-119

**Technical Data:** See page 9-127 to 9-133

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

Section 9

3-Position Key Operated Selector Switches

Non-Illuminated

600 VAC Max., 300 VDC Max.




10 Amps Continuous AC, 2.5 Amps Continuous DC

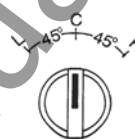
#### #Styles

Style	Polished Chrome	Satin Chrome	Round Engineered Plastic	Square Engineered Plastic
#Style Code	C	M	X	S

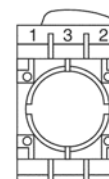
#### Cams

Note selection and position of contact block(s) for cam selection.

Cam Code (6th digit in product number)				Screw Terminal Contact Block		Quick-Connect Terminal Contact Block	
				Position 1	Position 2	Position 1	Position 2
Z	0	0	X	P9B10VN	—	P9B10FN	—
	X	0	0	—	P910VN	—	P9B10FN
	X	X	0	P9B01VN	—	P9B01FN	—
	0	X	X	—	P9B01VN	—	P9B01FN
	0	0	X	P9B11VN	—	—	—
	X	X	0	—	—	—	—
	X	0	0	—	P9B11VN	—	—
	0	X	X	—	—	—	—
E	0	0	X	—	P9B01VN	—	P9B01FN
	0	X	0	P9B10VN	—	P9B10FN	—
	0	0	X	P9B11VN	—	—	—
	0	X	0	—	—	—	—
L	X	0	0	—	P9B10VN	—	P9B10FN
	0	X	0	P9B01VN	—	P9B01FN	—
	X	0	0	P9B11VN	—	—	—
	0	X	0	—	—	—	—
U	0	0	X	—	—	—	—
	0	X	0	P9B11VN	—	—	—
	0	0	X	—	P9B11VN	—	—
	X	0	0	—	—	—	—



Operator Positions



Contact Block Positions  
(viewed from rear)

#### †Keys

	Std.	Special <sup>1</sup>										Colored <sup>1</sup>				
Key Number	3095	9901	9902	9903	9904	9905	9910	9916	9919	3353	R455 (Ronis)	73033 (Yellow)	73034 (Black)	73037 (Red)	73038 (Blue)	73040 (Orange)
†Key Code	95	01	02	03	04	05	10	16	19	53	55	33	34	37	38	40

<sup>1</sup>To order with other than standard key code (95), add \$4.00 to List Price, GO-10GC. Minimum quantity order on Key Codes 95, 55 and 33 is one; for all others minimum quantity order is ten.

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

Section 9

### C-2000

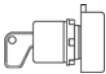



4-Position Key Operated Selector Switches

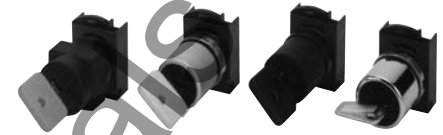
Non-Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below	+	Select contact block(s) from page 9-101	+	Select nameplate, if required, from pages 9-103 to 9-105	=	Complete Unit
						



4-Position Key Selector Switches

#### Key Operated 4-Position

Position Type	Release Type	Cam Code	Key Removal	Product Number	List Price GO-10GC
4-Position	Maintained	X	2 Left	P9#SCX0A†	\$53.00
4-Position	Maintained	X	Left	P9#SCX0B†	\$53.00
4-Position	Maintained	X	Right	P9#SCX0D†	\$53.00
4-Position	Maintained	X	2 Right	P9#SCX0E†	\$53.00
4-Position	Maintained	X	2 Left and Left	P9#SCX0F†	\$53.00
4-Position	Maintained	X	2 Left and Right	P9#SCX0J†	\$53.00
4-Position	Maintained	X	2 Left and 2 Right	P9#SCX0K†	\$53.00
4-Position	Maintained	X	Left and Right	P9#SCX0L†	\$53.00
4-Position	Maintained	X	Left and 2 Right	P9#SCX0M†	\$53.00
4-Position	Maintained	X	Right and 2 Right	P9#SCX0P†	\$53.00
4-Position	Maintained	X	2 Left, Left and Right	P9#SCX0R†	\$53.00
4-Position	Maintained	X	2 Left, Left and 2 Right	P9#SCX0S†	\$53.00
4-Position	Maintained	X	2 Left, Right and 2 Right	P9#SCX0U†	\$53.00
4-Position	Maintained	X	Left, Right and 2 Right	P9#SCX0V†	\$53.00
4-Position	Maintained	X	2 Left, Left, Right and 2 Right	P9#SCX0Z†	\$53.00
4-Position	Spring Return 2R → R	X	2 Left	P9#SCX5A†	\$66.00
4-Position	Spring Return 2R → R	X	Left	P9#SCX5B†	\$66.00
4-Position	Spring Return 2R → R	X	Right	P9#SCX5D†	\$66.00
4-Position	Spring Return 2R → R	X	2 Left and Left	P9#SCX5F†	\$66.00
4-Position	Spring Return 2R → R	X	2 Left and Right	P9#SCX5J†	\$66.00
4-Position	Spring Return 2R → R	X	Left and Right	P9#SCX5L†	\$66.00
4-Position	Spring Return 2R → R	X	2 Left, Left and Right	P9#SCX5R†	\$66.00

Replace pound sign (#) in product number with style code from Styles table.

#### #Styles

Style	Polished Chrome	Satin Chrome	Round Engineered Plastic	Square Engineered Plastic
#Style Code	C	M	X	S

#### Cams

Note selection and position of contact block(s).

Cam Code					Screw Terminal Contact Block	
					Position 1	Position 2
X	0	X	0	0	P9B11VN	—
	0	0	0	X		
	0	0	X	0		
	X	0	0	0	—	P9B11VN



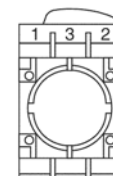
Operator Positions

Replace dagger (†) in product number with key code from Keys table.

#### †Keys

	Std.				Special <sup>1</sup>					Colored <sup>1</sup>						
Key Number	9095	9901	9902	9903	9904	9905	9910	9916	9919	3353	R455 (Ronis)	73033 (Yellow)	73034 (Black)	73037 (Red)	73038 (Blue)	73040 (Orange)
†Key Code	95	01	02	03	04	05	10	16	19	53	55	33	34	37	38	40

<sup>1</sup>To order with other than standard key code (95), add \$4.00 to List Price, GO-10GC. Minimum quantity order on Key Codes 95, 55 and 33 is one; for all others minimum quantity order is ten.



Contact Block Positions (viewed from rear)





# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

Section 9

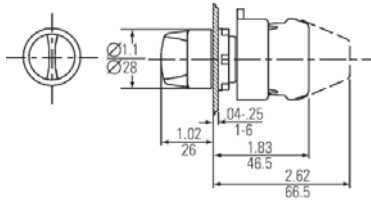
Key Operated

Non-Illuminated

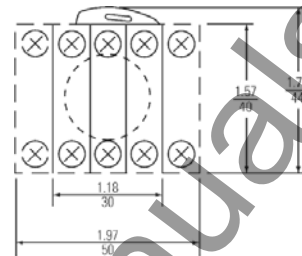
Outlines and Dimensions (in) (For Estimating Only)

600 VAC Max., 300 VDC Max.

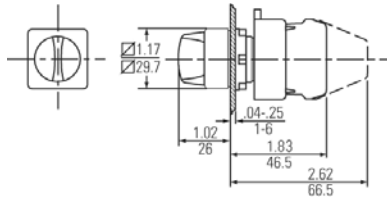
10 Amps Continuous AC, 2.5 Amps Continuous DC



Round Key Selector Switch



Typical Back Side View



Square Key Selector Switch

Product Number Selection Instructions: See page 9-87



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

Section 9

2- and 3-Position Knob Operated Selector Switches

Illuminated

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below + Select power supply from pages 9-100 & 9-101 + Select contact block from page 9-101 + Select nameplate, if required, from pages 9-103 to 9-105 = Complete unit



#### Knob Operated

Position Type	Operator Style	Release Type	Cam Code	Product Number	List Price GO-10GC
2-Position	Round Polished Chrome	Maintained	D	P9CSLD0*	\$18.50
2-Position	Round Satin Chrome	Maintained	D	P9MSLD0*	\$18.50
2-Position	Round Engineered Plastic	Maintained	D	P9XSLD0*	\$18.50
2-Position	Square Engineered Plastic	Maintained	D	P9SSLD0*	\$18.50
3-Position	Round Polished Chrome	Maintained	Z	P9CSLZ0*	\$18.50
3-Position	Round Satin Chrome	Maintained	Z	P9MSLZ0*	\$18.50
3-Position	Round Engineered Plastic	Maintained	Z	P9XSLZ0*	\$18.50
3-Position	Square Engineered Plastic	Maintained	Z	P9SSLZ0*	\$18.50
3-Position	Round Polished Chrome	Spring Return L → C	Z	P9CSLZ1*	\$26.00
3-Position	Round Satin Chrome	Spring Return L → C	Z	P9MSLZ1*	\$26.00
3-Position	Round Engineered Plastic	Spring Return L → C	Z	P9XSLZ1*	\$26.00
3-Position	Square Engineered Plastic	Spring Return L → C	Z	P9SSLZ1*	\$26.00
3-Position	Round Polished Chrome	Spring Return C ← R	Z	P9CSLZ5*	\$26.00
3-Position	Round Satin Chrome	Spring Return C ← R	Z	P9MSLZ5*	\$26.00
3-Position	Round Engineered Plastic	Spring Return C ← R	Z	P9XSLZ5*	\$26.00
3-Position	Square Engineered Plastic	Spring Return C ← R	Z	P9SSLZ5*	\$26.00
3-Position	Round Polished Chrome	Spring Return L → C ← R	Z	P9CSLZ3*	\$26.00
3-Position	Round Satin Chrome	Spring Return L → C ← R	Z	P9MSLZ3*	\$26.00
3-Position	Round Engineered Plastic	Spring Return L → C ← R	Z	P9XSLZ3*	\$26.00
3-Position	Square Engineered Plastic	Spring Return L → C ← R	Z	P9SSLZ3*	\$26.00

2- and 3-Position Illuminated Knob Operated Selector Switches

Replace asterisk (\*) in product number with color code from Colors table below.

#### \*Colors

Color	Red	Green	Yellow	Blue	White	Orange	Clear	No Knob <sup>1</sup>
*Color Code	R	V	G	L	B	A	I	0

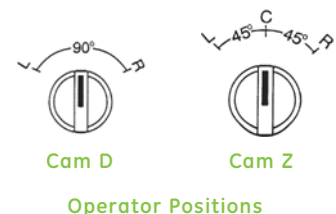
<sup>1</sup>When ordering operator without knob, deduct \$3.00 from List Price, GO-10GC. Color lenses are listed separately on page 9-112.

#### Cams

Note selection and position of contact block(s) according to operator type.

##### 2-Position

#Cam Code				Screw Terminal Contact Block		Quick-Connect Terminal Contact Block	
				Position 1	Position 2	Position 1	Position 2
D	0	—	X	—	P9B10VN	—	P9B10FN
	X	—	0	P9B01VN	—	P9B01FN	—
	0	—	X	P9B11VN	—	—	—
	X	—	0	—	—	—	—

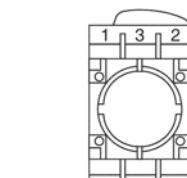


Note selection and position of contact block(s) according to operator type.

##### 3-Position

#Cam Code				Screw Terminal Contact Block		Quick-Connect Terminal Contact Block	
				Position 1	Position 2	Position 1	Position 2
Z	0	0	X	P9B10VN	—	P9B10FN	—
	X	0	0	—	P9B10VN	—	P9B10FN
	X	X	0	P9B01VN	—	P9B01FN	—
	0	X	X	—	P9B01VN	—	P9B01FN
	0	0	X	P9B11VN	—	—	—
	X	X	0	—	—	—	—
	X	0	0	—	P9B11VN	—	—
	0	X	X	—	—	—	—

#Cam code is 6th digit of product number.



Contact Block Positions (viewed from rear)



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

**Outlines and Dimensions:** See page 9-92  
**Accessories:** See page 9-110 to 9-119  
**Technical Data:** See page 9-127 to 9-133

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Selector Switches

### C-2000

Section 9

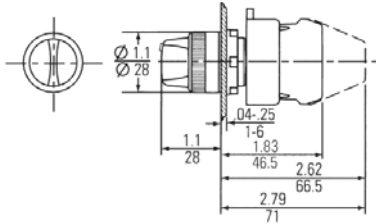
Knob Operated

Illuminated

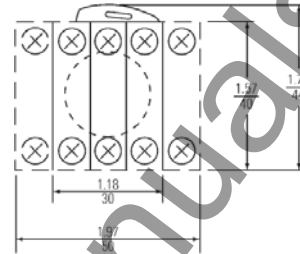
Outlines and Dimensions (in) (For Estimating Only)

600 VAC Max., 300 VDC Max.

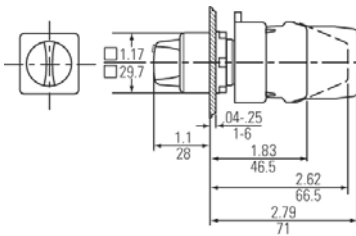
10 Amps Continuous AC, 2.5 Amps Continuous DC



Round Illuminated Knob Selector Switch



Typical Back Side View



Square Illuminated Knob Selector Switch

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Pilot Lights

### C-2000





Section 9

Standard

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below	+	Select power supply from page 9-100 & 9-101	+	Select nameplate, if required, from pages 9-103 to 9-105	=	Complete Unit
						



Standard Pilot Lights

#### Standard Operators

Operator Style	Lens Type	Power Supply Type	Product Number	List Price GO-10GC
Round Polished Chrome	Diffused	—	P9CL*D	\$6.00
Round Polished Chrome	Refracted	—	P9CL*R	\$6.00
Round Polished Chrome	Glass lens	—	P9CL*V	\$18.50
Round Polished Chrome	None	—	P9CL00	\$5.00
Round Satin Chrome	Diffused	—	P9ML*D	\$6.00
Round Satin Chrome	Refracted	—	P9ML*R	\$6.00
Round Satin Chrome	Glass lens	—	P9ML*V	\$18.50
Round Satin Chrome	None	—	P9ML00	\$5.00
Round Engineered Plastic	Diffused	—	P9XL*D	\$6.00
Round Engineered Plastic	Refracted	—	P9XL*R	\$6.00
Round Engineered Plastic	None	—	P9XL00	\$5.00
Square Engineered Plastic	Diffused	—	P9SL*D	\$7.00
Square Engineered Plastic	None	—	P9SL00	\$6.00
Unibloc	Diffused	Full Voltage-120 V	P9XU*DD0 <sup>1</sup>	\$12.00
Unibloc	Refracted	Full Voltage-120 V	P9XU*RD0 <sup>1</sup>	\$12.00
Unibloc	Diffused	Resistor-120 V	P9XU*DRN <sup>1</sup>	\$23.00
Unibloc	Refracted	Resistor-120 V	P9XU*RRN <sup>1</sup>	\$23.00
Unibloc	None	Full Voltage-120 V	P9XU00D0 <sup>1</sup>	\$11.00
Unibloc	None	Resistor-120 V	P9XU00RN <sup>1</sup>	\$22.00

<sup>1</sup>Available only as a pilot light, Unibloc combines an indicator light and power source in one unit, producing a savings for the customer. Full-voltage versions do not include lamp; select lamp from page 9-119. Resistor versions are 130V (ac/dc) and include BA9S 130 V/2W lamp.

Replace asterisk (\*) in product number with color code digit from Colors table below.

#### \*Colors

Color	Red	Green	Yellow	Blue	White	Orange	Clear
*Color Code	R	V	G	L	B	A	I



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Pilot Lights

### C-2000

## Section 9

Push to Test

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

### Selection Process

Select assembled device below	+	Select power supply from pages 9-100 & 9-101	+	Select contact block from page 9-101	+	Select nameplate, if required, from pages 9-103 to 9-105	=	Complete unit
-------------------------------	---	--	---	--------------------------------------	---	--	---	---------------



### Push to Test Operators

Terminal type	Power Supply Type	Operator Style	Product Number	List Price GO-10GC
Screw Terminal	Full Voltage	Round Polished Chrome	P9CPL*SDN12NC†	\$48.50
Screw Terminal	Full Voltage	Round Satin Chrome	P9MPL*SDN12NC†	\$48.50
Screw Terminal	Full Voltage	Round Engineered Plastic	P9XPL*SDN12NC†	\$48.50
Screw Terminal	Full Voltage	Square Engineered Plastic	P9SPL*SDN12NC†	\$48.50
Quick-Connect Terminal	Full Voltage	Round Polished Chrome	P9CPL*SDN45ND†	\$48.50
Quick-Connect Terminal	Full Voltage	Round Satin Chrome	P9MPL*SDN45ND†	\$48.50
Quick-Connect Terminal	Full Voltage	Round Engineered Plastic	P9XPL*SDN45ND†	\$48.50
Quick-Connect Terminal	Full Voltage	Square Engineered Plastic	P9SPL*SDN45ND†	\$48.50
Screw Terminal	Transformer	Round Polished Chrome	P9CPL*SDN30NH†	\$70.00
Screw Terminal	Transformer	Round Satin Chrome	P9MPL*SDN30NH†	\$70.00
Screw Terminal	Transformer	Round Engineered Plastic	P9XPL*SDN30NH†	\$70.00
Screw Terminal	Transformer	Square Engineered Plastic	P9SPL*SDN30NH†	\$70.00
Screw Terminal	Resistor	Round Polished Chrome	P9CPL*SDN30NK†	\$60.00
Screw Terminal	Resistor	Round Satin Chrome	P9MPL*SDN30NK†	\$60.00
Screw Terminal	Resistor	Round Engineered Plastic	P9XPL*SDN30NK†	\$60.00
Screw Terminal	Resistor	Square Engineered Plastic	P9SPL*SDN30NK†	\$60.00

Replace asterisk (\*) in product number with color code digit from Colors table below.

### \*Colors

Color	Red	Green	Yellow	Blue	White	Orange	Clear	No Lens <sup>1</sup>
*Color Code	R	V	G	L	B	A	I	O

<sup>1</sup>When ordering Push-to-Test pilot light with no lens, also change eighth digit in product number from D to O and deduct \$1.00 from List Price. Color lenses and diffusers are listed separately on page 9-112.

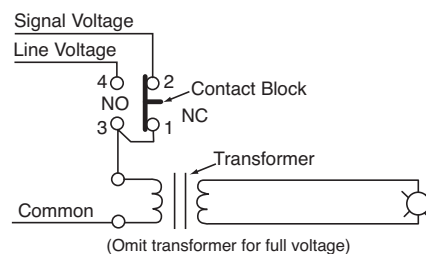
Replace dagger (†) in product number with power supply code from corresponding section of power supplies table below.

### †Power Supplies

†Power Supply Type	Lamp	Incanescent Bulb	LED Bulb
		†Power Supply Code	†Power Supply Code <sup>2</sup>
Full Voltage (ac/dc)	6 V	AI	AL
	12 V	BI	BL
	24 V	DI	DL
	48 V	GI	GL
	60 V	HI	—
	120 V (ac only)	—	JL
Transformer (ac only)	130 V	LI	—
	48 V	GI	GL
	60 V	HI	HL
	110-120 V	JI	JL
	220-250 V	NI	NL
	277 V	RI	RL
	380 V	UI	UL
	415-440 V	WI	WL
	480-500 V	YI	YL
	550-600 V	ZI	ZL
Standard Resistor (ac/dc)	110-120 V	JL	—
	220-240 V	NI	—

<sup>2</sup>When ordering operator with LED and \$15.00 to List Price, GO-10GC. Available for red, green, yellow, white and orange lenses only.

### Push-to-Test Pilot Lights



### Schematic Diagram

Outlines and Dimensions: See page 9-95

Accessories: See page 9-110 to 9-119

Technical Data: See page 9-127 to 9-133



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Pilot Lights

### C-2000

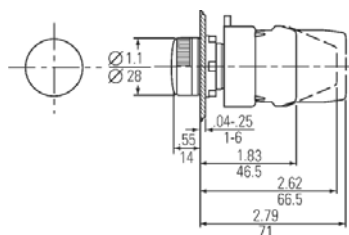
Section 9

Standard

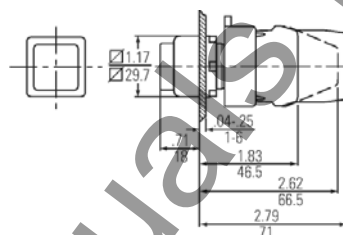
Outlines and Dimensions ( $\frac{\text{in}}{\text{mm}}$ ) (For Estimating Only)

600 VAC Max., 300 VDC Max.

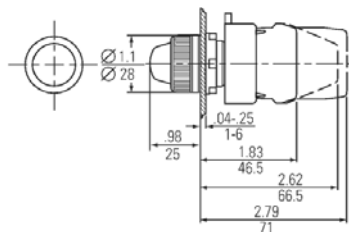
10 Amps Continuous AC, 2.5 Amps Continuous DC



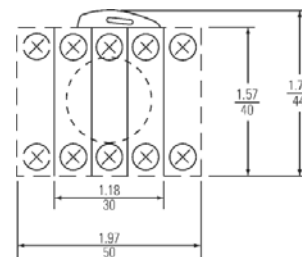
Round Indicating Light



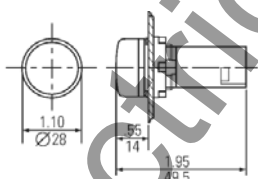
Square Indicating Light



Round Indicating Light—Glass Lens



Typical Back Side View



Round Indicating Light—Unibloc



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Special Operators

### C-2000

Section 9

#### Special Operators

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

Boot is nitride rubber, check for application suitability. For optional silicone boot, contact factory for availability.

