

22.5 mm Modular Pushbuttons—M22



### Product Description

Eaton's M22 industrial heavy-duty pushbutton line offers a wide array of functional, attractive and ergonomically designed illuminated and non-illuminated pushbuttons, selector switches, push-pulls, alternate action and twist-to-release operators. 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. M22 operators are available with either a silver or a black colored bezel. The space-saving modular construction of the M22 line makes on-the-job assembly fast and simplifies the stocking of both components and complete devices.

### Highly Modular and Versatile Line

- Field convertible functions (pushbuttons and selector switches), maintained to momentary
- Customizable laser engraving capabilities

### LED Indicators

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

### Rugged Design

- Most pushbutton operators and contact blocks exceed 5 million mechanical operations
- All components have IP66 rating, and some carry IP67 and IP69K for washdown environment; see **Page V7-T37-104** for further technical data

### Innovative Technologies

- ASi communicating devices
- Palm switches

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### Standards and Certifications

All operators and components are IEC/EN 60947 VDE 0660.

All operators carry an IP66 rating with some rated for washdown environment with IP67 and IP69K.

All pushbuttons, emergency-stops, indicating lights, potentiometers and selector switches carry NEMA 4X, 13.

Marine classification societies: Bureau Veritas (BV), Germanischer Lloyd (GL), and Lloyd's Register of Shipping (LR) approved.



### Features

- Field convertible pushbuttons and mushroom operators from maintained to momentary status
- Field convertible selector switches from momentary to maintained operation and vice versa
- LED offering only for all illuminated operators
- Laser engraved pushbuttons, lenses and enclosures
- Heavy-duty construction with a minimum of IP66 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
- Snap-lock contact blocks and light units for front or base mounting
- Notched hole mounting with anti-rotation tab and central nut mounting on each operator
- Over 5 million mechanical operations and 1.6 million electrical (reference specification sheet)
- Direct opening action normally closed contacts
- Unique and innovative offerings, such as four-way pushbuttons and USB/ RJ45 bulkhead interfaces
- Screw or spring-cage terminals

### Benefits

- Modular construction makes assembly fast and simplifies stocking of components and complete devices
- Field convertibility of operator status for 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 washdown applications (reference each operator's IP ratings and IEC/EN 60529 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
- All normally closed (NC) contacts are direct opening action, i.e., NC contacts are physically forced open by direct linkage with the pushbutton operator in the unlikely event of contact weld
- Some M22 operators are capable of communication via ASi protocol
- M22 offers USB and RJ45 connections

### 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>Pages V7-T37-36–V7-T37-38</b>	<b>Pages V7-T37-39, V7-T37-40</b>	<b>Pages V7-T37-41, V7-T37-42</b>	<b>Pages V7-T37-43, V7-T37-44</b>	<b>Pages V7-T37-46–V7-T37-48</b>	<b>Pages V7-T37-49, V7-T37-50</b>	<b>Pages V7-T37-51, V7-T37-52</b>	<b>Pages V7-T37-53, V7-T37-54</b>

#### Indicating Lights



<b>Description</b>	Indicating lights
<b>Product Selection</b>	<b>Pages V7-T37-55, V7-T37-56</b>

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## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

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#### Emergency Stops



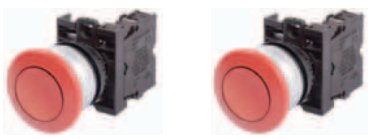
<b>Description</b>	Non-illuminated	Illuminated	Key release	Mechanical indication
<b>Product Selection</b>	<b>Pages</b> V7-T37-57–V7-T37-60	<b>Pages</b> V7-T37-57–V7-T37-60	<b>Pages</b> V7-T37-57–V7-T37-60	<b>Pages</b> V7-T37-57–V7-T37-60

#### Selector Switches



<b>Description</b>	Non-illuminated knob type	Non-illuminated rotary type	Illuminated	Key-operated
<b>Product Selection</b>	<b>Pages</b> V7-T37-63, V7-T37-64	<b>Pages</b> V7-T37-65, V7-T37-66	<b>Pages</b> V7-T37-68–V7-T37-70	<b>Pages</b> V7-T37-71–V7-T37-76

#### Mushroom Head Pushbuttons



<b>Description</b>	Non-illuminated	Non-illuminated
<b>Operator</b>	Momentary	Maintained
<b>Product Selection</b>	<b>Pages</b> V7-T37-79, V7-T37-80	<b>Pages</b> V7-T37-81, V7-T37-82

#### Double Pushbuttons



<b>Description</b>	Extended pushbuttons and center light	Flush top and center light, extended bottom	Flush pushbuttons and center light
<b>Operator</b>	Momentary	Momentary	—
<b>Product Selection</b>	<b>Page</b> V7-T37-84	<b>Page</b> V7-T37-85	<b>Page</b> V7-T37-85

**Four-Way Pushbuttons**



<b>Description</b>	Non-interlocked	Interlocked
<b>Operator</b>	Momentary	Maintained
<b>Product Selection</b>	<b>Page V7-T37-88</b>	<b>Page V7-T37-88</b>

**Joysticks**



<b>Description</b>	Joysticks
<b>Product Selection</b>	<b>Page V7-T37-89</b>

**Potentiometers**



<b>Description</b>	Potentiometers
<b>Product Selection</b>	<b>Page V7-T37-91</b>

**Acoustic Devices**



<b>Description</b>	Acoustic devices
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**Through-the-Door Operators**



<b>Description</b>	Through-the-door operators
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**Bulkhead Interfaces**



<b>Description</b>	Bulkhead interfaces
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**ASi Adapter Modules**



<b>Description</b>	ASi adapter modules
<b>Product Selection</b>	<b>Page V7-T37-93</b>

**Palm Switches**



<b>Description</b>	Palm switches
<b>Product Selection</b>	<b>Page V7-T37-94</b>

**Assembled Control Stations**



<b>Description</b>	Assembled control stations
<b>Product Selection</b>	<b>Page V7-T37-16</b>

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## Point-of-Purchase Units

Color	Type	Contact Configuration <sup>①</sup>	Catalog Number
Black	Flush momentary	NO/NC	<b>M22-D-S-K11-P</b>
Red	Extended momentary	NO/NC	<b>M22-DH-R-K11-P</b>
Green	Flush momentary	NO/NC	<b>M22-D-G-K11-P</b>
Red	Ext. illuminated (12–30V) momentary	NO/NC	<b>M22-DLH-R-K11-R-P</b>
Red	Ext. illuminated (85–264V) momentary	NO/NC	<b>M22-DLH-R-K11-230R-P</b>
White	Flush illuminated (12–30V) maintained	NO/NC	<b>M22-DRL-W-K11-W-P</b>
White	Flush illuminated (85–264V) maintained	NO/NC	<b>M22-DRL-W-K11-230W-P</b>
Red	Indicating light (12–30V)	—	<b>M22-L-R-R-P</b>
Green	Indicating light (12–30V)	—	<b>M22-L-G-G-P</b>
Red	Indicating light (85–264V)	—	<b>M22-L-R-230R-P</b>
Green	Indicating light (85–264 Vac)	—	<b>M22-L-G-230G-P</b>
Red	Twist-to-release E-stop	1NO/2NC	<b>M22-PVT-K12-P</b>
Red	Illuminated (12–30V) push-pull E-stop	1NO/2NC	<b>M22-PVL-K12-R-P</b>
Red	Illuminated (85–264V) push-pull E-stop	1NO/2NC	<b>M22-PVL-K12-230R-P</b>
—	Two-position maintained V selector switch	NO/NC	<b>M22-WKV-K11-P</b>
—	Three-position momentary selector switch	NO/NC	<b>M22-WK3-K22-P</b>

**Note**

① All NC contact blocks are positively driven contact. ⊖

**Pushbuttons—Non-Illuminated and Illuminated**



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Illuminated, Extended, Maintained . . . . .	<b>V7-T37-53</b>

**Pushbuttons—Non-Illuminated and Illuminated**

**Product Description**

Eaton’s M22 pushbutton line is a complete, modular and versatile offering. From field-convertible maintained operators to customizable laser engraved buttons, the M22 pushbutton line provides endless opportunity for flexibility and reduced inventory. Each operator type provides options for ordering as complete or component parts allowing for a perfect fit for each application. All of this flexibility comes in a very rugged design.

**Features**

- Field convertible from maintained to momentary (available on maintained pushbuttons only)
- Customizable laser engraving on all buttons
- LED offering only for improved brightness quality and up to 100,000 hours of operation
- More than five million mechanical operations on momentary and 1 million on maintained pushbuttons
- Modular construction makes assembly fast and simplifies stocking of components and complete devices
- Capable of communicating via ASi protocol with ASi adapter modules

**Protection Type**

- IP67, IP69K
- NEMA 4X, 13

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## Pushbuttons and Indicating Lights

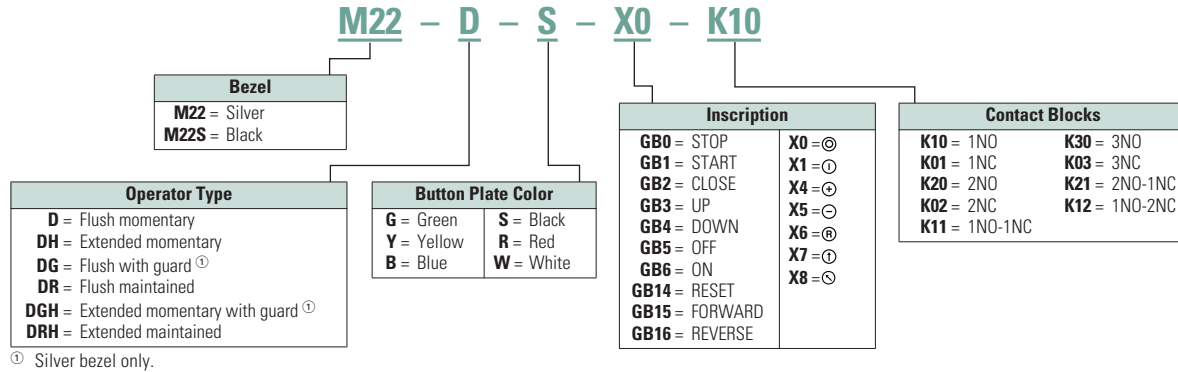
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#### Catalog Number Selection

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 Pushbuttons, Flush, Momentary

##### Complete Devices

	Bezel	Button Color	Contact Block Configuration <sup>①</sup>	Catalog Number
	Silver	Black	NO	M22-D-S-K10
			NC	M22-D-S-K01
			2NO	M22-D-S-K20
			2NC	M22-D-S-K02
			1NO-1NC	M22-D-S-K11
			Red	NO
	NC	M22-D-R-K01		
	2NO	M22-D-R-K20		
	2NC	M22-D-R-K02		
	1NO-1NC	M22-D-R-K11		
	Green	NO	M22-D-G-K10	
	NC	M22-D-G-K01		
2NO	M22-D-G-K20			
2NC	M22-D-G-K02			
1NO-1NC	M22-D-G-K11			
	Black	Black	NO	M22S-D-S-K10
			NC	M22S-D-S-K01
			2NO	M22S-D-S-K20
			2NC	M22S-D-S-K02
			1NO-1NC	M22S-D-S-K11
			Red	NO
	NC	M22S-D-R-K01		
	2NO	M22S-D-R-K20		
	2NC	M22S-D-R-K02		
	1NO-1NC	M22S-D-R-K11		
	Green	NO	M22S-D-G-K10	
	NC	M22S-D-G-K01		
2NO	M22S-D-G-K20			
2NC	M22S-D-G-K02			
1NO-1NC	M22S-D-G-K11			

