

# Pushbuttons and Indicating Lights

**Pushbuttons**



**Indicating Lights**



**Emergency Stops**



**Selector Switches**



**37.5 22.5 mm Compact Pushbuttons—C22**

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**Note:** Supplement to Volume 7—Motor Controls, Logic and Connectivity, Tab 37.  
For additional accessories, please see section 37.4, 22.5 mm Modular Pushbuttons—M22.

# 37.5 Pushbuttons and Indicating Lights

## 22.5 mm Compact Pushbuttons—C22

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### 22.5 mm Compact Pushbuttons—C22



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### Product Overview

#### Product Description

The C22 compact pushbutton line offers an industry leading array of functional, attractive, and ergonomically designed “all-in-one” illuminated and non-illuminated pushbuttons, selector switches, emergency stops and indicating lights. The complete illuminated line is only offered in LED light units to ensure high-quality brightness and up to 100,000 hours of LED illumination. C22 operators are available with either a silver or black bezel and share the exact same front of the panel look and feel as Eaton’s M22 line. The C22’s compact, “all-in-one” design with the contact block(s) and operators integral provides the user with a simple solution.

#### Wide Product Breadth

- In addition to the standard compact offering of indicating lights and pushbuttons, Eaton’s C22 offers keyed and non-keyed operators and emergency stops
- Hundreds of styles with standard laser etch markings with the ability to use custom M22 laser etched buttons in conjunction with C22 buttonless operators

#### LED Indicators

- 100,000 hours of life in high-vibration environments
- Lenses specifically designed for LED illumination

#### Rugged Design

- Pushbuttons (momentary) rated for 5 million mechanical operations and selector switches (non-keyed) rated for 1 million mechanical operations
- All components have IP65 rating, and some carry IP67 and IP69K for wash-down environment

#### Standards and Certifications

All operators are IEC/EN 60947 VDE 0660, UL Listed, and CSA Certified.

All operators carry an IP65, IP66, IP67 or IP69K rating.

All products carry ratings of NEMA 1, 3R, 4X, 12 and 13



## Pushbuttons and Indicating Lights

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### 22.5 mm Compact Pushbuttons—C22

#### Features

- Field convertible maintained pushbuttons from maintained to momentary
- Field convertible selector switches from momentary to maintained operation and vice versa
- LED offering only for all illuminated operators
- Laser engraved pushbuttons and lenses
- Heavy-duty construction with a minimum of IP65 and UL NEMA® Type 4X/13 on front of panel operators. Many operators even carry IP67 and IP69K, for the toughest applications
- Silver or black colored nylon bezels
- Notched hole mounting with anti-rotation tab and central nut mounting on each operator
- Pushbuttons (momentary) rated for 5 million mechanical operations and selector switches (non-keyed) rated for 1 million mechanical operations
- Unique compact offerings, including keyed and non-keyed operators and emergency stops

#### Benefits

- Compact, “all-in-one” operator and contact block design simplifies product selection, inventory, and installation
- Field convertibility of pushbuttons and selector switches helps distributors and customers reduce inventory and increase functionality
- LED offering only for improved brightness quality and up to 100,000 hours of operation
- Plastic construction is corrosion resistant
- Operators are designed for rugged environments, ideal for wash-down applications (reference each operator’s IP ratings for ingress protection definition)
- Anti-rotation tab saves installation time and prevents operator rotation
- High mechanical and electrical life allows for use in tough and challenging applications
- Laser inscription capabilities allow for high quality, wear-resistant markings
- By having a compact design emergency stop, the C22 design eliminates the need for self-monitoring contact blocks

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# 37.5 Pushbuttons and Indicating Lights

22.5 mm Compact Pushbuttons—C22

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### Product Selection Guide

#### Pushbuttons



<b>Description</b>	Non-illuminated, flush		Non-illuminated, extended		Illuminated, flush		Illuminated, extended	
<b>Operator</b>	Momentary	Maintained	Momentary	Maintained	Momentary	Maintained	Momentary	Maintained
<b>Product Selection</b>	<b>Page 6</b>	<b>Page 7</b>	<b>Page 8</b>	<b>Page 9</b>	<b>Page 10</b>	<b>Page 11</b>	<b>Page 12</b>	<b>Page 13</b>

#### Indicating Lights



<b>Description</b>	Indicating lights
<b>Product Selection</b>	<b>Page 15</b>

#### Emergency Stops



<b>Description</b>	Twist release	Keyed-release
<b>Product Selection</b>	<b>Page 17</b>	<b>Page 17</b>

#### Selector Switches



<b>Description</b>	Non-illuminated, knob type	Key-operated
<b>Product Selection</b>	<b>Page 20</b>	<b>Page 21</b>

# Pushbuttons and Indicating Lights

# 37.5

## 22.5 mm Compact Pushbuttons—C22

### Pushbuttons—Non-Illuminated and Illuminated



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### Pushbuttons—Non-Illuminated and Illuminated

#### Product Description

C22 Compact Pushbuttons are a complete line of monoblock type pushbuttons with the contact blocks, mounting adapter, and operator all-in-one. The C22 pushbuttons offer the same look and feel as their modular counterpart, the M22. They also carry many of the same rugged ratings and options, such as laser etching, field convertibility, and LED technology.

**Note:** For additional accessories, please see Volume 7—Motor Controls, Logic and Connectivity, CA08100008E, Tab 37, section 37.4, 22.5 mm Modular Pushbuttons—M22.

#### Features

- Field convertible maintained pushbuttons from maintained to momentary
- LED offering only for improved brightness quality and up to 100,000 hours of operation
- Laser engraved pushbuttons and lenses
- Pushbuttons (momentary) rated for 5 million mechanical operations

#### Protection Type

- IP67/IP69K
- NEMA 4X, 13

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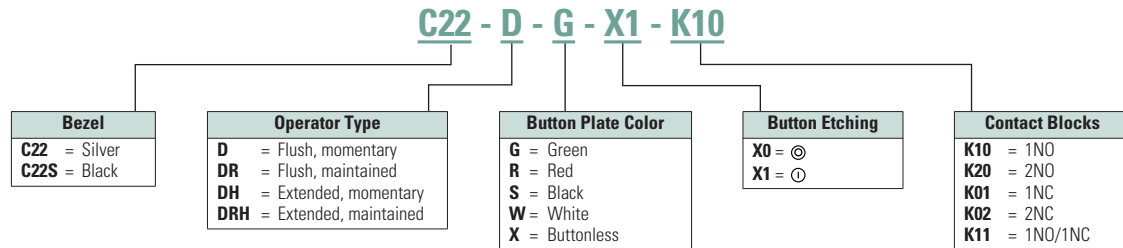
## 22.5 mm Compact Pushbuttons—C22

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#### Catalog Number Selection

Catalog Number Selection is for illustrative purposes only and not to be used to create new catalog numbers.

#### Non-Illuminated Pushbuttons



#### Product Selection

#### Non-Illuminated, Flush, Momentary

C22(S)-D-

#### Non-Illuminated Pushbuttons, Flush, Momentary



Button Color	Button Etching	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number
Green	—	1NO	<b>C22-D-G-K10</b>	<b>C22S-D-G-K10</b>
		2NO	<b>C22-D-G-K20</b>	<b>C22S-D-G-K20</b>
		1NO/1NC	<b>C22-D-G-K11</b>	<b>C22S-D-G-K11</b>
	X1	1NO	<b>C22-D-G-X1-K10</b>	<b>C22S-D-G-X1-K10</b>
		2NO	<b>C22-D-G-X1-K20</b>	<b>C22S-D-G-X1-K20</b>
		1NO/1NC	<b>C22-D-G-X1-K11</b>	<b>C22S-D-G-X1-K11</b>
Red	—	1NC	<b>C22-D-R-K01</b>	<b>C22S-D-R-K01</b>
		2NC	<b>C22-D-R-K02</b>	<b>C22S-D-R-K02</b>
		1NO/1NC	<b>C22-D-R-K11</b>	<b>C22S-D-R-K11</b>
	X0	1NC	<b>C22-D-R-X0-K01</b>	<b>C22S-D-R-X0-K01</b>
		2NC	<b>C22-D-R-X0-K02</b>	<b>C22S-D-R-X0-K02</b>
		1NO/1NC	<b>C22-D-R-X0-K11</b>	<b>C22S-D-R-X0-K11</b>
Black	—	1NC	<b>C22-D-S-K01</b>	<b>C22S-D-S-K01</b>
		2NC	<b>C22-D-S-K02</b>	<b>C22S-D-S-K02</b>
		1NO/1NC	<b>C22-D-S-K11</b>	<b>C22S-D-S-K11</b>
	X0	1NC	<b>C22-D-S-X0-K01</b>	<b>C22S-D-S-X0-K01</b>
		2NC	<b>C22-D-S-X0-K02</b>	<b>C22S-D-S-X0-K02</b>
		1NO/1NC	<b>C22-D-S-X0-K11</b>	<b>C22S-D-S-X0-K11</b>
White	—	1NO	<b>C22-D-W-K10</b>	<b>C22S-D-W-K10</b>
		2NO	<b>C22-D-W-K20</b>	<b>C22S-D-W-K20</b>
		1NO/1NC	<b>C22-D-W-K11</b>	<b>C22S-D-W-K11</b>
	X1	1NO	<b>C22-D-W-X1-K10</b>	<b>C22S-D-W-X1-K10</b>
		2NO	<b>C22-D-W-X1-K20</b>	<b>C22S-D-W-X1-K20</b>
		1NO/1NC	<b>C22-D-W-X1-K11</b>	<b>C22S-D-W-X1-K11</b>
Buttonless	—	1NO	<b>C22-D-X-K10</b>	<b>C22S-D-X-K10</b>
		2NO	<b>C22-D-X-K20</b>	<b>C22S-D-X-K20</b>
		1NC	<b>C22-D-X-K01</b>	<b>C22S-D-X-K01</b>
	—	2NC	<b>C22-D-X-K02</b>	<b>C22S-D-X-K02</b>
		1NO/1NC	<b>C22-D-X-K11</b>	<b>C22S-D-X-K11</b>