#### Selection Process

Select operator below + Select contact block(s) from page 9-101 + Select nameplate, if required, from pages 9-103 to 9-105 = Complete Unit



#### Joysticks

Position Type	Release Type	Operator Style	Mechanical Interlock	Product Number	List Price GO-10GC
3-Position	Maintained All Positions	Round Polished Chrome	No	P9CMN2F	\$85.00
3-Position	Maintained All Positions	Round Polished Chrome	Yes	P9CMB2F	\$85.00
3-Position	Maintained All Positions	Round Satin Chrome	No	P9MMN2F	\$85.00
3-Position	Maintained All Positions	Round Satin Chrome	Yes	P9MMB2F	\$85.00
3-Position	Maintained All Positions	Round Engineered Plastic	No	P9XMN2F	\$85.00
3-Position	Maintained All Positions	Round Engineered Plastic	Yes	P9XMB2F	\$85.00
3-Position	Momentary All Positions	Round Polished Chrome	No	P9CMN2T	\$85.00
3-Position	Momentary All Positions	Round Polished Chrome	Yes	P9CMB2T	\$85.00
3-Position	Momentary All Positions	Round Satin Chrome	No	P9MMN2T	\$85.00
3-Position	Momentary All Positions	Round Satin Chrome	Yes	P9MMB2T	\$85.00
3-Position	Momentary All Positions	Round Engineered Plastic	No	P9XMN2T	\$85.00
3-Position	Momentary All Positions	Round Engineered Plastic	Yes	P9XMB2T	\$85.00
3-Position	Up Momentary—Down Maintained	Round Polished Chrome	No	P9CMN2A	\$85.00
3-Position	Up Momentary—Down Maintained	Round Polished Chrome	Yes	P9CMB2A	\$85.00
3-Position	Up Momentary—Down Maintained	Round Satin Chrome	No	P9MMN2A	\$85.00
3-Position	Up Momentary—Down Maintained	Round Satin Chrome	Yes	P9MMB2A	\$85.00
3-Position	Up Momentary—Down Maintained	Round Engineered Plastic	No	P9XMN2A	\$85.00
3-Position	Up Momentary—Down Maintained	Round Engineered Plastic	Yes	P9XMB2A	\$85.00
3-Position	Up Maintained—Down Momentary	Round Polished Chrome	No	P9CMN2B	\$85.00
3-Position	Up Maintained—Down Momentary	Round Polished Chrome	Yes	P9CMB2B	\$85.00
3-Position	Up Maintained—Down Momentary	Round Satin Chrome	No	P9MMN2B	\$85.00
3-Position	Up Maintained—Down Momentary	Round Satin Chrome	Yes	P9MMB2B	\$85.00
3-Position	Up Maintained—Down Momentary	Round Engineered Plastic	No	P9XMN2B	\$85.00
3-Position	Up Maintained—Down Momentary	Round Engineered Plastic	Yes	P9XMB2B	\$85.00
5-Position	Maintained All Positions	Round Polished Chrome	No	P9CMN4F	\$115.00
5-Position	Maintained All Positions	Round Polished Chrome	Yes	P9CMB4F	\$115.00
5-Position	Maintained All Positions	Round Satin Chrome	No	P9MMN4F	\$115.00
5-Position	Maintained All Positions	Round Satin Chrome	Yes	P9MMB4F	\$115.00
5-Position	Maintained All Positions	Round Engineered Plastic	No	P9XMN4F	\$115.00
5-Position	Maintained All Positions	Round Engineered Plastic	Yes	P9XMB4F	\$115.00
5-Position	Momentary All Positions	Round Polished Chrome	No	P9CMN4T	\$115.00
5-Position	Momentary All Positions	Round Polished Chrome	Yes	P9CMB4T	\$115.00
5-Position	Momentary All Positions	Round Satin Chrome	No	P9MMN4T	\$115.00
5-Position	Momentary All Positions	Round Satin Chrome	Yes	P9MMB4T	\$115.00
5-Position	Momentary All Positions	Round Engineered Plastic	No	P9XMN4T	\$115.00
5-Position	Momentary All Positions	Round Engineered Plastic	Yes	P9XMB4T	\$115.00

#### Cams

Note selection and position of contact block(s) for cam.

#### 3-Position Joystick

Position			Screw Terminal Contact Block Product No. and Mounting Position	
Up	Center	Down	Position 1	Position 2
X	0	0	P9B11VN	—
0	0	X	—	P9B11VN
0	0	X	—	P9B11VN
X	0	0	—	P9B11VN

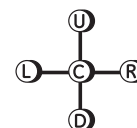
#### 5-Position Joystick

Position					Screw Terminal Contact Block Product No. and Mounting Position	
Up	Right	Center	Down	Left	Position 1	Position 2
0	X	0	0	0	P9B11VN	—
0	0	0	0	X	—	P9B11VN
0	0	0	X	0	—	P9B11VN
X	0	0	0	0	—	P9B11VN

#### Special Operators

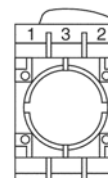


3-Position Joystick



5-Position Joystick

#### Operator Positions



Contact Block Positions (viewed from rear)

Outlines and Dimensions: See page 9-99

Accessories: See page 9-110 to 9-119

Technical Data: See page 9-127 to 9-133

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Special Operators

### C-2000

Section 9

#### Special Operators

600 VAC Max., 300 VDC Max

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Selection Process

Select operator below + Select contact block(s) from page 9-101 + Select nameplate, if required, from pages 9-103 to 9-105 = Complete Unit



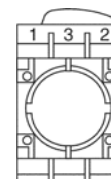
#### Toggle Switches

Position Type	Release Type	Operator Style	Product Number	List Price GO-10GC
2-Position	Maintained	Round Polished Chrome	P9CCD	\$15.50
2-Position	Maintained	Round Satin Chrome	P9MCD	\$15.50
2-Position	Maintained	Round Engineered Plastic	P9XCD	\$15.50
2-Position	Maintained	Square Engineered Plastic	P9SCD	\$15.50
3-Position	Maintained	Round Polished Chrome	P9CCB	\$15.50
3-Position	Maintained	Round Satin Chrome	P9MCB	\$15.50
3-Position	Maintained	Round Engineered Plastic	P9XCB	\$15.50
3-Position	Maintained	Square Engineered Plastic	P9SCB	\$15.50
3-Position	Spring Return From Top	Round Polished Chrome	P9CCC	\$18.50
3-Position	Spring Return From Top	Round Satin Chrome	P9MCC	\$18.50
3-Position	Spring Return From Top	Round Engineered Plastic	P9XCC	\$18.50
3-Position	Spring Return From Top	Square Engineered Plastic	P9SCC	\$18.50

#### Cams

Note selection and position of contact block(s) for cam.

				Contact Block Mounting Position			
				Screw Terminal		Quick-Connect	
				Product No.		Terminal Product No.	
Positions	Up	Center	Down	1	2	1	2
2	X	—	O	—	P9B10VN	—	P9B10FN
	O	—	X	P9B01VN	—	P9B01FN	—
	X	—	O	P9B11VN	—	—	—
	O	—	X	—	—	—	—
3	X	O	O	—	P9B10VN	—	P9B10FN
	O	O	X	P9B01VN	—	P9B01FN	—
	X	O	O	P9B11VN	—	—	—
	O	O	X	—	—	—	—



Contact Block Positions  
(viewed from rear)

#### Wobble Sticks

Operator Style	Product Number	List Price GO-10GC
Round Polished Chrome	P9CWR	\$31.00
Round Satin Chrome	P9MWR	\$31.00
Round Engineered Plastic	P9XWR	\$31.00

#### Potentiometer Operators

Operator Style	Product Number	List Price GO-10GC
Round Polished Chrome	P9CZ	\$65.00
Round Satin Chrome	P9MZ	\$65.00
Round Engineered Plastic	P9XZ	\$65.00
Square Engineered Plastic	P9SZ	\$65.00



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Special Operators

### C-2000

Section 9

Special Operators

600 VAC Max., 300 VDC Max

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Buzzer (Piezoelectric Transducer)

Operator Style	Voltage	Product Number	List Price GO-10GC
Round Engineered Plastic	24 VAC/DC	P9XBD	\$65.00
Round Engineered Plastic	110-240 VAC/DC	P9XBM	\$65.00
Square Engineered Plastic	24 VAC/DC	P9SBD	\$65.00
Square Engineered Plastic	110-240 VAC/DC	P9SBM	\$65.00

#### Reset Push Buttons

Operator Style	Product Number <sup>1</sup>	List Price GO-10GC
Round Polished Chrome	P9CRG	\$12.50
Round Satin Chrome	P9MRG	\$12.50
Round Engineered Plastic	P9XRG	\$12.50
Square Engineered Plastic	P9SRG	\$12.50

<sup>1</sup>Flush blue push buttons with white "R" provided with screw adjustable from 60 mm to 80 mm depth.

#### Extended Screw for all Reset Push Buttons

Accessory Type	Product Number <sup>2</sup>	List Price GO-10GC
Extended Screw	P9ACVLR	\$4.50

<sup>2</sup>Adjustable from 80 mm to 170 mm depth.



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Special Operators

### C-2000

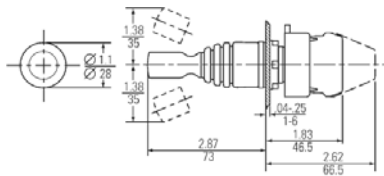
Section 9

Special Operators

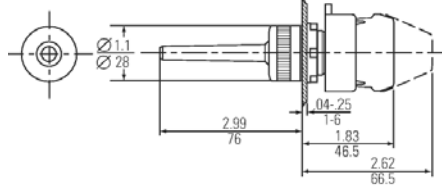
Outlines and Dimensions (in/mm) (For Estimating Only)

600 VAC Max., 300 VDC Max.

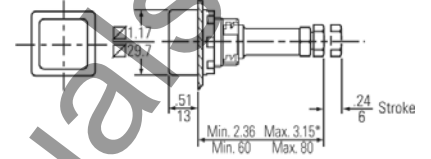
10 Amps Continuous AC, 2.5 Amps Continuous DC



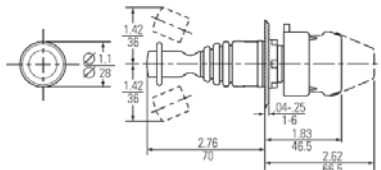
Round Joysticks



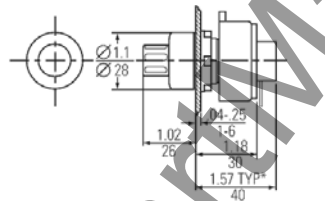
Round Wobble Stick



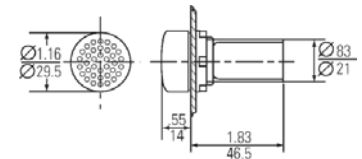
Square Reset Push Button



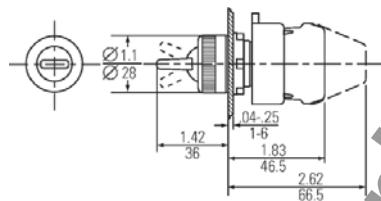
Round Joystick With Interlock



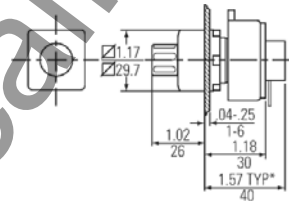
Round Potentiometer Operator



Round Buzzer

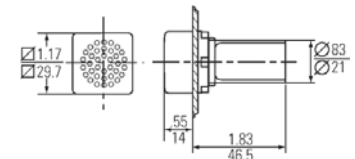


Round Toggle Switch

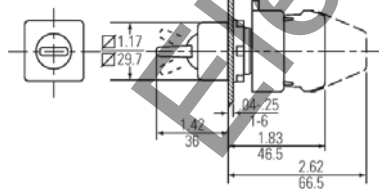


Square Potentiometer<sup>1</sup> Operator

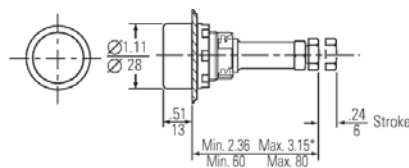
<sup>1</sup>Potentiometer supplied by customer



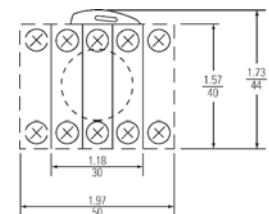
Square Buzzer



Square Toggle Switch



Round Reset Push Button



Typical Back Side View



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

## Section 9

Power Supplies and Contact Blocks

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Full Voltage Power Supplies AC/DC

Bulb Type	Terminal type	Lamp Operational Mode	Voltage	Product Number	List Price GO-10GC
Incandescent	Screw Terminal	Steady	No lamp	P9PDNV0	\$17.50
Incandescent	Screw Terminal	Steady	6V	P9PDNVA	\$21.00
Incandescent	Screw Terminal	Steady	12V	P9PDNVB	\$21.00
Incandescent	Screw Terminal	Steady	24V	P9PDNVD	\$21.00
Incandescent	Screw Terminal	Steady	48V	P9PDNVG	\$21.00
Incandescent	Screw Terminal	Steady	60V	P9PDNVH	\$21.00
Incandescent	Screw Terminal	Steady	130V	P9PDNVL	\$21.00
Incandescent	Screw Terminal	Flashing	24V	P9PDMVD	\$51.00
Incandescent	Screw Terminal	Flashing	120V	P9PDMVJ	\$51.00
Incandescent	Screw Terminal	Panel Test	No lamp	P9PDTV0	\$32.50
Incandescent	Screw Terminal	Panel Test	6V	P9PDTVA	\$36.00
Incandescent	Screw Terminal	Panel Test	12V	P9PDTVB	\$36.00
Incandescent	Screw Terminal	Panel Test	24V	P9PDTVD	\$36.00
Incandescent	Screw Terminal	Panel Test	48V	P9PDTVG	\$36.00
Incandescent	Screw Terminal	Panel Test	60V	P9PDTVH	\$36.00
Incandescent	Screw Terminal	Panel Test	130V	P9PDTVL	\$36.00
Incandescent	Quick-Connect Terminal	Steady	No lamp	P9PDNF0	\$17.50
Incandescent	Quick-Connect Terminal	Steady	6V	P9PDNFA	\$21.00
Incandescent	Quick-Connect Terminal	Steady	12V	P9PDNFB	\$21.00
Incandescent	Quick-Connect Terminal	Steady	24V	P9PDNFD	\$21.00
Incandescent	Quick-Connect Terminal	Steady	48V	P9PDNFG	\$21.00
Incandescent	Quick-Connect Terminal	Steady	60V	P9PDNFH	\$21.00
Incandescent	Quick-Connect Terminal	Steady	130V	P9PDNFL	\$21.00
LED	Screw Terminal	Steady	6V	P9PDNVL*	\$36.00
LED	Screw Terminal	Steady	12V	P9PDNVBL*	\$36.00
LED	Screw Terminal	Steady	24V	P9PDNVDL*	\$36.00
LED	Screw Terminal	Steady	48V	P9PDNVGL*	\$36.00
LED	Screw Terminal	Steady	120V <sup>2</sup>	P9PDNVJL*	\$36.00
LED	Screw Terminal	Flashing	24V	P9PDMVDL*	\$66.00
LED	Screw Terminal	Flashing	120V <sup>2</sup>	P9PDMVJL*	\$66.00
LED	Screw Terminal	Panel Test	6V	P9PDTVAL*	\$51.00
LED	Screw Terminal	Panel Test	12V	P9PDTVBL*	\$51.00
LED	Screw Terminal	Panel Test	24V	P9PDTVDL*	\$51.00
LED	Screw Terminal	Panel Test	48V	P9PDTVGL*	\$51.00
LED	Screw Terminal	Panel Test	120V <sup>2</sup>	P9PDTVJL*	\$43.50
LED	Quick-Connect Terminal	Steady	6V	P9PDNFAL*	\$36.00
LED	Quick-Connect Terminal	Steady	12V	P9PDNFBL*	\$36.00
LED	Quick-Connect Terminal	Steady	24V	P9PDNFDL*	\$36.00
LED	Quick-Connect Terminal	Steady	48V	P9PDNFGL*	\$36.00
LED	Quick-Connect Terminal	Steady	120V <sup>2</sup>	P9PDNFJL*	\$36.00
Neon	Screw Terminal	Steady	110V	P9PDNVIN <sup>1</sup>	\$25.00
Neon	Screw Terminal	Steady	220V	P9PDNVMN <sup>1</sup>	\$25.00
Neon	Screw Terminal	Panel Test	110V	P9PDTVIN <sup>1</sup>	\$40.00
Neon	Screw Terminal	Panel Test	220V	P9PDTVMN <sup>1</sup>	\$40.00
Neon	Quick-Connect Terminal	Steady	110V	P9PDNFIN <sup>1</sup>	\$25.00
Neon	Quick-Connect Terminal	Steady	220V	P9PDNFMN <sup>1</sup>	\$25.00
Integrated LED	Screw Terminal	Steady	24 VAC/DC	P9PLNV*	\$31.00
Integrated LED	Screw Terminal	Steady	120V	P9PLNVJ*	\$31.00
Integrated LED	Screw Terminal	Steady	230V	P9PLNVN*	\$31.00
Integrated LED	Screw Terminal	Flashing	24 VAC/DC	P9PLFVD*	\$56.50
Integrated LED	Screw Terminal	Flashing	120V	P9PLFVJ*	\$56.50
Integrated LED	Screw Terminal	Flashing	230V	P9PLFVN*	\$56.50

<sup>1</sup>Neon bulbs are recommended for use only with clear, red, and yellow lenses.

<sup>2</sup>AC only

#### Transformer Power Supplies 50/60 Hz AC

Bulb Type	Terminal type	Lamp Operational Mode	Voltage	Product Number	List Price GO-10GC
Incandescent	Screw Terminal	Steady	48V	P9PTNVG	\$42.50
Incandescent	Screw Terminal	Steady	60V	P9PTNVH	\$42.50
Incandescent	Screw Terminal	Steady	110-120V	P9PTNVJ	\$42.50
Incandescent	Screw Terminal	Steady	220-250V	P9PTNVN	\$42.50
Incandescent	Screw Terminal	Steady	277-280V	P9PTNVR	\$42.50
Incandescent	Screw Terminal	Steady	380V	P9PTNVU	\$42.50
Incandescent	Screw Terminal	Steady	415-440V	P9PTNVW	\$42.50
Incandescent	Screw Terminal	Steady	480-500V	P9PTNVY	\$42.50
Incandescent	Screw Terminal	Steady	550-600V	P9PTNVZ	\$42.50
Incandescent	Screw Terminal	Flashing	48V	P9PTMVG	\$72.50
Incandescent	Screw Terminal	Flashing	60V	P9PTMVH	\$72.50
Incandescent	Screw Terminal	Flashing	110-120V	P9PTMVJ	\$72.50
Incandescent	Screw Terminal	Flashing	220-250V	P9PTMVN	\$72.50
Incandescent	Screw Terminal	Flashing	277-280V	P9PTMVR	\$72.50
Incandescent	Screw Terminal	Flashing	380V	P9PTMVU	\$72.50
Incandescent	Screw Terminal	Flashing	415-440V	P9PTMVW	\$72.50
Incandescent	Screw Terminal	Flashing	480-500V	P9PTMUY	\$72.50
Incandescent	Screw Terminal	Flashing	550-600V	P9PTMVZ	\$72.50
LED	Screw Terminal	Steady	48V	P9PTNVGL*	\$57.50
LED	Screw Terminal	Steady	60V	P9PTNVHL*	\$57.50
LED	Screw Terminal	Steady	110-120V	P9PTNVJL*	\$57.50
LED	Screw Terminal	Steady	220-250V	P9PTNVNL*	\$57.50
LED	Screw Terminal	Steady	277-280V	P9PTNVRL*	\$57.50
LED	Screw Terminal	Steady	380V	P9PTNVUL*	\$57.50
LED	Screw Terminal	Steady	415-440V	P9PTNVWL*	\$57.50
LED	Screw Terminal	Steady	480-500V	P9PTNVYL*	\$57.50
LED	Screw Terminal	Steady	550-600V	P9PTNVZL*	\$57.50
LED	Screw Terminal	Flashing	48V	P9PTMVG*	\$87.50
LED	Screw Terminal	Flashing	60V	P9PTMVHL*	\$87.50
LED	Screw Terminal	Flashing	110-120V	P9PTMVJL*	\$87.50
LED	Screw Terminal	Flashing	220-250V	P9PTMVNL*	\$87.50
LED	Screw Terminal	Flashing	277-280V	P9PTMVRL*	\$87.50
LED	Screw Terminal	Flashing	380V	P9PTMVUL*	\$87.50
LED	Screw Terminal	Flashing	415-440V	P9PTMVWL*	\$87.50
LED	Screw Terminal	Flashing	480-500V	P9PTMVYL*	\$87.50
LED	Screw Terminal	Flashing	550-600V	P9PTMVZL*	\$87.50

Complete product number by inserting color code digit in place of asterisk (\*).

#### \*LED Colors

LED Color	Red	Green	Yellow	Orange	Blue	White
Color Code	R	V	G	A	L	B

Outlines and Dimensions: See page 9-102

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

Power Supplies and Contact Blocks

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

Section 9

#### Resistor Power Supplies AC/DC

Bulb Type	Terminal type	Lamp Operational Mode	Voltage	Product Number	List Price GO-10GC
Incandescent	Screw Terminal	Steady	110-120V	P9PRNVJ	\$35.00
Incandescent	Screw Terminal	Steady	220-240V	P9PRNVN	\$35.00
Incandescent	Screw Terminal	Steady with Diode	220-240V	P9PRDVN	\$35.00
Incandescent	Screw Terminal	Steady Long Life	110-120V	P9PRLVJ	\$35.00
Incandescent	Screw Terminal	Panel Test	220-240V	P9PRTVN	\$50.00

#### Full-Voltage Power Supplies Low-Level Energy (Reed)

Bulb Type	Terminal type	Lamp Operational Mode	Voltage	Product Number	List Price GO-10GC
Incandescent	Quick-Connect Terminal	Steady	-	P9PDHF <sup>1</sup>	\$17.50

<sup>1</sup>For use with Reed Logic flange only.