**Note**

<sup>①</sup> All NC contact blocks are positively driven contact. ⊖

**Non-Illuminated Pushbuttons, Flush, Momentary**

**Operators Only** <sup>①</sup>

	Bezel	Button Color	Inscription	Catalog Number
<b>M22-D-G</b> 	Silver	Black	—	<b>M22-D-S</b>
		Red	—	<b>M22-D-R</b>
			STOP	<b>M22-D-R-GB0</b>
			⊙	<b>M22-D-R-X0</b>
		Green	—	<b>M22-D-G</b>
			START	<b>M22-D-G-GB1</b>
			Ⓛ	<b>M22-D-G-X1</b>
		White	—	<b>M22-D-W</b>
		Blue	—	<b>M22-D-B</b>
		Yellow	—	<b>M22-D-Y</b>
			—	<b>M22-D-X-SRG</b> <sup>②</sup>
			—	<b>M22-D-X-SWRGYB</b> <sup>③</sup>
<b>M22S-D-G</b> 	Black	Black	—	<b>M22S-D-S</b>
		Red	—	<b>M22S-D-R</b>
			STOP	<b>M22S-D-R-GB0</b>
			⊙	<b>M22S-D-R-X0</b>
		Green	—	<b>M22S-D-G</b>
			START	<b>M22S-D-G-GB1</b>
			Ⓛ	<b>M22S-D-G-X1</b>
		White	—	<b>M22S-D-W</b>
		Blue	—	<b>M22S-D-B</b>
		Yellow	—	<b>M22S-D-Y</b>
			—	<b>M22S-D-X-SRG</b> <sup>②</sup>
			—	<b>M22S-D-X-SWRGYB</b> <sup>③</sup>
<b>M22-DG-G</b> 	Silver guarded	Black	—	<b>M22-DG-S</b>
		Red	—	<b>M22-DG-R</b>
		Green	—	<b>M22-DG-G</b>
		White	—	<b>M22-DG-W</b>
		Blue	—	<b>M22-DG-B</b>
		Yellow	—	<b>M22-DG-Y</b>
			—	<b>M22-DG-X-SRG</b> <sup>②</sup>
			—	<b>M22-DG-X-SWRGYB</b> <sup>③</sup>

**Notes**

- ① Includes contact block mounting adapter.
- ② Buttonless operator comes with three color buttons (black, red, green).
- ③ Buttonless operator comes with all six color buttons (black, white, red, green, yellow, blue).



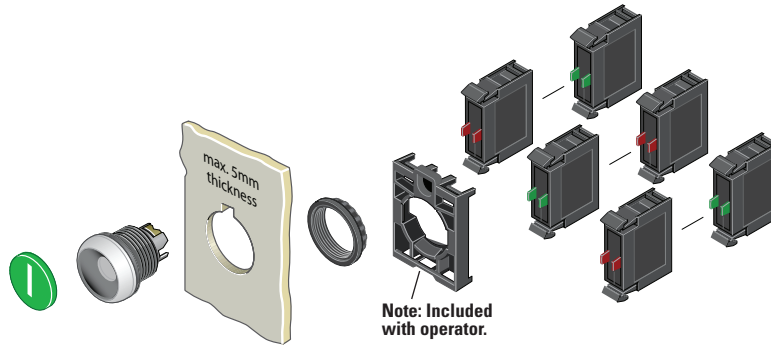
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## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

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



#### Components

##### M22-XD-G



#### Button Plates <sup>①</sup>

Color	Inscription	Catalog Number
Black	—	M22-XD-S <sup>②</sup>
	Custom	M22-XD-S-ETCH <sup>③</sup>
	STOP	M22-XD-S-GB0
	START	M22-XD-S-GB1
	CLOSE	M22-XD-S-GB2
	UP	M22-XD-S-GB3
	DOWN	M22-XD-S-GB4
	OFF	M22-XD-S-GB5
	ON	M22-XD-S-GB6
	TEST	M22-XD-S-GB9
	FORWARD	M22-XD-S-GB15
	REVERSE	M22-XD-S-GB16
	RAISE	M22-XD-S-GB17
	LOWER	M22-XD-S-GB18
	⊙	M22-XD-S-X0
	⓪	M22-XD-S-X1
	Ⓛ	M22-XD-S-X2
+	M22-XD-S-X4	
⊖	M22-XD-S-X5	
Ⓛ	M22-XD-S-X7	
Red	—	M22-XD-R <sup>②</sup>
	Custom	M22-XD-R-ETCH <sup>③</sup>
	STOP	M22-XD-R-GB0
	OFF	M22-XD-R-GB5
	⊙	M22-XD-R-X0
Green	—	M22-XD-G <sup>②</sup>
	Custom	M22-XD-G-ETCH <sup>③</sup>
	START	M22-XD-G-GB1
	ON	M22-XD-G-GB6
Blue	—	M22-XD-B <sup>②</sup>
	Custom	M22-XD-B-ETCH <sup>③</sup>
	RESET	M22-XD-B-GB14
White	—	M22-XD-W <sup>②</sup>
	Custom	M22-XD-W-ETCH <sup>③</sup>
	START	M22-XD-W-GB1
Yellow	—	M22-XD-Y <sup>②</sup>
	Custom	M22-XD-Y-ETCH <sup>③</sup>
Black, red, green	—	M22-XD-SRGR
Black, white, red, green, yellow, blue	—	M22-XD-SWRGYB

#### Buttonless Operator

Bezel	Catalog Number <sup>④</sup>
Silver	M22-D-X
Black	M22S-D-X
Silver guarded	M22-DG-X

#### Contact Blocks <sup>①</sup>

Terminal Type	Contact Configuration <sup>⑤</sup>	Catalog Number
Screw	NO	M22-K10
	NO, early-make	M22-K10P
	NC	M22-K01
Spring-cage	NC, late-break	M22-K01D
	NO	M22-CK10
	NC	M22-CK01
	NC, late-break	M22-CK01D
	2NO	M22-CK20
	2NC	M22-CK02
	NO-NC	M22-CK11

#### Notes

- For complete listing of available button plates and contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.
- Minimum order quantity of (10).
- When ordering, specify inscription per catalog number suffix from the Symbols Library (see Pages V7-T37-114–V7-T37-121) into the Order Notes. For example, M22-XD-S-ETCH; Order Notes: Mark with symbol X91, Line item #...
- Includes contact block mounting adapter.
- All NC contact blocks are positively driven contact. ⊖

### Non-Illuminated Pushbuttons, Flush, Maintained <sup>①</sup>

#### Operators Only <sup>②</sup>

M22-DR-S



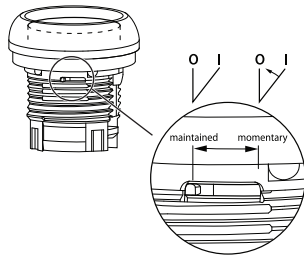
Bezel	Button Color	Catalog Number
Silver	Black	M22-DR-S
	Red	M22-DR-R
	Green	M22-DR-G
	White	M22-DR-W
	Blue	M22-DR-B
	Yellow	M22-DR-Y
	③	M22-DR-X-SRG
	④	M22-DR-X-SWRGYB
Black	Black	M22S-DR-S
	Red	M22S-DR-R
	Green	M22S-DR-G
	White	M22S-DR-W
	Blue	M22S-DR-B
	Yellow	M22S-DR-Y
	③	M22S-DR-X-SRG
	④	M22S-DR-X-SWRGYB

M22S-DR-S



#### Notes

- ① 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.
- ② Includes contact block mounting adapter.
- ③ Buttonless operator comes with three color buttons (black, red, green).
- ④ Buttonless operator comes with all six color buttons (black, white, red, green, yellow, blue).



**Note:** This pilot device features a selectable function switch that enables the device to be set to either maintained or momentary operation.

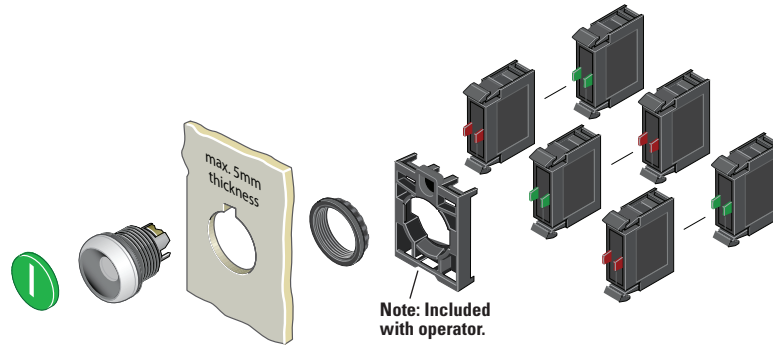
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## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

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#### Non-Illuminated Pushbuttons, Flush, Maintained <sup>①</sup>



#### Components

##### M22-XD-S



##### Button Plates <sup>②</sup>

Color	Inscription	Catalog Number
Black	—	<b>M22-XD-S</b> <sup>③</sup>
	Custom	<b>M22-XD-S-ETCH</b> <sup>④</sup>
	STOP	<b>M22-XD-S-GB0</b>
	START	<b>M22-XD-S-GB1</b>
	CLOSE	<b>M22-XD-S-GB2</b>
	UP	<b>M22-XD-S-GB3</b>
	DOWN	<b>M22-XD-S-GB4</b>
	OFF	<b>M22-XD-S-GB5</b>
	ON	<b>M22-XD-S-GB6</b>
	TEST	<b>M22-XD-S-GB9</b>
	FORWARD	<b>M22-XD-S-GB15</b>
	REVERSE	<b>M22-XD-S-GB16</b>
	RAISE	<b>M22-XD-S-GB17</b>
	LOWER	<b>M22-XD-S-GB18</b>
	Ⓞ	<b>M22-XD-S-X0</b>
	Ⓛ	<b>M22-XD-S-X1</b>
	Ⓜ	<b>M22-XD-S-X2</b>
	Ⓢ	<b>M22-XD-S-X4</b>
Ⓜ	<b>M22-XD-S-X5</b>	
Ⓛ	<b>M22-XD-S-X7</b>	
Red	—	<b>M22-XD-R</b> <sup>③</sup>
	Custom	<b>M22-XD-R-ETCH</b> <sup>④</sup>
	STOP	<b>M22-XD-R-GB0</b>
	OFF	<b>M22-XD-R-GB5</b>
	Ⓞ	<b>M22-XD-R-X0</b>
	Ⓛ	<b>M22-XD-R-X1</b>
Green	—	<b>M22-XD-G</b> <sup>③</sup>
	Custom	<b>M22-XD-G-ETCH</b> <sup>④</sup>
	START	<b>M22-XD-G-GB1</b>
	ON	<b>M22-XD-G-GB6</b>
	Ⓛ	<b>M22-XD-G-X1</b>
Blue	—	<b>M22-XD-B</b> <sup>③</sup>
	Custom	<b>M22-XD-B-ETCH</b> <sup>④</sup>
	RESET	<b>M22-XD-B-GB14</b>
	Ⓡ	<b>M22-XD-B-X6</b>
White	—	<b>M22-XD-W</b> <sup>③</sup>
	Custom	<b>M22-XD-W-ETCH</b> <sup>④</sup>
	START	<b>M22-XD-W-GB1</b>
	Ⓛ	<b>M22-XD-W-X1</b>
Yellow	—	<b>M22-XD-Y</b> <sup>③</sup>
	Custom	<b>M22-XD-Y-ETCH</b> <sup>④</sup>
Black, red, green	—	<b>M22-XD-SRG</b>
Black, white, red, green, yellow, blue	—	<b>M22-XD-SWRGYB</b>

##### Buttonless Operator

Bezel	Catalog Number <sup>⑤</sup>
Silver	<b>M22-DR-X</b>
Black	<b>M22S-DR-X</b>

##### M22-DR-X



##### M22S-DR-X



##### M22-K10



##### Contact Blocks <sup>②</sup>




Terminal Type	Contact Configuration <sup>⑥</sup>	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>

#### Notes


- ① 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.
- ② For complete listing of available button plates and contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.
- ③ Minimum order quantity of (10).
- ④ When ordering, specify inscription per catalog number suffix from the Symbols Library (see Pages V7-T37-114–V7-T37-121) into the Order Notes. For example, M22-XD-S-ETCH; Order Notes: Mark with symbol X91, Line item #\_.
- ⑤ Includes contact block mounting adapter.
- ⑥ All NC contact blocks are positively driven contact. Ⓜ