## Pushbuttons and Indicating Lights

## 37.5

22.5 mm Compact Pushbuttons—C22

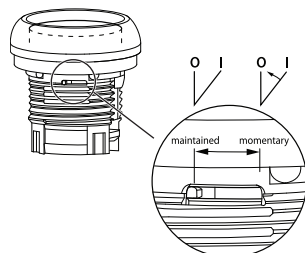
## Non-Illuminated, Flush, Maintained

C22(S)-DR-



## Non-Illuminated Pushbuttons, Flush, Maintained

Button Color	Button Etching	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number
Green	—	1NO	C22-DR-G-K10	C22S-DR-G-K10
	—	2NO	C22-DR-G-K20	C22S-DR-G-K20
	—	1NO/1NC	C22-DR-G-K11	C22S-DR-G-K11
	X1	1NO	C22-DR-G-X1-K10	C22S-DR-G-X1-K10
	X1	2NO	C22-DR-G-X1-K20	C22S-DR-G-X1-K20
	X1	1NO/1NC	C22-DR-G-X1-K11	C22S-DR-G-X1-K11
Red	—	1NC	C22-DR-R-K01	C22S-DR-R-K01
	—	2NC	C22-DR-R-K02	C22S-DR-R-K02
	—	1NO/1NC	C22-DR-R-K11	C22S-DR-R-K11
	X0	1NC	C22-DR-R-X0-K01	C22S-DR-R-X0-K01
	X0	2NC	C22-DR-R-X0-K02	C22S-DR-R-X0-K02
	X0	1NO/1NC	C22-DR-R-X0-K11	C22S-DR-R-X0-K11
Black	—	1NC	C22-DR-S-K01	C22S-DR-S-K01
	—	2NC	C22-DR-S-K02	C22S-DR-S-K02
	—	1NO/1NC	C22-DR-S-K11	C22S-DR-S-K11
	X0	1NC	C22-DR-S-X0-K01	C22S-DR-S-X0-K01
	X0	2NC	C22-DR-S-X0-K02	C22S-DR-S-X0-K02
	X0	1NO/1NC	C22-DR-S-X0-K11	C22S-DR-S-X0-K11
White	—	1NO	C22-DR-W-K10	C22S-DR-W-K10
	—	2NO	C22-DR-W-K20	C22S-DR-W-K20
	—	1NO/1NC	C22-DR-W-K11	C22S-DR-W-K11
	X1	1NO	C22-DR-W-X1-K10	C22S-DR-W-X1-K10
	X1	2NO	C22-DR-W-X1-K20	C22S-DR-W-X1-K20
	X1	1NO/1NC	C22-DR-W-X1-K11	C22S-DR-W-X1-K11
Buttonless	—	1NO	C22-DR-X-K10	C22S-DR-X-K10
	—	2NO	C22-DR-X-K20	C22S-DR-X-K20
	—	1NC	C22-DR-X-K01	C22S-DR-X-K01
	—	2NC	C22-DR-X-K02	C22S-DR-X-K02
	—	1NO/1NC	C22-DR-X-K11	C22S-DR-X-K11



**Note:** Maintained pushbuttons can be converted in the field to momentary operation by switching the locking ring, which is accessible through the side of the operator body.

# 37.5 Pushbuttons and Indicating Lights

## 22.5 mm Compact Pushbuttons—C22

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#### Non-Illuminated, Extended, Momentary

C22(S)-DH-



#### Non-Illuminated Pushbuttons, Extended, Momentary

Button Color	Button Etching	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number
Green	—	1NO	<b>C22-DH-G-K10</b>	<b>C22S-DH-G-K10</b>
	—	2NO	<b>C22-DH-G-K20</b>	<b>C22S-DH-G-K20</b>
	—	1NO/1NC	<b>C22-DH-G-K11</b>	<b>C22S-DH-G-K11</b>
	X1	1NO	<b>C22-DH-G-X1-K10</b>	<b>C22S-DH-G-X1-K10</b>
	X1	2NO	<b>C22-DH-G-X1-K20</b>	<b>C22S-DH-G-X1-K20</b>
	X1	1NO/1NC	<b>C22-DH-G-X1-K11</b>	<b>C22S-DH-G-X1-K11</b>
Red	—	1NC	<b>C22-DH-R-K01</b>	<b>C22S-DH-R-K01</b>
	—	2NC	<b>C22-DH-R-K02</b>	<b>C22S-DH-R-K02</b>
	—	1NO/1NC	<b>C22-DH-R-K11</b>	<b>C22S-DH-R-K11</b>
	X0	1NC	<b>C22-DH-R-X0-K01</b>	<b>C22S-DH-R-X0-K01</b>
	X0	2NC	<b>C22-DH-R-X0-K02</b>	<b>C22S-DH-R-X0-K02</b>
	X0	1NO/1NC	<b>C22-DH-R-X0-K11</b>	<b>C22S-DH-R-X0-K11</b>
Black	—	1NC	<b>C22-DH-S-K01</b>	<b>C22S-DH-S-K01</b>
	—	2NC	<b>C22-DH-S-K02</b>	<b>C22S-DH-S-K02</b>
	—	1NO/1NC	<b>C22-DH-S-K11</b>	<b>C22S-DH-S-K11</b>
	X0	1NC	<b>C22-DH-S-X0-K01</b>	<b>C22S-DH-S-X0-K01</b>
	X0	2NC	<b>C22-DH-S-X0-K02</b>	<b>C22S-DH-S-X0-K02</b>
	X0	1NO/1NC	<b>C22-DH-S-X0-K11</b>	<b>C22S-DH-S-X0-K11</b>
White	—	1NO	<b>C22-DH-W-K10</b>	<b>C22S-DH-W-K10</b>
	—	2NO	<b>C22-DH-W-K20</b>	<b>C22S-DH-W-K20</b>
	—	1NO/1NC	<b>C22-DH-W-K11</b>	<b>C22S-DH-W-K11</b>
	X1	1NO	<b>C22-DH-W-X1-K10</b>	<b>C22S-DH-W-X1-K10</b>
	X1	2NO	<b>C22-DH-W-X1-K20</b>	<b>C22S-DH-W-X1-K20</b>
	X1	1NO/1NC	<b>C22-DH-W-X1-K11</b>	<b>C22S-DH-W-X1-K11</b>



## Pushbuttons and Indicating Lights

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22.5 mm Compact Pushbuttons—C22

## Non-Illuminated, Extended, Maintained

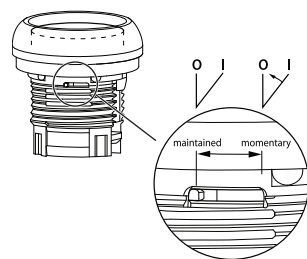
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C22(S)-DRH\_

## Non-Illuminated Pushbuttons, Extended, Maintained



Button Color	Button Etching	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number
Green	—	1NO	C22-DRH-G-K10	C22S-DRH-G-K10
	—	2NO	C22-DRH-G-K20	C22S-DRH-G-K20
	—	1NO/1NC	C22-DRH-G-K11	C22S-DRH-G-K11
	X1	1NO	C22-DRH-G-X1-K10	C22S-DRH-G-X1-K10
	X1	2NO	C22-DRH-G-X1-K20	C22S-DRH-G-X1-K20
	X1	1NO/1NC	C22-DRH-G-X1-K11	C22S-DRH-G-X1-K11
Red	—	1NC	C22-DRH-R-K01	C22S-DRH-R-K01
	—	2NC	C22-DRH-R-K02	C22S-DRH-R-K02
	—	1NO/1NC	C22-DRH-R-K11	C22S-DRH-R-K11
	X0	1NC	C22-DRH-R-X0-K01	C22S-DRH-R-X0-K01
	X0	2NC	C22-DRH-R-X0-K02	C22S-DRH-R-X0-K02
	X0	1NO/1NC	C22-DRH-R-X0-K11	C22S-DRH-R-X0-K11
Black	—	1NC	C22-DRH-S-K01	C22S-DRH-S-K01
	—	2NC	C22-DRH-S-K02	C22S-DRH-S-K02
	—	1NO/1NC	C22-DRH-S-K11	C22S-DRH-S-K11
	X0	1NC	C22-DRH-S-X0-K01	C22S-DRH-S-X0-K01
	X0	2NC	C22-DRH-S-X0-K02	C22S-DRH-S-X0-K02
	X0	1NO/1NC	C22-DRH-S-X0-K11	C22S-DRH-S-X0-K11
White	—	1NO	C22-DRH-W-K10	C22S-DRH-W-K10
	—	2NO	C22-DRH-W-K20	C22S-DRH-W-K20
	—	1NO/1NC	C22-DRH-W-K11	C22S-DRH-W-K11
	X1	1NO	C22-DRH-W-X1-K10	C22S-DRH-W-X1-K10
	X1	2NO	C22-DRH-W-X1-K20	C22S-DRH-W-X1-K20
	X1	1NO/1NC	C22-DRH-W-X1-K11	C22S-DRH-W-X1-K11



**Note:** Maintained pushbuttons can be converted in the field to momentary operation by switching the locking ring, which is accessible through the side of the operator body.