#### Contact Blocks

Terminal type	Contact Block Type	Contact Configuration	Product Number	List Price GO-10GC
Screw Terminal	Standard	1NO	P9B10VN	\$7.50
Screw Terminal	Standard	1NC	P9B01VN	\$7.50
Screw Terminal	Standard	1NO-1NC	P9B11VN	\$15.00
Screw Terminal	Standard	2NO	P9B20VN	\$15.00
Screw Terminal	Standard	2NC	P9B02VN	\$15.00
Screw Terminal	Early Make	1NO	P9B10VA	\$7.50
Screw Terminal	Late Opening	1NC	P9B01VR	\$7.50
Screw Terminal	Base Mount	1NO	P9B10BN	\$7.50
Screw Terminal	Base Mount	1NC	P9B01BN	\$7.50
Screw Terminal	0.1-30 sec. Time-Delay	1NO-1NC	P9B11T3	\$75.00
Screw Terminal	10-180 sec. Time-Delay	1NO-1NC	P9B11T8	\$75.00
Quick-Connect Terminal	Standard	1NO	P9B10FN	\$7.50
Quick-Connect Terminal	Standard	1NC	P9B01FN	\$7.50
Quick-Connect Terminal	Reed	1NO	P9B10FH <sup>2</sup>	\$18.00
Quick-Connect Terminal	Reed	1NC	P9B01FH <sup>2</sup>	\$18.00

<sup>2</sup>Requires special flange (P9ACFSM).

Order on page 9-118.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

**Outlines and Dimensions:** See page 9-102

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Special Operators

### C-2000

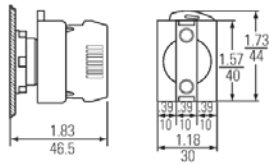
## Section 9

Power Supplies and Contact Blocks

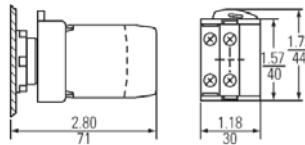
Outlines and Dimensions (in mm) (For Estimating Only)

600 VAC Max., 300 VDC Max.

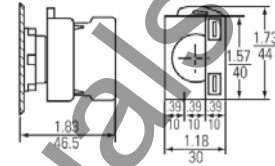
10 Amps Continuous AC, 2.5 Amps Continuous DC



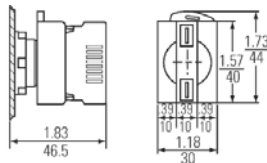
Full-Voltage, Long-Life, & Resistor & Diode Power Supplies with Screw Terminals



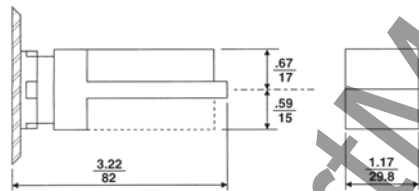
Full-Voltage & Transformer Continuous or Flashing Power Supplies with Screw Terminals



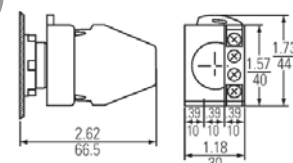
Single Contact Blocks with Quick-Connect Terminals



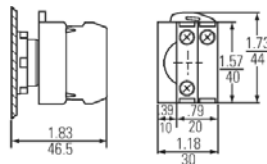
Full-Voltage Power Supply with Quick-Connect Terminals



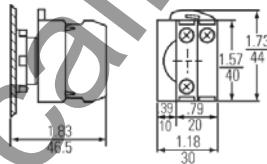
Quick-Connect—Logic reed switch—Contact Block Quick-Connect—Logic Power Supplies



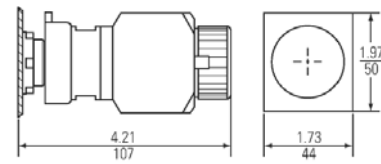
Double Contact Blocks with Screw Terminals



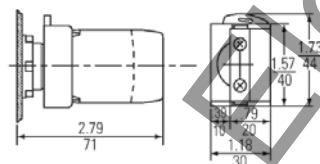
Resistor, Full-Voltage Test and Resistor Test Power Supplies with Screw Terminals



Single Contact Blocks with Screw Terminals



Time-Delay Contact Blocks with Screw Terminals



Transformer Power Supply with Screw Terminals



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

#### Nameplates

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

Section 9

#### Standard Metal

Nameplate Marking	Product Number	List Price GO-10GC
Auto	P9ACP2N219	\$1.80
Auto Cut	P9ACP2N272	\$1.80
Auto Return	P9ACP2N273	\$1.80
CLOSE	P9ACP2N205	\$1.80
Control Off	P9ACP2N262	\$1.80
Control On	P9ACP2N286	\$1.80
Cycle On	P9ACP2N266	\$1.80
DECREASE	P9ACP2N274	\$1.80
DOWN	P9ACP2N203	\$1.80
EMERGENCY STOP (Red)	P9ACP2R229	\$1.80
Emergency Stop Pull to Reset (RED)	P9ACP2R230	\$1.80
FAST	P9ACP2N208	\$1.80
Fault	P9ACP2N218	\$1.80
FORWARD	P9ACP2N214	\$1.80
Hand	P9ACP2N220	\$1.80
HIGH	P9ACP2N221	\$1.80
IN	P9ACP2N275	\$1.80
INCH	P9ACP2N209	\$1.80
INCREASE	P9ACP2N278	\$1.80
JOG	P9ACP2N210	\$1.80
LEFT	P9ACP2N222	\$1.80
LOW	P9ACP2N223	\$1.80
LOWER	P9ACP2N217	\$1.80
Off (Red)	P9ACP2R213	\$1.80
ON	P9ACP2N212	\$1.80
OPEN	P9ACP2N206	\$1.80
OUT	P9ACP2N293	\$1.80
Overload Tripped	P9ACP2N226	\$1.80
POWER ON	P9ACP2N240	\$1.80
Push-to-Stop/Pull-to-Start	P9ACP2N241	\$1.80
RAISE	P9ACP2N216	\$1.80
RESET	P9ACP2N291	\$1.80
RETURN	P9ACP2N242	\$1.80
REVERSE	P9ACP2N215	\$1.80
RIGHT	P9ACP2N224	\$1.80
RUN	P9ACP2N211	\$1.80
Safe	P9ACP2N281	\$1.80
SLOW	P9ACP2N207	\$1.80
Spindle Closed	P9ACP2N294	\$1.80
Spindle Open	P9ACP2N295	\$1.80
START	P9ACP2N202	\$1.80
STOP (Red)	P9ACP2R201	\$1.80
Stop Rotate-to-Reset	P9ACP2N228	\$1.80
Sub SPD Closed	P9ACP2N296	\$1.80
Sub SPD Open	P9ACP2N297	\$1.80
TEST	P9ACP2N225	\$1.80
UP	P9ACP2N204	\$1.80
Feed Hold	P9ACP2N263	\$1.80
FOR REV	P9ACP2N231	\$1.80
HAND AUTO	P9ACP2N243	\$1.80
HIGH LOW	P9ACP2N244	\$1.80
H.P. Coolant	P9ACP2N290	\$1.80
Inch Cut	P9ACP2N276	\$1.80
Inch Return	P9ACP2N277	\$1.80
JOG FORWARD	P9ACP2N279	\$1.80
JOG REVERSE	P9ACP2N280	\$1.80
JOG RUN	P9ACP2N245	\$1.80
LEFT RIGHT	P9ACP2N246	\$1.80
LOW HIGH	P9ACP2N247	\$1.80
LOWER RAISE	P9ACP2N248	\$1.80
OFF ON	P9ACP2N233	\$1.80
OPEN CLOSE	P9ACP2N234	\$1.80
RAISE LOWER	P9ACP2N249	\$1.80
REV FOR	P9ACP2N250	\$1.80
RUN JOG	P9ACP2N251	\$1.80
SAFE RUN	P9ACP2N252	\$1.80
SLOW FAST	P9ACP2N253	\$1.80
START CYCLE	P9ACP2N282	\$1.80
Start Feed	P9ACP2N283	\$1.80
START JOG	P9ACP2N254	\$1.80

#### Standard Metal (continued)

Nameplate Marking	Product Number	List Price GO-10GC
START STOP	P9ACP2N255	\$1.80
Stop Cycle	P9ACP2N265	\$1.80
Stop Feed	P9ACP2N264	\$1.80
Stop Reset (Red)	P9ACP2R227	\$1.80
STOP START	P9ACP2N232	\$1.80
UP DOWN	P9ACP2N256	\$1.80
OFF COOLANT ON	P9ACP2N257	\$1.80
Auto Off Hand	P9ACP2N258	\$1.80
FOR OFF REV	P9ACP2N239	\$1.80
FOR STOP REV	P9ACP2N259	\$1.80
HAND OFF AUTO	P9ACP2N261	\$1.80
JOG OFF RUN	P9ACP2N298	\$1.80
JOG SAFE RUN	P9ACP2N267	\$1.80
Local Off Remote	P9ACP2N237	\$1.80
LOW OFF HIGH	P9ACP2N238	\$1.80
LOWER OFF RAISE	P9ACP2N268	\$1.80
MAN OFF AUTO	P9ACP2N269	\$1.80
OPEN OFF CLOSE	P9ACP2N270	\$1.80
SLOW OFF FAST	P9ACP2N271	\$1.80

#### Plastic Insert

Nameplate Marking	Product Number <sup>1</sup>	List Price GO-10GC
Auto	P9ACPBS219	\$0.50
Auto Cut	P9ACPBS272	\$0.50
Auto Return	P9ACPBS273	\$0.50
CLOSE	P9ACPBS205	\$0.50
Control Off	P9ACPBS262	\$0.50
Control On	P9ACPBS286	\$0.50
Cycle On	P9ACPBS266	\$0.50
DECREASE	P9ACPBS274	\$0.50
DOWN	P9ACPBS203	\$0.50
EMERGENCY STOP (Red)	P9ACPBS229	\$0.50
Emergency Stop Pull to Reset (RED)	P9ACPBS230	\$0.50
FAST	P9ACPBS208	\$0.50
Fault	P9ACPBS218	\$0.50
FORWARD	P9ACPBS214	\$0.50
Hand	P9ACPBS220	\$0.50
HIGH	P9ACPBS221	\$0.50
IN	P9ACPBS275	\$0.50
INCH	P9ACPBS209	\$0.50
INCREASE	P9ACPBS278	\$0.50
JOG	P9ACPBS210	\$0.50
LEFT	P9ACPBS222	\$0.50
LOW	P9ACPBS223	\$0.50
LOWER	P9ACPBS217	\$0.50
Off (Red)	P9ACPBS213	\$0.50
ON	P9ACPBS212	\$0.50
OPEN	P9ACPBS206	\$0.50
OUT	P9ACPBS293	\$0.50
Overload Tripped	P9ACPBS226	\$0.50
POWER ON	P9ACPBS240	\$0.50
Push-to-Stop/Pull-to-Start	P9ACPBS241	\$0.50
RAISE	P9ACPBS216	\$0.50
RESET	P9ACPBS291	\$0.50
RETURN	P9ACPBS242	\$0.50
REVERSE	P9ACPBS215	\$0.50
RIGHT	P9ACPBS224	\$0.50
RUN	P9ACPBS211	\$0.50
Safe	P9ACPBS281	\$0.50
SLOW	P9ACPBS207	\$0.50
Spindle Closed	P9ACPBS294	\$0.50
Spindle Open	P9ACPBS295	\$0.50
START	P9ACPBS202	\$0.50
STOP (Red)	P9ACPBS201	\$0.50
Stop Rotate-to-Reset	P9ACPBS228	\$0.50
Sub SPD Closed	P9ACPBS296	\$0.50
Sub SPD Open	P9ACPBS297	\$0.50
TEST	P9ACPBS225	\$0.50

<sup>1</sup>For use with plastic nameplate holders on page 9-104.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices Heavy-Duty 22.5 mm Watertight/Oiltight Accessories C-2000

Section 9

## Nameplates

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

### Plastic Insert (continued)

Nameplate Marking	Product Number <sup>1</sup>	List Price GO-10GC
UP	P9ACPBS204	\$ .50
Feed Hold	P9ACPBS263	\$ .50
FOR REV	P9ACPBS231	\$ .50
HAND AUTO	P9ACPBS243	\$ .50
HIGH LOW	P9ACPBS244	\$ .50
H.P. Coolant	P9ACPBS290	\$ .50
Inch Cut	P9ACPBS276	\$ .50
Inch Return	P9ACPBS277	\$ .50
JOG FORWARD	P9ACPBS279	\$ .50
JOG REVERSE	P9ACPBS280	\$ .50
JOG RUN	P9ACPBS245	\$ .50
LEFT RIGHT	P9ACPBS246	\$ .50
LOW HIGH	P9ACPBS247	\$ .50
LOWER RAISE	P9ACPBS248	\$ .50
OFF ON	P9ACPBS233	\$ .50
OPEN CLOSE	P9ACPBS234	\$ .50
RAISE LOWER	P9ACPBS249	\$ .50
REV FOR	P9ACPBS250	\$ .50
RUN JOG	P9ACPBS251	\$ .50
SAFE RUN	P9ACPBS252	\$ .50
SLOW FAST	P9ACPBS253	\$ .50
START CYCLE	P9ACPBS282	\$ .50
Start Feed	P9ACPBS283	\$ .50
START JOG	P9ACPBS254	\$ .50
START STOP	P9ACPBS255	\$ .50
Stop Cycle	P9ACPBS265	\$ .50
Stop Feed	P9ACPBS264	\$ .50
Stop Reset (Red)	P9ACPBS227	\$ .50
STOP START	P9ACPBS232	\$ .50
UP DOWN	P9ACPBS256	\$ .50
OFF COOLANT ON	P9ACPBS257	\$ .50
Auto Off Hand	P9ACPBS258	\$ .50
FOR OFF REV	P9ACPBS239	\$ .50
FOR STOP REV	P9ACPBS259	\$ .50
HAND OFF AUTO	P9ACPBS261	\$ .50
JOG OFF RUN	P9ACPBS298	\$ .50
JOG SAFE RUN	P9ACPBS267	\$ .50
Local Off Remote	P9ACPBS237	\$ .50
LOW OFF HIGH	P9ACPBS238	\$ .50
LOWER OFF RAISE	P9ACPBS268	\$ .50
MAN OFF AUTO	P9ACPBS269	\$ .50
OPEN OFF CLOSE	P9ACPBS270	\$ .50
SLOW OFF FAST	P9ACPBS271	\$ .50

<sup>1</sup>For use with plastic nameplate holders.

### Plastic Insert

Nameplate Marking	Product Number <sup>1</sup>	List Price GO-10GC
Abrir	P9ACPBS506	\$ .50
Adelente	P9ACPBS502	\$ .50
Atras	P9ACPBS508	\$ .50
Atras Adelante	P9ACPBS518	\$ .50
Atras O Adelante	P9ACPBS519	\$ .50
Bajar	P9ACPBS505	\$ .50
Bajo	P9ACPBS514	\$ .50
Cerrar	P9ACPBS501	\$ .50
Defecto	P9ACPBS513	\$ .50
Derecha	P9ACPBS509	\$ .50
Emergencia	P9ACPBS516	\$ .50
Izquierda	P9ACPBS504	\$ .50
Manual	P9ACPBS503	\$ .50
Marcha	P9ACPBS510	\$ .50
Paro (Red)	P9ACPBS511	\$ .50
Paro Marcha	P9ACPBS517	\$ .50
Paro O Marcha	P9ACPBS520	\$ .50
Rapido	P9ACPBS512	\$ .50
Reame	P9ACPBS515	\$ .50
Subir	P9ACPBS507	\$ .50

<sup>1</sup>For use with plastic nameplate holders.

### Plastic Nameplates with Blank Inserts

Nameplate Type	Operator Style	Nameplate Size	Product Number <sup>2</sup>	List Price GO-10GC
Plastic w/ Blank Inserts	Round Polished Chrome Round Satin Chrome Round Engineered Plastic	Standard	P9ARTBS	\$1.00 ea.
Plastic w/ Blank Inserts	Round Polished Chrome Round Satin Chrome Round Engineered Plastic	Jumbo	P9ARTBM	\$1.50 ea.
Plastic w/ Blank Inserts	Square Engineered Plastic	Standard	P9ASTBS	\$2.00 ea.
Spare Blank Insert	Round Polished Chrome Round Satin Chrome Round Engineered Plastic	Standard	P9ACPBS	\$ .50 ea.
Spare Blank Insert	Round Polished Chrome Round Satin Chrome Round Engineered Plastic	Jumbo	P9ARPB	\$ .50 ea.
Transparent Insert	Round Polished Chrome Round Satin Chrome Round Engineered Plastic	Standard	P9ACPTS	\$ .50 ea.
Transparent Insert	Round Polished Chrome Round Satin Chrome Round Engineered Plastic	Jumbo	P9ARPTM	\$ .50 ea.

<sup>2</sup>Package quantity is five, order in multiples of 5. Includes black holder with black/red reversible insert.

### Plastic Nameplate Holders With Custom Engraved Inserts

Operator Style	Nameplate Size	Product Number	List Price GO-10GC
Round Polished Chrome Round Satin Chrome Round Engineered Plastic	Standard	P9ARTBSEN	\$8.00
Round Polished Chrome Round Satin Chrome Round Engineered Plastic	Jumbo	P9ARTBMEN	\$8.00
Square Engineered Plastic	Standard	P9ASTBSEN	\$8.00

For custom engraved engineered plastic nameplates, specify Figure corresponding to desired field configuration, characters desired for each field, and color (black or red) of field.



**Figure A**  
Field 1: Max. 11 characters



**Figure B**  
Fields 1 & 2: Max. 11 characters each



**Figure C**  
Fields 1-3: Max. 11 characters each



**Figure D**  
Fields 1-4: Max. 11 characters each



**Figure E**  
Fields 1: Max. 11 characters each  
Fields 2 & 3: Max. 5 characters each



**Figure F**  
Fields 1 & 2: Max. 5 characters each

### Legend for Custom Engraved Inserts

### Blank Metal

Nameplate Size	Color	Product Number	List Price GO-10GC
Standard	Black	P9ACP2N	\$1.80
Standard	Red	P9ACP2R	\$1.80
Joystick	Black	P9ACP3N	\$1.80
Joystick	Red	P9ACP3R	\$1.80



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

#### Nameplates

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

## Section 9

#### Custom Engraved Metal

Color	Figure	Nameplate Size	Max. Characters per Field	Product Number	List Price GO-10GC
Black	1	Standard	Field 1: 13	P9ACP2NBEN	\$8.00
Black	2	Standard	Fields 1 & 2: 13 each	P9ACP2NCEN	\$8.00
Black	3	Standard	Fields 1 & 2: 6 each	P9ACP2NFEN	\$8.00
Black	4	Standard	Fields 1 & 3: 6 each; Fields 2: 13	P9ACP2NGEN	\$8.00
Black	5	Standard	Fields 1-4: 13 each	P9ACP2NHEN	\$8.00
Black	7	Joystick	Fields 1 & 2: 17 each	P9ACP3NJEN	\$8.00
Black	8	Joystick	Fields 1 & 2: 17 each; Fields 3 & 4: 4 each	P9ACP3NKEN	\$8.00
Red	1	Standard	Field 1: 13	P9ACP2RBEN	\$8.00
Red	2	Standard	Fields 1 & 2: 13 each	P9ACP2RCEN	\$8.00
Red	3	Standard	Fields 1 & 2: 6 each	P9ACP2RFEN	\$8.00
Red	4	Standard	Fields 1 & 3: 6 each; Fields 2: 13	P9ACP2RGEN	\$8.00
Red	5	Standard	Fields 1-4: 13 each	P9ACP2RHEN	\$8.00
Red	7	Joystick	Fields 1 & 2: 17 each	P9ACP3RJEN	\$8.00
Red	8	Joystick	Fields 1 & 2: 17 each; Fields 3 & 4: 4 each	P9ACP3RKEN	\$8.00

For custom engraved metal nameplates, specify Figure corresponding to desired field configuration and characters desired for each field.

#### Yellow Emergency Round

Nameplate Marking	Nameplate Diameter	Product Number <sup>1</sup>	List Price GO-10GC
Blank	59 mm	080XTGR	\$2.00
Blank	78 mm	080XTG8	\$2.00
Engraved	59 mm	080XTGR02	\$2.00
EMERGENCY STOP	78 mm	080XTG802	\$2.00

<sup>1</sup>Package quantity is five, order in multiples of 5.