**Non-Illuminated Pushbuttons, Extended, Momentary**

**Complete Devices**

	Bezel	Button Color	Contact Block Configuration <sup>①</sup>	Catalog Number
 <p><b>M22-DH-R-K10</b></p>	Silver	Red	NO	<b>M22-DH-R-K10</b>
			NC	<b>M22-DH-R-K01</b>
			2NO	<b>M22-DH-R-K20</b>
			2NC	<b>M22-DH-R-K02</b>
			1NO-1NC	<b>M22-DH-R-K11</b>
 <p><b>M22S-DH-R-K10</b></p>	Black	Red	NO	<b>M22S-DH-R-K10</b>
			NC	<b>M22S-DH-R-K01</b>
			2NO	<b>M22S-DH-R-K20</b>
			2NC	<b>M22S-DH-R-K02</b>
			1NO-1NC	<b>M22S-DH-R-K11</b>
 <p><b>M22-DGH-R-K10</b></p>	Silver guarded	Red	NO	<b>M22-DGH-R-K10</b>
			NC	<b>M22-DGH-R-K01</b>
			2NO	<b>M22-DGH-R-K20</b>
			2NC	<b>M22-DGH-R-K02</b>
			1NO-1NC	<b>M22-DGH-R-K11</b>

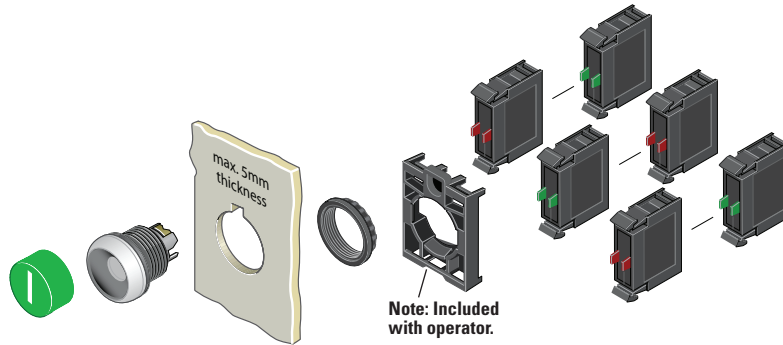
**Operators Only <sup>②</sup>**

	Bezel	Button Color	Inscription	Catalog Number
 <p><b>M22-DH-R</b></p>	Silver	Black	—	<b>M22-DH-S</b>
		Red	—	<b>M22-DH-R</b>
			STOP	<b>M22-DH-R-GB0</b>
			⊖	<b>M22-DH-R-X0</b>
		Green	—	<b>M22-DH-G</b>
		White	—	<b>M22-DH-W</b>
		Blue	—	<b>M22-DH-B</b>
		Yellow	—	<b>M22-DH-Y</b>
		③	—	<b>M22-DH-X-SRG</b>
		④	—	<b>M22-DH-X-SWRGYB</b>
 <p><b>M22S-DH-R</b></p>	Black	Black	—	<b>M22S-DH-S</b>
		Red	—	<b>M22S-DH-R</b>
			STOP	<b>M22S-DH-R-GB0</b>
			⊖	<b>M22S-DH-R-X0</b>
		Green	—	<b>M22S-DH-G</b>
		White	—	<b>M22S-DH-W</b>
		Blue	—	<b>M22S-DH-B</b>
		Yellow	—	<b>M22S-DH-Y</b>
		③	—	<b>M22S-DH-X-SRG</b>
		④	—	<b>M22S-DH-X-SWRGYB</b>
 <p><b>M22-DGH-R</b></p>	Silver guarded	Black	—	<b>M22-DGH-S</b>
		Red	—	<b>M22-DGH-R</b>
			STOP	<b>M22-DGH-R-GB0</b>
			⊖	<b>M22-DGH-R-X0</b>
		Green	—	<b>M22-DGH-G</b>
		White	—	<b>M22-DGH-W</b>
		Blue	—	<b>M22-DGH-B</b>
		Yellow	—	<b>M22-DGH-Y</b>

**Notes**

- ① All NC contact blocks are positively driven contact. ⊖
- ② Includes contact block mounting adapter.
- ③ Buttonless operator comes with three color buttons (black, red, green).
- ④ Buttonless operator comes with all six color buttons (black, white, red, green, yellow, blue).

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



#### Components

##### M22-XDH-R



#### Button Plates ①

Color	Inscription	Catalog Number
Black	—	M22-XDH-S ②
	Custom	M22-XDH-S-ETCH ③
	STOP	M22-XDH-S-GB0
	START	M22-XDH-S-GB1
	CLOSE	M22-XDH-S-GB2
	UP	M22-XDH-S-GB3
	DOWN	M22-XDH-S-GB4
	OFF	M22-XDH-S-GB5
	ON	M22-XDH-S-GB6
	TEST	M22-XDH-S-GB9
	FORWARD	M22-XDH-S-GB15
	REVERSE	M22-XDH-S-GB16
	RAISE	M22-XDH-S-GB17
	LOWER	M22-XDH-S-GB18
	Ⓞ	M22-XDH-S-X0
	①	M22-XDH-S-X1
	②	M22-XDH-S-X2
	⊕	M22-XDH-S-X4
⊖	M22-XDH-S-X5	
①	M22-XDH-S-X7	
Red	—	M22-XDH-R ②
	Custom	M22-XDH-R-ETCH ③
	STOP	M22-XDH-R-GB0
	OFF	M22-XDH-R-GB5
	Ⓞ	M22-XDH-R-X0
Green	—	M22-XDH-G ②
	Custom	M22-XDH-G-ETCH ③
	START	M22-XDH-G-GB1
	ON	M22-XDH-G-GB6
	①	M22-XDH-G-X1
Blue	—	M22-XDH-B ②
	Custom	M22-XDH-B-ETCH ③
	RESET	M22-XDH-B-GB14
	Ⓞ	M22-XDH-B-X6
	White	—
Custom		M22-XDH-W-ETCH ③
START		M22-XDH-W-GB1
①		M22-XDH-W-X1
Yellow	—	M22-XDH-Y ②
	Custom	M22-XDH-Y-ETCH ③
Black, red, green	—	M22-XDH-SRG
Black, white, red, green, yellow, blue	—	M22-XDH-SWRGYB

#### Buttonless Operator

Bezel Catalog Number ④

##### M22-D-X



Silver

M22-D-X

##### M22S-D-X



Black

M22S-D-X

##### M22-DG-X



Silver guarded

M22-DG-X

##### M22-K10



#### Contact Blocks ①

Terminal Type	Contact Configuration ⑤	Catalog Number
Screw	NO	M22-K10
	NO, early-make	M22-K10P
	NC	M22-K01
Spring-cage	NC, late-break	M22-K01D
	NO	M22-CK10
	NC	M22-CK01
	NC, late-break	M22-CK01D
	2NO	M22-CK20
	2NC	M22-CK02
	NO-NC	M22-CK11

#### Notes

- ① For complete listing of available button plates and contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.
- ② Minimum order quantity of (10).
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see Pages V7-T37-114–V7-T37-121) into the Order Notes. For example, M22-XDH-S-ETCH; Order Notes: Mark with symbol X91, Line item #...
- ④ Includes contact block mounting adapter.
- ⑤ All NC contact blocks are positively driven contact. ⊖

**Non-Illuminated Pushbuttons, Extended, Maintained** ①

**Operators Only** ②

**M22-DRH-W**



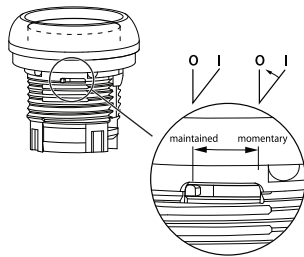
Bezel	Button Color	Catalog Number
Silver	Black	<b>M22-DRH-S</b>
	Red	<b>M22-DRH-R</b>
	Green	<b>M22-DRH-G</b>
	White	<b>M22-DRH-W</b>
	Blue	<b>M22-DRH-B</b>
	Yellow	<b>M22-DRH-Y</b>
	③	<b>M22-DRH-X-SRG</b>
	④	<b>M22-DRH-X-SWRGYB</b>
Black	Black	<b>M22S-DRH-S</b>
	Red	<b>M22S-DRH-R</b>
	Green	<b>M22S-DRH-G</b>
	White	<b>M22S-DRH-W</b>
	Blue	<b>M22S-DRH-B</b>
	Yellow	<b>M22S-DRH-Y</b>
	③	<b>M22S-DRH-X-SRG</b>
	④	<b>M22S-DRH-X-SWRGYB</b>

**M22S-DRH-W**



**Notes**

- ① 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.
- ② Includes contact block mounting adapter.
- ③ Buttonless operator comes with three color buttons (black, red, green).
- ④ Buttonless operator comes with all six color buttons (black, white, red, green, yellow, blue).



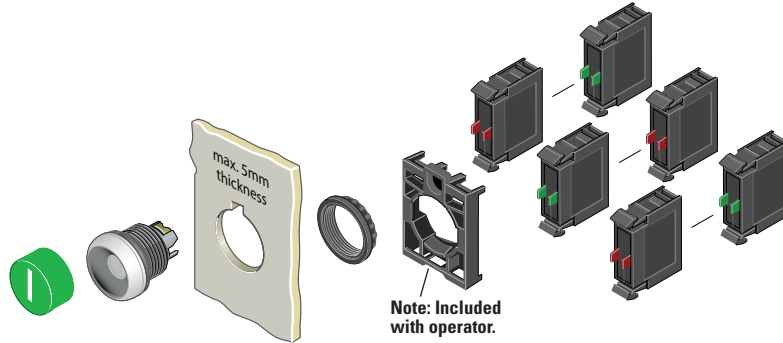
**Note:** This pilot device features a selectable function switch that enables the device to be set to either maintained or momentary operation.

# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

#### 37 Non-Illuminated Pushbuttons, Extended, Maintained ①



#### Components

##### M22-XDH-W



#### Button Plates ②

Color	Inscription	Catalog Number
Black	—	M22-XDH-S ③
	Custom	M22-XDH-S-ETCH ④
	STOP	M22-XDH-S-GB0
	START	M22-XDH-S-GB1
	CLOSE	M22-XDH-S-GB2
	UP	M22-XDH-S-GB3
	DOWN	M22-XDH-S-GB4
	OFF	M22-XDH-S-GB5
	ON	M22-XDH-S-GB6
	TEST	M22-XDH-S-GB9
	FORWARD	M22-XDH-S-GB15
	REVERSE	M22-XDH-S-GB16
	RAISE	M22-XDH-S-GB17
	LOWER	M22-XDH-S-GB18
	Ⓞ	M22-XDH-S-X0
	Ⓛ	M22-XDH-S-X1
	Ⓜ	M22-XDH-S-X2
	Ⓟ	M22-XDH-S-X4
Ⓢ	M22-XDH-S-X5	
Ⓣ	M22-XDH-S-X7	
Red	—	M22-XDH-R ③
	Custom	M22-XDH-R-ETCH ④
	STOP	M22-XDH-R-GB0
	OFF	M22-XDH-R-GB5
	Ⓞ	M22-XDH-R-X0
	Ⓛ	M22-XDH-R-X1
Green	—	M22-XDH-G ③
	Custom	M22-XDH-G-ETCH ④
	START	M22-XDH-G-GB1
	ON	M22-XDH-G-GB6
Blue	—	M22-XDH-B ③
	Custom	M22-XDH-B-ETCH ④
	RESET	M22-XDH-B-GB14
White	Ⓡ	M22-XDH-B-X6
	—	M22-XDH-W ③
	Custom	M22-XDH-W-ETCH ④
Yellow	START	M22-XDH-W-GB1
	Ⓛ	M22-XDH-W-X1
	—	M22-XDH-Y ③
Black, red, green	Custom	M22-XDH-Y-ETCH ④
	—	M22-XDH-SRG
Black, white, red, green, yellow, blue	—	M22-XDH-SWRGYB

#### Buttonless Operator

Bezel	Catalog Number ⑤
Silver	M22-DR-X

##### M22-DR-X



##### M22S-DR-X



Black	M22S-DR-X
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##### M22-K10



#### Contact Blocks ②

Terminal Type	Contact Configuration ⑥	Catalog Number
Screw	NO	M22-K10
	NO, early-make	M22-K10P
	NC	M22-K01
	NC, late-break	M22-K01D
Spring-cage	NO	M22-CK10
	NC	M22-CK01
	NC, late-break	M22-CK01D
	2NO	M22-CK20
	2NC	M22-CK02
	NO-NC	M22-CK11