# 37.5 Pushbuttons and Indicating Lights

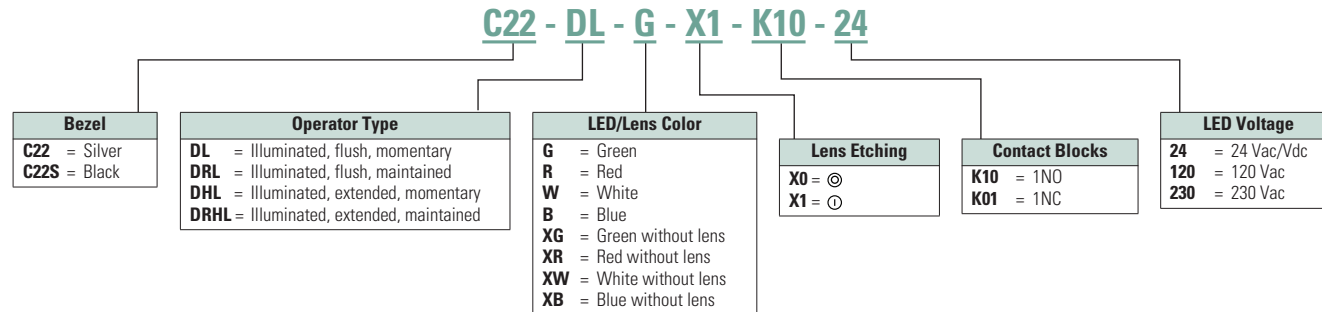
## 22.5 mm Compact Pushbuttons—C22

### 37

#### Catalog Number Selection

Catalog Number Selection is for illustrative purposes only and not to be used to create new catalog numbers.

#### Illuminated Pushbuttons



#### Product Selection

#### Illuminated, Flush, Momentary

C22(S)-DL\_

#### Illuminated Pushbuttons, Flush, Momentary



LED Color	Button Color	Voltage	Button Etching	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number	
Green	Green	24 Vac/Vdc	—	1NO	C22-DL-G-K10-24	C22S-DL-G-K10-24	
		120 Vac	—	1NO	C22-DL-G-K10-120	C22S-DL-G-K10-120	
		230 Vac	—	1NO	C22-DL-G-K10-230	C22S-DL-G-K10-230	
	Buttonless	24 Vac/Vdc	X1	1NO	C22-DL-G-X1-K10-24	C22S-DL-G-X1-K10-24	
			120 Vac	X1	1NO	C22-DL-G-X1-K10-120	C22S-DL-G-X1-K10-120
			230 Vac	X1	1NO	C22-DL-G-X1-K10-230	C22S-DL-G-X1-K10-230
		24 Vac/Vdc	—	1NO	C22-DL-XG-K10-24	C22S-DL-XG-K10-24	
			120 Vac	—	1NO	C22-DL-XG-K10-120	C22S-DL-XG-K10-120
			230 Vac	—	1NO	C22-DL-XG-K10-230	C22S-DL-XG-K10-230
	Red	Red	24 Vac/Vdc	—	1NC	C22-DL-R-K01-24	C22S-DL-R-K01-24
			120 Vac	—	1NC	C22-DL-R-K01-120	C22S-DL-R-K01-120
			230 Vac	—	1NC	C22-DL-R-K01-230	C22S-DL-R-K01-230
Buttonless		24 Vac/Vdc	X0	1NC	C22-DL-R-X0-K01-24	C22S-DL-R-X0-K01-24	
			120 Vac	X0	1NC	C22-DL-R-X0-K01-120	C22S-DL-R-X0-K01-120
			230 Vac	X0	1NC	C22-DL-R-X0-K01-230	C22S-DL-R-X0-K01-230
		24 Vac/Vdc	—	1NC	C22-DL-XR-K01-24	C22S-DL-XR-K01-24	
			120 Vac	—	1NC	C22-DL-XR-K01-120	C22S-DL-XR-K01-120
			230 Vac	—	1NC	C22-DL-XR-K01-230	C22S-DL-XR-K01-230
White		White	24 Vac/Vdc	—	1NO	C22-DL-W-K10-24	C22S-DL-W-K10-24
			120 Vac	—	1NO	C22-DL-W-K10-120	C22S-DL-W-K10-120
			230 Vac	—	1NO	C22-DL-W-K10-230	C22S-DL-W-K10-230
	Buttonless	24 Vac/Vdc	X1	1NO	C22-DL-W-X1-K10-24	C22S-DL-W-X1-K10-24	
			120 Vac	X1	1NO	C22-DL-W-X1-K10-120	C22S-DL-W-X1-K10-120
			230 Vac	X1	1NO	C22-DL-W-X1-K10-230	C22S-DL-W-X1-K10-230
		24 Vac/Vdc	—	1NO	C22-DL-XW-K10-24	C22S-DL-XW-K10-24	
			120 Vac	—	1NO	C22-DL-XW-K10-120	C22S-DL-XW-K10-120
			230 Vac	—	1NO	C22-DL-XW-K10-230	C22S-DL-XW-K10-230
	Blue	Blue	24 Vac/Vdc	—	1NO	C22-DL-B-K10-24	C22S-DL-B-K10-24
			120 Vac	—	1NO	C22-DL-B-K10-120	C22S-DL-B-K10-120
			230 Vac	—	1NO	C22-DL-B-K10-230	C22S-DL-B-K10-230
Buttonless		24 Vac/Vdc	—	1NO	C22-DL-XB-K10-24	C22S-DL-XB-K10-24	
			120 Vac	—	1NO	C22-DL-XB-K10-120	C22S-DL-XB-K10-120
			230 Vac	—	1NO	C22-DL-XB-K10-230	C22S-DL-XB-K10-230

## Pushbuttons and Indicating Lights

## 37.5

22.5 mm Compact Pushbuttons—C22

## Illuminated, Flush, Maintained

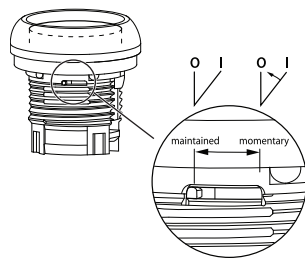
37

C22(S)-DRL\_

## Illuminated Pushbuttons, Flush, Maintained



LED Color	Button Color	Voltage	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number		
Green	Green	24 Vac/Vdc	1NO	C22-DRL-G-K10-24	C22S-DRL-G-K10-24		
		120 Vac	1NO	C22-DRL-G-K10-120	C22S-DRL-G-K10-120		
		230 Vac	1NO	C22-DRL-G-K10-230	C22S-DRL-G-K10-230		
	Buttonless	24 Vac/Vdc	1NO	C22-DRL-XG-K10-24	C22S-DRL-XG-K10-24		
			120 Vac	1NO	C22-DRL-XG-K10-120	C22S-DRL-XG-K10-120	
			230 Vac	1NO	C22-DRL-XG-K10-230	C22S-DRL-XG-K10-230	
		Red	24 Vac/Vdc	1NC	C22-DRL-R-K01-24	C22S-DRL-R-K01-24	
				120 Vac	1NC	C22-DRL-R-K01-120	C22S-DRL-R-K01-120
				230 Vac	1NC	C22-DRL-R-K01-230	C22S-DRL-R-K01-230
Buttonless	24 Vac/Vdc	1NC	C22-DRL-XR-K01-24	C22S-DRL-XR-K01-24			
		120 Vac	1NC	C22-DRL-XR-K01-120	C22S-DRL-XR-K01-120		
		230 Vac	1NC	C22-DRL-XR-K01-230	C22S-DRL-XR-K01-230		
	White	White	24 Vac/Vdc	1NO	C22-DRL-W-K10-24	C22S-DRL-W-K10-24	
			120 Vac	1NO	C22-DRL-W-K10-120	C22S-DRL-W-K10-120	
			230 Vac	1NO	C22-DRL-W-K10-230	C22S-DRL-W-K10-230	
Buttonless		24 Vac/Vdc	1NO	C22-DRL-XW-K10-24	C22S-DRL-XW-K10-24		
			120 Vac	1NO	C22-DRL-XW-K10-120	C22S-DRL-XW-K10-120	
			230 Vac	1NO	C22-DRL-XW-K10-230	C22S-DRL-XW-K10-230	
		Blue	Blue	24 Vac/Vdc	1NO	C22-DRL-B-K10-24	C22S-DRL-B-K10-24
				120 Vac	1NO	C22-DRL-B-K10-120	C22S-DRL-B-K10-120
				230 Vac	1NO	C22-DRL-B-K10-230	C22S-DRL-B-K10-230
Buttonless	24 Vac/Vdc		1NO	C22-DRL-XB-K10-24	C22S-DRL-XB-K10-24		
			120 Vac	1NO	C22-DRL-XB-K10-120	C22S-DRL-XB-K10-120	
			230 Vac	1NO	C22-DRL-XB-K10-230	C22S-DRL-XB-K10-230	



**Note:** Maintained pushbuttons can be converted in the field to momentary operation by switching the locking ring, which is accessible through the side of the operator body.