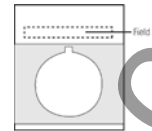


Figure 1

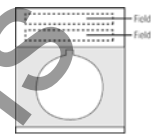


Figure 2

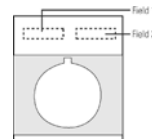


Figure 3

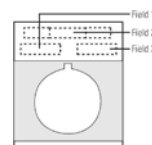


Figure 4

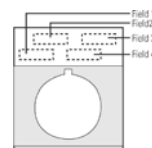


Figure 5

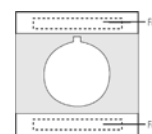


Figure 6

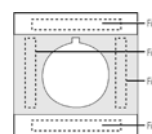


Figure 7



Blank and Yellow Emergency Stop



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

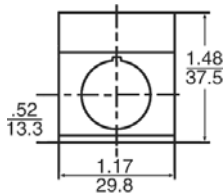
## Section 9

#### Nameplates

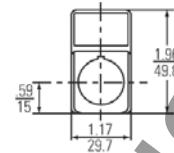
Outlines and Dimensions ( $\frac{\text{in.}}{\text{mm}}$ ) (For Estimating Only)

600 VAC Max., 300 VDC Max.

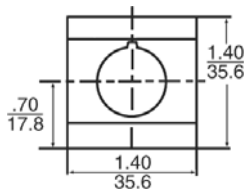
10 Amps Continuous AC, 2.5 Amps Continuous DC



Standard Metal Nameplate



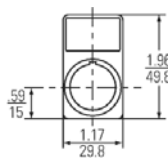
Square Standard Plate Holder



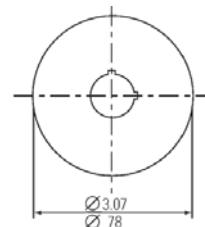
Metal Joystick Nameplate



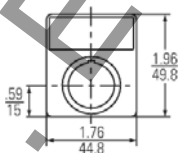
Round Yellow Nameplate (59 mm)



Round Standard Plate Holder



Round Yellow Nameplate (78 mm)



Round Large Plate Holder

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

Specially Marked Push Button Caps

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

Section 9

#### Specially Marked Push Button Caps

For use with standard push buttons only. Order push button without cap and specially marked cap separately.

Marking Description	Color	Special Function Type	Operator Style	Product Number	List Price GO-106C
Stop (text)	Red	Flush, Recessed	Round	P9ARBGR201 <sup>1</sup>	\$3.50
Stop (text)	Red	Extended	Round	P9ARBSR201	\$3.50
Stop (text)	Red	Flush	Square	P9ASBGR201	\$3.50
Stop (text)	Red	Extended	Square	P9ASBSR201	\$3.50
Start (text)	Black	Flush, Recessed	Round	P9ARBGN202 <sup>1</sup>	\$3.50
Start (text)	Black	Extended	Round	P9ARBSN202	\$3.50
Start (text)	Black	Flush	Square	P9ASBGN202	\$3.50
Start (text)	Black	Extended	Square	P9ASBSN202	\$3.50
Start (text)	Green	Flush, Recessed	Round	P9ARBGV202 <sup>1</sup>	\$3.50
Start (text)	Green	Extended	Round	P9ARBSV202	\$3.50
Start (text)	Green	Flush	Square	P9ASBGV202	\$3.50
Start (text)	Green	Extended	Square	P9ASBSV202	\$3.50
Stop (O)	Red	Flush, Recessed	Round	P9ARBGR029 <sup>1</sup>	\$3.50
Stop (O)	Red	Extended	Round	P9ARBSR029	\$3.50
Stop (O)	Red	Flush	Square	P9ASBGR029	\$3.50
Stop (O)	Red	Extended	Square	P9ASBSR029	\$3.50
Start (I)	Black	Flush, Recessed	Round	P9ARBGN028 <sup>1</sup>	\$3.50
Start (I)	Black	Extended	Round	P9ARBSN028	\$3.50
Start (I)	Black	Flush	Square	P9ASBGN028	\$3.50
Start (I)	Black	Extended	Square	P9ASBSN028	\$3.50
Start (I)	Green	Flush, Recessed	Round	P9ARBGV028 <sup>1</sup>	\$3.50
Start (I)	Green	Extended	Round	P9ARBSV028	\$3.50
Start (I)	Green	Flush	Square	P9ASBGV028	\$3.50
Start (I)	Green	Extended	Square	P9ASBSV028	\$3.50
2nd Function	Black	Flush, Recessed	Round	P9ARBGN035 <sup>1</sup>	\$3.50
2nd Function	Black	Extended	Round	P9ARBSN035	\$3.50
2nd Function	Black	Flush	Square	P9ASBGN035	\$3.50
2nd Function	Black	Extended	Square	P9ASBSN035	\$3.50
2nd Function	Green	Flush, Recessed	Round	P9ARBGV035 <sup>1</sup>	\$3.50
2nd Function	Green	Extended	Round	P9ARBSV035	\$3.50
2nd Function	Green	Flush	Square	P9ASBGV035	\$3.50
2nd Function	Green	Extended	Square	P9ASBSV035	\$3.50
3rd Function	Black	Flush, Recessed	Round	P9ARBGN038 <sup>1</sup>	\$3.50
3rd Function	Black	Extended	Round	P9ARBSN038	\$3.50
3rd Function	Black	Flush	Square	P9ASBGN038	\$3.50
3rd Function	Black	Extended	Square	P9ASBSN038	\$3.50
3rd Function	Green	Flush, Recessed	Round	P9ARBGV038 <sup>1</sup>	\$3.50
3rd Function	Green	Extended	Round	P9ARBSV038	\$3.50
3rd Function	Green	Flush	Square	P9ASBGV038	\$3.50
3rd Function	Green	Extended	Square	P9ASBSV038	\$3.50
Continuous Linear Movement	Black	Flush, Recessed	Round	P9ARBGN006 <sup>1</sup>	\$3.50
Continuous Linear Movement	Black	Extended	Round	P9ARBSN006	\$3.50
Continuous Linear Movement	Black	Flush	Square	P9ASBGN006	\$3.50
Continuous Linear Movement	Black	Extended	Square	P9ASBSN006	\$3.50
Continuous Linear Movement	Green	Flush, Recessed	Round	P9ARBGV006 <sup>1</sup>	\$3.50
Continuous Linear Movement	Green	Extended	Round	P9ARBSV006	\$3.50
Continuous Linear Movement	Green	Flush	Square	P9ASBGV006	\$3.50
Continuous Linear Movement	Green	Extended	Square	P9ASBSV006	\$3.50
Continuous Clockwise Rotation	Black	Flush, Recessed	Round	P9ARBGN012 <sup>1</sup>	\$3.50
Continuous Clockwise Rotation	Black	Extended	Round	P9ARBSN012	\$3.50
Continuous Clockwise Rotation	Black	Flush	Square	P9ASBGN012	\$3.50
Continuous Clockwise Rotation	Black	Extended	Square	P9ASBSN012	\$3.50
Continuous Clockwise Rotation	Green	Flush, Recessed	Round	P9ARBGV012 <sup>1</sup>	\$3.50
Continuous Clockwise Rotation	Green	Extended	Round	P9ARBSV012	\$3.50
Continuous Clockwise Rotation	Green	Flush	Square	P9ASBGV012	\$3.50
Continuous Clockwise Rotation	Green	Extended	Square	P9ASBSV012	\$3.50
Continuous Counter-Clockwise Rotation	Black	Flush, Recessed	Round	P9ARBGN013 <sup>1</sup>	\$3.50
Continuous Counter-Clockwise Rotation	Black	Extended	Round	P9ARBSN013	\$3.50
Continuous Counter-Clockwise Rotation	Black	Flush	Square	P9ASBGN013	\$3.50
Continuous Counter-Clockwise Rotation	Black	Extended	Square	P9ASBSN013	\$3.50
Continuous Counter-Clockwise Rotation	Green	Flush, Recessed	Round	P9ARBGV013 <sup>1</sup>	\$3.50
Continuous Counter-Clockwise Rotation	Green	Extended	Round	P9ARBSV013	\$3.50
Continuous Counter-Clockwise Rotation	Green	Flush	Square	P9ASBGV013	\$3.50
Continuous Counter-Clockwise Rotation	Green	Extended	Square	P9ASBSV013	\$3.50

<sup>1</sup>Caps for engineered plastic push buttons available for flush operators only.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

## Section 9

Specially Marked Push Button Caps

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Specially Marked Push Button Caps

For use with standard push buttons only. Order push button without cap and specially marked cap separately.

Marking Description	Color	Special Function Type	Operator Style	Product Number	List Price GO-10GC
Feed	Black	Flush, Recessed	Round	P9ARBGNO14 <sup>1</sup>	\$3.50
Feed	Black	Extended	Round	P9ARBSNO14	\$3.50
Feed	Black	Flush	Square	P9ASBGNO14	\$3.50
Feed	Black	Extended	Square	P9ASBSNO14	\$3.50
Feed	Green	Flush, Recessed	Round	P9ARBGV014 <sup>1</sup>	\$3.50
Feed	Green	Extended	Round	P9ARBSV014	\$3.50
Feed	Green	Flush	Square	P9ASBGV014	\$3.50
Feed	Green	Extended	Square	P9ASBSV014	\$3.50
Increase (+)	Black	Flush, Recessed	Round	P9ARBGNO17 <sup>1</sup>	\$3.50
Increase (+)	Black	Extended	Round	P9ARBSNO17	\$3.50
Increase (+)	Black	Flush	Square	P9ASBGNO17	\$3.50
Increase (+)	Black	Extended	Square	P9ASBSNO17	\$3.50
Increase (+)	Green	Flush, Recessed	Round	P9ARBGV017 <sup>1</sup>	\$3.50
Increase (+)	Green	Extended	Round	P9ARBSV017	\$3.50
Increase (+)	Green	Flush	Square	P9ASBGV017	\$3.50
Increase (+)	Green	Extended	Square	P9ASBSV017	\$3.50
Decrease (-)	Black	Flush, Recessed	Round	P9ARBGNO18 <sup>1</sup>	\$3.50
Decrease (-)	Black	Extended	Round	P9ARBSNO18	\$3.50
Decrease (-)	Black	Flush	Square	P9ASBGNO18	\$3.50
Decrease (-)	Black	Extended	Square	P9ASBSNO18	\$3.50
Decrease (-)	Green	Flush, Recessed	Round	P9ARBGV018 <sup>1</sup>	\$3.50
Decrease (-)	Green	Extended	Round	P9ARBSV018	\$3.50
Decrease (-)	Green	Flush	Square	P9ASBGV018	\$3.50
Decrease (-)	Green	Extended	Square	P9ASBSV018	\$3.50
Auto	Black	Flush, Recessed	Round	P9ARBGNO26 <sup>1</sup>	\$3.50
Auto	Black	Extended	Round	P9ARBSNO26	\$3.50
Auto	Black	Flush	Square	P9ASBGNO26	\$3.50
Auto	Black	Extended	Square	P9ASBSNO26	\$3.50
Auto	Green	Flush, Recessed	Round	P9ARBGV026 <sup>1</sup>	\$3.50
Auto	Green	Extended	Round	P9ARBSV026	\$3.50
Auto	Green	Flush	Square	P9ASBGV026	\$3.50
Auto	Green	Extended	Square	P9ASBSV026	\$3.50
Hand	Black	Flush, Recessed	Round	P9ARBGNO27 <sup>1</sup>	\$3.50
Hand	Black	Extended	Round	P9ARBSNO27	\$3.50
Hand	Black	Flush	Square	P9ASBGNO27	\$3.50
Hand	Black	Extended	Square	P9ASBSNO27	\$3.50
Hand	Green	Flush, Recessed	Round	P9ARBGV027 <sup>1</sup>	\$3.50
Hand	Green	Extended	Round	P9ARBSV027	\$3.50
Hand	Green	Flush	Square	P9ASBGV027	\$3.50
Hand	Green	Extended	Square	P9ASBSV027	\$3.50
Engage	Black	Flush, Recessed	Round	P9ARBGNO31 <sup>1</sup>	\$3.50
Engage	Black	Extended	Round	P9ARBSNO31	\$3.50
Engage	Black	Flush	Square	P9ASBGNO31	\$3.50
Engage	Black	Extended	Square	P9ASBSNO31	\$3.50
Engage	Green	Flush, Recessed	Round	P9ARBGV031 <sup>1</sup>	\$3.50
Engage	Green	Extended	Round	P9ARBSV031	\$3.50
Engage	Green	Flush	Square	P9ASBGV031	\$3.50
Engage	Green	Extended	Square	P9ASBSV031	\$3.50
Disengage	Black	Flush, Recessed	Round	P9ARBGNO32 <sup>1</sup>	\$3.50
Disengage	Black	Extended	Round	P9ARBSNO32	\$3.50
Disengage	Black	Flush	Square	P9ASBGNO32	\$3.50
Disengage	Black	Extended	Square	P9ASBSNO32	\$3.50
Disengage	Green	Flush, Recessed	Round	P9ARBGV032 <sup>1</sup>	\$3.50
Disengage	Green	Extended	Round	P9ARBSV032	\$3.50
Disengage	Green	Flush	Square	P9ASBGV032	\$3.50
Disengage	Green	Extended	Square	P9ASBSV032	\$3.50
Coolant	Black	Flush, Recessed	Round	P9ARBGNO01 <sup>1</sup>	\$3.50
Coolant	Black	Extended	Round	P9ARBSNO01	\$3.50
Coolant	Black	Flush	Square	P9ASBGNO01	\$3.50
Coolant	Black	Extended	Square	P9ASBSNO01	\$3.50
Coolant	Green	Flush, Recessed	Round	P9ARBGV001 <sup>1</sup>	\$3.50
Coolant	Green	Extended	Round	P9ARBSV001	\$3.50
Coolant	Green	Flush	Square	P9ASBGV001	\$3.50
Coolant	Green	Extended	Square	P9ASBSV001	\$3.50



(Feed)



(Increase)



(Decrease)



(Auto)



(Hand)



(Engage)



(Disengage)



(Coolant)

<sup>1</sup>Caps for engineered plastic push buttons available for flush operators only.

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

Specially Marked Push Button Caps

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

Section 9

#### Specially Marked Push Button Caps

For use with standard push buttons only. Order push button without cap and specially marked cap separately.

Marking Description	Color	Special Function Type	Operator Style	Product Number	List Price GO-10GC
Light	Black	Flush, Recessed	Round	P9ARBG002 <sup>1</sup>	\$3.50
Light	Black	Extended	Round	P9ARBSN002	\$3.50
Light	Black	Flush	Square	P9ASBG002	\$3.50
Light	Black	Extended	Square	P9ASBSN002	\$3.50
Light	Green	Flush, Recessed	Round	P9ARBGV002 <sup>1</sup>	\$3.50
Light	Green	Extended	Round	P9ARBSV002	\$3.50
Light	Green	Flush	Square	P9ASBGV002	\$3.50
Light	Green	Extended	Square	P9ASBSV002	\$3.50
Lubrication	Black	Flush, Recessed	Round	P9ARBG005 <sup>1</sup>	\$3.50
Lubrication	Black	Extended	Round	P9ARBSN005	\$3.50
Lubrication	Black	Flush	Square	P9ASBG005	\$3.50
Lubrication	Black	Extended	Square	P9ASBSN005	\$3.50
Lubrication	Green	Flush, Recessed	Round	P9ARBGV005 <sup>1</sup>	\$3.50
Lubrication	Green	Extended	Round	P9ARBSV005	\$3.50
Lubrication	Green	Flush	Square	P9ASBGV005	\$3.50
Lubrication	Green	Extended	Square	P9ASBSV005	\$3.50
Reset (R)	Blue	Flush, Recessed	Round	P9ARBSL037 <sup>1</sup>	\$3.50
Reset (R)	Blue	Extended	Round	P9ARBSL037	\$3.50
Reset (R)	Blue	Flush	Square	P9ASBSL037	\$3.50
Reset (R)	Blue	Extended	Square	P9ASBSL037	\$3.50
Reset (R)	Red	Flush, Recessed	Round	P9ARBSR036 <sup>1</sup>	\$3.50
Reset (R)	Red	Extended	Round	P9ARBSR036	\$3.50
Reset (R)	Red	Flush	Square	P9ASBSR036	\$3.50
Reset (R)	Red	Extended	Square	P9ASBSR036	\$3.50
Impulse Control (IT)	Black	Flush, Recessed	Round	P9ARBG030 <sup>1</sup>	\$3.50
Impulse Control (IT)	Black	Extended	Round	P9ARBSN030	\$3.50
Impulse Control (IT)	Black	Flush	Square	P9ASBG030	\$3.50
Impulse Control (IT)	Black	Extended	Square	P9ASBSN030	\$3.50
Impulse Control (IT)	Green	Flush, Recessed	Round	P9ARBGV030 <sup>1</sup>	\$3.50
Impulse Control (IT)	Green	Extended	Round	P9ARBSV030	\$3.50
Impulse Control (IT)	Green	Flush	Square	P9ASBGV030	\$3.50
Impulse Control (IT)	Green	Extended	Square	P9ASBSV030	\$3.50

<sup>1</sup>Caps for engineered plastic push buttons available for flush operators only.



(Light)



(Lubrication)



(Reset)



(Impulse Control)



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

## Section 9

#### Specially Marked Diffusers and Inserts

For Illuminated Push Buttons and Pilot Lights

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Specially Marked Diffusers and Inserts — White

For use with illuminated push buttons and diffused pilot lights only.

For round operators (polished chrome, satin chrome, round engineered plastic), order operator without lens, specially marked diffuser and lens separately. For square engineered plastic operators, order operator, insert and lens separately.

Separate lenses are listed on page 9-112.

Marking Description	For use with	Operator Style	Type	Product Number	List Price GO-10GC
Stop (text)	Pilot Lights	Round	Diffuser	P9ARDLS201	\$1.00
Stop (text)	Illuminated Push Buttons	Round	Diffuser	P9ARDPL201	\$1.00
Stop (text)	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF201	\$1.00
Start (text)	Pilot Lights	Round	Diffuser	P9ARDLS202	\$1.00
Start (text)	Illuminated Push Buttons	Round	Diffuser	P9ARDPL202	\$1.00
Start (text)	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF202	\$1.00
Stop (O)	Pilot Lights	Round	Diffuser	P9ARDLS029	\$1.00
Stop (O)	Illuminated Push Buttons	Round	Diffuser	P9ARDPL029	\$1.00
Stop (O)	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF029	\$1.00
Start (I)	Pilot Lights	Round	Diffuser	P9ARDLS028	\$1.00
Start (I)	Illuminated Push Buttons	Round	Diffuser	P9ARDPL028	\$1.00
Start (I)	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF028	\$1.00
2nd Function	Pilot Lights	Round	Diffuser	P9ARDLS035	\$1.00
2nd Function	Illuminated Push Buttons	Round	Diffuser	P9ARDPL035	\$1.00
2nd Function	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF035	\$1.00
3rd Function	Pilot Lights	Round	Diffuser	P9ARDLS038	\$1.00
3rd Function	Illuminated Push Buttons	Round	Diffuser	P9ARDPL038	\$1.00
3rd Function	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF038	\$1.00
Continuous Linear Movement	Pilot Lights	Round	Diffuser	P9ARDLS006	\$1.00
Continuous Linear Movement	Illuminated Push Buttons	Round	Diffuser	P9ARDPL006	\$1.00
Continuous Linear Movement	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF006	\$1.00
Continuous Clockwise Rotation	Pilot Lights	Round	Diffuser	P9ARDLS012	\$1.00
Continuous Clockwise Rotation	Illuminated Push Buttons	Round	Diffuser	P9ARDPL012	\$1.00
Continuous Clockwise Rotation	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF012	\$1.00
Continuous Counter-Clockwise Rotation	Pilot Lights	Round	Diffuser	P9ARDLS013	\$1.00
Continuous Counter-Clockwise Rotation	Illuminated Push Buttons	Round	Diffuser	P9ARDPL013	\$1.00
Continuous Counter-Clockwise Rotation	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF013	\$1.00
Feed	Pilot Lights	Round	Diffuser	P9ARDLS014	\$1.00
Feed	Illuminated Push Buttons	Round	Diffuser	P9ARDPL014	\$1.00
Feed	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF014	\$1.00
Increase (+)	Pilot Lights	Round	Diffuser	P9ARDLS017	\$1.00
Increase (+)	Illuminated Push Buttons	Round	Diffuser	P9ARDPL017	\$1.00
Increase (+)	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF017	\$1.00
Decrease (-)	Pilot Lights	Round	Diffuser	P9ARDLS018	\$1.00
Decrease (-)	Illuminated Push Buttons	Round	Diffuser	P9ARDPL018	\$1.00
Decrease (-)	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF018	\$1.00
Auto	Pilot Lights	Round	Diffuser	P9ARDLS026	\$1.00
Auto	Illuminated Push Buttons	Round	Diffuser	P9ARDPL026	\$1.00
Auto	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF026	\$1.00
Hand	Pilot Lights	Round	Diffuser	P9ARDLS027	\$1.00
Hand	Illuminated Push Buttons	Round	Diffuser	P9ARDPL027	\$1.00
Hand	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF027	\$1.00
Engage	Pilot Lights	Round	Diffuser	P9ARDLS031	\$1.00
Engage	Illuminated Push Buttons	Round	Diffuser	P9ARDPL031	\$1.00
Engage	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF031	\$1.00
Disengage	Pilot Lights	Round	Diffuser	P9ARDLS032	\$1.00
Disengage	Illuminated Push Buttons	Round	Diffuser	P9ARDPL032	\$1.00
Disengage	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF03	\$1.00
Coolant	Pilot Lights	Round	Diffuser	P9ARDLS001	\$1.00
Coolant	Illuminated Push Buttons	Round	Diffuser	P9ARDPL001	\$1.00
Coolant	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF001	\$1.00
Light	Pilot Lights	Round	Diffuser	P9ARDLS002	\$1.00
Light	Illuminated Push Buttons	Round	Diffuser	P9ARDPL002	\$1.00
Light	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF002	\$1.00
Lubrication	Pilot Lights	Round	Diffuser	P9ARDLS005	\$1.00
Lubrication	Illuminated Push Buttons	Round	Diffuser	P9ARDPL005	\$1.00
Lubrication	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF005	\$1.00
Impulse Control	Pilot Lights	Round	Diffuser	P9ARDLS030	\$1.00
Impulse Control	Illuminated Push Buttons	Round	Diffuser	P9ARDPL030	\$1.00
Impulse Control	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF030	\$1.00
Blank Insert	Pilot Lights, Illuminated Push Buttons	Square	Insert	080QDF	\$1.00

(STOP) (Stop)

(START) (Start)

(Stop)

(Start)

(2nd Function)

(3rd Function)