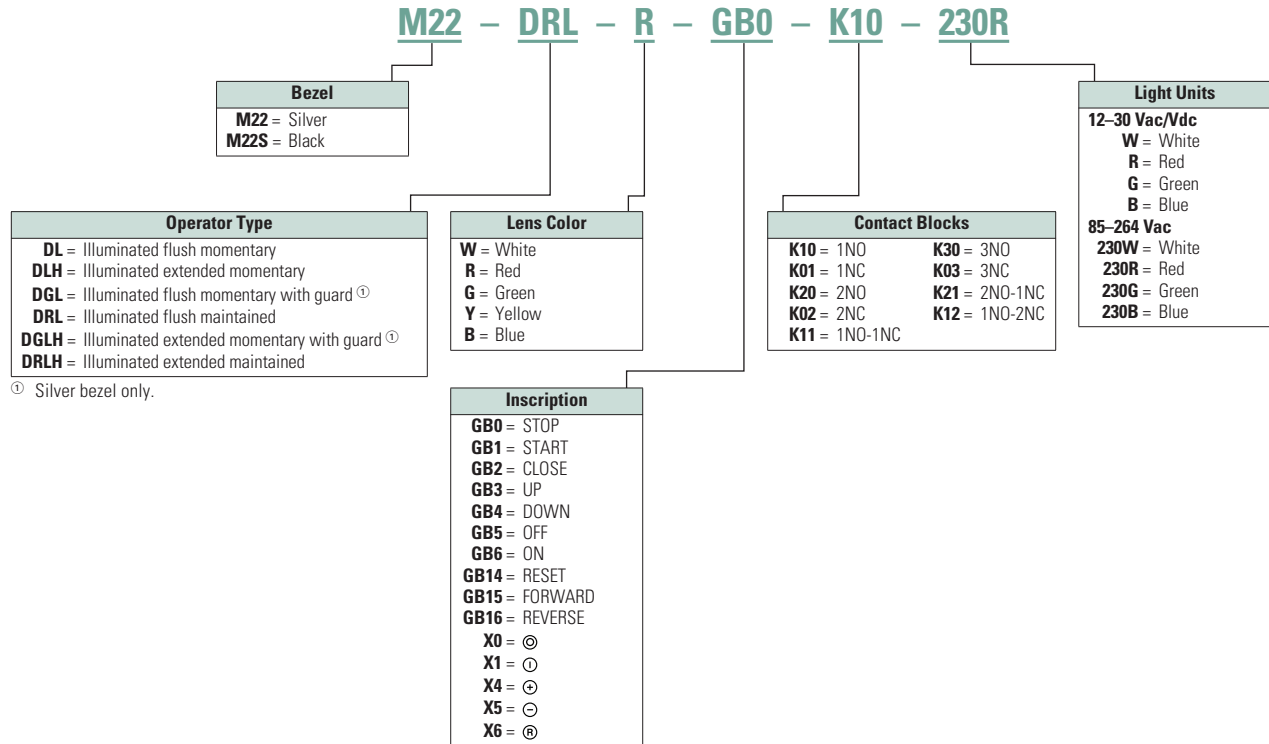
#### Notes

- 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.
- For complete listing of available button plates and contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.
- Minimum order quantity of (10).
- When ordering, specify inscription per catalog number suffix from the Symbols Library (see Pages V7-T37-114–V7-T37-121) into the Order Notes. For example, M22-XDH-S-ETCH; Order Notes: Mark with symbol X91, Line item #\_.
- Includes contact block mounting adapter.
- All NC contact blocks are positively driven contact. Ⓢ

**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 Pushbuttons, Flush, Momentary

#### Complete Devices

	Bezel	Button Color	Contact Block Configuration <sup>①</sup>	Light Unit Voltage	Catalog Number
<b>M22-DL-G-K01-G</b> 	Silver	Red	NC	12–30 Vac/Vdc	<b>M22-DL-R-K01-R</b>
			NC	85–264 Vac	<b>M22-DL-R-K01-230R</b>
			2NC	12–30 Vac/Vdc	<b>M22-DL-R-K02-R</b>
			2NC	85–264 Vac	<b>M22-DL-R-K02-230R</b>
			1NO/1NC	12–30 Vac/Vdc	<b>M22-DL-R-K11-R</b>
			1NO/1NC	85–264 Vac	<b>M22-DL-R-K11-230R</b>
		Green	NO	12–30 Vac/Vdc	<b>M22-DL-G-K10-G</b>
			NO	85–264 Vac	<b>M22-DL-G-K10-230G</b>
			2NO	12–30 Vac/Vdc	<b>M22-DL-G-K20-G</b>
			2NO	85–264 Vac	<b>M22-DL-G-K20-230G</b>
			1NO/1NC	12–30 Vac/Vdc	<b>M22-DL-G-K11-G</b>
			1NO/1NC	85–264 Vac	<b>M22-DL-G-K11-230G</b>
		White	NO	12–30 Vac/Vdc	<b>M22-DL-W-K10-W</b>
			NO	85–264 Vac	<b>M22-DL-W-K10-230W</b>
			2NO	12–30 Vac/Vdc	<b>M22-DL-W-K20-W</b>
			2NO	85–264 Vac	<b>M22-DL-W-K20-230W</b>
			1NO/1NC	12–30 Vac/Vdc	<b>M22-DL-W-K11-W</b>
			1NO/1NC	85–264 Vac	<b>M22-DL-W-K11-230W</b>
<b>M22S-DL-G-K01-G</b> 	Black	Red	NC	12–30 Vac/Vdc	<b>M22S-DL-R-K01-R</b>
			NC	85–264 Vac	<b>M22S-DL-R-K01-230R</b>
			2NC	12–30 Vac/Vdc	<b>M22S-DL-R-K02-R</b>
			2NC	85–264 Vac	<b>M22S-DL-R-K02-230R</b>
			1NO/1NC	12–30 Vac/Vdc	<b>M22S-DL-R-K11-R</b>
			1NO/1NC	85–264 Vac	<b>M22S-DL-R-K11-230R</b>
		Green	NO	12–30 Vac/Vdc	<b>M22S-DL-G-K10-G</b>
			NO	85–264 Vac	<b>M22S-DL-G-K10-230G</b>
			2NO	12–30 Vac/Vdc	<b>M22S-DL-G-K20-G</b>
			2NO	85–264 Vac	<b>M22S-DL-G-K20-230G</b>
			1NO/1NC	12–30 Vac/Vdc	<b>M22S-DL-G-K11-G</b>
			1NO/1NC	85–264 Vac	<b>M22S-DL-G-K11-230G</b>
		White	NO	12–30 Vac/Vdc	<b>M22S-DL-W-K10-W</b>
			NO	85–264 Vac	<b>M22S-DL-W-K10-230W</b>
			2NO	12–30 Vac/Vdc	<b>M22S-DL-W-K20-W</b>
			2NO	85–264 Vac	<b>M22S-DL-W-K20-230W</b>
			1NO/1NC	12–30 Vac/Vdc	<b>M22S-DL-W-K11-W</b>
			1NO/1NC	85–264 Vac	<b>M22S-DL-W-K11-230W</b>

**Note**

① All NC contact blocks are positively driven contact. ⊖

### Illuminated Pushbuttons, Flush, Momentary

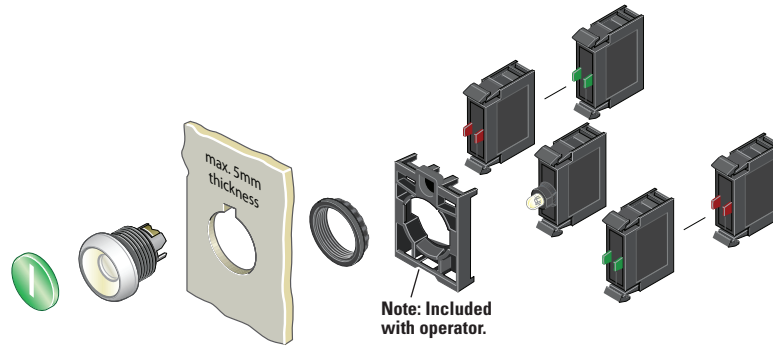
#### Operators Only <sup>①</sup>

	Bezel	Button Color	Catalog Number
<b>M22-DL-G</b> 	Silver	Red	<b>M22-DL-R</b>
		Green	<b>M22-DL-G</b>
		White	<b>M22-DL-W</b>
		Blue	<b>M22-DL-B</b>
		Yellow	<b>M22-DL-Y</b>
<b>M22S-DL-G</b> 	Black	Red	<b>M22S-DL-R</b>
		Green	<b>M22S-DL-G</b>
		White	<b>M22S-DL-W</b>
		Blue	<b>M22S-DL-B</b>
		Yellow	<b>M22S-DL-Y</b>
<b>M22-DGL-G</b> 	Silver guarded	Red	<b>M22-DGL-R</b>
		Green	<b>M22-DGL-G</b>
		White	<b>M22-DGL-W</b>
		Blue	<b>M22-DGL-B</b>
		Yellow	<b>M22-DGL-Y</b>

**Note**

<sup>①</sup> Includes contact block mounting adapter.

#### Illuminated Pushbuttons, Flush, Momentary



#### Components

##### M22-XDL-G



#### Button Lenses ①

Color	Inscription	Catalog Number
Red	—	<b>M22-XDL-R</b> ②
	Custom	<b>M22-XDL-R-ETCH</b> ③
	STOP	<b>M22-XDL-R-GB0</b>
	OFF	<b>M22-XDL-R-GB5</b>
	⊙	<b>M22-XDL-R-X0</b>
Green	—	<b>M22-XDL-G</b> ②
	Custom	<b>M22-XDL-G-ETCH</b> ③
	START	<b>M22-XDL-G-GB1</b>
	ON	<b>M22-XDL-G-GB6</b>
	⓪	<b>M22-XDL-G-X1</b>
Blue	—	<b>M22-XDL-B</b> ②
	Custom	<b>M22-XDL-B-ETCH</b> ③
	RESET	<b>M22-XDL-B-GB14</b>
White	—	<b>M22-XDL-W</b> ②
	Custom	<b>M22-XDL-W-ETCH</b> ③
Yellow	—	<b>M22-XDL-Y</b> ②
	Custom	<b>M22-XDL-Y-ETCH</b> ③

#### Buttonless Operator

Bezel	Catalog Number ④
Silver	<b>M22-DL-X</b>

##### M22-DL-X



##### M22S-DL-X



Black	<b>M22S-DL-X</b>
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##### M22-DGL-X



Silver guarded	<b>M22-DGL-X</b>
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##### M22-LED-W



#### Light Units ①

Terminal Type	LED Color	Light Unit Voltage	Catalog Number
Screw	White	12–30	<b>M22-LED-W</b>
	Red	Vac/Vdc	<b>M22-LED-R</b>
	Green		<b>M22-LED-G</b>
	Blue		<b>M22-LED-B</b>
Screw	White	85–264	<b>M22-LED230-W</b>
	Red	Vac	<b>M22-LED230-R</b>
	Green		<b>M22-LED230-G</b>
	Blue		<b>M22-LED230-B</b>

##### M22-K10



#### Contact Blocks ①



Terminal Type	Contact Configuration ⑤	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>

#### Notes



- ① For complete listing of available button lenses, light units and contact blocks, see Accessories, **Pages V7-T37-96–V7-T37-101**.
- ② Minimum order quantity of (10).
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes. For example, M22-XDL-R-ETCH; Order Notes: Mark with symbol X91, Line item #\_.
- ④ Includes contact block mounting adapter.
- ⑤ All NC contact blocks are positively driven contact. ⊖