# 37.5 Pushbuttons and Indicating Lights

## 22.5 mm Compact Pushbuttons—C22

### 37

#### Illuminated, Extended, Momentary

#### C22(S)-DLH-     Illuminated Pushbuttons, Extended, Momentary



LED Color	Button Color	Voltage	Button Etching	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number
Green	Green	24 Vac/Vdc	—	1NO	<b>C22-DLH-G-K10-24</b>	<b>C22S-DLH-G-K10-24</b>
		120 Vac	—	1NO	<b>C22-DLH-G-K10-120</b>	<b>C22S-DLH-G-K10-120</b>
		230 Vac	—	1NO	<b>C22-DLH-G-K10-230</b>	<b>C22S-DLH-G-K10-230</b>
		24 Vac/Vdc	X1	1NO	<b>C22-DLH-G-X1-K10-24</b>	<b>C22S-DLH-G-X1-K10-24</b>
		120 Vac	X1	1NO	<b>C22-DLH-G-X1-K10-120</b>	<b>C22S-DLH-G-X1-K10-12</b>
		230 Vac	X1	1NO	<b>C22-DLH-G-X1-K10-230</b>	<b>C22S-DLH-G-X1-K10-23</b>
		24 Vac/Vdc	—	1NC	<b>C22-DLH-R-K01-24</b>	<b>C22S-DLH-R-K01-24</b>
		120 Vac	—	1NC	<b>C22-DLH-R-K01-120</b>	<b>C22S-DLH-R-K01-120</b>
		230 Vac	—	1NC	<b>C22-DLH-R-K01-230</b>	<b>C22S-DLH-R-K01-230</b>
Red	Red	24 Vac/Vdc	—	1NO	<b>C22-DLH-R-X0-K01-24</b>	<b>C22S-DLH-R-X0-K01-24</b>
		120 Vac	—	1NO	<b>C22-DLH-R-X0-K01-120</b>	<b>C22S-DLH-R-X0-K01-12</b>
		230 Vac	—	1NO	<b>C22-DLH-R-X0-K01-230</b>	<b>C22S-DLH-R-X0-K01-23</b>
		24 Vac/Vdc	X0	1NC	<b>C22-DLH-R-X0-K01-24</b>	<b>C22S-DLH-R-X0-K01-24</b>
		120 Vac	X0	1NC	<b>C22-DLH-R-X0-K01-120</b>	<b>C22S-DLH-R-X0-K01-12</b>
		230 Vac	X0	1NC	<b>C22-DLH-R-X0-K01-230</b>	<b>C22S-DLH-R-X0-K01-23</b>
		24 Vac/Vdc	—	1NO	<b>C22-DLH-W-K10-24</b>	<b>C22S-DLH-W-K10-24</b>
		120 Vac	—	1NO	<b>C22-DLH-W-K10-120</b>	<b>C22S-DLH-W-K10-120</b>
		230 Vac	—	1NO	<b>C22-DLH-W-K10-230</b>	<b>C22S-DLH-W-K10-230</b>
White	White	24 Vac/Vdc	—	1NO	<b>C22-DLH-W-X1-K10-24</b>	<b>C22S-DLH-W-X1-K10-24</b>
		120 Vac	—	1NO	<b>C22-DLH-W-X1-K10-120</b>	<b>C22S-DLH-W-X1-K10-12</b>
		230 Vac	—	1NO	<b>C22-DLH-W-X1-K10-230</b>	<b>C22S-DLH-W-X1-K10-23</b>
		24 Vac/Vdc	X1	1NO	<b>C22-DLH-W-X1-K10-24</b>	<b>C22S-DLH-W-X1-K10-24</b>
		120 Vac	X1	1NO	<b>C22-DLH-W-X1-K10-120</b>	<b>C22S-DLH-W-X1-K10-12</b>
		230 Vac	X1	1NO	<b>C22-DLH-W-X1-K10-230</b>	<b>C22S-DLH-W-X1-K10-23</b>
		24 Vac/Vdc	—	1NO	<b>C22-DLH-B-K10-24</b>	<b>C22S-DLH-B-K10-24</b>
		120 Vac	—	1NO	<b>C22-DLH-B-K10-120</b>	<b>C22S-DLH-B-K10-120</b>
		230 Vac	—	1NO	<b>C22-DLH-B-K10-230</b>	<b>C22S-DLH-B-K10-230</b>
Blue	Blue	24 Vac/Vdc	—	1NO	<b>C22-DLH-B-K10-24</b>	<b>C22S-DLH-B-K10-24</b>
		120 Vac	—	1NO	<b>C22-DLH-B-K10-120</b>	<b>C22S-DLH-B-K10-120</b>
		230 Vac	—	1NO	<b>C22-DLH-B-K10-230</b>	<b>C22S-DLH-B-K10-230</b>

## Pushbuttons and Indicating Lights

## 37.5

22.5 mm Compact Pushbuttons—C22

## Illuminated, Extended, Maintained

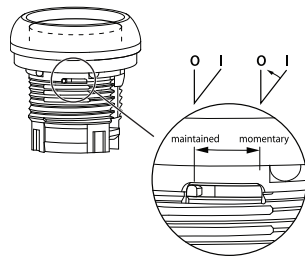
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C22(S)-DRLH-

## Illuminated Pushbuttons, Flush, Maintained



LED Color	Button Color	Voltage	Button Etching	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number
Green	Green	24 Vac/Vdc	—	1NO	<b>C22-DRLH-G-K10-24</b>	<b>C22S-DRLH-G-K10-24</b>
		120 Vac	—	1NO	<b>C22-DRLH-G-K10-120</b>	<b>C22S-DRLH-G-K10-120</b>
		230 Vac	—	1NO	<b>C22-DRLH-G-K10-230</b>	<b>C22S-DRLH-G-K10-230</b>
		24 Vac/Vdc	X1	1NO	<b>C22-DRLH-G-X1-K10-24</b>	<b>C22S-DRLH-G-X1-K10-24</b>
		120 Vac	X1	1NO	<b>C22-DRLH-G-X1-K10-120</b>	<b>C22S-DRLH-G-X1-K10-120</b>
		230 Vac	X1	1NO	<b>C22-DRLH-G-X1-K10-230</b>	<b>C22S-DRLH-G-X1-K10-230</b>
Red	Red	24 Vac/Vdc	—	1NC	<b>C22-DRLH-R-K01-24</b>	<b>C22S-DRLH-R-K01-24</b>
		120 Vac	—	1NC	<b>C22-DRLH-R-K01-120</b>	<b>C22S-DRLH-R-K01-120</b>
		230 Vac	—	1NC	<b>C22-DRLH-R-K01-230</b>	<b>C22S-DRLH-R-K01-230</b>
		24 Vac/Vdc	X0	1NC	<b>C22-DRLH-R-X0-K01-24</b>	<b>C22S-DRLH-R-X0-K01-24</b>
		120 Vac	X0	1NC	<b>C22-DRLH-R-X0-K01-120</b>	<b>C22S-DRLH-R-X0-K01-120</b>
		230 Vac	X0	1NC	<b>C22-DRLH-R-X0-K01-230</b>	<b>C22S-DRLH-R-X0-K01-230</b>
White	White	24 Vac/Vdc	—	1NO	<b>C22-DRLH-W-K10-24</b>	<b>C22S-DRLH-W-K10-24</b>
		120 Vac	—	1NO	<b>C22-DRLH-W-K10-120</b>	<b>C22S-DRLH-W-K10-120</b>
		230 Vac	—	1NO	<b>C22-DRLH-W-K10-230</b>	<b>C22S-DRLH-W-K10-230</b>
		24 Vac/Vdc	X1	1NO	<b>C22-DRLH-W-X1-K10-24</b>	<b>C22S-DRLH-W-X1-K10-24</b>
		120 Vac	X1	1NO	<b>C22-DRLH-W-X1-K10-120</b>	<b>C22S-DRLH-W-X1-K10-120</b>
		230 Vac	X1	1NO	<b>C22-DRLH-W-X1-K10-230</b>	<b>C22S-DRLH-W-X1-K10-230</b>
Blue	Blue	24 Vac/Vdc	—	1NO	<b>C22-DRLH-B-K10-24</b>	<b>C22S-DRLH-B-K10-24</b>
		120 Vac	—	1NO	<b>C22-DRLH-B-K10-120</b>	<b>C22S-DRLH-B-K10-120</b>
		230 Vac	—	1NO	<b>C22-DRLH-B-K10-230</b>	<b>C22S-DRLH-B-K10-230</b>



**Note:** Maintained pushbuttons can be converted in the field to momentary operation by switching the locking ring, which is accessible through the side of the operator body.

# 37.5 Pushbuttons and Indicating Lights

## 22.5 mm Compact Pushbuttons—C22

### 37

#### Indicating Lights



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#### Indicating Lights

##### Product Description

C22 indicating lights use a combination of a durable, bright LED unit and modern lenses designed specifically for this type of LED to create a bright and visible indicating light. As with the pushbuttons, the indicating light lenses can be laser etched, simply order without lens and order M22/C22 custom etched lenses to attach.

**Note:** For additional accessories, please see Volume 7—Motor Controls, Logic and Connectivity, CA08100008E, Tab 37, section 37.4, 22.5 mm Modular Pushbuttons—M22.

##### Features

- LED offering only for improved brightness quality and up to 100,000 hours of operation
- Lenses specifically designed for LED illumination
- Lenses capable of being laser etched for custom solutions that last

##### Protection Type

- IP67/IP69K
- NEMA 4X, 13

# Pushbuttons and Indicating Lights

## 22.5 mm Compact Pushbuttons—C22

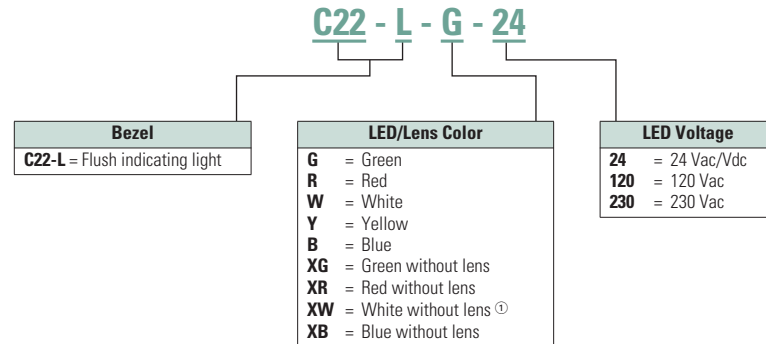
# 37.5

### 37

### Catalog Number Selection

Catalog Number Selection is for illustrative purposes only and not to be used to create new catalog numbers.

### Indicating Lights



### Product Selection

### Indicating Lights

C22-L-    



### Indicating Lights

Lens Color	LED Color	Voltage	Catalog Number
Green	Green	24 Vac/Vdc	<b>C22-L-G-24</b>
		120 Vac	<b>C22-L-G-120</b>
		230 Vac	<b>C22-L-G-230</b>
Red	Red	24 Vac/Vdc	<b>C22-L-R-24</b>
		120 Vac	<b>C22-L-R-120</b>
		230 Vac	<b>C22-L-R-230</b>
White	White	24 Vac/Vdc	<b>C22-L-W-24</b>
		120 Vac	<b>C22-L-W-120</b>
		230 Vac	<b>C22-L-W-230</b>
Yellow	White	24 Vac/Vdc	<b>C22-L-Y-24</b>
		120 Vac	<b>C22-L-Y-120</b>
		230 Vac	<b>C22-L-Y-230</b>
Blue	Blue	24 Vac/Vdc	<b>C22-L-B-24</b>
		120 Vac	<b>C22-L-B-120</b>
		230 Vac	<b>C22-L-B-230</b>
Without Lens	Green	24 Vac/Vdc	<b>C22-L-XG-24</b>
		120 Vac	<b>C22-L-XG-120</b>
		230 Vac	<b>C22-L-XG-230</b>
	Red	24 Vac/Vdc	<b>C22-L-XR-24</b>
		120 Vac	<b>C22-L-XR-120</b>
		230 Vac	<b>C22-L-XR-230</b>
	White	24 Vac/Vdc	<b>C22-L-XW-24</b>
		120 Vac	<b>C22-L-XW-120</b>
		230 Vac	<b>C22-L-XW-230</b>
	Blue	24 Vac/Vdc	<b>C22-L-XB-24</b>
		120 Vac	<b>C22-L-XB-120</b>
		230 Vac	<b>C22-L-XB-230</b>

### Note

① Use white LED for both white and yellow lenses.