(Continuous Linear Movement)

(Continuous Clockwise Rotation)

(Continuous Counter-Clockwise Rotation)

(Feed)

(Increase)

(Decrease)

(Auto)

(Hand)

(Engage)

(Disengage)

(Coolant)

(Light)

(Lubrication)

(Impulse Control)



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

Section 9

Caps, Heads, Lenses and Handles

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

For Non-Illuminated Devices

Accessory Type	For use with	Head Size	Operator Style	Color	Product Number	List Price GO-10GC
Caps	Recessed Push Buttons, Flush Push Buttons	-	Round	Black	P9ARBGN	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Round	Red	P9ARBGR	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Round	Green	P9ARBGV	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Round	Yellow	P9ARBGG	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Round	Brown	P9ARBGM	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Round	Blue	P9ARBGL	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Round	White	P9ARBGB	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Round	Gray	P9ARBGH	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Square	Black	P9ASBGN	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Square	Red	P9ASBGR	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Square	Green	P9ASBGV	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Square	Yellow	P9ASBGG	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Square	Brown	P9ASBGM	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Square	Blue	P9ASBGL	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Square	White	P9ASBGB	\$1.00
Caps	Recessed Push Buttons, Flush Push Buttons	-	Square	Gray	P9ASBGH	\$1.00
Caps	Extended Push Buttons	-	Round	Black	P9ARBSN	\$1.00
Caps	Extended Push Buttons	-	Round	Red	P9ARBSR	\$1.00
Caps	Extended Push Buttons	-	Round	Green	P9ARBSV	\$1.00
Caps	Extended Push Buttons	-	Round	Yellow	P9ARBSG	\$1.00
Caps	Extended Push Buttons	-	Round	Brown	P9ARBSM	\$1.00
Caps	Extended Push Buttons	-	Round	Blue	P9ARBSL	\$1.00
Caps	Extended Push Buttons	-	Round	White	P9ARBSB	\$1.00
Caps	Extended Push Buttons	-	Round	Gray	P9ARBSH	\$1.00
Caps	Extended Push Buttons	-	Square	Black	P9ASBSN	\$1.00
Caps	Extended Push Buttons	-	Square	Red	P9ASBSR	\$1.00
Caps	Extended Push Buttons	-	Square	Green	P9ASBSV	\$1.00
Caps	Extended Push Buttons	-	Square	Yellow	P9ASBSG	\$1.00
Caps	Extended Push Buttons	-	Square	Brown	P9ASBSM	\$1.00
Caps	Extended Push Buttons	-	Square	Blue	P9ASBSL	\$1.00
Caps	Extended Push Buttons	-	Square	White	P9ASBSB	\$1.00
Caps	Extended Push Buttons	-	Square	Gray	P9ASBSH	\$1.00
Mushroom Heads		28 mm dia.	Round	Black	P9ARB3N	\$7.00
Mushroom Heads		28 mm dia.	Round	Red	P9ARB3R	\$7.00
Mushroom Heads		28 mm dia.	Round	Green	P9ARB3V	\$7.00
Mushroom Heads		28 mm dia.	Round	Yellow	P9ARB3G	\$7.00
Mushroom Heads		40 mm dia.	Round	Black	P9ARB4N	\$7.00
Mushroom Heads		40 mm dia.	Round	Red	P9ARB4R	\$7.00
Mushroom Heads		40 mm dia.	Round	Green	P9ARB4V	\$7.00
Mushroom Heads		40 mm dia.	Round	Yellow	P9ARB4G	\$7.00
Mushroom Heads		60 mm dia.	Round	Black	P9ARB6N	\$9.00
Mushroom Heads		60 mm dia.	Round	Red	P9ARB6R	\$9.00
Mushroom Heads		60 mm dia.	Round	Green	P9ARB6V	\$9.00
Mushroom Heads		60 mm dia.	Round	Yellow	P9ARB6G	\$9.00
Mushroom Heads		29.7 mm sq.	Square	Black	P9ASB3N	\$7.00
Mushroom Heads		29.7 mm sq.	Square	Red	P9ASB3R	\$7.00
Mushroom Heads		29.7 mm sq.	Square	Green	P9ASB3V	\$7.00
Mushroom Heads		29.7 mm sq.	Square	Yellow	P9ASB3G	\$7.00
Heads	Push-pull Mushroom-head Push Buttons	40 mm dia.	Round, Square	Black	P9ACB4N	\$8.00
Heads	Push-pull Mushroom-head Push Buttons	40 mm dia.	Round, Square	Red	P9ACB4R	\$8.00
Heads	Push-pull Mushroom-head Push Buttons	40 mm dia.	Round, Square	Green	P9ACB4V	\$8.00
Heads	Push-pull Mushroom-head Push Buttons	40 mm dia.	Round, Square	Yellow	P9ACB4G	\$8.00
Knobs	Knob Operated Selector Switches	-	Round, Square	Black	P9ACMNN	\$3.00
Knobs	Knob Operated Selector Switches	-	Round, Square	Red	P9ACMNR	\$3.00
Knobs	Knob Operated Selector Switches	-	Round, Square	Green	P9ACMNV	\$3.00
Knobs	Knob Operated Selector Switches	-	Round, Square	Yellow	P9ACMNG	\$3.00
Knobs	Knob Operated Selector Switches	-	Round, Square	Blue	P9ACMNL	\$3.00
Levers		-	Round	Black	P9ARMVN	\$3.00
Transparent Protective Caps	Extended Push Buttons, Flush Push Buttons	-	Round	Clear	P9ARCST	\$5.00
Transparent Protective Caps	Extended Push Buttons, Flush Push Buttons	-	Square	Clear	P9ASCST	\$5.00
Transparent Protective Caps	Flush Push Buttons	-	Round	Clear	080CPT	\$5.00
Transparent Protective Caps	Flush Push Buttons	-	Square	Clear	P9ASCST	\$5.00
Colored Protective Caps	Flush Push Buttons	-	Round	Black	080CPN	\$5.00
Colored Protective Caps	Flush Push Buttons	-	Round	Red	080CPR	\$5.00
Colored Protective Caps	Flush Push Buttons	-	Round	Green	080CPV	\$5.00
Colored Protective Caps	Flush Push Buttons	-	Round	Yellow	080CPG	\$5.00
Colored Protective Caps	Flush Push Buttons	-	Square	Black	P9ASCNG	\$5.00
Colored Protective Caps	Flush Push Buttons	-	Square	Red	P9ASCGR	\$5.00
Colored Protective Caps	Flush Push Buttons	-	Square	Green	P9ASCNV	\$5.00
Colored Protective Caps	Flush Push Buttons	-	Square	Yellow	P9ASCYG	\$5.00
Protective Silicone Rubber Cap	Flush Multi-function Push Buttons	-	Multi-Function	Clear	080CPDT	\$5.00
Transparent Flush Guard Ring		-	-	Clear	P9ARSRL <sup>1</sup>	\$1.24

<sup>1</sup>Order quantity of 100.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

Section 9

Caps, Heads, Lenses and Handles

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### For Illuminated Devices

Accessory Type	For use with	Head Size	Operator Style	Color	Product Number	List Price GO-10GC
Refracted Lenses	Pilot Lights	-	Round and Round Unibloc	Red	P9AGLRR	\$1.00
Refracted Lenses	Pilot Lights	-	Round and Round Unibloc	Green	P9AGLRV	\$1.00
Refracted Lenses	Pilot Lights	-	Round and Round Unibloc	Yellow	P9AGLRG	\$1.00
Refracted Lenses	Pilot Lights	-	Round and Round Unibloc	Orange	P9AGLRA	\$1.00
Refracted Lenses	Pilot Lights	-	Round and Round Unibloc	Blue	P9AGLRL	\$1.00
Refracted Lenses	Pilot Lights	-	Round and Round Unibloc	White	P9AGLRB	\$1.00
Refracted Lenses	Pilot Lights	-	Round and Round Unibloc	Clear	P9AGLRI	\$1.00
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Round and Round Unibloc	Red	P9AGLDR	\$0.50
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Round and Round Unibloc	Green	P9AGLDV	\$0.50
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Round and Round Unibloc	Yellow	P9AGLDG	\$0.50
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Round and Round Unibloc	Orange	P9AGLDA	\$0.50
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Round and Round Unibloc	Blue	P9AGLDL	\$0.50
Diffused Lenses	Pilot Lights	-	Round and Round Unibloc	White	P9AGLDB	\$0.50
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Round and Round Unibloc	Clear	P9AGLDI	\$0.50
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Square	Red	P9ASGLDR	\$1.00
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Square	Green	P9ASGLDV	\$1.00
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Square	Yellow	P9ASGLDG	\$1.00
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Square	Orange	P9ASGLDA	\$1.00
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Square	Blue	P9ASGLDL	\$1.00
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Square	White	P9ASGLDB	\$1.00
Diffused Lenses <sup>1</sup>	Pilot Lights	-	Square	Clear	P9ASGLDI	\$1.00
Diffusers	Pilot Lights	-	Round	Clear	P9ARDLS	\$0.50
Diffusers	Push Buttons, Pilot Lights	-	Square	Clear	P9ASDPL <sup>2</sup>	\$0.50
Diffusers	Push Buttons	-	Round	Clear	P9ARDPL	\$0.50
Diffused Lenses <sup>1</sup>	Push Buttons	-	Round	Red	P9ARGPDR	\$0.50
Diffused Lenses <sup>1</sup>	Push Buttons	-	Round	Green	P9ARGPDV	\$0.50
Diffused Lenses <sup>1</sup>	Push Buttons	-	Round	Yellow	P9ARGPDG	\$0.50
Diffused Lenses <sup>1</sup>	Push Buttons	-	Round	Orange	P9ARGPDA	\$0.50
Diffused Lenses <sup>1</sup>	Push Buttons	-	Round	Blue	P9ARGPDL	\$0.50
Diffused Lenses <sup>1</sup>	Push Buttons	-	Round	White	P9ARGPDB	\$0.50
Diffused Lenses <sup>1</sup>	Push Buttons	-	Round	Clear	P9ARGPDI	\$0.50
Diffused Lenses <sup>1</sup>	Push Buttons	-	Square	Red	P9ASGPDR	\$1.00
Diffused Lenses <sup>1</sup>	Push Buttons	-	Square	Green	P9ASGPDV	\$1.00
Diffused Lenses <sup>1</sup>	Push Buttons	-	Square	Yellow	P9ASGPDG	\$1.00
Diffused Lenses <sup>1</sup>	Push Buttons	-	Square	Orange	P9ASGPDA	\$1.00
Diffused Lenses <sup>1</sup>	Push Buttons	-	Square	Blue	P9ASGPDL	\$1.00
Diffused Lenses <sup>1</sup>	Push Buttons	-	Square	White	P9ASGPDB	\$1.00
Diffused Lenses <sup>1</sup>	Push Buttons	-	Square	Clear	P9ASGPDI	\$1.00
Glass Lenses	Pilot Lights	-	Round	Red	P9ARGLVR	\$13.50
Glass Lenses	Pilot Lights	-	Round	Green	P9ARGLVV	\$13.50
Glass Lenses	Pilot Lights	-	Round	Yellow	P9ARGLVG	\$13.50
Glass Lenses	Pilot Lights	-	Round	Orange	P9ARGLVA	\$13.50
Glass Lenses	Pilot Lights	-	Round	Blue	P9ARGLVL	\$13.50
Glass Lenses	Pilot Lights	-	Round	White	P9ARGLVB	\$13.50
Glass Lenses	Pilot Lights	-	Round	Clear	P9ARGLVI	\$13.50
Mushroom Heads		40 mm dia.	Round	Red	P9ARGP4R	\$7.00
Mushroom Heads		40 mm dia.	Round	Green	P9ARGP4V	\$7.00
Mushroom Heads		40 mm dia.	Round	Yellow	P9ARGP4G	\$7.00
Mushroom Heads		40 mm dia.	Round	Orange	P9ARGP4A	\$7.00
Mushroom Heads		40 mm dia.	Round	Blue	P9ARGP4L	\$7.00
Mushroom Heads		40 mm dia.	Round	White	P9ARGP4B	\$7.00
Mushroom Heads		40 mm dia.	Round	Clear	P9ARGP4I	\$7.00
Mushroom Heads		29.7 mm sq.	Square	Red	P9ASGP3R	\$7.00
Mushroom Heads		29.7 mm sq.	Square	Green	P9ASGP3V	\$7.00
Mushroom Heads		29.7 mm sq.	Square	Yellow	P9ASGP3G	\$7.00
Mushroom Heads		29.7 mm sq.	Square	Orange	P9ASGP3A	\$7.00
Mushroom Heads		29.7 mm sq.	Square	Blue	P9ASGP3L	\$7.00
Mushroom Heads		29.7 mm sq.	Square	White	P9ASGP3B	\$7.00
Mushroom Heads		29.7 mm sq.	Square	Clear	P9ASGP3I	\$7.00
Knobs		-	Round, Square	Red	P9ACGSLR	\$3.00
Knobs		-	Round, Square	Green	P9ACGSLV	\$3.00
Knobs		-	Round, Square	Yellow	P9ACGSLG	\$3.00
Knobs		-	Round, Square	Orange	P9ACGSLA	\$3.00
Knobs		-	Round, Square	Blue	P9ACGSLL	\$3.00
Knobs		-	Round, Square	White	P9ACGSLB	\$3.00
Knobs		-	Round, Square	Clear	P9ACGSLI	\$3.00
Heads	Push-pull Mushroom-head Push Buttons	40 mm dia.	Round, Square	Red	P9ACGP4R	\$8.00
Heads	Push-pull Mushroom-head Push Buttons	40 mm dia.	Round, Square	Green	P9ACGP4V	\$8.00
Heads	Push-pull Mushroom-head Push Buttons	40 mm dia.	Round, Square	Yellow	P9ACGP4G	\$8.00
Heads	Push-pull Mushroom-head Push Buttons	40 mm dia.	Round, Square	Orange	P9ACGP4A	\$8.00
Heads	Push-pull Mushroom-head Push Buttons	40 mm dia.	Round, Square	Blue	P9ACGP4L	\$8.00
Heads	Push-pull Mushroom-head Push Buttons	40 mm dia.	Round, Square	White	P9ACGP4B	\$8.00
Heads	Push-pull Mushroom-head Push Buttons	40 mm dia.	Round, Square	Clear	P9ACGP4I	\$8.00
Protective Silicone Rubber Cap	Multi-function Push Buttons	-	Flush Multi-Function	Clear	080CPDT	\$5.00
Protective Silicone Rubber Cap	Multi-function Push Buttons	-	Flush Top/Extended Bottom	Clear	P9ADCST	\$5.00
Transparent Protective Caps	Extended Push Buttons, Flush Push Buttons	-	Round	Clear	P9ARCST	\$5.00
Transparent Protective Caps	Extended Push Buttons, Flush Push Buttons	-	Square	Clear	P9ASCST	\$5.00

<sup>1</sup>Must order diffuser separately for round devices. Diffuser is built into square devices.

<sup>2</sup>Order quantity—100.

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

For Base-Mounted Pilot Devices

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

Section 9

#### Plastic Enclosures

(NEMA 1, 3, 3R, 3S, 4, 4X, 12, 13 & IP66)

For use with operators from pages 9-65 to 9-98.

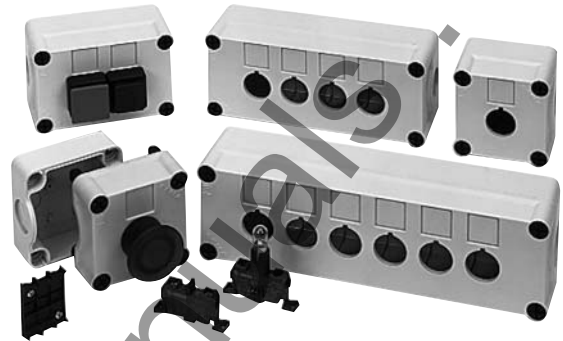
Enclosure Holes	Enclosure Color	For use with	Product Number	List Price GO-10GC
1	Gray With Yellow Cover	P9S Plastic Operators P9X Plastic Operators	P9EPEG1	\$15.00
1	Gray	P9S Plastic Operators P9X Plastic Operators	P9EPE01	\$15.00
2	Gray	P9S Plastic Operators P9X Plastic Operators	P9EPE02	\$17.50
3	Gray	P9S Plastic Operators P9X Plastic Operators	P9EPE03	\$22.50
4	Gray	P9S Plastic Operators P9X Plastic Operators	P9EPE04	\$32.00
6	Gray	P9S Plastic Operators P9X Plastic Operators	P9EPE06	\$49.00

#### Legend Plates For Plastic Enclosures

(Self-adhesive, black background)

Marking Language	Legend Plate Marking	Product Number <sup>1</sup>	List Price GO-10GC
Symbol	→	P9AELN006	\$1.50
Symbol	I	P9AELN028	\$1.50
Symbol	O	P9AELN029	\$1.50
Symbol	II	P9AELN035	\$1.50
Symbol	III	P9AELN038	\$1.50
Symbol	O-I	P9AELN039	\$1.50
Symbol	I-O-II	P9AELN042	\$1.50
English	Stop	P9AELN201	\$1.50
English	Start	P9AELN202	\$1.50
English	Down	P9AELN203	\$1.50
English	Up	P9AELN204	\$1.50
English	Close	P9AELN205	\$1.50
English	Open	P9AELN206	\$1.50
English	On	P9AELN212	\$1.50
English	Off	P9AELN213	\$1.50
English	Forward	P9AELN214	\$1.50
English	Reverse	P9AELN215	\$1.50
English	Auto	P9AELN219	\$1.50
English	Left	P9AELN222	\$1.50
English	Right	P9AELN224	\$1.50
French	Arrêt	P9AELN301	\$1.50
French	Arrière	P9AELN302	\$1.50
French	Avant	P9AELN303	\$1.50
French	Descente	P9AELN304	\$1.50
French	Droite	P9AELN305	\$1.50
French	Gauche	P9AELN306	\$1.50
French	Marche	P9AELN308	\$1.50
French	Fermer	P9AELN309	\$1.50
French	Manuel	P9AELN312	\$1.50
French	Ouvrir	P9AELN316	\$1.50
Spanish	Cerrar	P9AELN501	\$1.50
Spanish	Adelante	P9AELN502	\$1.50
Spanish	Izquierda	P9AELN504	\$1.50
Spanish	Bajar	P9AELN505	\$1.50
Spanish	Abrir	P9AELN506	\$1.50
Spanish	Subir	P9AELN507	\$1.50
Spanish	Atras	P9AELN508	\$1.50
Spanish	Derecha	P9AELN509	\$1.50
Spanish	Marcha	P9AELN510	\$1.50
Spanish	Paro	P9AELN511	\$1.50
Spanish	Rápido	P9AELN512	\$1.50
Spanish	Rearme	P9AELN515	\$1.50
Spanish	Linea	P9AELN523	\$1.50
None	Blank	P9AELN	\$5.00
Specify	Custom engraved, seven characters maximum	P9AELNEN	\$8.00

<sup>1</sup>Package quantity is five; order in multiples of five.



Plastic Enclosures

#### Ground Terminal

Product Number	List Price GO-10GC
P9AEMT	\$1.00

#### Base-Mount Power Supplies (Screw Terminals Only)

Power Supply Type	Bulb Type	Voltage	Product Number	List Price GO-10GC
Full Voltage	Incandescent	No lamp	P9PDNBO	\$17.50
Full Voltage	Incandescent	6V	P9PDNBA	\$21.00
Full Voltage	Incandescent	12V	P9PDNBB	\$21.00
Full Voltage	Incandescent	24V	P9PDNBD	\$21.00
Full Voltage	Incandescent	48V	P9PDNBG	\$21.00
Full Voltage	Incandescent	60V	P9PDNBH	\$21.00
Full Voltage	Incandescent	130V	P9PDNBL	\$21.00
Full Voltage	LED	6V	P9PDNBAL*	\$36.00
Full Voltage	LED	12V	P9PDNBBL*	\$36.00
Full Voltage	LED	24V	P9PDNBGL*	\$36.00
Full Voltage	LED	48V	P9PDNBGL*	\$36.00
Full Voltage	LED	120V	P9PDNBGL*	\$36.00
Full Voltage	Neon	110V	P9PDNBIN	\$25.00
Full Voltage	Neon	220V	P9PDNBIN	\$25.00
Resistor	Incandescent	110-120V	P9PRNB <sup>2</sup>	\$14.00
Resistor	Incandescent	220-240V	P9PRNB <sup>3</sup>	\$14.00
Diode Resistor	Incandescent	220-240V	P9PRDBN <sup>4</sup>	\$35.00
Long-Life Resistor	Incandescent	110-120V	P9PRLBJ	\$35.00

<sup>2</sup>Must be used with P9PDNBH full-voltage power supply (wired-in series).

<sup>3</sup>Must be used with P9PDNBL full-voltage power supply (wired-in series).

<sup>4</sup>AC only.

Replace asterisk (\*) in LED product number with code from LED colors table.