### Illuminated Pushbuttons, Flush, Maintained <sup>②</sup>

#### Complete Devices

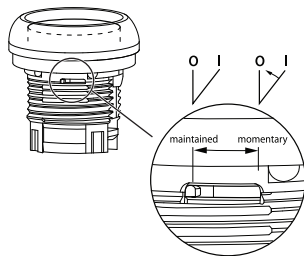
	Bezel	Button Color	Contact Block Configuration <sup>①</sup>	Light Unit Voltage	Catalog Number
 M22-DRL-W-K10-W	Silver	White	NO	12–30 Vac/Vdc	M22-DRL-W-K10-W
			NO	85–264 Vac	M22-DRL-W-K10-230W
			NC	12–30 Vac/Vdc	M22-DRL-W-K01-W
			NC	85–264 Vac	M22-DRL-W-K01-230W
			2NO	12–30 Vac/Vdc	M22-DRL-W-K20-W
			2NO	85–264 Vac	M22-DRL-W-K20-230W
			2NC	12–30 Vac/Vdc	M22-DRL-W-K02-W
			2NC	85–264 Vac	M22-DRL-W-K02-230W
			1NO/1NC	12–30 Vac/Vdc	M22-DRL-W-K11-W
			1NO/1NC	85–264 Vac	M22-DRL-W-K11-230W
 M22S-DRL-W-K10-W	Black	White	NO	12–30 Vac/Vdc	M22S-DRL-W-K10-W
			NO	85–264 Vac	M22S-DRL-W-K10-230W
			NC	12–30 Vac/Vdc	M22S-DRL-W-K01-W
			NC	85–264 Vac	M22S-DRL-W-K01-230W
			2NO	12–30 Vac/Vdc	M22S-DRL-W-K20-W
			2NO	85–264 Vac	M22S-DRL-W-K20-230W
			2NC	12–30 Vac/Vdc	M22S-DRL-W-K02-W
			2NC	85–264 Vac	M22S-DRL-W-K02-230W
			1NO/1NC	12–30 Vac/Vdc	M22S-DRL-W-K11-W
			1NO/1NC	85–264 Vac	M22S-DRL-W-K11-230W

#### Operators Only <sup>③</sup>

	Bezel	Button Color	Catalog Number
 M22-DRL-W	Silver	Red	M22-DRL-R
		Green	M22-DRL-G
		White	M22-DRL-W
		Blue	M22-DRL-B
		Yellow	M22-DRL-Y
 M22S-DRL-W	Black	Red	M22S-DRL-R
		Green	M22S-DRL-G
		White	M22S-DRL-W
		Blue	M22S-DRL-B
		Yellow	M22S-DRL-Y

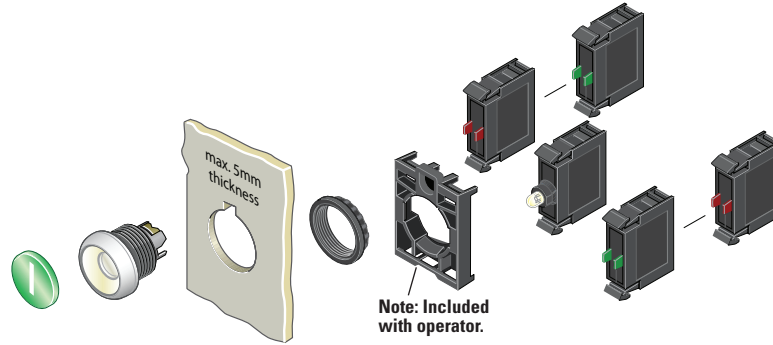
#### Notes

- ① All NC contact blocks are positively driven contact. 
- ② 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.
- ③ Includes contact block mounting adapter.



**Note:** This pilot device features a selectable function switch that enables the device to be set to either maintained or momentary operation.

#### Illuminated Pushbuttons, Flush, Maintained <sup>①</sup>



#### Components

##### M22-XDL-W



#### Button Lenses <sup>②</sup>

Color	Inscription	Catalog Number
Red	—	<b>M22-XDL-R</b> <sup>③</sup>
	Custom	<b>M22-XDL-R-ETCH</b> <sup>④</sup>
	STOP	<b>M22-XDL-R-GB0</b>
	OFF	<b>M22-XDL-R-GB5</b>
	⊙	<b>M22-XDL-R-X0</b>
Green	—	<b>M22-XDL-G</b> <sup>③</sup>
	Custom	<b>M22-XDL-G-ETCH</b> <sup>④</sup>
	START	<b>M22-XDL-G-GB1</b>
	ON	<b>M22-XDL-G-GB6</b>
	Ⓛ	<b>M22-XDL-G-X1</b>
Blue	—	<b>M22-XDL-B</b> <sup>③</sup>
	Custom	<b>M22-XDL-B-ETCH</b> <sup>④</sup>
	RESET	<b>M22-XDL-B-GB14</b>
	Ⓡ	<b>M22-XDL-B-X6</b>
White	—	<b>M22-XDL-W</b> <sup>③</sup>
	Custom	<b>M22-XDL-W-ETCH</b> <sup>④</sup>
Yellow	—	<b>M22-XDL-Y</b> <sup>③</sup>
	Custom	<b>M22-XDL-Y-ETCH</b> <sup>④</sup>

#### Buttonless Operator

Bezel	Catalog Number <sup>⑤</sup>
Silver	<b>M22-DRL-X</b>

##### M22-DRL-X



##### M22S-DRL-X



Black	<b>M22S-DRL-X</b>
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##### M22-LED-W



#### Light Units <sup>②</sup>

Terminal Type	LED Color	Light Unit Voltage	Catalog Number
Screw	White	12–30 Vac/Vdc	<b>M22-LED-W</b>
	Red		<b>M22-LED-R</b>
	Green		<b>M22-LED-G</b>
	Blue		<b>M22-LED-B</b>
Screw	White	85–264 Vac	<b>M22-LED230-W</b>
	Red		<b>M22-LED230-R</b>
	Green		<b>M22-LED230-G</b>
	Blue		<b>M22-LED230-B</b>

##### M22-K10



#### Contact Blocks <sup>②</sup>



Terminal Type	Contact Configuration <sup>⑥</sup>	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>

#### Notes

- ① 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.
- ② For complete listing of available button lenses, light units and contact blocks, see Accessories, **Pages V7-T37-96–V7-T37-101**.
- ③ Minimum order quantity of (10).
- ④ When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes. For example, M22-XDL-R-ETCH; Order Notes: Mark with symbol X91, Line item #.
- ⑤ Includes contact block mounting adapter.
- ⑥ All NC contact blocks are positively driven contact. ⊖

Illuminated Pushbuttons, Extended, Momentary




Complete Devices

	Bezel	Button Color	Contact Block Configuration <sup>①</sup>	Light Unit Voltage	Catalog Number
	Silver	Red	1NO/1NC	12–30 Vac/Vdc	<b>M22-DLH-R-K11-R</b>
			1NO/1NC	85–264 Vac	<b>M22-DLH-R-K11-230R</b>
		Green	2NO	12–30 Vac/Vdc	<b>M22-DLH-G-K20-G</b>
			2NO	85–264 Vac	<b>M22-DLH-G-K20-230G</b>
		White	2NO	12–30 Vac/Vdc	<b>M22-DLH-W-K20-W</b>
			2NO	85–264 Vac	<b>M22-DLH-W-K20-230W</b>
	Black	Red	1NO/1NC	12–30 Vac/Vdc	<b>M22S-DLH-R-K11-R</b>
			1NO/1NC	85–264 Vac	<b>M22S-DLH-R-K11-230R</b>
		Green	2NO	12–30 Vac/Vdc	<b>M22S-DLH-G-K20-G</b>
			2NO	85–264 Vac	<b>M22S-DLH-G-K20-230G</b>
		White	2NO	12–30 Vac/Vdc	<b>M22S-DLH-W-K20-W</b>
			2NO	85–264 Vac	<b>M22S-DLH-W-K20-230W</b>

Complete Press-to-Test Units

Bezel	Button Color	Light Unit Voltage	Catalog Number
Silver	Red	12–30 Vac/Vdc	<b>M22-T-R-R</b>
	Blue		<b>M22-T-B-B</b>
	Yellow		<b>M22-T-Y-W</b>
	Green		<b>M22-T-G-G</b>
	White		<b>M22-T-W-W</b>
	Red	85–264 Vac	<b>M22-T-R-230R</b>
	Blue		<b>M22-T-R-230B</b>
	Yellow		<b>M22-T-Y-230W</b>
	Green		<b>M22-T-G-230G</b>
	White		<b>M22-T-W-230W</b>
Black	Red	12–30 Vac/Vdc	<b>M22S-T-R-R</b>
	Blue		<b>M22S-T-B-B</b>
	Yellow		<b>M22S-T-Y-W</b>
	Green		<b>M22S-T-G-G</b>
	White		<b>M22S-T-W-W</b>
	Red	85–264 Vac	<b>M22S-T-R-230R</b>
	Blue		<b>M22S-T-B-230B</b>
	Yellow		<b>M22S-T-Y-230W</b>
	Green		<b>M22S-T-G-230G</b>
	White		<b>M22S-T-W-230W</b>

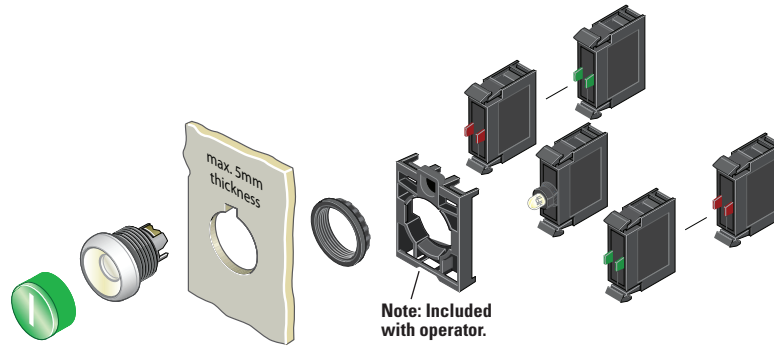
Operators Only<sup>②</sup>

	Bezel	Button Color	Catalog Number
	Silver	Red	<b>M22-DLH-R</b>
		Green	<b>M22-DLH-G</b>
		White	<b>M22-DLH-W</b>
		Blue	<b>M22-DLH-B</b>
		Yellow	<b>M22-DLH-Y</b>
	Black	Red	<b>M22S-DLH-R</b>
		Green	<b>M22S-DLH-G</b>
		White	<b>M22S-DLH-W</b>
		Blue	<b>M22S-DLH-B</b>
		Yellow	<b>M22S-DLH-Y</b>
	Silver guarded	Red	<b>M22-DGLH-R</b>
		Green	<b>M22-DGLH-G</b>
		White	<b>M22-DGLH-W</b>
		Blue	<b>M22-DGLH-B</b>
		Yellow	<b>M22-DGLH-Y</b>

Notes

- ① All NC contact blocks are positively driven contact. ⊖
- ② Includes contact block mounting adapter.