# 37.5 Pushbuttons and Indicating Lights

## 22.5 mm Compact Pushbuttons—C22

### 37

#### Emergency Stops



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#### Emergency Stops

##### Product Description

C22 emergency stops are a durable and reliable solution to a variety of e-stop applications. This compact e-stop, available as twist-to-release and keyed-release, is a simple product that eliminates the need for self-monitoring contact blocks, all while still meeting almost all of the industry safety standards.

**Note:** For additional accessories, please see Volume 7—Motor Controls, Logic and Connectivity, CA08100008E, Tab 37, section 37.4, 22.5 mm Modular Pushbuttons—M22.

##### Features

- Available in both twist-release and keyed-release with either 45 mm or 60 mm operators

##### Protection Type

- Twist-Release
  - IP67/IP69K
- Keyed-Release
  - IP66
- NEMA 4X, 13



# Pushbuttons and Indicating Lights

## 22.5 mm Compact Pushbuttons—C22

# 37.5

### Catalog Number Selection

Catalog Number Selection is for illustrative purposes only and not to be used to create new catalog numbers.

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### Emergency Stops

#### C22 - PVS45P - MS1 - K01

Operator Type	Key Code	Contact Blocks
<b>PVT45P</b> = Twist-release, 45 mm	<b>MS1</b> = MS1	<b>K02</b> = 2NC
<b>PVT60P</b> = Twist-release, 60 mm	<b>MS2</b> = MS2	<b>K11</b> = 1NO/1NC
<b>PVS45P</b> = Key-release, 45 mm	<b>MS3</b> = MS3	
<b>PVS60P</b> = Key-release, 60 mm	<b>MS4</b> = MS4	
	<b>MS5</b> = MS5	
	<b>MS6</b> = MS6	
	<b>MS7</b> = MS7	
	<b>MS8</b> = MS8	
	<b>RS</b> = Ronis-445	

### Product Selection

#### Non-Illuminated, Twist-Release

##### C22-PVT\_ Non-Illuminated Emergency Stops, Twist-Release



Release Method	Operator Size	Contact Block Configuration	Catalog Number
Twist-release	45 mm	2NC	<b>C22-PVT45P-K02</b>
		1NO/1NC	<b>C22-PVT45P-K11</b>
	60 mm	2NC	<b>C22-PVT60P-K02</b>
		1NO/1NC	<b>C22-PVT60P-K11</b>

#### Non-Illuminated, Keyed-Release

##### C22-PVS\_ Non-Illuminated Emergency Stops, Keyed-Release



Release Method	Operator Size	Key Code	Contact Block Configuration	Catalog Number
Keyed-release	45 mm	MS1	2NC	<b>C22-PVS45P-MS1-K02</b>
			1NO/1NC	<b>C22-PVS45P-MS1-K11</b>
		MS2	2NC	<b>C22-PVS45P-MS2-K02</b>
			1NO/1NC	<b>C22-PVS45P-MS2-K11</b>
		MS3	2NC	<b>C22-PVS45P-MS3-K02</b>
			1NO/1NC	<b>C22-PVS45P-MS3-K11</b>
		MS4	2NC	<b>C22-PVS45P-MS4-K02</b>
			1NO/1NC	<b>C22-PVS45P-MS4-K11</b>
		MS5	2NC	<b>C22-PVS45P-MS5-K02</b>
			1NO/1NC	<b>C22-PVS45P-MS5-K11</b>
		MS6	2NC	<b>C22-PVS45P-MS6-K02</b>
			1NO/1NC	<b>C22-PVS45P-MS6-K11</b>
		MS7	2NC	<b>C22-PVS45P-MS7-K02</b>
			1NO/1NC	<b>C22-PVS45P-MS7-K11</b>
		MS8	2NC	<b>C22-PVS45P-MS8-K02</b>
			1NO/1NC	<b>C22-PVS45P-MS8-K11</b>
Ronis	2NC	<b>C22-PVS45P-RS-K02</b>		
	1NO/1NC	<b>C22-PVS45P-RS-K11</b>		

# 37.5 Pushbuttons and Indicating Lights

## 22.5 mm Compact Pushbuttons—C22

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C22-PVS\_



### Non-Illuminated Emergency Stops, Keyed-Release, continued

Release Method	Operator Size	Key Code	Contact Block Configuration	Catalog Number
Keyed-release	60 mm	MS1	2NC	<b>C22-PVS60P-MS1-K02</b>
			1NO/1NC	<b>C22-PVS60P-MS1-K11</b>
		MS2	2NC	<b>C22-PVS60P-MS2-K02</b>
			1NO/1NC	<b>C22-PVS60P-MS2-K11</b>
		MS3	2NC	<b>C22-PVS60P-MS3-K02</b>
			1NO/1NC	<b>C22-PVS60P-MS3-K11</b>
		MS4	2NC	<b>C22-PVS60P-MS4-K02</b>
			1NO/1NC	<b>C22-PVS60P-MS4-K11</b>
		MS5	2NC	<b>C22-PVS60P-MS5-K02</b>
			1NO/1NC	<b>C22-PVS60P-MS5-K11</b>
		MS6	2NC	<b>C22-PVS60P-MS6-K02</b>
			1NO/1NC	<b>C22-PVS60P-MS6-K11</b>
		MS7	2NC	<b>C22-PVS60P-MS7-K02</b>
			1NO/1NC	<b>C22-PVS60P-MS7-K11</b>
		MS8	2NC	<b>C22-PVS60P-MS8-K02</b>
			1NO/1NC	<b>C22-PVS60P-MS8-K11</b>
Ronis	2NC	<b>C22-PVS60P-RS-K02</b>		
	1NO/1NC	<b>C22-PVS60P-RS-K11</b>		

# Pushbuttons and Indicating Lights

# 37.5

## 22.5 mm Compact Pushbuttons—C22

### Selector Switches



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### Selector Switches

#### Product Description

With over 20 variations of operation and 8 varieties of key codes, the C22 line offers a very complete line of selector switches.

**Note:** For additional accessories, please see Volume 7—Motor Controls, Logic and Connectivity, CA08100008E, Tab 37, section 37.4, 22.5 mm Modular Pushbuttons—M22.

#### Features

- Selector switch (non-keyed) rated for 1 million mechanical operations
- Momentary selector switches are field convertible from momentary to maintained

#### Protection Type

- IP65
- NEMA 4X, 13

# 37.5 Pushbuttons and Indicating Lights

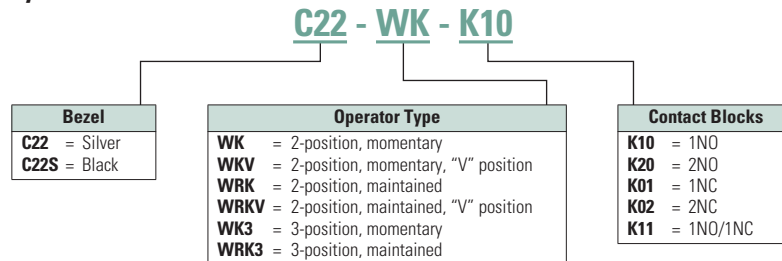
## 22.5 mm Compact Pushbuttons—C22

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#### Catalog Number Selection

Catalog Number Selection is for illustrative purposes only and not to be used to create new catalog numbers.

#### Selector Switches—Non-Keyed



#### Product Selection

##### Non-Illuminated, Knob Type

C22(S)-WK- /  
C22(S)-WRK\_



##### Non-Illuminated Selector Switches, Knob Type

Type	Switching Position	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number	
Two-position	Momentary 40°	1NO	<b>C22-WK-K10</b>	<b>C22S-WK-K10</b>	
		2NO	<b>C22-WK-K20</b>	<b>C22S-WK-K20</b>	
		1NC	<b>C22-WK-K01</b>	<b>C22S-WK-K01</b>	
		2NC	<b>C22-WK-K02</b>	<b>C22S-WK-K02</b>	
		1NO/1NC	<b>C22-WK-K11</b>	<b>C22S-WK-K11</b>	
		1NO	<b>C22-WKV-K10</b>	<b>C22S-WKV-K10</b>	
	Momentary 60°	2NO	<b>C22-WKV-K20</b>	<b>C22S-WKV-K20</b>	
		1NC	<b>C22-WKV-K01</b>	<b>C22S-WKV-K01</b>	
		2NC	<b>C22-WKV-K02</b>	<b>C22S-WKV-K02</b>	
		1NO/1NC	<b>C22-WKV-K11</b>	<b>C22S-WKV-K11</b>	
		Maintained 40°	1NO	<b>C22-WRK-K10</b>	<b>C22S-WRK-K10</b>
			2NO	<b>C22-WRK-K20</b>	<b>C22S-WRK-K20</b>
	1NC		<b>C22-WRK-K01</b>	<b>C22S-WRK-K01</b>	
	2NC		<b>C22-WRK-K02</b>	<b>C22S-WRK-K02</b>	
	1NO/1NC		<b>C22-WRK-K11</b>	<b>C22S-WRK-K11</b>	
	1NO		<b>C22-WRKV-K10</b>	<b>C22S-WRKV-K10</b>	
	Maintained 60°	2NO	<b>C22-WRKV-K20</b>	<b>C22S-WRKV-K20</b>	
		1NC	<b>C22-WRKV-K01</b>	<b>C22S-WRKV-K01</b>	
2NC		<b>C22-WRKV-K02</b>	<b>C22S-WRKV-K02</b>		
1NO/1NC		<b>C22-WRKV-K11</b>	<b>C22S-WRKV-K11</b>		
Three-position		Momentary 40°	2NO	<b>C22-WK3-K20</b>	<b>C22S-WK3-K20</b>
			2NC	<b>C22-WK3-K02</b>	<b>C22S-WK3-K02</b>
	1NO/1NC		<b>C22-WK3-K11</b>	<b>C22S-WK3-K11</b>	
	Maintained 60°	2NO	<b>C22-WRK3-K20</b>	<b>C22S-WRK3-K20</b>	
		2NC	<b>C22-WRK3-K02</b>	<b>C22S-WRK3-K02</b>	
		1NO/1NC	<b>C22-WRK3-K11</b>	<b>C22S-WRK3-K11</b>	