#### \*LED Colors

Colors	Red	Green	Yellow	Orange	White	Blue
*Color Code	R	V	G	A	B	L

#### Contact Blocks (Screw Terminals Only)

Contact Block Type	Contact Configuration	Product Number	List Price GO-10GC
Base Mount	1NO	P9B10BN	\$7.50
Base Mount	1NC	P9B01BN	\$7.50



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

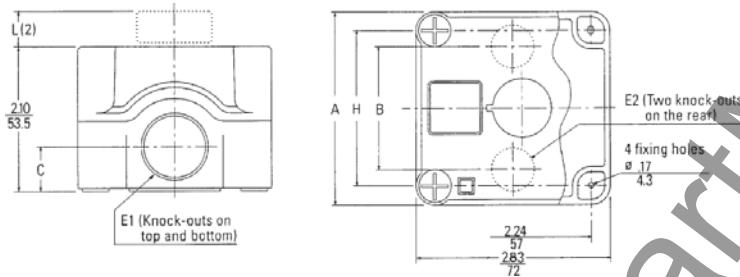
Section 9

For Base-Mounted Pilot Devices  
 Outlines and Dimensions (in/mm) (For Estimating Only)  
 600 VAC Max., 300 VDC Max.  
 10 Amps Continuous AC, 2.5 Amps Continuous DC

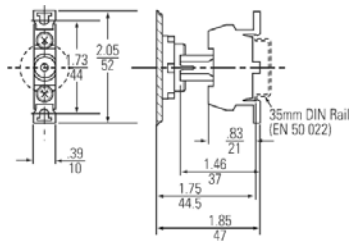
#### Plastic Enclosures - NEMA 1, 3, 3R, 3S, 4, 4X, 12, 13 and IP66

Enclosure Holes	Center Distance (in/mm)	Dimension A (in/mm)	Dimension B (in/mm)	Dimension C (in/mm)	Dimension E1 Ø (in/mm)	Dimension E2 <sup>1</sup> Ø (in/mm)	Dimension H (in/mm)
1		2.83 (72)	1.81 (46)	.65 (16.5)	.91 (23)	.61 (15.5)	2.24 (57)
2	1.18 (30)	4.33 (110)	3.07 (78)	.65 (16.5)	.91 (23)	.85 (21.5)	3.74 (95)
3	1.18 (30)	5.51 (140)	4.25 (108)	.65 (16.5)	.91 (23)	.85 (21.5)	4.92 (125)
4	1.18 (30)	6.89 (175)	5.63 (143)	.65 (16.5)	.91 (23)	.85 (21.5)	6.30 (160)
6	1.18 (30)	9.25 (235)	7.87 (200)	.77 (19.5)	1.14 (29)	.91 (23)	8.66 (220)

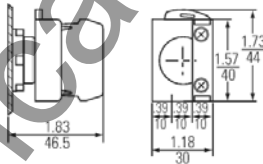
<sup>1</sup>1-, 2-, 3-, and 4-hole enclosures suitable for cable gland, with locknut, PG16 or 1/2" NPT. 6-hole enclosure suitable for cable gland, with locknut, PG21 or 3/4" NPT.



Plastic Enclosures



Base Mount Power Supply



Single Contact Blocks with Screw Terminals

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

#### Enclosures

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

Section 9

#### Die-Cast Aluminum NEMA Type 1, 3, 3R, 4, 4X, 12 and 13

Enclosure Holes	Useful Depth (inches/mm)	Product Number <sup>1</sup>	List Price GO-10GC
1	2.83 (72)	080SP1	\$30.00
1	3.82 (97)	080SP1M	\$35.00
2	2.83 (72)	080SP2	\$35.00
2	3.82 (97)	080SP2M	\$42.00
3	3.82 (97)	080SP3	\$42.00
4	2.83 (72)	080SP4	\$43.00
4	3.82 (97)	080SP4M	\$51.00
6	3.82 (97)	080SP6	\$53.00
8	3.82 (97)	080SP8	\$63.00
12	3.82 (97)	080SP12	\$83.00
18	3.82 (97)	080SP18	\$113.00
24	3.82 (97)	080SP24	\$143.00
35	4.37 (111)	080SP35	\$198.00

<sup>1</sup>Multi-function push buttons (P9DPL...) are not suitable for these enclosures.

#### Hole Location and Centerline Distances

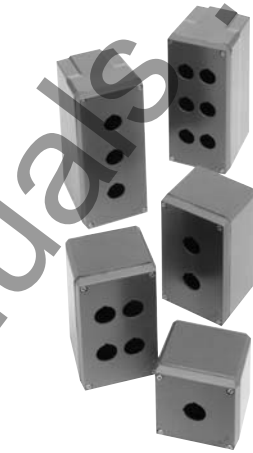
Product Number	Vertical Hole Location	Vertical Centerline Distance in (mm)	Horizontal Hole Location	Horizontal Centerline Distance in (mm)
080SP2	2	1.97 (50)	—	—
080SP2M	2	1.97 (50)	—	—
080SP3	3	1.97 (50)	—	—
080SP4	2	1.97 (50)	2	1.18 (30)
080SP4M	2	1.97 (50)	2	1.18 (30)
080SP6	3	1.97 (50)	2	1.18 (30)
080SP8	2	1.97 (50)	4	1.18 (30)
080SP12	3	1.97 (50)	4	1.18 (30)
080SP18	3	1.97 (50)	6	1.18 (30)
080SP24	4	1.97 (50)	6	1.18 (30)
080SP35	5	1.97 (50)	7	1.18 (30)

#### Dimensions in (mm)

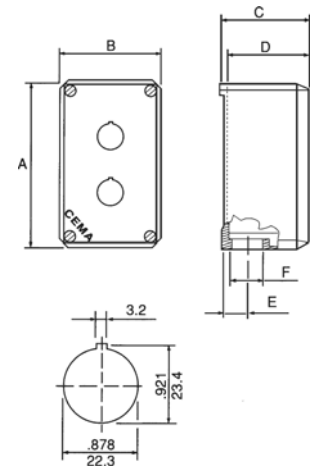
Product Number	Dimension A in (mm)	Dimension B in (mm)	Dimension C in (mm)	Dimension D in (mm)	Dimension E in (mm)	Dimension F metric type hole
080SP1	3.43 (87)	3.43 (87)	2.95 (75)	2.83 (72)	.846 (21.5)	PG21
080SP1M	3.43 (87)	3.43 (87)	3.94 (100)	3.82 (97)	.846 (21.5)	PG21
080SP2	5.71 (145)	3.43 (87)	2.95 (75)	2.83 (72)	.846 (21.5)	PG21
080SP2M	5.71 (145)	3.43 (87)	3.94 (100)	3.82 (97)	.846 (21.5)	PG21
080SP3	7.67 (195)	3.43 (87)	3.94 (100)	3.82 (97)	.846 (21.5)	PG21
080SP4	5.71 (145)	3.43 (87)	2.95 (75)	2.83 (72)	.846 (21.5)	PG21
080SP4M	5.71 (145)	3.43 (87)	3.94 (100)	3.82 (97)	.846 (21.5)	PG21
080SP6	7.67 (195)	3.43 (87)	3.94 (100)	3.82 (97)	.846 (21.5)	PG21
080SP8	5.98 (152)	5.98 (152)	3.94 (100)	3.82 (97)	1.06 (27)	PG29
080SP12	8.07 (205)	9.05 (230)	3.94 (100)	3.82 (97)	1.06 (27)	PG29
080SP18	10.12 (257)	11.81 (300)	3.94 (100)	3.82 (97)	1.37 (35)	PG36
080SP24	10.12 (257)	11.81 (300)	3.94 (100)	3.82 (97)	1.37 (35)	PG36
080SP35	13.78 (350)	13.78 (350)	4.80 (122)	4.37 (111)	1.61 (41)	PG36

#### Metric to NPT Adaptors

Adaptor Type	Product Number	List Price GO-10GC
PG21 to 1/2-inch	080PG21A	\$25.00
PG21 to 3/4-inch	080PG21B	\$25.00
PG29 to 1-inch	080PG29C	\$25.00
PG36 to 1-1/4-inch	080PG36D	\$25.00



Die-Cast Aluminum Enclosures



Outlines and Dimensions (in. (mm))  
(For Estimating Only)



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

## Section 9

### Enclosures

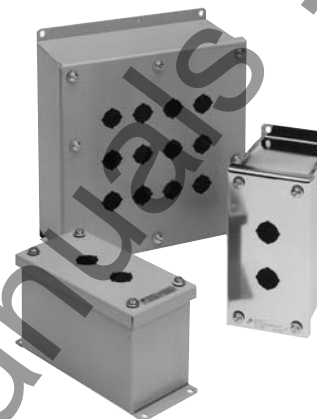
600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

### Enclosure Only

Enclosure Material	Enclosure Holes	Product Number <sup>1</sup>	List Price GO-10GC
Sheet Steel	1	080HEG11	\$42.00
Sheet Steel	2	080HEG12	\$45.00
Sheet Steel	3	080HEG13	\$48.00
Sheet Steel	4	080HEG14	\$54.00
Sheet Steel	6	080HEG32	\$72.00
Sheet Steel	9	080HEG33	\$84.00
Sheet Steel	12	080HEG43	\$108.00
Sheet Steel	16	080HEG44	\$138.00
Sheet Steel	24	080HEG64	\$216.00
Sheet Steel	30	080HEG65	\$240.00
Stainless Steel	1	080HES11	\$102.00
Stainless Steel	2	080HES12	\$120.00
Stainless Steel	3	080HES13	\$132.00
Stainless Steel	4	080HES14	\$156.00
Stainless Steel	6	080HES32	\$198.00
Stainless Steel	9	080HES33	\$312.00
Stainless Steel	12	080HES43	\$336.00
Stainless Steel	16	080HES44	\$432.00
Stainless Steel	24	080HES64	\$660.00
Stainless Steel	30	080HES65	\$780.00

<sup>1</sup>Multi-function push buttons (P9DPL...) are not suitable for these enclosures.



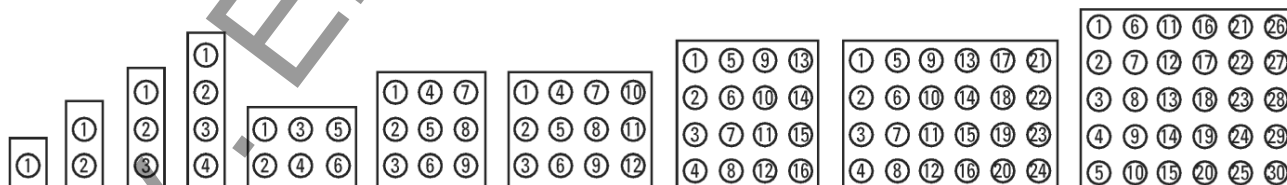
Sheet Steel and  
Stainless Steel Enclosures

### Assembled Unwired Stations

When ordering assembled, unwired stations, specify units and nameplates by hole arrangement. Prices do not include operators, terminals, nameplates, etc.

Enclosure Material	Enclosure Holes	Product Number <sup>1</sup>	List Price GO-10GC
Sheet Steel	1	080HEG11B	\$60.00
Sheet Steel	2	080HEG12B	\$69.00
Sheet Steel	3	080HEG13B	\$78.00
Sheet Steel	4	080HEG14B	\$90.00
Sheet Steel	6	080HEG32B	\$120.00
Sheet Steel	9	080HEG33B	\$150.00
Sheet Steel	12	080HEG43B	\$192.00
Sheet Steel	16	080HEG44B	\$246.00
Sheet Steel	24	080HEG64B	\$378.00
Sheet Steel	30	080HEG65B	\$432.00
Stainless Steel	1	080HES11B	\$120.00
Stainless Steel	2	080HES12B	\$144.00
Stainless Steel	3	080HES13B	\$162.00
Stainless Steel	4	080HES14B	\$192.00
Stainless Steel	6	080HES32B	\$246.00
Stainless Steel	9	080HES33B	\$378.00
Stainless Steel	12	080HES43B	\$420.00
Stainless Steel	16	080HES44B	\$540.00
Stainless Steel	24	080HES64B	\$822.00
Stainless Steel	30	080HES65B	\$972.00

<sup>1</sup>Multi-function push buttons (P9DPL...) are not suitable for these enclosures.



Hole Arrangements



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

Section 9

#### Enclosures

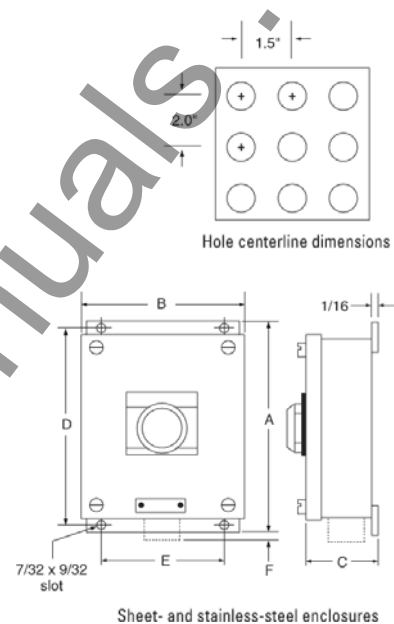
Outlines and Dimensions [in.(mm)] (For Estimating Only)

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Enclosure Only

Product Number	Dimension A in (mm)	Dimension B in (mm)	Dimension C in (mm)	Dimension D in (mm)	Dimension E in (mm)	Dimension F in (mm)	Hub Dimension (in)
080HEG11	5.50 (139.7)	3.50 (88.9)	4.25 (108.0)	5.00 (127.0)	2.38 (60.4)	.31 (7.9)	0.75
080HEG12	7.75 (196.8)	3.50 (88.9)	4.25 (108.0)	7.25 (184.2)	2.38 (60.4)	.31 (7.9)	0.75
080HEG13	10.00 (254.0)	3.50 (88.9)	4.25 (108.0)	9.50 (241.3)	2.38 (60.4)	.31 (7.9)	0.75
080HEG14	13.38 (339.8)	3.50 (88.9)	4.25 (108.0)	12.88 (327.2)	2.38 (60.4)	.31 (7.9)	1
080HEG32	8.25 (209.6)	6.50 (165.1)	4.25 (108.0)	7.75 (196.8)	5.88 (149.4)	.31 (7.9)	1
080HEG33	10.50 (266.7)	9.25 (235.0)	4.25 (108.0)	10.00 (254.0)	5.88 (149.4)	.31 (7.9)	1.25
080HEG43	10.50 (266.7)	9.25 (235.0)	4.25 (108.0)	10.00 (254.0)	8.19 (208.0)	.31 (7.9)	1.5
080HEG44	12.75 (323.8)	11.50 (292.1)	4.25 (108.0)	12.25 (311.2)	8.19 (208.0)	.31 (7.9)	1.5
080HEG64	12.75 (323.8)	11.50 (292.1)	4.25 (108.0)	12.25 (311.2)	10.38 (263.6)	.31 (7.9)	1.5
080HEG65	15.00 (381.0)	11.50 (292.1)	4.25 (108.0)	14.50 (368.3)	10.38 (263.6)	.38 (9.6)	1.5
080HES11	5.50 (139.7)	3.50 (88.9)	4.25 (108.0)	5.00 (127.0)	2.38 (60.4)	.31 (7.9)	0.75
080HES12	7.75 (196.8)	3.50 (88.9)	4.25 (108.0)	7.25 (184.2)	2.38 (60.4)	.31 (7.9)	0.75
080HES13	10.00 (254.0)	3.50 (88.9)	4.25 (108.0)	9.50 (241.3)	2.38 (60.4)	.31 (7.9)	0.75
080HES14	13.38 (339.8)	3.50 (88.9)	4.25 (108.0)	12.88 (327.2)	2.38 (60.4)	.31 (7.9)	1
080HES32	8.25 (209.6)	6.50 (165.1)	4.25 (108.0)	7.75 (196.8)	5.88 (149.4)	.31 (7.9)	1
080HES33	10.50 (266.7)	9.25 (235.0)	4.25 (108.0)	10.00 (254.0)	5.88 (149.4)	.31 (7.9)	1.25
080HES43	10.50 (266.7)	9.25 (235.0)	4.25 (108.0)	10.00 (254.0)	8.19 (208.0)	.31 (7.9)	1.5
080HES44	12.75 (323.8)	11.50 (292.1)	4.25 (108.0)	12.25 (311.2)	8.19 (208.0)	.31 (7.9)	1.5
080HES64	12.75 (323.8)	11.50 (292.1)	4.25 (108.0)	12.25 (311.2)	10.38 (263.6)	.31 (7.9)	1.5
080HES65	15.00 (381.0)	11.50 (292.1)	4.25 (108.0)	14.50 (368.3)	10.38 (263.6)	.38 (9.6)	1.5



#### Enclosure Only Forms



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

Section 9

#### Accessories

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Accessories

Accessory Type	Operator Style	For use with	Head Size	Description	Product Number	List Price GO-10GC
Locking Ring Wrench	Round, Square	—	—	For tightening of metal locking ring	P9ACWAF	\$7.50
Printed Circuit Board Adapter	Round, Square	Contact Blocks Power Supplies with Quick-connect Terminals	—	Use with contact blocks and power supplies with quick-connect terminals; to solder connection printed circuit board	P9ACA6	\$4.00
Flange	Round, Square	3 Contact Blocks	—	Standard flange provided with all operators	P9ACFS3	\$3.00
Flange	Round, Square	5 Contact Blocks	—	Optional flange for of maximum number mounting of contact blocks	P9ACFS5 <sup>1</sup>	\$4.50
Flange	Round, Square	Reed Logic Blocks Power Supplies	—	Optional for Reed block and power supply	P9ACFSM	\$4.50
Padlocking Device with Clear Cover	Round, Square	Extended Push Buttons Flush Push Buttons Knob Selector Switches	—	Limits access to push buttons (flush and extended) and knob selector switch	P9ACRCL	\$15.00
Extended Guard	Round	Mushroom-head Push Buttons	40 mm diameter	Prevents accidental actuation of mushroom-head push button	P9ARRE4	\$10.00
Orientation Tab Bypass Ring	Round	—	—	Allows mounting of devices in panels without locating notch	P9ARAND	\$2.00
Orientation Tab Extender	Round	—	—	Extends operator tab from 1.5 to 2.5 mm allowing mounting of devices on very thick panels	P9ARADE	\$2.00
Ring Reducer, Black Plastic	Round	C-2000 Devices	—	Adapter allows C-2000 devices to be mounted in 30mm diameter hole	P9ARAX32	\$7.50
Ring Reducer, Polished Chrome	Round	C-2000 Devices	—	Adapter allows C-2000 devices to be mounted in 30mm diameter hole	P9ARAM32	\$7.50
Cap and Lens Extractor	Round	—	—	Provides easy removal of caps and lenses	P9ASEBG	\$7.00
Lamp Extractor	Round, Square	—	—	Provides easy removal of bulbs	O80ESL	\$4.00
Enclosure Hole Plug, Black Plastic	Round	—	—	Plugs unused holes in panel	P9ARHPR	\$5.00
Enclosure Hole Plug, 30 x 30 mm, Black Plastic	Square	—	—	Plugs unused holes in panel	P9ASHP3	\$5.00
Enclosure Hole Plug, 30 x 50 mm, Black Plastic	Square	—	—	Plugs unused holes in panel	P9ASHP5	\$5.00
Push-On/ Push-Off Device	Round, Square	—	—	Converts a momentary push button into a maintained push button	P9ACDPP <sup>2</sup>	\$26.00
Assembled 4-Device Tabletop Display	—	—	—	Handy display of C-2000 push buttons	P9ACT04	\$120.00
Assembled 16-Device Tabletop Display	—	—	—	Handy display of C-2000 push buttons	P9ACT16	\$250.00
Sample Case	—	—	—	Portable overview of C-2000 push buttons	P9ACKITU	\$250.00
Marking Plate, White	Round, Square	Contact Blocks	—	Snaps on back of contact block for circuit identification	P9ACPIU <sup>3</sup>	\$25

<sup>1</sup>Not suitable for use with push-pull or twist-to-release mushroom-heads; see maximum number of contacts in table, page 9-131.

<sup>2</sup>Use only early make contact (P9B10VA) when normally open contact is desired.

<sup>3</sup>Packaged in multiples of 5, order in multiples of 5.



Printed Circuit Board Adapter



Flanges



Padlocking Device with Clear Cover



Lamp Extractor



Push-on/ Push-off Device

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

## Section 9

### Accessories

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

### Keys

Key Type	Key Number	Product Number	List Price GO-10GC
Standard	#3095	077C3095 <sup>1</sup>	\$1.50
Special	#3353	077C3353 <sup>1</sup>	\$2.00
Special	#9901	077C9901 <sup>1</sup>	\$2.00
Special	#9902	077C9902 <sup>1</sup>	\$2.00
Special	#9903	077C9903 <sup>1</sup>	\$2.00
Special	#9904	077C9904 <sup>1</sup>	\$2.00
Special	#9905	077C9905 <sup>1</sup>	\$2.00
Special	#9910	077C9910 <sup>1</sup>	\$2.00
Special	#9916	077C9916 <sup>1</sup>	\$2.00
Special	#9919	077C9919 <sup>1</sup>	\$2.00
Special	#R455 (Ronis key)	077CR455 <sup>1</sup>	\$2.00
Colored	#73033	077CF73033 <sup>1</sup>	\$2.00
Colored	#73034	077CF73034 <sup>1</sup>	\$2.00
Colored	#73037	077CF73037 <sup>1</sup>	\$2.00
Colored	#73038	077CF73038 <sup>1</sup>	\$2.00
Colored	#73040	077CF73040 <sup>1</sup>	\$2.00

<sup>1</sup>Package quantity is five; order in multiples of five.

All include 2 Keys.

### Lamps

Bulb Type	Voltage	Watts	Product Number	List Price GO-10GC
Incandescent	6 VAC/DC	0.6	BA9S606	\$3.00
Incandescent	6 VAC/DC	1.5	BA9S615	\$3.00
Incandescent	12 VAC/DC	2	BA9S122	\$3.00
Incandescent	24 VAC/DC	2	BA9S242	\$3.00
Incandescent	48 VAC/DC	2	BA9S482	\$3.00
Incandescent	60 VAC/DC	1.2	BA9S6012	\$3.00
Incandescent	130 VAC/DC	2	BA9S130	\$3.00
Neon	110 VAC <sup>2</sup>	0.077	BA9SN110	\$7.00
Neon	220 VAC <sup>3</sup>	0.33	BA9SN220	\$7.00
LED	6 VAC/DC	0.59	080BA9S6L*	\$18.00
LED	12 VAC/DC	0.78	080BA9S12L*	\$18.00
LED	24 VAC/DC	0.84	080BA9S24L*	\$18.00
LED	48 VAC/DC	1.12	080BA9S48L*	\$18.00
LED	120 VAC/DC	1.4	080BA9S120L*	\$18.00

<sup>2</sup>94 AC minimum starting voltage

<sup>3</sup>186 AC minimum starting voltage

Replace asterisk (\*) in LED Type product number from Colors table below.