#### Illuminated Pushbuttons, Extended, Momentary



#### Components

##### M22-XDH-R



#### Button Lenses ①

Color	Inscription	Catalog Number
Red	—	<b>M22-XDLH-R</b> ②
	Custom	<b>M22-XDLH-R-ETCH</b> ③
	STOP	<b>M22-XDLH-R-GB0</b>
	OFF	<b>M22-XDLH-R-GB5</b>
	Ⓞ	<b>M22-XDLH-R-X0</b>
Green	—	<b>M22-XDLH-G</b> ②
	Custom	<b>M22-XDLH-G-ETCH</b> ③
	START	<b>M22-XDLH-G-GB1</b>
	ON	<b>M22-XDLH-G-GB6</b>
	Ⓛ	<b>M22-XDLH-G-X1</b>
Blue	—	<b>M22-XDLH-B</b> ②
	Custom	<b>M22-XDLH-B-ETCH</b> ③
	RESET	<b>M22-XDLH-B-GB14</b>
White	—	<b>M22-XDLH-W</b> ②
	Custom	<b>M22-XDLH-W-ETCH</b> ③
Yellow	—	<b>M22-XDLH-Y</b> ②
	Custom	<b>M22-XDLH-Y-ETCH</b> ③

#### Buttonless Operator

Bezel	Catalog Number ④
Silver	<b>M22-DL-X</b>

##### M22-DL-X



##### M22S-DL-X



Black	<b>M22S-DL-X</b>
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##### M22-DGL-X



Silver guarded	<b>M22-DGL-X</b>
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##### M22-LED-W



#### Light Units ①

Terminal Type	LED Color	Light Unit Voltage	Catalog Number
Screw	White	12–30 Vac/Vdc	<b>M22-LED-W</b>
	Red		<b>M22-LED-R</b>
	Green		<b>M22-LED-G</b>
	Blue		<b>M22-LED-B</b>
Screw	White	85–264 Vac	<b>M22-LED230-W</b>
	Red		<b>M22-LED230-R</b>
	Green		<b>M22-LED230-G</b>
	Blue		<b>M22-LED230-B</b>

##### M22-K10



#### Contact Blocks ①

Terminal Type	Contact Configuration ⑤	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>

#### Notes

- ① For complete listing of available button lenses, light units and contact blocks, see Accessories, **Pages V7-T37-96–V7-T37-101**.
- ② Minimum order quantity of (10).
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes. For example, M22-XDH-S-ETCH; Order Notes: Mark with symbol X91, Line item #\_.
- ④ Includes contact block mounting adapter.
- ⑤ All NC contact blocks are positively driven contact. Ⓞ

### Illuminated Pushbuttons, Extended, Maintained <sup>①</sup>

#### Operators Only <sup>②</sup>

**M22-DRLH-W**



Bezel	Button Color	Catalog Number
Silver	Red	<b>M22-DRLH-R</b>
	Green	<b>M22-DRLH-G</b>
	White	<b>M22-DRLH-W</b>
	Blue	<b>M22-DRLH-B</b>
	Yellow	<b>M22-DRLH-Y</b>

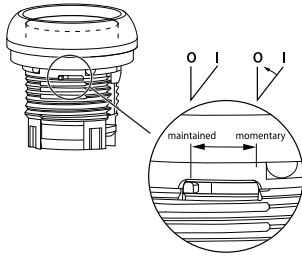
**M22S-DRLH-W**



Black	Red	<b>M22S-DRLH-R</b>
	Green	<b>M22S-DRLH-G</b>
	White	<b>M22S-DRLH-W</b>
	Blue	<b>M22S-DRLH-B</b>
	Yellow	<b>M22S-DRLH-Y</b>

#### Notes

- ① 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.
- ② Includes contact block mounting adapter.



**Note:** This pilot device features a selectable function switch that enables the device to be set to either maintained or momentary operation.



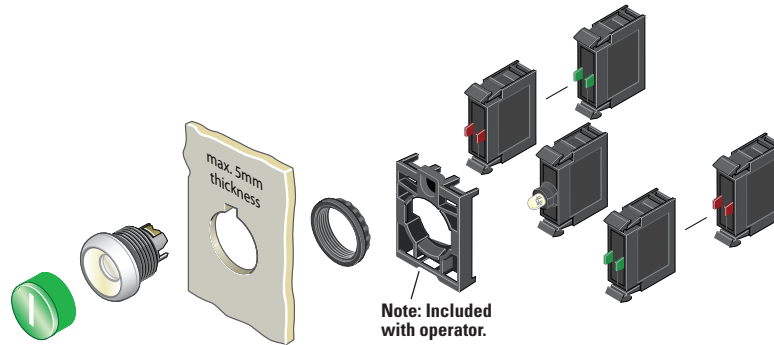
# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

37

#### Illuminated Pushbuttons, Extended, Maintained<sup>①</sup>



#### Components

##### M22-XDLH-W



#### Button Lenses<sup>②</sup>

Color	Inscription	Catalog Number
Red	—	<b>M22-XDLH-R</b> <sup>③</sup>
	Custom	<b>M22-XDLH-R-ETCH</b> <sup>④</sup>
	STOP	<b>M22-XDLH-R-GB0</b>
	OFF	<b>M22-XDLH-R-GB5</b>
	Ⓞ	<b>M22-XDLH-R-X0</b>
Green	—	<b>M22-XDLH-G</b> <sup>③</sup>
	Custom	<b>M22-XDLH-G-ETCH</b> <sup>④</sup>
	START	<b>M22-XDLH-G-GB1</b>
	ON	<b>M22-XDLH-G-GB6</b>
	Ⓛ	<b>M22-XDLH-G-X1</b>
Blue	—	<b>M22-XDLH-B</b> <sup>③</sup>
	Custom	<b>M22-XDLH-B-ETCH</b> <sup>④</sup>
	RESET	<b>M22-XDLH-B-GB14</b>
White	—	<b>M22-XDLH-W</b> <sup>③</sup>
	Custom	<b>M22-XDLH-W-ETCH</b> <sup>④</sup>
Yellow	—	<b>M22-XDLH-Y</b> <sup>③</sup>
	Custom	<b>M22-XDLH-Y-ETCH</b> <sup>④</sup>

#### Buttonless Operator

Bezel	Catalog Number <sup>⑤</sup>
Silver	<b>M22-DRL-X</b>

##### M22-DRL-X



##### M22S-DRL-X



Black	<b>M22S-DRL-X</b>
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##### M22-LED-W



#### Light Units<sup>②</sup>

Terminal Type	LED Color	Light Unit Voltage	Catalog Number
Screw	White	12–30 Vac/Vdc	<b>M22-LED-W</b>
	Red		<b>M22-LED-R</b>
	Green		<b>M22-LED-G</b>
	Blue		<b>M22-LED-B</b>
Spring-cage	White	85–264 Vac	<b>M22-LED230-W</b>
	Red		<b>M22-LED230-R</b>
	Green		<b>M22-LED230-G</b>
	Blue		<b>M22-LED230-B</b>

##### M22-K10



#### Contact Blocks<sup>②</sup>

Terminal Type	Contact Configuration <sup>⑥</sup>	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>

#### Notes

- ① 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.
- ② For complete listing of available button lenses, light units and contact blocks, see Accessories, **Pages V7-T37-96–V7-T37-101**.
- ③ Minimum order quantity of (10).
- ④ When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes. For example, M22-XDLH-S-ETCH; Order Notes: Mark with symbol X91, Line item #\_.
- ⑤ Includes contact block mounting adapter.
- ⑥ All NC contact blocks are positively driven contact. ⊖

**Indicating Lights**

**Product Description**

Eaton’s M22 indicating lights use the 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 engraved. Indicating lights can be ordered as complete devices, including lens and LED unit, or as modular components.

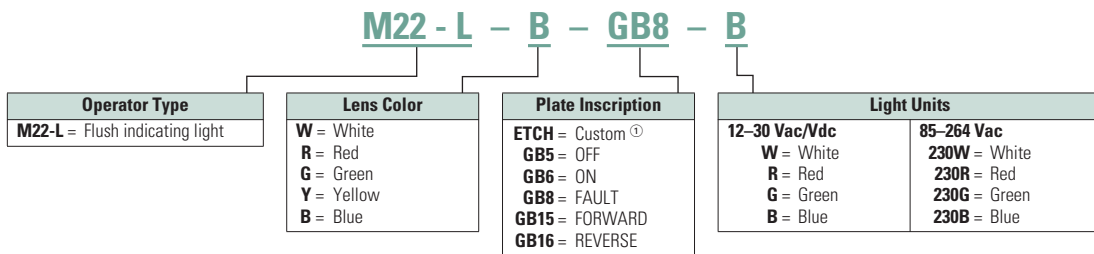
**Features**

- Customizable laser engraving on all lenses
  - LED offering only for improved brightness quality and up to 100,000 hours of operation
  - Lenses designed specifically for LED illumination
  - Modular construction makes assembly fast and simplifies stocking of components and complete devices
  - Capable of communicating via ASi protocol with ASi adapter modules
- Protection Type**
- IP67, IP69K
  - NEMA 4X, 13

**Catalog Number Selection**

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

**Indicating Lights**



**Note:** Light unit should match color of lens. Use white light unit with yellow lens.

① When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes. For example, M22-L-B-ETCH; Order Notes: Mark with symbol X91, Line item #\_.

**Product Selection**

**Indicating Lights, Flush**

**M22-L-R-R**



**Complete Devices**

Lens Color	Light Color	Light Unit Voltage	Catalog Number
White	White	12–30 Vac/Vdc	M22-L-W-W
Red	Red		M22-L-R-R
Green	Green		M22-L-G-G
Yellow	White		M22-L-Y-W
Blue	Blue		M22-L-B-B
Amber	White		M22-L-A-W
White	White	85–264 Vac	M22-L-W-230W
Red	Red		M22-L-R-230R
Green	Green		M22-L-G-230G
Yellow	White		M22-L-Y-230W
Blue	Blue		M22-L-B-230B
Amber	White		M22-L-A-230W

**M22-L-R**



**Operators Only ①**

Lens Color	Catalog Number
White	M22-L-W
Red	M22-L-R
Green	M22-L-G
Yellow	M22-L-Y
Blue	M22-L-B
Amber	M22-L-A

**Note**

① Includes contact block mounting adapter.

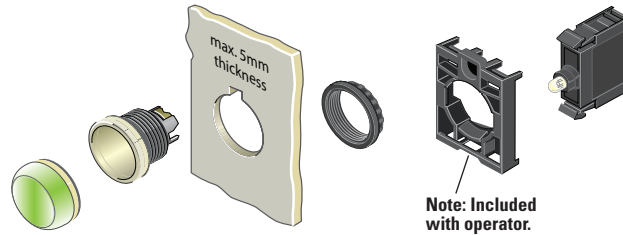
# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

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#### Indicating Lights, Flush



#### Components

##### M22-XL-R



#### Lenses ①

Color	Inscription	Catalog Number
Red	—	<b>M22-XL-R</b> ②
	Custom	<b>M22-XL-R-ETCH</b> ③
	OFF	<b>M22-XL-R-GB5</b>
Green	—	<b>M22-XL-G</b> ②
	Custom	<b>M22-XL-G-ETCH</b> ③
	ON	<b>M22-XL-G-GB6</b>
	REVERSE	<b>M22-XL-G-GB16</b>
Blue	—	<b>M22-XL-B</b> ②
	Custom	<b>M22-XL-B-ETCH</b> ③
	FAULT	<b>M22-XL-B-GB8</b>
White	—	<b>M22-XL-W</b> ②
	Custom	<b>M22-XL-W-ETCH</b> ③
	OFF	<b>M22-XL-W-GB5</b>
	ON	<b>M22-XL-W-GB6</b>
	FAULT	<b>M22-XL-W-GB8</b>
Yellow	—	<b>M22-XL-Y</b> ②
	Custom	<b>M22-XL-Y-ETCH</b> ③
Amber	—	<b>M22-XL-A</b> ②
	Custom	<b>M22-XL-A-ETCH</b> ③

##### M22-LED-W



#### Light Units ①④

Terminal Type	LED Color	Light Unit Voltage	Catalog Number
Screw	White	12–30	<b>M22-LED-W</b>
	Red	Vac/Vdc	<b>M22-LED-R</b>
	Green		<b>M22-LED-G</b>
Screw	Blue		<b>M22-LED-B</b>
	White	85–264	<b>M22-LED230-W</b>
	Red	Vac	<b>M22-LED230-R</b>
	Green		<b>M22-LED230-G</b>
	Blue		<b>M22-LED230-B</b>

#### Notes

- ① For complete listing of available lenses and light units, see Accessories, Pages V7-T37-96–V7-T37-101.
- ② Minimum order quantity of (10).
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see Pages V7-T37-114–V7-T37-121) into the Order Notes. For example, M22-XL-R-ETCH; Order Notes: Mark with symbol X91, Line item #\_.
- ④ Select the same color LED element as lens color; for yellow and amber lenses, choose a white LED.

##### M22-L-X



#### Lensless Indicating Light

##### Catalog Number

**M22-L-X**

**Emergency Stops**

**Product Description**

Eaton’s M22 emergency stops are a durable and reliable solution to a variety of e-stop applications. With standard push-pull, as well as twist-to-release and key-release, illuminated options and red or black operators,

the M22 e-stop is a robust solution. As with all operators, they can be ordered as a ready to install complete device or as modular components for the perfect fit.