**Note:** Momentary selector switches can be field converted to maintained.

## Pushbuttons and Indicating Lights

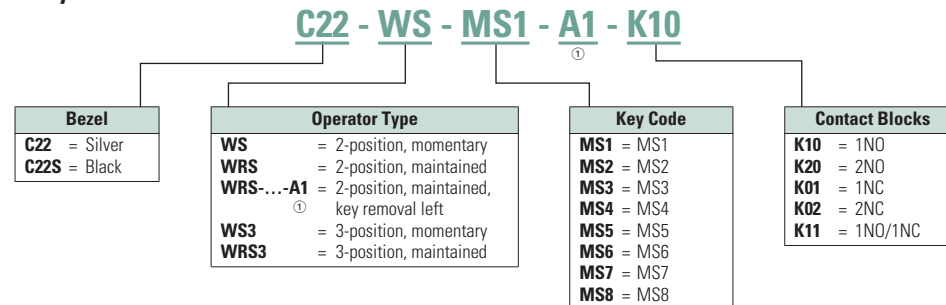
## 37.5

## 22.5 mm Compact Pushbuttons—C22

## Catalog Number Selection

Catalog Number Selection is for illustrative purposes only and not to be used to create new catalog numbers.

## Selector Switches—Keyed



## Non-Illuminated, Key Operated

## C22(S)-WS-MS\_ Non-Illuminated Selector Switches, Key Operated



Position	Type	Key Code	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number
Two-position	Momentary key removal left 40°	MS1	1NO	<b>C22-WS-MS1-K10</b>	<b>C22S-WS-MS1-K10</b>
			2NO	<b>C22-WS-MS1-K20</b>	<b>C22S-WS-MS1-K20</b>
			1NC	<b>C22-WS-MS1-K01</b>	<b>C22S-WS-MS1-K01</b>
			2NC	<b>C22-WS-MS1-K02</b>	<b>C22S-WS-MS1-K02</b>
			1NO/1NC	<b>C22-WS-MS1-K11</b>	<b>C22S-WS-MS1-K11</b>
		MS2	1NO	<b>C22-WS-MS2-K10</b>	<b>C22S-WS-MS2-K10</b>
			2NO	<b>C22-WS-MS2-K20</b>	<b>C22S-WS-MS2-K20</b>
			1NC	<b>C22-WS-MS2-K01</b>	<b>C22S-WS-MS2-K01</b>
			2NC	<b>C22-WS-MS2-K02</b>	<b>C22S-WS-MS2-K02</b>
			1NO/1NC	<b>C22-WS-MS2-K11</b>	<b>C22S-WS-MS2-K11</b>
		MS3	1NO	<b>C22-WS-MS3-K10</b>	<b>C22S-WS-MS3-K10</b>
			2NO	<b>C22-WS-MS3-K20</b>	<b>C22S-WS-MS3-K20</b>
			1NC	<b>C22-WS-MS3-K01</b>	<b>C22S-WS-MS3-K01</b>
			2NC	<b>C22-WS-MS3-K02</b>	<b>C22S-WS-MS3-K02</b>
			1NO/1NC	<b>C22-WS-MS3-K11</b>	<b>C22S-WS-MS3-K11</b>
MS4	1NO	<b>C22-WS-MS4-K10</b>	<b>C22S-WS-MS4-K10</b>		
	2NO	<b>C22-WS-MS4-K20</b>	<b>C22S-WS-MS4-K20</b>		
	1NC	<b>C22-WS-MS4-K01</b>	<b>C22S-WS-MS4-K01</b>		
	2NC	<b>C22-WS-MS4-K02</b>	<b>C22S-WS-MS4-K02</b>		
	1NO/1NC	<b>C22-WS-MS4-K11</b>	<b>C22S-WS-MS4-K11</b>		
MS5	1NO	<b>C22-WS-MS5-K10</b>	<b>C22S-WS-MS5-K10</b>		
	2NO	<b>C22-WS-MS5-K20</b>	<b>C22S-WS-MS5-K20</b>		
	1NC	<b>C22-WS-MS5-K01</b>	<b>C22S-WS-MS5-K01</b>		
	2NC	<b>C22-WS-MS5-K02</b>	<b>C22S-WS-MS5-K02</b>		
	1NO/1NC	<b>C22-WS-MS5-K11</b>	<b>C22S-WS-MS5-K11</b>		

**Note:** Momentary selector switches can be field converted to maintained.

# 37.5 Pushbuttons and Indicating Lights

## 22.5 mm Compact Pushbuttons—C22

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C22(S)-WRS-MS

### Non-Illuminated Selector Switches, Key Operated, continued



Position	Type	Key Code	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number
Two-position, continued	Momentary key removal left 40°	MS6	1NO	C22-W5-MS6-K10	C22S-W5-MS6-K10
			2NO	C22-W5-MS6-K20	C22S-W5-MS6-K20
			1NC	C22-W5-MS6-K01	C22S-W5-MS6-K01
			2NC	C22-W5-MS6-K02	C22S-W5-MS6-K02
			1NO/1NC	C22-W5-MS6-K11	C22S-W5-MS6-K11
		MS7	1NO	C22-W5-MS7-K10	C22S-W5-MS7-K10
			2NO	C22-W5-MS7-K20	C22S-W5-MS7-K20
			1NC	C22-W5-MS7-K01	C22S-W5-MS7-K01
			2NC	C22-W5-MS7-K02	C22S-W5-MS7-K02
			1NO/1NC	C22-W5-MS7-K11	C22S-W5-MS7-K11
		MS8	1NO	C22-W5-MS8-K10	C22S-W5-MS8-K10
			2NO	C22-W5-MS8-K20	C22S-W5-MS8-K20
			1NC	C22-W5-MS8-K01	C22S-W5-MS8-K01
			2NC	C22-W5-MS8-K02	C22S-W5-MS8-K02
			1NO/1NC	C22-W5-MS8-K11	C22S-W5-MS8-K11
Two-position	Maintained key removal left/right 40°	MS1	1NO	C22-WRS-MS1-K10	C22S-WRS-MS1-K10
			2NO	C22-WRS-MS1-K20	C22S-WRS-MS1-K20
			1NC	C22-WRS-MS1-K01	C22S-WRS-MS1-K01
			2NC	C22-WRS-MS1-K02	C22S-WRS-MS1-K02
			1NO/1NC	C22-WRS-MS1-K11	C22S-WRS-MS1-K11
		MS2	1NO	C22-WRS-MS2-K10	C22S-WRS-MS2-K10
			2NO	C22-WRS-MS2-K20	C22S-WRS-MS2-K20
			1NC	C22-WRS-MS2-K01	C22S-WRS-MS2-K01
			2NC	C22-WRS-MS2-K02	C22S-WRS-MS2-K02
			1NO/1NC	C22-WRS-MS2-K11	C22S-WRS-MS2-K11
		MS3	1NO	C22-WRS-MS3-K10	C22S-WRS-MS3-K10
			2NO	C22-WRS-MS3-K20	C22S-WRS-MS3-K20
			1NC	C22-WRS-MS3-K01	C22S-WRS-MS3-K01
			2NC	C22-WRS-MS3-K02	C22S-WRS-MS3-K02
			1NO/1NC	C22-WRS-MS3-K11	C22S-WRS-MS3-K11