### \*LED Colors

Colors	Red	Green	Yellow	Orange	White	Blue
*Color Code	R	V	G	A	B	L



Keys



Enclosure Hole Plugs



Locking Ring Wrench



Ring Reducers, Black Plastic and Polished Chrome



Assembled 16-Device Tabletop Display



Lamps



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Accessories

### C-2000

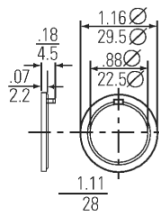
## Section 9

#### Accessories

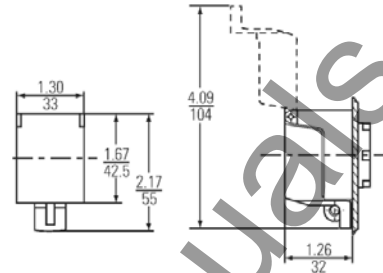
Outlines, Dimensions ( $\frac{\text{in}}{\text{mm}}$ ) (For Estimating Only)

600 VAC Max., 300 VDC Max.

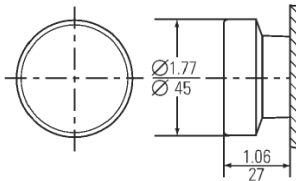
10 Amps Continuous AC, 2.5 Amps Continuous DC



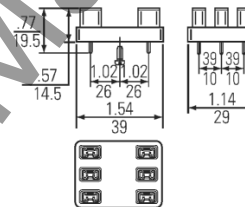
Orientation Tab Extender



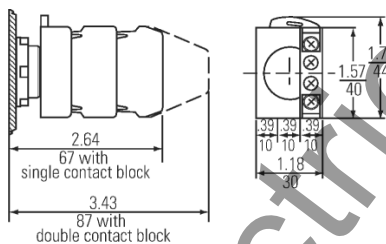
Padlocking Attachment



Extended Guard for 40 mm Mushroom-Head Push Button



Printed Circuit Board Adapter



Push-On/Push-Off Device

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9

#### Assembled Forms

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

C-2000 push buttons may be ordered factory-assembled with a single product number list price. These may be selected from either the Common Forms or Special Forms sections below.

#### Common Forms

Listed below are the most commonly ordered assembled push button devices. These devices are shipped factory-assembled with contact blocks and/or power supplies mounted on the operator. For assembled devices not listed, see the Special Forms

section on page 9-123 for data on developing product number and list price. All assembled devices carry an assembly charge of **\$5.00**, which is reflected in the **List Price, GO-10GC**, shown. Minimum order quantity is **10 per item**. For smaller quantities, order individual components from pages 9-65 to 9-119.

Complete the assembled device product number by substituting the desired operator style (#), operator color (\*), and/or lens color (\*) with the appropriate digits from the tables below.

#### Operator Style (Third digit in Product Number)

Style	 Polished Chrome	 Satin Chrome	 Round Engineered Plastic	 Square Engineered Plastic
#Style Code	C	M	X	S

#### \*Operator Color for Non-Illuminated Devices

Color	Red	Green	Yellow	Blue	White	Brown	Grey	Black
*Color Code	R	V	G	L	B	M	H	N

#### \*Lens Color for Illuminated Devices

Color	Red	Green	Yellow	Blue	White	Orange	Clear
*Color Code	R	V	G	L	B	A	I

Operator Type	Description	Product Number	List Price, GO-10GC	Consists of Components		
				Operator	Contact Block(s)	Power Supply
Standard push button, flush	1NO	P9#PN*GN10N0	\$21.00	P9#PN*G	P9B10VN	—
	1NC	P9#PN*GN20N0	\$21.00	P9#PN*G	P9B01VN	—
	1NO-1NC	P9#PN*GN30N0	\$28.50	P9#PN*G	P9B11VN	—
Standard push button, extended	1NO	P9#PN*SN10N0	\$21.00	P9#PN*S	P9B10VN	—
	1NC	P9#PN*SN20N0	\$21.00	P9#PN*S	P9B01VN	—
	1NO-1NC	P9#PN*SN30N0	\$28.50	P9#PN*S	P9B11VN	—
Standard push button, recessed	1NO	P9#PN*EN10N0	\$21.00	P9#PN*E <sup>1</sup>	P9B10VN	—
	1NC	P9#PN*EN20N0	\$21.00	P9#PN*E <sup>1</sup>	P9B01VN	—
	1NO-1NC	P9#PN*EN30N0	\$28.50	P9#PN*E <sup>1</sup>	P9B11VN	—
Mushroom-head push button, 40mm diameter, red	Momentary, 1 NC	P9#EM4RNN20N0	\$29.00	P9#EM4RN	P9B01VN	—
	Push-pull, maintained, 1NC	P9#ET4RN1200	\$34.00	P9#ET4RN1	P9B01VN	—
	Push-to-latch—turn-to-release, 1NC, polished chrome	P9CER4RNN20N0	\$51.00	P9CER4RN	P9B01VN	—
	Push-to-latch—turn-to-release, 1NC, satin chrome	P9MER4RNN20N0	\$51.00	P9MER4RN	P9B01VN	—
	Push-to-latch—turn-to-release, 1NC, positive-action, round engineered plastic	P9XER4RAN20N0	\$51.00	P9XER4RA	P9B01VN	—
	Push-to-latch—turn-to-release, 1NC, positive-action, square engineered plastic	P9SER4RAN20N0	\$51.00	P9SER4RA	P9B01VN	—
	Push-to-latch—key release, 1NC, standard key, polished chrome	P9CEC4RN95N20N0	\$66.00	P9CEC4RN95	P9B01VN	—
	Push-to-latch—key release, 1NC, standard key, satin chrome	P9MEC4RN95N20N0	\$66.00	P9MEC4RN95	P9B01VN	—
	Push-to-latch—key release, 1NC, standard key, positive-action, round engineered plastic	P9XEC4RA95N20N0	\$66.00	P9XEC4RA95	P9B01VN	—
	Push-to-latch—key release, 1NC, standard key, positive-action, square engineered plastic	P9SEC4RA95N20N0	\$66.00	P9SEC4RA95	P9B01VN	—
Illuminated push button, extended <i>continued on next page</i>	24 V, full-voltage, 1NO-1NC	P9#PL*SDN12NADI	\$51.50	P9#PL*SD	P9B10VN, P9B01VN	P9PDNVD
	120 V, full-voltage, 1NO-1NC	P9#PL*SDN12NALI	\$51.50	P9#PL*SD	P9B10VN, P9V01VN	P9PDNVL
	120 V, transformer, 1NO-1NC	P9#PL*SDN30NGJI	\$73.00	P9#PL*SD	P9B11VN	P9PTNVJ

<sup>1</sup>Not available in Round Engineered Plastic



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

## Section 9

Assembled Forms

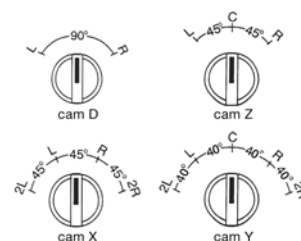
600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

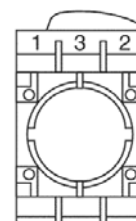
Operator Type	Description	Product Number	List Price, GO-10GC	Consists of Components		
				Operator	Contact Block(s)	Power Supply
Illuminated mushroom-head push button, momentary, 40 mm diameter	24 V, full-voltage, 1NO-1NC, round	P9#EM4*LN12NADI	\$57.50	P9#EM4*L	P9B10VN, P9B01VN	P9PDNVD
	24 V, full-voltage, 1NO-1NC, 29 mm square	P9SEM3*LN12NADI	\$57.50	P9SEM3*L	P9B10VN, P9B01VN	P9PDNVD
	120 V, full-voltage, 1NO-1NC, round	P9#EM4*LN12NALI	\$57.50	P9#EM4*L	P9B10VN, P9B01VN	P9PDNVL
	120 V, full-voltage, 1NO-1NC, 29 mm square	P9SEM3*LN12NALI	\$57.50	P9SEM3*L	P9B10VN, P9B01VN	P9PDNVL
	120 V, transformer, 1NO-1NC, round	P9#EM4*LN30NGJI	\$79.00	P9#EM4*L	P9B11VN	P9PTNVJ
	120 V, transformer, 1NO-1NC, 29 mm square	P9SEM3*LN30NGJI	\$79.00	P9SEM3*L	P9B11VN	P9PTNVJ
Illuminated mushroom-head push button, push-pull maintained	24 V, full-voltage, 1NO-1NC, round	P9#ET4*L112ADI	\$64.50	P9#ET4*L1	P9B10VN, P9B01VN	P9PDNVD
	120 V, full-voltage, 1NO-1NC, round	P9#ET4*L112ALI	\$64.50	P9#ET4*L1	P9B10VN, P9B01VN	P9PDNVL
	120 V, transformer, 1NO-1NC, round	P9#ET4*L130GJI	\$86.00	P9#ET4*L1	P9B11VN	P9PTNVJ
Pilot light, diffused	24 V, full-voltage	P9#L*DADI	\$32.00	P9#L*D	—	P9PDNVD
	120 V, full-voltage	P9#L*DALI	\$32.00	P9#L*D	—	P9PDNVL
	120 V, transformer	P9#L*DGJI	\$53.50	P9#L*D	—	P9PTNVJ
Pilot light, refracted	24 V, full-voltage	P9#L*RADI	\$32.00	P9#L*R	—	P9PDNVD
	120 V, full-voltage	P9#L*RALI	\$32.00	P9#L*R	—	P9PDNVL
	120 V, transformer	P9#L*RGJI	\$53.50	P9#L*R	—	P9PTNVJ
Selector switch with black knob (see below)	2-position, maintained, 90° throw, 1NO-1NC	P9#SMD0NN12N0	\$34.50	P9#SMD0N	P9B10VN, P9B01VN	—
	3-position, maintained, 45° throw, 1NO-1NC	P9#SMZ0NN12N0	\$34.50	P9#SMZ0N	P9B10VN, P9B01VN	—
	4-position, 45° throw, 2NO-2NC	P9#SMX0NN33N0	\$49.50	P9#SMX0N	(2) P9B11VN	—
	5-position, 40° throw, 2NO-2NC	P9#SMY0NN33N0	\$61.00	P9#SMY0N	(2) P9B11VN	—

### Cams

Type	Cam Code (6th digit in Product Number)	Cam Position				Screw Terminal Contact Block	
						Position 1	Position 2
2 Position	D		—	X	—	—	P9B10VN
		X	—	—	—	P9B01VN	—
3 Position	Z			X	—	P9B10VN	—
		X		—	—	—	P9B10VN
4 Position	X					—	—
		O	X	O	O	P9B11VN	—
		O	O	O	X	—	P9B11VN
		X	O	O	O	—	P9B11VN
5 Position	Y					—	—
		O	X	O	O	P9B11VN	—
		O	O	O	X	—	P9B11VN
		X	O	O	O	—	P9B11VN



Operator Positions



Contact Block Positions  
(viewed from rear)

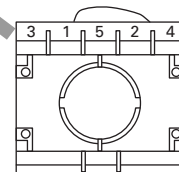


## Section 9

10 Amps Continuous AC, 2.5 Amps Continuous DC

**Pricing:** Add list price for the operator + contact blocks adder (for each position) + Power Supply (if applicable) plus **\$5.00** assembly charge, GO-10GP. Minimum order quantity is **10 per item**. For smaller quantities order individual components from pages 9-65 to 9-119.

### Special Forms-Table 1



Contact Block Position (viewed from rear) – 5-Position Flange

Power Supply: None

**Order Supply: None**

		No. of Blocks	No. of Contacts			No. of Blocks	No. of Contacts
		1 or 2	1, 2, or 4			3 or 4	4-8 <sup>1</sup>
		<sup>1</sup> Selector switch 4 max.					

**3-position flange** | \* = Contact Block Code for Flange Position Indicated |

		1	2		
Operator product number	+	N	*	*	N 0

**5-position flange** | \* = Contact Block Code for Flange Position Indicated |

		3	1	2	4	
Operator product number	+	*	*	*	*	0

## Power Supply: None

<p><b>Order Supply: None</b></p>		<p>No. of Blocks</p>	<p>No. of Contacts</p>
<p>3-position flange</p>	<p>* = Contact Block Code for Flange Position indicated</p>	<p>1 or 2</p>	<p>1, 2 or 4</p>
<p>Operator product number</p>	<p>1 2 4 0</p>		<p>5-position flange</p>
<p>+</p>	<p>*</p>	<p>*</p>	<p>Not Available</p>

Power Supply: Full Voltage or Long Life Resistor

**Power Supply: Full Voltage or Long Life Resistor**

**3-position flange** | \* = Contact Block Code for Flange Position Indicated | \$\$\$ = Power Supply Product Code Digits |

		No. of Blocks	No. of Contacts
		1 or 2	1, 2, or 4

Operator product number +

N	*	N
---	---	---

+

\$	\$	\$
----	----	----

Table 4 or 5

**5-position flange** | \* = Contact Block Code for Flange Position Indicated | \$\$\$ = Power Supply Product Code Digits |

		No. of Blocks	No. of Contacts
		3 or 4	4-8 <sup>1</sup>

<sup>1</sup>Selector switch 4 max.

Operator product number +

3	1	2	4
*	*	*	*

+

\$	\$	\$
----	----	----

Table 4 or 5

Power Supply: Transformer, Panel Test (all), Standard Resistor

**3-position flange** | \* = Contact Block Code for Flange Position indicated | \$\$\$ = Power Supply Product Code Digits

No. of Blocks	No. of Contacts
1	1 or 2

Operator product number +

1	2
N	0
*	N

or

N	*
0	N
1	2

+ Table 3 or 5

\$ \$ \$

**5-position flange** | \* = Contact Block Code for Flange Position indicated | \$\$\$ = Power Supply Product Code Digits

No. of Blocks	No. of Contacts
2 or 3	3-6 <sup>1</sup>

<sup>1</sup>Selector switch 4 max.

Operator product number +

3	1	2	4
*	*	0	*
*	0	*	*

or

3	1	2	4
*	0	*	*
3	1	2	4

+ Table 3 or 5

\$ \$ \$



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

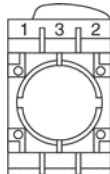
## Section 9

Assembled Forms—Illuminated Devices

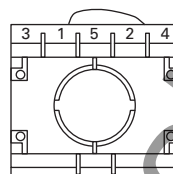
600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Special Forms-Table 1 (continued)



Flange Position (viewed from rear) – 3-Position Flange



Contact Block Position (viewed from rear) – 5-Position Flange

#### Illuminated Push Buttons (except Push-Pull) and Selector Switches

Power Supply: Flashing

3-position flange

Not Available

5-position flange

\* = Contact Block Code for Flange Position indicated

\$\$\$ = Power Supply Product Code Digits

No. of Blocks | No. of Contacts  
1 or 2 | 2, 3 or 4

Operator product number	+	3	1	2	4	+	\$	\$	\$
		*	0	0	*				

Table 3 or 4

#### Illuminated Push Buttons Push-Pull and Multifunction

Power Supply: Full Voltage or Long Life Resistor

3-position flange

\* = Contact Block Code for Flange Position indicated

\$\$\$ = Power Supply Product Code Digits

No. of Blocks | No. of Contacts  
1 or 2 | 1, 2 or 4<sup>2</sup>  
<sup>2</sup> Push-pull 2 max.

Operator product number	+	1	2	+	\$	\$	\$
		*	*				

Table 3 or 4

5-position flange

Not Available

#### Illuminated Push Buttons Push-Pull and Multifunction

Power Supply: Transformer, Panel Test (all), Standard Resistor

3-position flange

\* = Contact Block Code for Flange Position indicated

\$\$\$ = Power Supply Product Code Digits

No. of Blocks | No. of Contacts  
1 | 1 or 2

Operator product number	+	1	2	+	\$	\$	\$
		*	0				
		0	*				
		1	2				

Table 2 or 4

5-position flange

Not Available

#### Pilot Lights

Power Supply: All

3-position flange

\$\$\$ = Power Supply Product Code Digits

No. of Blocks | No. of Contacts  
1 | 1 or 2

Operator product number	+	\$	\$	\$
-------------------------	---	----	----	----

Table 2, 3 or 4

5-position flange

Not Available

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9

Assembled Forms

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

Contact Blocks-Table 2

Terminal Type	Contacts	Possible Flange Position(s)	Product No. Digit	List Price, GO-10GC
No contact block			0	\$0.00
Screw	1 NO		1	\$7.50
	1NC		2	\$7.50
	1NO-1NC		3	\$15.00
	1 NO early make		6	\$7.50
	1NC late opening		7	\$7.50
Quick Connect	1 NO		4	\$7.50
	1 NC		5	\$7.50

Transformer Power Supplies-Table 3

Transformer Type	Voltage (ac)	Possible Flange Position(s)	Lamp Type			
			Incandescent		LED	
			Product No. Digits	List Price, GO-10GC	Product No. Digits	List Price, GO-10GC
Standard Screw Terminal	48		GGI	\$42.50	GGL	\$57.50
	60		GHI	\$42.50	GHL	\$57.50
	110-120		GJI	\$42.50	GJL	\$57.50
	220-250		GNI	\$42.50	GNL	\$57.50
	277-280		GRI	\$42.50	GRL	\$57.50
	380		GVI	\$42.50	GVL	\$57.50
	415-440		GWI	\$42.50	GWL	\$57.50
	480-500		GVI	\$42.50	GVL	\$57.50
	550-600		GZI	\$45.00	GZL	\$57.50
Standard Screw Terminal, Flashing	48		IGI	\$72.50	IGL	\$87.50
	60		IHI	\$72.50	IHL	\$87.50
	110-120		IJI	\$72.50	IJL	\$87.50
	220-250		INI	\$72.50	INL	\$87.50
	277-280		IRI	\$72.50	IRL	\$87.50
	380		IUI	\$72.50	IUL	\$87.50
	415-440		IWI	\$72.50	IWL	\$87.50
	480-500		IYI	\$72.50	IYL	\$87.50
	550-600		IZI	\$72.50	IZL	\$87.50

Shaded area indicates required or allowable alternative positions in flange.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9

Assembled Forms

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

Full Voltage Power Supplies-Table 4

FV Power Supply Type	Voltage (AC/DC)	Possible Flange Position(s)	Lamp Type			
			Incandescent		LED	
			Product No. Digits	List Price, GO-10GC	Product No. Digits	List Price, GO-10GC
Standard Screw Terminal	6		AAI	\$21.00	AAL	\$36.00
	12		ABI	\$21.00	ABL	\$36.00
	24		ADI	\$21.00	ADL	\$36.00
	48		AGI	\$21.00	AGL	\$36.00
	110		—	—	AIN	\$25.00
	120 (ac)		—	—	AJL	\$36.00
	130		ALI	\$21.00	—	—
	220		—	—	AMN	\$25.00
Quick Connect Terminal	6		BAI	\$21.00	BAL	\$36.00
	12		BBI	\$21.00	BBL	\$36.00
	24		BDI	\$21.00	BDL	\$36.00
	48		BGI	\$21.00	BGL	\$36.00
	110		—	—	BIN	\$25.00
	120 (ac)		—	—	BJL	\$36.00
	130		BLI	\$21.00	—	—
	220		—	—	BMN	\$25.00
Screw Terminal, Flashing	24		FDI	\$51.00	FDL	\$66.00
	120 (ac)		FJI	\$51.00	FJL	\$66.00
Screw Terminal, Panel Test	6		EAI	\$36.00	EAL	\$51.00
	12		EBI	\$36.00	EBL	\$51.00
	24		EDI	\$36.00	EDL	\$51.00
	48		EGI	\$36.00	EGL	\$51.00
	110		—	—	EIN	\$40.00
	120 (ac)		—	—	EJL	\$51.00
	130		ELI	\$36.00	—	—
	220		—	—	EMN	\$40.00

Resistor Power Supplies-Table 5

(Screw terminals and incandescent lamps only)

Type	Input Voltage AC/DC	Possible Flange Positions	Product No. Digits	List Price, GO-10GC
Standard Resistor	110-120		JJI	\$35.00
	220-240		JNI	\$35.00
Resistor with Diode	220-240 (ac)		LNI	\$35.00
Long Life Resistor	110		NJI	\$35.00
Standard Resistor, Panel Test	220-240		QNI	\$50.00

Shaded area indicates required or allowable alternative positions in flange.