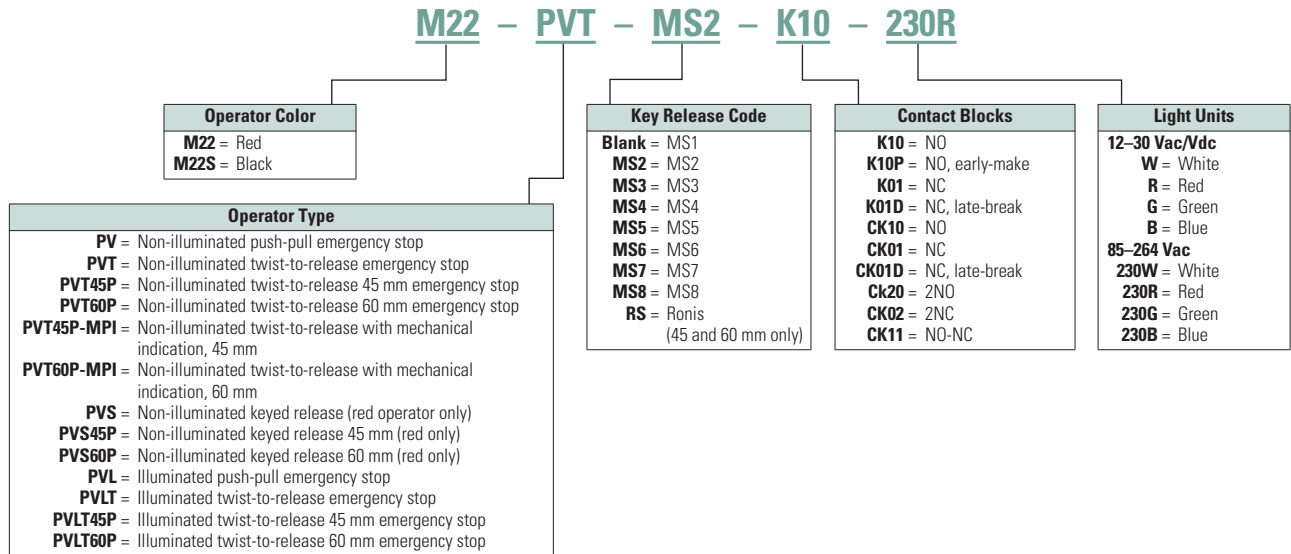
**Features**

- Push-pull and twist to release options available as well as illuminated and keyed release
  - LED offering only for improved brightness quality and up to 100,000 hours of operation
  - More than 100,000 mechanical operations
  - Capable of communicating via ASi protocol with ASi adapter modules
- Protection Type**
- IP67, IP69K (IP66 key-release)
  - NEMA 4X, 13

**Catalog Number Selection**

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

**Emergency Stops**



**Product Selection**

**Non-Illuminated Emergency Stops**

**M22-PV-K01** **Complete Devices**

Type	Color	Contact Block Configuration <sup>①</sup>	Catalog Number
Push-pull	Red	NC	<b>M22-PV-K01</b>
		2NC	<b>M22-PV-K02</b>
		1NO-2NC	<b>M22-PV-K12</b>
Twist-to-release	Red	NC	<b>M22-PVT-K01</b>
		2NC	<b>M22-PVT-K02</b>
		1NO-2NC	<b>M22-PVT-K12</b>
Key release	Red	NC	<b>M22-PVS-K01</b>
		2NC	<b>M22-PVS-K02</b>
		1NO-2NC	<b>M22-PVS-K12</b>



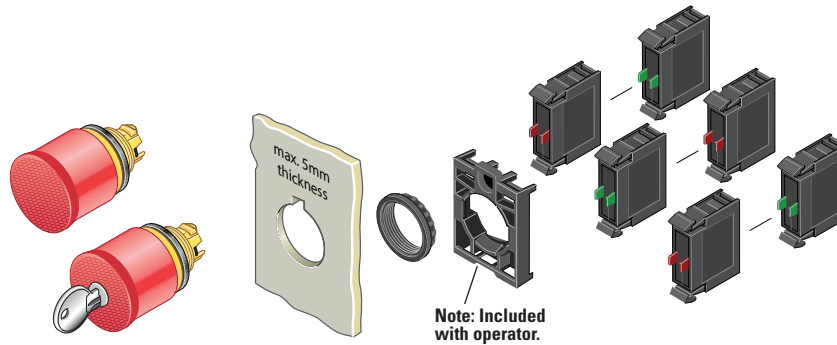
**Note**  
<sup>①</sup> All NC contact blocks are positively driven contact. ⊖

# 37.4 Pushbuttons and Indicating Lights

## 22.5 mm Modular Pushbuttons—M22



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### Non-Illuminated Emergency Stops



### Components

#### Operators Only <sup>①</sup>

Type	Color	Actuator Size	Catalog Number
<b>M22-PV</b> 	Red	35 mm	<b>M22-PV</b>
	Black	35 mm	<b>M22S-PV</b>
<b>M22S-PVT</b> 	Red	35 mm	<b>M22-PVT</b>
		45 mm	<b>M22-PVT45P</b>
		60 mm	<b>M22-PVT60P</b>
	Black		<b>M22S-PVT</b>
Key release <sup>②</sup>	Red	35 mm	<b>M22-PVS <sup>③</sup></b>
			<b>M22-PVS-MS2</b>
			<b>M22-PVS-MS3</b>
			<b>M22-PVS-MS4</b>
			<b>M22-PVS-MS5</b>
			<b>M22-PVS-MS6</b>
			<b>M22-PVS-MS7</b>
			<b>M22-PVS-MS8</b>
		45 mm	<b>M22-PVS45P</b>
			<b>M22-PVS45P-MS2</b>
			<b>M22-PVS45P-MS3</b>
			<b>M22-PVS45P-MS4</b>
			<b>M22-PVS45P-MS5</b>
			<b>M22-PVS45P-MS6</b>
			<b>M22-PVS45P-MS7</b>
			<b>M22-PVS45P-MS8</b>
		60 mm	<b>M22-PVS45P-RS</b>
			<b>M22-PVS60P</b>
			<b>M22-PVS60P-MS2</b>
			<b>M22-PVS60P-MS3</b>
<b>M22-PVS60P-MS4</b>			
<b>M22-PVS60P-MS5</b>			
<b>M22-PVS60P-MS6</b>			
<b>M22-PVS60P-MS7</b>			
<b>M22-PVS60P-MS8</b>			
<b>M22-PVS60P-RS</b>			
Mechanical indication	Red	45 mm	<b>M22-PVT45P-MPI</b>
		60 mm	<b>M22-PVT60P-MPI</b>

#### M22-K10



#### Contact Blocks <sup>④</sup>

Terminal Type	Mounting Location <sup>⑤</sup>	Contact Configuration <sup>⑥</sup>	Catalog Number		
Screw	Front	NO	<b>M22-K10</b>		
		NO, early-make	<b>M22-K10P</b>		
		NC	<b>M22-K01</b>		
		NC, late-break	<b>M22-K01D</b>		
		SMCB, NC	<b>M22-K01SMC10</b>		
		SMCB, 2NC	<b>M22-K02SMC10</b>		
	Base	SMCB, NC	<b>M22-KC01SMC10</b>		
		SMCB, 2NC	<b>M22-KC02SMC10</b>		
		Spring-cage	Front	NO	<b>M22-CK10</b>
			NC	<b>M22-CK01</b>	
NC, late-break	<b>M22-CK01D</b>				
2NO	<b>M22-CK20</b>				
2NC	<b>M22-CK02</b>				
NO-NC	<b>M22-CK11</b>				

#### M22-ES-MS1






#### Extra Keys <sup>⑦</sup>

For Key Code	Catalog Number
MS1	<b>M22-ES-MS1</b>
MS2	<b>M22-ES-MS2</b>
MS3	<b>M22-ES-MS3</b>
MS4	<b>M22-ES-MS4</b>
MS5	<b>M22-ES-MS5</b>
MS6	<b>M22-ES-MS6</b>
MS7	<b>M22-ES-MS7</b>
MS8	<b>M22-ES-MS8</b>

#### Notes

- ① Includes contact block mounting adapter.
- ② Key included. For identical locks and keys, use the same key code. One key is included with actuator; additional keys are available as accessories.
- ③ Includes Key Code MS1.
- ④ For complete listing of available contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.
- ⑤ Self-monitoring contact blocks (SMCB type) cannot be used with illuminated emergency stops.
- ⑥ All NC contact blocks are positively driven contact. ⊖
- ⑦ For use with key release operators only. One key included with operator.

**Accessories**

	Description	Voltage	Catalog Number
<b>M22-XGPV</b>	Yellow guard ring	—	<b>M22-XGPV</b>
			
<b>M22G-XGPV</b>	Gray guard ring	—	<b>M22G-XGPV</b>
			
<b>M22-PL-PV</b>	Sealing shroud	—	<b>M22-PL-PV</b>
			
	Illuminated ring	24 Vac/Vdc	<b>M22-XPV60-Y-24</b>
		120 Vac	<b>M22-XPV60-Y-120</b>
		230 Vac	<b>M22-XPV60-Y-230</b>

**Illuminated Emergency Stops**

**M22-PVL-K01-R**

**Complete Devices**



Type	Button Color	LED Color	Contact Block Configuration <sup>①</sup>	Light Unit Voltage	Catalog Number
Push-pull	Red	Red	NC	12–30 Vac/Vdc	<b>M22-PVL-K01-R</b>
			2NC	12–30 Vac/Vdc	<b>M22-PVL-K02-R</b>
			1NO-2NC	12–30 Vac/Vdc	<b>M22-PVL-K12-R</b>
			NC	85–264 Vac	<b>M22-PVL-K01-230R</b>
			2NC	85–264 Vac	<b>M22-PVL-K02-230R</b>
			1NO-2NC	85–264 Vac	<b>M22-PVL-K12-230R</b>
Twist-to-release			NC	12–30 Vac/Vdc	<b>M22-PVLT-K01-R</b>
			2NC	12–30 Vac/Vdc	<b>M22-PVLT-K02-R</b>
			1NO-2NC	12–30 Vac/Vdc	<b>M22-PVLT-K12-R</b>
			NC	85–264 Vac	<b>M22-PVLT-K01-230R</b>
			2NC	85–264 Vac	<b>M22-PVLT-K02-230R</b>
			1NO-2NC	85–264 Vac	<b>M22-PVLT-K12-230R</b>

**Note**

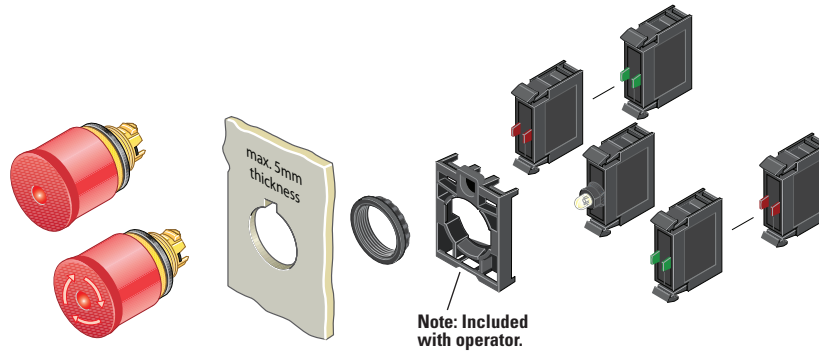
① All NC contact blocks are positively driven contact. ⊖

# 37.4

## Pushbuttons and Indicating Lights



### 22.5 mm Modular Pushbuttons—M22

#### Illuminated Emergency Stops




#### Components

##### Operators Only ①

	Type	Color	Actuator Size	Catalog Number
<b>M22-PVL</b> 	Push-pull	Red	35 mm	<b>M22-PVL</b>
		Black	35 mm	<b>M22S-PVL</b>
<b>M22S-PVLT</b> 	Twist-to-release	Red	35 mm	<b>M22-PVLT</b>
			45 mm	<b>M22-PVLT45P</b>
			60 mm	<b>M22-PVLT60P</b>
		Black	35 mm	<b>M22S-PVLT</b>

##### Light Units ②

	Terminal Type	LED Color	Light Unit Voltage	Catalog Number
<b>M22-LED-W</b> 	Screw	White	12–30 Vac/Vdc	<b>M22-LED-W</b>
		Red	12–30 Vac/Vdc	<b>M22-LED-R</b>
	Screw	White	85–264 Vac	<b>M22-LED230-W</b>
		Red	85–264 Vac	<b>M22-LED230-R</b>
	Screw	White	207–264 Vac	<b>M22-LED230H-W</b>
		Red	207–264 Vac	<b>M22-LED230H-R</b>