**Note:** Momentary selector switches can be field converted to maintained.

# Pushbuttons and Indicating Lights 37.5

22.5 mm Compact Pushbuttons—C22

C22(S)-WRS...-MS1



## Non-Illuminated Selector Switches, Key Operated, continued

Position	Type	Key Code	Contact Block Configuration	Silver Bezel Catalog Number	Black Bezel Catalog Number
Two-position, continued	Maintained key removal left/right  40°	MS4	1NO	C22-WRS-MS4-K10	C22S-WRS-MS4-K10
			2NO	C22-WRS-MS4-K20	C22S-WRS-MS4-K20
			1NC	C22-WRS-MS4-K01	C22S-WRS-MS4-K01
			2NC	C22-WRS-MS4-K02	C22S-WRS-MS4-K02
			1NO/1NC	C22-WRS-MS4-K11	C22S-WRS-MS4-K11
		MS5	1NO	C22-WRS-MS5-K10	C22S-WRS-MS5-K10
			2NO	C22-WRS-MS5-K20	C22S-WRS-MS5-K20
			1NC	C22-WRS-MS5-K01	C22S-WRS-MS5-K01
			2NC	C22-WRS-MS5-K02	C22S-WRS-MS5-K02
			1NO/1NC	C22-WRS-MS5-K11	C22S-WRS-MS5-K11
		MS6	1NO	C22-WRS-MS6-K10	C22S-WRS-MS6-K10
			2NO	C22-WRS-MS6-K20	C22S-WRS-MS6-K20
			1NC	C22-WRS-MS6-K01	C22S-WRS-MS6-K01
			2NC	C22-WRS-MS6-K02	C22S-WRS-MS6-K02
			1NO/1NC	C22-WRS-MS6-K11	C22S-WRS-MS6-K11
		MS7	1NO	C22-WRS-MS7-K10	C22S-WRS-MS7-K10
			2NO	C22-WRS-MS7-K20	C22S-WRS-MS7-K20
			1NC	C22-WRS-MS7-K01	C22S-WRS-MS7-K01
			2NC	C22-WRS-MS7-K02	C22S-WRS-MS7-K02
			1NO/1NC	C22-WRS-MS7-K11	C22S-WRS-MS7-K11
MS8	1NO	C22-WRS-MS7-K10	C22S-WRS-MS7-K10		
	2NO	C22-WRS-MS7-K20	C22S-WRS-MS7-K20		
	1NC	C22-WRS-MS7-K01	C22S-WRS-MS7-K01		
	2NC	C22-WRS-MS7-K02	C22S-WRS-MS7-K02		
	1NO/1NC	C22-WRS-MS7-K11	C22S-WRS-MS7-K11		
Two-position	Maintained key removal left  40°	MS1	1NO	C22-WRS-MS1-A1-K10	C22S-WRS-MS1-A1-K10
			2NO	C22-WRS-MS1-A1-K20	C22S-WRS-MS1-A1-K20
			1NC	C22-WRS-MS1-A1-K01	C22S-WRS-MS1-A1-K01
			2NC	C22-WRS-MS1-A1-K02	C22S-WRS-MS1-A1-K02
			1NO/1NC	C22-WRS-MS1-A1-K11	C22S-WRS-MS1-A1-K11
Three Position	Momentary Key Removal Center  40°	MS1	2NO	C22-WRS3-MS1-K20	C22S-WRS3-MS1-K20
			2NC	C22-WRS3-MS1-K02	C22S-WRS3-MS1-K02
			1NO/1NC	C22-WRS3-MS1-K11	C22S-WRS3-MS1-K11
	Maintained Key Removal Left/Right  60°	MS1	2NO	C22-WRS3-MS1-K20	C22S-WRS3-MS1-K20
			2NC	C22-WRS3-MS1-K02	C22S-WRS3-MS1-K02
			1NO/1NC	C22-WRS3-MS1-K11	C22S-WRS3-MS1-K11

**Note:** Momentary selector switches can be field converted to maintained.

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# 37.5 Pushbuttons and Indicating Lights

## 22.5 mm Compact Pushbuttons—C22

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### Technical Data and Specifications

#### 22.5 mm Compact Pushbuttons—C22

Description	Unit	Pushbutton Actuators Illuminated Pushbuttons C22		Indicator Lights C22	Selector Switch Actuators C22	Key-Operated Buttons C22	Emergency Stop/ Emergency Switching OFF Pushbuttons C22
		Momentary	Maintained				
<b>General</b>							
Standards		IEC/EN 60947 VDE 0660					
Lifespan, mechanical	Operations x 10 <sup>6</sup>	5	1	—	1	0.1	0.05
Operating frequency	Operations/h	≥3600	≥3600	—	≥2000	≥100	≥300
Actuating force	N	≥5	≥5	—	—	—	≥50
Operating torque	Nm	—	—	—	≥0.3	≥0.5	—
Terminal screw tightening torque	Nm	0.8	0.8	0.8	0.8	0.8	0.8
Threaded ring tightening torque	Nm	2	2	2	2	2	2
Protection type		IP67, IP69K	IP67, IP69K	IP67, IP69K	IP65	IP66	IP67, IP69K
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30					
Ambient temperature							
Open	°C	–25° to 70°	–25° to 70°	–25° to 70°	–25° to 70°	–25° to 70°	–25° to 70°
Storage	°C	–30° to 80°	–30° to 80°	–30° to 80°	–30° to 80°	–30° to 80°	–30° to 80°
Mounting position		As required	As required	As required	As required	As required	As required
Mechanical shock resistance to IEC 60068-2-27 Shock duration 11 ms, half-sinusoidal	g	30	30	30	30	30	30
Terminal capacities							
Solid	mm <sup>2</sup>	2 x 0.5–1.5	2 x 0.5–1.5	2 x 0.5–1.5	2 x 0.5–1.5	2 x 0.5–1.5	2 x 0.5–1.5
Flexible with ferrule	mm <sup>2</sup>	2 x 0.5–1.5	2 x 0.5–1.5	2 x 0.5–1.5	2 x 0.5–1.5	2 x 0.5–1.5	2 x 0.5–1.5
<b>Contacts</b>							
Rated impulse withstand voltage	U <sub>imp</sub>	Vac	4000	4000	4000	4000	4000
Rated insulation voltage	U <sub>i</sub>	V	250	250	250	250	250
Overtoltage category/pollution degree			III/3	III/3	III/3	III/3	III/3
Control circuit reliability							
at 5 Vdc/1 mA	H <sub>F</sub>	Fault probability	Values follow	Values follow	—	Values follow	Values follow
at 17 Vdc/7 mA	H <sub>F</sub>	Fault probability	N/O contact: statistically determined 1 failure per 17 x 10 <sup>6</sup> operations N/C contact: statistically determined 1 failure per 0.9 x 10 <sup>6</sup> operations	—	—	N/O contact: statistically determined 1 failure per 17 x 10 <sup>6</sup> operations N/C contact: statistically determined 1 failure per 0.9 x 10 <sup>6</sup> operations	—
at 24 Vdc/5 mA	H <sub>F</sub>	Fault probability	Values follow	Values follow	—	Values follow	Values follow
Max. short-circuit protective device							
Fuse	gG/gL	A	10	10	—	10	10



## Pushbuttons and Indicating Lights

## 37.5

## 22.5 mm Compact Pushbuttons—C22

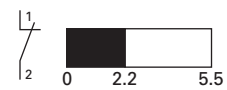
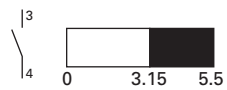
## 22.5 mm Compact Pushbuttons—C22, continued

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Description	Unit	Push-button Actuators		Indicator Lights C22	Selector Switch Actuators C22	Key-Operated Buttons C22	Emergency Stop/ Emergency Switching OFF Pushbuttons C22
		Illuminated Pushbuttons C22	Momentary				
<b>Switching Capacity</b>							
Rated operational current							
AC-15							
24V	$I_e$	A	4	4	—	4	4
110V	$I_e$	A	2	2	—	2	2
230V	$I_e$	A	1.5	1.5	—	1.5	1.5
DC-13							
24V	$I_e$	A	3	3	—	3	3
60V	$I_e$	A	1	1	—	1	1
110V	$I_e$	A	0.6	0.6	—	0.6	0.6
220V	$I_e$	A	0.3	0.3	—	0.3	0.3
Lifespan, electrical							
AC-15							
230V/0.5A	Operations	$\times 10^6$	0.4	0.4	—	0.4	0.4
230V/1.0A		$\times 10^6$	0.6	0.6	—	0.6	0.6

## Contact Travel

## Contact Travel Diagram



- Contact closed
- Contact open

# 37.5 Pushbuttons and Indicating Lights

## 22.5 mm Compact Pushbuttons—C22

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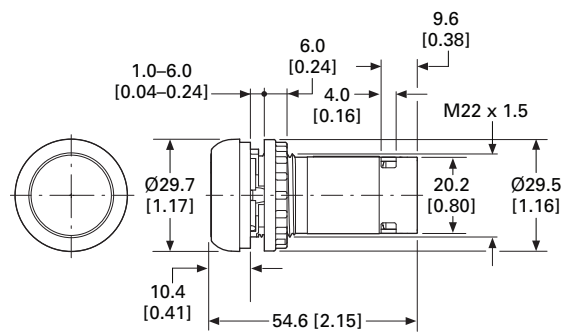
#### Dimensions

Approximate Dimensions in mm [in]