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9

#### Technical Data

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### General Specifications

Conformity to standards	<div>UL508 (USA) NEMA ICS-2 (USA) VDE 0660 (Germany) BSI (Great Britain) CEI EN60947.5. 1 (Italy) CENELEC EN 5000 7 (Europe)</div>	<div>CSA C22.2 No. 14-M91 (Canada) IEC 947.5. 1 (International) UTE (France) NFC 63140 (France) JIS (Japan)</div>
Approvals	<div>UL listed —File Number E66677 CSA Certified —File Number 16661-63 Manufacturing facility is registered to ISO 9000</div>	CE
Finger protection at terminals	IP2X according to IEC 529 Terminal identification per CENELEC EN 50013	
Enclosure ratings	Suitable for use in NEMA Types 1, 3, 3R, 3S, 4, 4X, 12, and 13 enclosures. (Multi-function push buttons are suitable for NEMA Type 1 enclosures only unless used with protective rubber cap accessory.) IP66 per IEC 529, when mounted in enclosures with equal or superior seal.	
Ambient temperature	<div>Operating -13° to + 158°F -25° to + 70°C</div>	<div>Storage -40° to + 158°F -40° to + 70°C</div>
Climate suitability/humidity	<div>Climate Type Temperature Wet Hot Wet Variable Wet</div>	<div>Temperature 74°F (23°C) 74°F (23°C) 104°F (40°C) 74° to 104°F (23° to 40°C)</div> <div>Relative Humidity 50% 83% 92% 83% to 92%</div>
Resistance to vibration	Per IEC 68-2-6. 16g with a frequency from 40-500 Hz and maximum peak-to-peak amplitude of 0.75mm.	
Resistance to shock	According to MIL 202B, method 202A. Test was performed for 1/2 sinusoid for 11ms, 38g max for all operators with transformers and 100g for all other operators.	
Operating force	Standard push button operator: 2.5 lbs. (11N) Each contact block: 1.3 lbs. (6N) Selector switch operator: 2.4 in.-lb. (0.27 N-m)	

#### Wire Terminals

Suitable for #22-#12 AWG stranded or solid copper wires, single or parallel conductors of same size. Terminal torque: 7-12 in./lb. Parallel conductor size combinations (stranded or solid wire):		
Wire capacity and terminal torque requirements (for all power supplies and contact blocks)	<b>Parallel Conductor Size Combinations (Stranded or Solid Wire)</b>	
	#12 with #14	12 in.-lb.
	#14 with #16	12 in.-lb.
	#16 with #18	12 in.-lb.
	#16 with #20	12 in.-lb.
	#16 with #22	12 in.-lb.
	#18 with #22	10-12 in.-lb.
	#18 with #20	10-12 in.-lb.
	#20 with #22	7-12 in.-lb.
Quick connect terminals	Suitable for one female tab connector measuring 0.25 x 0.03 inches (6.35 x 0.8 mm) or two female tab connectors measuring 0.11 x 0.03 inches (2.8 x 0.8 mm).	

#### Contact Data

Electrical reliability data	Electrical life and reliability in low level current: 80 million operations at 12V, 5mA, resistive load. (32 contacts tested successfully for 2.5 million operations.)								
Dust resistance	In extremely dusty environments, electrical life at low level current is 250,000 operations at 12 V, 5mA, resistive load. In a clean environment, electrical life at low level current is 10 million operations at 12 V, 5mA, resistive load.								
Thermal current	I <sub>th</sub> = 10A per IEC 947-5-1								
Insulation voltage	U <sub>i</sub> = 660 Volts ac/dc (opposite polarity) except 2NO and 2NC blocks 300 Vac/dc								
Protection from electrical shock	Class I per IEC 536 for metal operators Class II (double insulation) per IEC 536 for plastic operators								
Insulation category	Group "C" per VDE 0110								
Dielectric strength	2500 Volts								
Short circuit protection	10A type gG fuse, per IEC 269.1 & 269.3								
Pilot duty ratings	<b>A600</b> (maximum make volt-amperes = 7200; maximum break volt-amperes = 720; PF = .25)								
	Volts (V)	12	24	48	60	120	240	480	600
	Continuous (A)	10	10	10	10	10	10	10	10
	Making (A)	60	60	60	60	60	30	15	12
	Breaking (A)	10	10	10	10	6	3	1.5	1.2
	<b>Q300</b> (maximum make or break volt-amperes = 69)								
	Volts (V)	12	24	48	60	125	250	300	
	Continuous (A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
	Making (A)	2.5	2.5	1.4	1.1	0.55	0.27	0.23	
	Breaking (A)	2.5	2.5	1.4	1.1	0.55	0.27	0.23	



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

## Section 9

### Technical Data

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

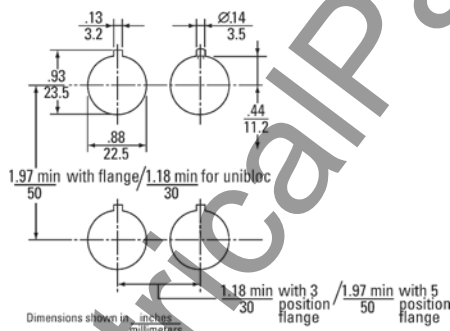
### Contact Data

IEC utilization categories	<b>AC15 Control of AC Electromagnetic Loads</b>								
	Rated operational voltage and current								
	Ue (V)	12	24	48	60	110	220	380	500
	Ie (A)	10	10	10	10	6	3	2	1.5
	<b>DC13 Control of DC Electromagnets</b>								
	Rated operational voltage and current								
	Ue (V)	12	24	48	60	110	220	300	300
	Ie (A)	2.5	2.5	1.4	1.0	0.55	0.27	0.2	0.2
Contact characteristics	NC: slow make, double break (positive opening) NO: slow make, double break Self-cleaning (wiping action) contact Double-bridge contacts with four points of contact								
Contact resistance	≤25mOhm per IEC 255.7 category 3 @ 24V, 1 amp								
Contact fidelity	Minimum current: 5mA Minimum voltage: 12 Vac/dc, maximum resistance—2 ohms								
Logic reed contact data	NC: Single break NO: Single break 120 Vac maximum, 0.15A maximum, 8VA maximum 30 Vdc maximum, .15A maximum, 4.5W maximum								

### Mounting

Acceptable panel thickness	.040-.236 inches (1-6mm)
Operator locking ring torque	26 in./lb. (3 N-m)
Force required to forcibly remove contact blocks and flange	Contact block or power supply from flange: 27 lbs. (118 N) 3- or 5-block flange from metal operator: 88 lbs. (392 N) 3- or 5-block flange from plastic operator: 66 lbs. (294 N)

### Mounting Dimensions



### Mechanical Life Ratings for Operators

Operators	Number of Operations
Standard push buttons	3,000,000
Illuminated push buttons	1,000,000—3,000,000 <sup>1</sup>
Momentary mushroom-head push buttons	3,000,000
Maintained mushroom-head push buttons	500,000
Push-to-latch, turn-to-release mushroom-head push buttons	300,000
3-position mushroom-head push buttons	300,000
Nonilluminated selector switches	1,000,000
Illuminated selector switches	500,000
Joysticks	500,000
Toggle switches	500,000
Wobble sticks	1,000,000
Key-operated push buttons	500,000
Selector push buttons	1,000,000

<sup>1</sup> Number of operations dependent on the operating duration of the lamp. If the lamp is left on for long periods of time, its heat can reduce mechanical life. All illuminated push buttons meet at least 1,000,000 operations.



# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

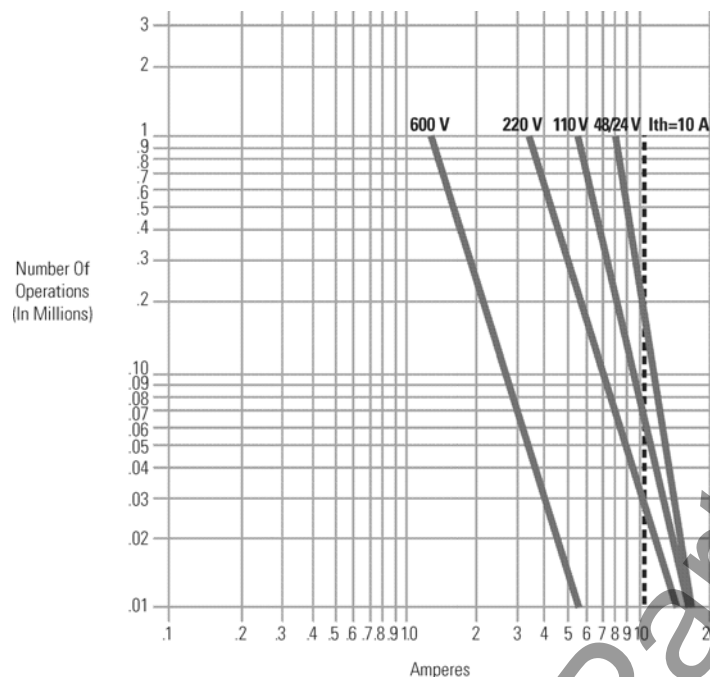
Section 9

#### Technical Data

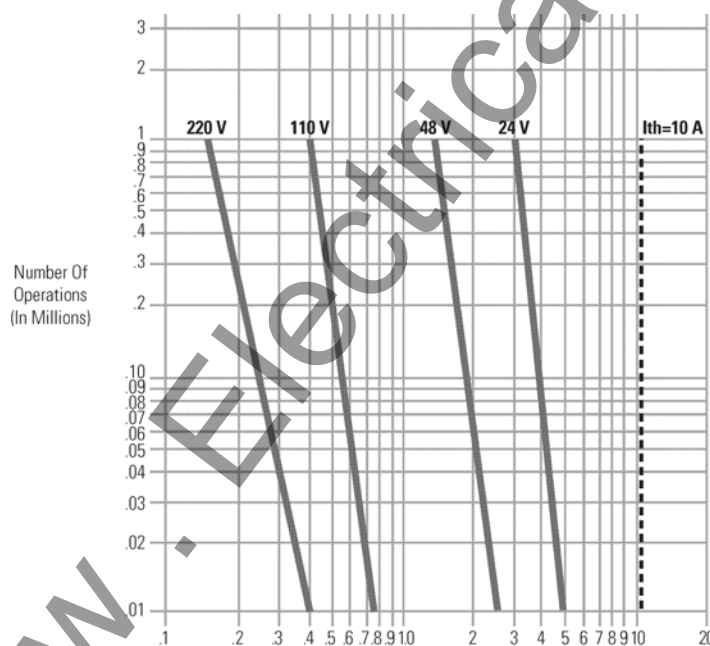
600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Electrical Life Ratings for Contacts



Electrical Life—50/60 Hz alternating current (inductive)  
per utilization category AC15



Electrical Life—direct current (inductive)  
per utilization category DC13



Publications and Reference: See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

## Section 9

#### Technical Data

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Materials

Component	Material
Cap/levers/knobs (nonilluminated)	Polyamide/acetal
Cap/levers/knobs (illuminated)	Polycarbonate
Metal housing	Copper-nickel-chrome plated zinc/aluminum alloy
Plastic housing	Polyamide/acetal
Plunger	Polyester
Springs	Stainless steel
Body-to-panel gasket	Polyester elastomer
Cap-to-body gasket	Vinyl nitrile rubber
Lubricant	Lithium grease
Cams for nonilluminated selector switches	Polyamide/acetal
Cams for illuminated selector switches	Polyester
Cam followers	Polyamide/acetal
Contact block and power supply housings	Polyamide/acetal
Contacts	Pure silver
Conductors	Brass alloy
Flanges	Polyamide/acetal
Flange latches	Polyamide/acetal
Printed circuit board adapter	Polyamide/acetal
Joystick protective housing	Vinyl nitrile rubber
Joystick plunger, lever & cam	Acetal resin
Joystick actuator	Polyamide/acetal
Push-to-latch, turn-to-release actuator & plunger	Polyamide/acetal
Wobble stick	Polycarbonate
Toggle switch lever	Polyamide/acetal
Protective caps (clear)	Silicon rubber
Protective caps (colored)	Vinyl nitrile rubber
Push button protective guards	Polycarbonate
Mushroom-head guards	Polyamide/acetal
Padlockable cover	Polycarbonate and zinc-plated zinc/aluminum alloy
Metal locking rings	Zinc-plated zinc/aluminum alloy
Keys	Plated brass
Nameplate holders	Polyamide/acetal
Nameplate inserts	Laminated polyester
Hole plug	Polyamide/acetal

#### Power Supply Selection

Type	Principle of Operation	Benefit
<b>Full voltage</b>	Supplies input voltage directly to bulb.	Smallest and least expensive. Can be used with LEDs.
<b>Transformer</b>	Utilizes a transformer to step the input voltage down to 6 volts.	Transformer has the effect of damping the inrush current and voltage spikes from the switching device seen when the light is turned on, actually protecting the bulb from these factors that shorten life. Generates less heat than the resistor power supplies. Reduces unsafe supply voltages (up to 600 V) down to a safe level for lamp servicing. Can be used with LEDs. Able to withstand a short circuit of the lamp or lamp socket without damage.
<b>Normal resistor</b>	Utilizes a resistor in series with the incandescent lamp to drop the lamp voltage to 50% of the input voltage.	Least expensive way to reduce unsafe supply voltages (up to 240 V) down to a safe level for lamp servicing.
<b>Diode resistor</b>	Utilizes a resistor and a diode in series with the lamp to rectify and drop a 240 Vac input voltage to operate a 130 V incandescent lamp.	Provides the same function as the normal resistor, but takes up only one position in the flange rather than two. Generates less heat than the normal resistor power supplies.
<b>Long-life resistor</b>	Utilizes a resistor in series with the 130 V incandescent lamp to provide a lamp voltage 80% that of the input voltage.	Extends life of a 130 V incandescent bulb by 1300% (from 2000 to 28,000 hours).
<b>Flashing (full-voltage or transformer)</b>	Utilizes a flashing circuit which can be enabled or disabled by externally switching (shorting) two connections.	Allows the lamp to be switched between OFF, ON, and FLASHING modes.
<b>Panel test (full-voltage or standard resistor)</b>	Utilizes a diode to isolate the lamp test circuit from the supply circuit.	Allows use of indicating lights and "panel test" feature rather than individual push-to-test illuminated push buttons. Eliminates the need for the NO/NC contacts used on conventional push-to-test pilot lights.

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

Section 9

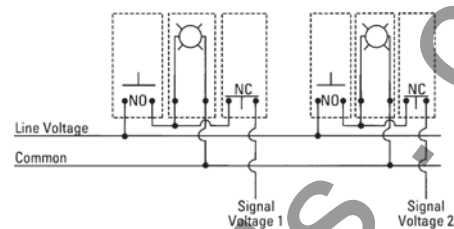
#### Technical Data

600 VAC Max., 300 VDC Max.

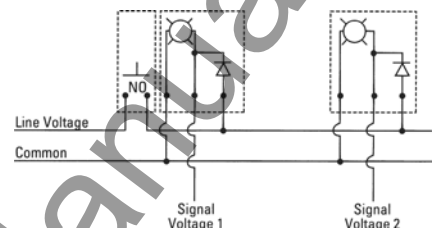
10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Maximum Panel Test Power Supplies Per Contact Block

Supply Voltage	AC	DC
6	15	15
12	30	30
24	60	60
48	120	66
60	150	66
130	300	72



Push-to-Test Indicating Lights



Panel Test Power Supplies

#### Maximum Number of Contacts<sup>1</sup>

Operator Type	Power Supply Type	Standard 3-Block Flange	Optional 5-Block Flange
Push button Mushroom-head push button Wobble stick	—	4	8
Nonilluminated selector switch Key selector switch	—	4	8
Illuminated push button Illuminated mushroom-head push button	Full-voltage, diode & resistor, long-life resistor	4	8
Illuminated push button Illuminated mushroom-head push button	Standard resistor, panel test, standard transformer	2	6
Illuminated push button Illuminated mushroom-head push button	All flashing/continuous	0	4
Illuminated selector switch	Full voltage, diode & resistor, long-life resistor	4	4
Illuminated selector switch	Standard resistor, panel test, standard transformer	2	4
Illuminated selector switch	All flashing/continuous	0	4
Push-pull mushroom-head push button	—	2	—
Push twist-to-reset mushroom-head (standard) Push key-to-reset mushroom-head (standard)	—	2	—
Push twist-to-reset mushroom-head—direct snap action Push key-to-reset mushroom-head—direct snap action	—	4 <sup>2</sup>	—
Illuminated push-pull mushroom-head push button	Full voltage, diode & resistor, long-life resistor	2	—
Illuminated push-pull mushroom-head push button	Standard resistor, panel test, standard transformer	2	—
Illuminated push-pull mushroom-head push button	All flashing/continuous	0	—
Joystick Key-operated push button Selector push button	—	4	8
Toggle switch	—	4	4
Multi-function push button (for each button)	—	2 + 2	4 + 4
Illuminated multi-function push button (for each button)	Full-voltage, diode & resistor, long-life resistor	2 + 2	4 + 4
Illuminated multi-function push button (for each button)	Standard resistor, panel test, standard transformer	0 + 2	2 + 4
Illuminated multi-function push button (for each button)	All flashing/continuous	0 + 0	2 + 2
All operator types when used in plastic enclosures	—	2	—

<sup>1</sup> In some cases, the maximum number of contacts shown is less than the available number of flange positions. This is because, in these instances, contact block force would affect operation of the device or reduce operator life below values cited elsewhere. For specific application assistance, contact your nearest GE Consumer & Industrial Representative.

<sup>2</sup> Early versions with white rear plunger suitable for a maximum of two single contacts.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

## Section 9

#### Technical Data

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

#### Lamp Selection

Incandescent, neon, and light-emitting diode (LED) lamps are available for use in indicating lights, illuminated push buttons and illuminated selector switches. Although incandescent lamps have traditionally been the most frequently used, it is wise to review the characteristics of the different types of lamps and select the one that is most appropriate for the application. Although the incandescent lamp offers the lowest initial cost, the LED is usually the most economical over the long term, due to its long life, resistance to shock and vibration, and lower power consumption.

Benefits of LEDs include:

- Resistance to shock and vibration**—Since LEDs are solid-state, they are completely impervious to the problems associated with shock and vibration that can significantly reduce the life of incandescent lamps by mechanically breaking the filament. The high inrush currents at startup associated with incandescents also act to significantly reduce the life of lamps used in frequent on-off applications.
- Longer life**—The LEDs used with C-2000 push buttons have a service life of 100,000 hours (11 years) compared to 20,000 hours (28 months) for the neon lamps, and 2,000 hours (3 months) for the standard incandescent lamps.
- Reduced power consumption**—The LEDs used for the C-2000 push buttons consume between 10% and 52% less power than the equivalent BA9S incandescent lamp. The table below shows the power consumption of each type:

Volts AC/DC	Incandescent	Watts	LED	Watts	Neon	Watts
6	BA9S606	0.6	080BA9S6L*	0.59	—	—
6	BA9S615	1.5	—	—	—	—
12	BA9S12	2.0	080BA9S12L*	0.78	—	—
24	BA9S24	2.0	080BA9S24L*	0.84	—	—
48	BA9S48	2.0	080BA9S48L*	1.12	—	—
60	BA9S6012	1.2	—	—	—	—
110	—	—	—	—	BA9SN110	0.077
120	—	—	080BA9S120L*	1.4	—	—
130	BA9S130	2.0	—	—	—	—
220	—	—	—	—	BA9SN220	0.330

- Lower operating temperature**—Because of the lower power consumption and greater efficiency of LEDs, they operate much cooler than incandescent lamps. Thus, in applications where heat in the enclosure could be a problem, LED lamps are a better choice.

Incandescent bulbs are recommended for light-duty applications and panels not subject to shock and vibration. Neon lamps offer a middle ground, at a cost and performance between the LED and the incandescent, but can have problems associated with flicker induced by noise and frequency. LED lamps offer the best overall performance for the long term.

#### Lamp Comparison

Bulb Type	Approx. Lifespan (hours)	Shock & Vibration Immunity	Operating Temperature	Power Consumption	Brightness
LED	100,000	High	Medium	Medium	Medium
Incandescent	2,000	Low	High	High	High
Neon	20,000	Medium	Low	Low	Low

# Pilot and Signaling Devices

## Heavy-Duty 22.5 mm Watertight/Oiltight Push Buttons

### C-2000

#### Technical Data

600 VAC Max., 300 VDC Max.

10 Amps Continuous AC, 2.5 Amps Continuous DC

## Section 9

#### Guideform Specifications

IEC 22 mm push buttons shall be type GE C-2000 series. They shall be listed by Underwriters Laboratories (UL), certified by Canadian Standards Association (CSA) and conform to International Electrotechnical Commission (IEC) and Japanese Industrial Standard (JIS) standards. All push buttons, selector switches and pilot lights shall conform to the applicable requirements of NEMA standard ICS-2 for AC and DC control circuits. Enclosures shall be listed by UL and certified by CSA.

Standard features shall include:

- Fully automated manufacturing with 100% on-line inspection.
- Manufactured in ISO 9001 certified facility.
- 4 different operator styles: round metal body with polished chrome finish, round metal body with satin chrome finish, black round engineered plastic body, and black square engineered plastic body.
- Contact blocks and power supplies completely interchangeable among all 4 styles of operators.
- Locking rings that tighten from the rear with a special wrench or flat-blade screwdriver.
- Contact block flanges that mount on operators with 4-point positive locking.
- Universal mounting design that permits push buttons to be mounted with or without locating notch punched in panel. Orientation tab on operator notch that is removable with screwdriver.
- Modular assembly incorporating snap-on contact blocks and power supplies, removable with flat-blade screw driver.
- Devices mount on 30 mm x 50 mm (1.18 x 1.97 in.) center.
- Devices mount on panel thickness of 1 to 6 mm (.039 to .236 in.).
- Captive front-of-panel gasket for superior sealing.
- Lamps removable from the front of the panel.
- Metal operators constructed of die cast body.
- Polished and satin chrome operators feature triple chrome plating.
- Permanent marking of contact blocks by laser etching.
- Double bridge wiping action contact block design for applications from 12-600 volts ac and 12-300 volts dc.
- PLC interfacing with standard contact blocks.
- Contact blocks rated for 10 million electrical operations at 12 volts, 5 milliamperes.
- Contact block cases shall be ultrasonically welded to provide superior protection in dust conditions. Contact blocks rated for 250,000 operations at 12 volts, 5 milliamperes in severely dusty conditions.
- Power supplies shall be available in full-voltage, resistor, and transformer forms.
- Resistor power supplies shall be available in standard, diode, and long-life forms.
- Screw, quick-connect, and base-mount contact blocks.
- Printed circuit board connector for use with quick-connect contact blocks.
- Global nomenclature.
- Multi-lingual nameplates.
- Global availability.



**Publications and Reference:** See Section 17 for a complete list of additional product-related publications

NOTES:

Handwritten notes area with horizontal lines.