#### Illuminated Pushbuttons

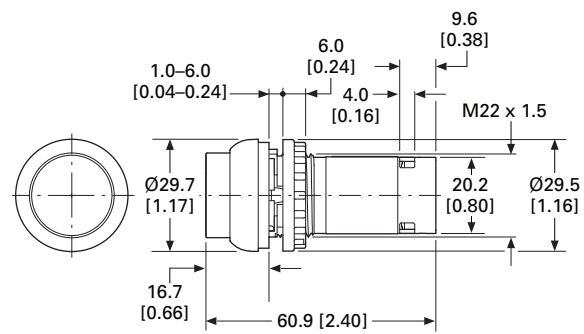
##### Flat

**C22(S)-DRL\_/C22(S)-DL\_**



##### Extended

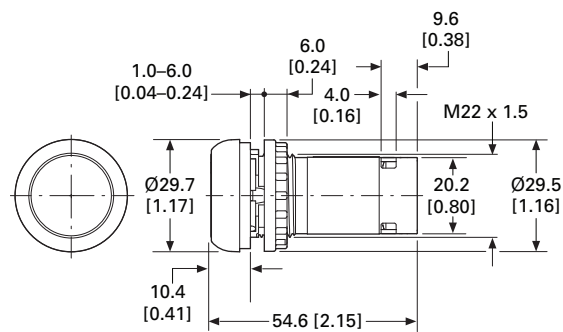
**C22(S)-DRLH\_/C22(S)-DLH\_**



#### Pushbutton Actuators

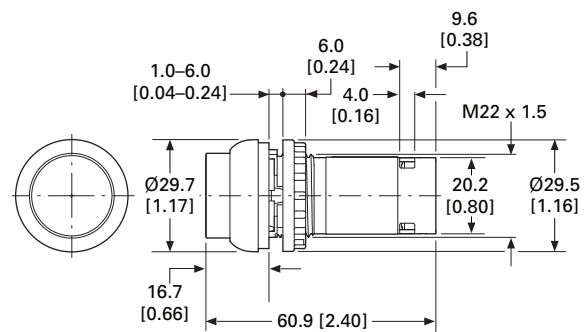
##### Flat

**C22(S)-DR\_/C22(S)-D\_**



##### Extended

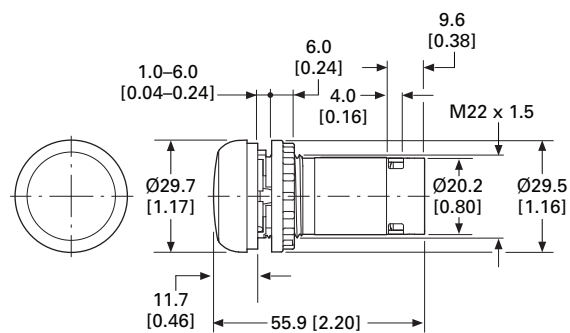
**C22(S)-DRH\_/C22(S)-DH\_**



#### Indicating Lights

##### Flat

**C22-L\_**



# Pushbuttons and Indicating Lights

# 37.5

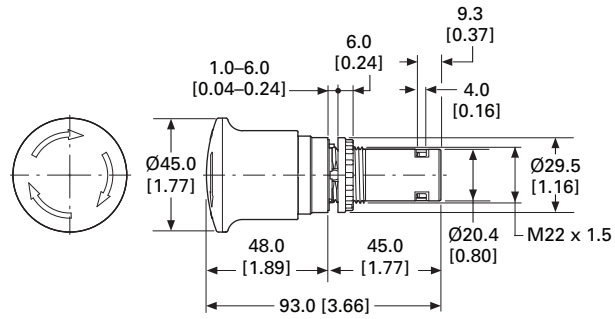
## 22.5 mm Compact Pushbuttons—C22

Approximate Dimensions in mm [in]

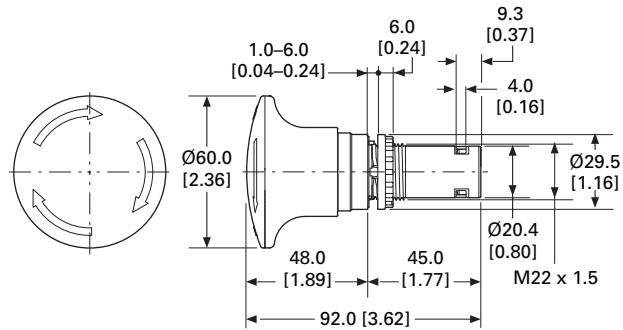
### Emergency Stop/Emergency Switching OFF Pushbuttons

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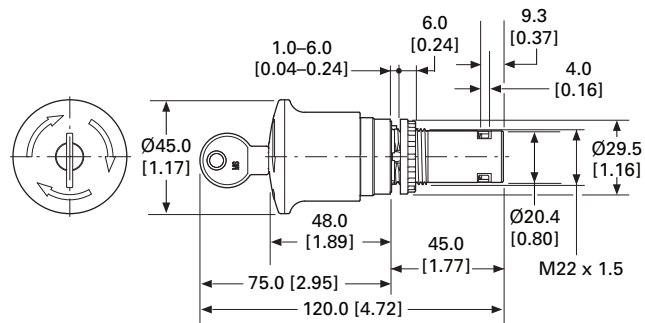
**C22-PVT45P\_**



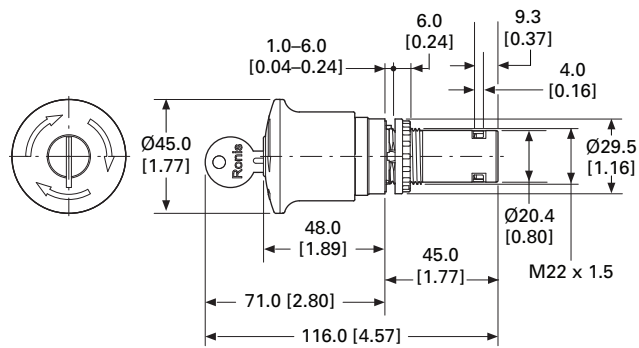
**C22-PVT60P\_**



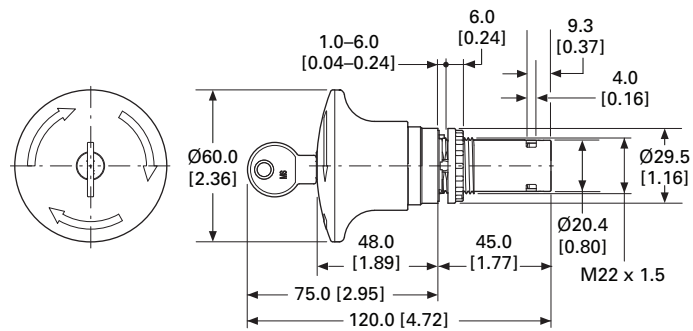
**C22-PVT45P-MS\_**



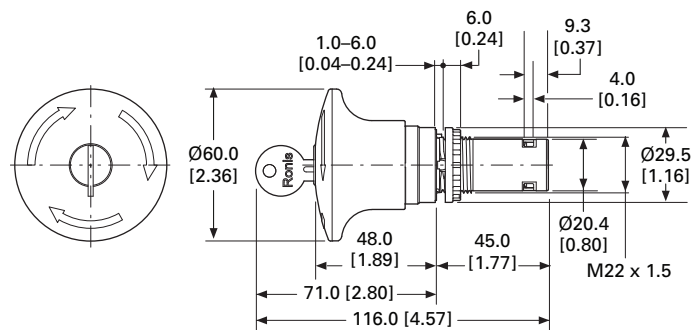
**C22-PVT45P-RS\_**



**C22-PVT60P-MS\_**



**C22-PVT60P-MS\_**



# 37.5 Pushbuttons and Indicating Lights

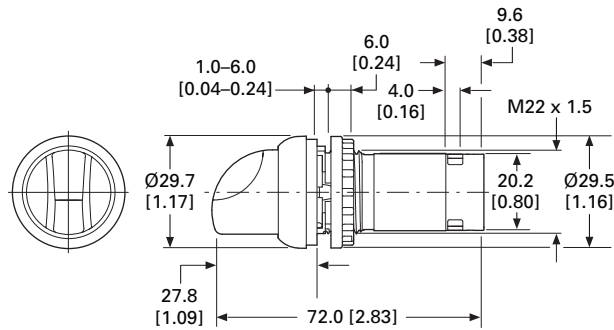
## 22.5 mm Compact Pushbuttons—C22

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Approximate Dimensions in mm [in]

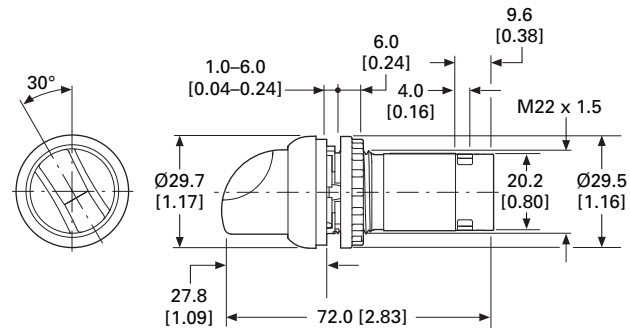
### Selector Switch Actuators

#### C22(S)-W(R)K\_



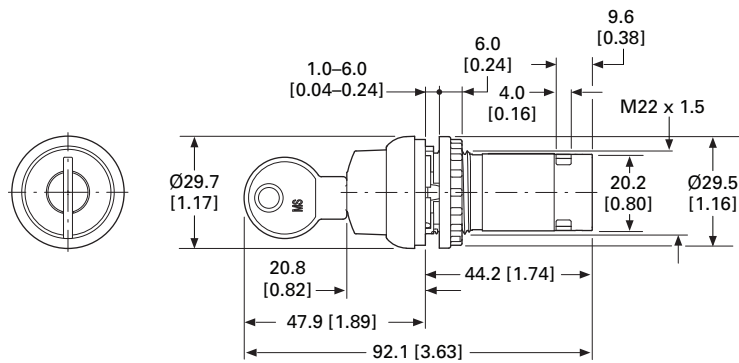
#### Selector Switch Actuators/V Position

#### C22(S)-W(R)KV\_

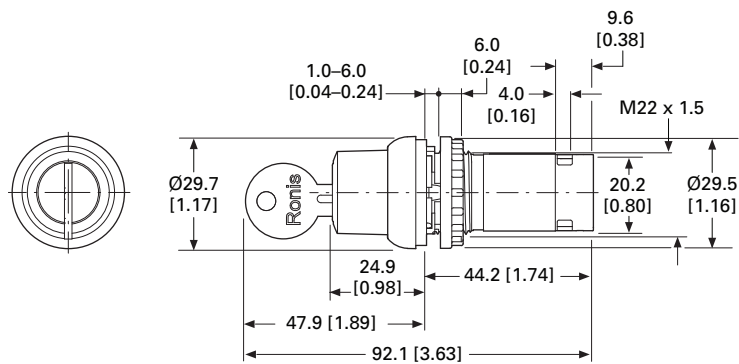


### Key Operated Actuators

#### C22(S)-WS(3)-MS\_/C22(S)-WRS(3)-MS\_



#### C22(S)-WS(3)-RS\_/C22(S)-WRS(3)-RS\_

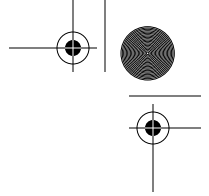




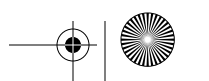
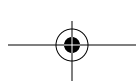
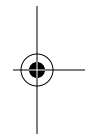
# Pushbuttons and Indicating Lights

22.5 mm Compact Pushbuttons—C22

# 37.5



37



# 37.5

## Pushbuttons and Indicating Lights

22.5 mm Compact Pushbuttons—C22

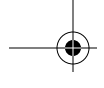
37



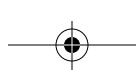
# Pushbuttons and Indicating Lights

22.5 mm Compact Pushbuttons—C22

# 37.5



37



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