##### M22-K10



##### Contact Blocks ②

Terminal Type	Contact Configuration ③	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>

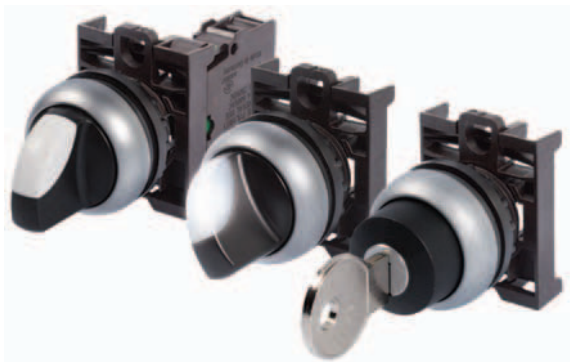
##### Accessories

Description	Voltage	Catalog Number
<b>M22-XGPV</b> 	—	<b>M22-XGPV</b>
<b>M22G-XGPV</b> 	—	<b>M22G-XGPV</b>
<b>M22-PL-PV</b> 	—	<b>M22-PL-PV</b>
Illuminated ring	24 Vac/Vdc	<b>M22-XPV60-Y-24</b>
	120 Vac	<b>M22-XPV60-Y-120</b>
	230 Vac	<b>M22-XPV60-Y-230</b>

#### Notes

- ① Includes contact block mounting adapter.
- ② For complete listing of available light units and contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.
- ③ All NC contact blocks are positively driven contact. ⊖

Selector Switches



**Contents**

**Description**

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Non-Illuminated Switches . . . . .	<b>V7-T37-62</b>
Illuminated Switches . . . . .	<b>V7-T37-67</b>
Key Operated . . . . .	<b>V7-T37-71</b>

**Selector Switches**

**Product Description**

Eaton’s M22 selector switch line offers an almost endless variety of options in maintained/momentary, key-removal and illuminated devices. The coding adapters used for maintained/momentary and key removal positions make the M22 stand out from competitive devices. By simply adding or removing a coding adapter from inside the operator, the end-user can change the function of the button. Operator options include standard knob, rotary head, illuminated and keyed versions. As with all operators, they can be ordered as a ready to install complete device or as modular components to meet application specific requirements.

**Features**

- Adding or removing coding adapters allows for field convertibility of maintained/momentary and key removal positions
- LED offering only for improved brightness quality and up to 100,000 hours of operation
- More than 100,000 mechanical operations
- Coding adapter options make assembly fast and simplify stocking of different configurations of selector switches
- Capable of communicating via ASi protocol with ASi adapter modules

**Protection Type**

- IP66
- NEMA 4X, 13



# 37.4

## Pushbuttons and Indicating Lights

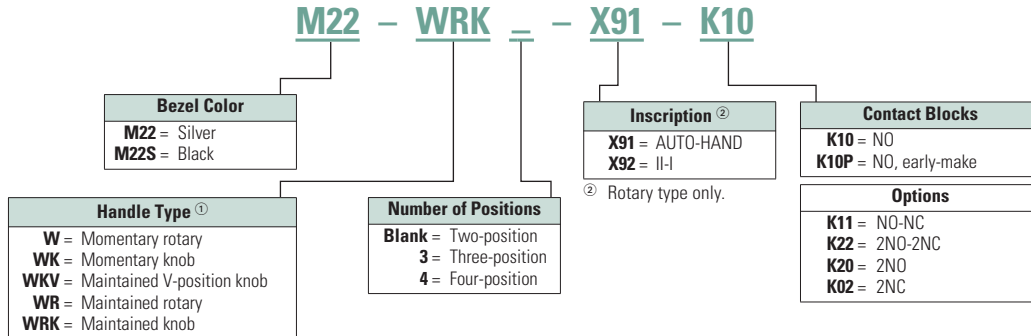
### 22.5 mm Modular Pushbuttons—M22

37

#### Catalog Number Selection

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

#### Non-Illuminated Selector Switches



<sup>①</sup> All momentary selector switches can be converted in the field to maintained operation with the removal of a color-coded adapter.

**Product Selection**

**Non-Illuminated Selector Switches**

M22-WKV-K10

**Complete Devices, Knob Type** <sup>①</sup>



Type	Switching Position	Bezel	Contact Block Configuration <sup>②</sup>	Catalog Number
Two-position	Maintained 	Silver	NO	M22-WRK-K10
			1NO-1NC	M22-WRK-K11
			2NO-2NC	M22-WRK-K22
		Black	NO	M22S-WRK-K10
			1NO-1NC	M22S-WRK-K11
			2NO-2NC	M22S-WRK-K22
	Maintained V 	Silver	NO	M22-WKV-K10
			1NO-1NC	M22-WKV-K11
			2NO-2NC	M22-WKV-K22
		Black	NO	M22S-WKV-K10
			1NO-1NC	M22S-WKV-K11
			2NO-2NC	M22S-WKV-K22
Three-position	Maintained 	Silver	2NO	M22-WRK3-K20
			2NO-2NC	M22-WRK3-K22
			Black	2NO
		2NO-2NC	M22S-WRK3-K22	

**Notes**

- ① Includes contact block mounting adapter.
- ② All NC contact blocks are positively driven contact. ⊖

## Non-Illuminated Selector Switches

### Components

M22-WK



#### Operators Only, Knob Type ①

Type	Switching Position	Bezel	Catalog Number
Two-position	Momentary ②	Silver	<b>M22-WK</b>
		Black	<b>M22S-WK</b>
	Maintained	Silver	<b>M22-WRK</b>
		Black	<b>M22S-WRK</b>
	Maintained V	Silver	<b>M22-WKV</b>
		Black	<b>M22S-WKV</b>
Three-position	Momentary ②	Silver	<b>M22-WK3</b>
		Black	<b>M22S-WK3</b>
	Maintained	Silver	<b>M22-WRK3</b>
		Black	<b>M22S-WRK3</b>
	Maintained, return from left	Silver	<b>M22-WRK3-2</b>
		Black	<b>M22S-WRK3-2</b>
	Maintained, return from right	Silver	<b>M22-WRK3-1</b>
		Black	<b>M22S-WRK3-1</b>
Four-position	Maintained	Silver	<b>M22-WRK4</b>
		Black	<b>M22S-WRK4</b>

#### Notes

① Includes contact block mounting adapter.

② Momentary selector switches can be converted in the field to maintained operation with the removal of a color coded adapter. See **Page V7-T37-103**.

Non-Illuminated Selector Switches

Components

M22S-WR3-X94



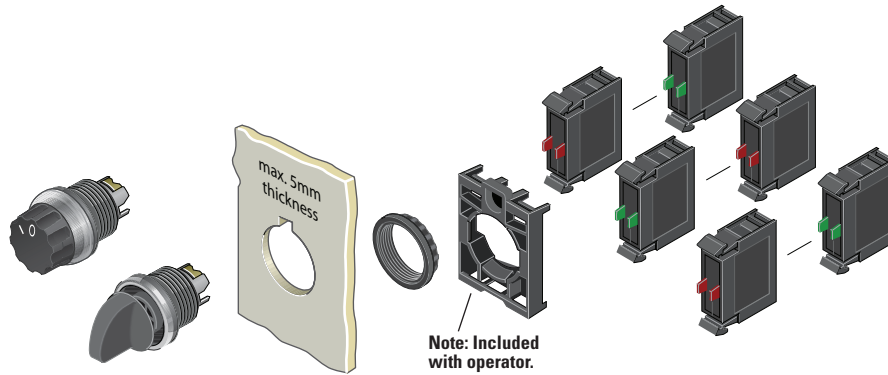
Operators Only, Rotary Type ①

Type	Switching Position	Bezel	Inscription	Catalog Number
Two-position	Momentary ②	Silver	I-O	<b>M22-W</b>
		Black	I-O	<b>M22S-W</b>
	Maintained	Silver	I-O	<b>M22-WR</b>
			Custom	<b>M22-WR-ETCH</b> ③
			AUTO-HAND	<b>M22-WR-X91</b>
			II-I	<b>M22-WR-X92</b>
		Black	I-O	<b>M22S-WR</b>
			Custom	<b>M22S-WR-ETCH</b> ③
			AUTO-HAND	<b>M22S-WR-X91</b>
			II-I	<b>M22S-WR-X92</b>
Three-position	Momentary ②	Silver	I-O-II	<b>M22-W3</b>
		Black	I-O-II	<b>M22S-W3</b>
	Maintained	Silver	I-O-II	<b>M22-WR3</b>
			Custom	<b>M22-WR3-ETCH</b> ③
			AUTO-O-MAN	<b>M22-WR3-X94</b>
		Black	I-O-II	<b>M22S-WR3</b>
			Custom	<b>M22S-WR3-ETCH</b> ③
			AUTO-O-MAN	<b>M22S-WR3-X94</b>
Four-position	Maintained	Silver	0-1-0-2-0-3-0-4	<b>M22-WR4</b>
		Black	0-1-0-2-0-3-0-4	<b>M22S-WR4</b>

Notes

- ① Includes contact block mounting adapter.
- ② Momentary selector switches can be converted in the field to maintained operation with the removal of a color coded adapter. See **Page V7-T37-103**.
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes. For example, M22-WR3-ETCH; Order Notes: Mark with symbol X88, Line item #\_.

#### Non-Illuminated Selector Switches



#### Components






##### M22-K10



##### Contact Blocks <sup>①</sup>

Terminal Type	Contact Configuration <sup>②</sup>	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>

##### Accessories

	Description	Catalog Number
<b>M22-XW</b> 	Plunger bridge <sup>③</sup>	<b>M22-XW</b>
<b>M22-XWS</b> 	Key cover	<b>M22-XWS</b>
<b>M22-XC-R</b> 	Key withdraw adapter <sup>④</sup>	<b>M22-XC-R</b>
<b>M22-XC-Y</b> 	Coding adapter	<b>M22-XC-Y</b>
<b>M22-XGWK</b> 	Guard ring	<b>M22-XGWK</b>

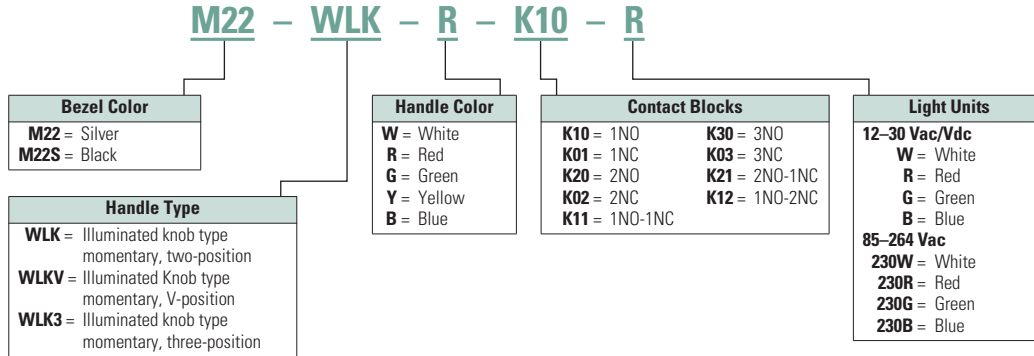
##### Notes

- ① For complete listing of available contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.
- ② All NC contact blocks are positively driven contact. ⊖
- ③ Plunger needed to actuate center-mounted contact blocks. Used for non-illuminated three-position selector switches only.
- ④ Enables a keyed selector switch to be set to user-selected key withdraw position.

**Catalog Number Selection**

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

**Illuminated Selector Switches**



## Product Selection

### Illuminated Selector Switches

#### Components

M22-WLK-W



#### Operators Only, Knob Type <sup>①</sup>

Type	Switching Position	Bezel	Button Color	Catalog Number
Two-position	Momentary <sup>②</sup> 	Silver	White	<b>M22-WLK-W</b>
			Red	<b>M22-WLK-R</b>
			Green	<b>M22-WLK-G</b>
			Yellow	<b>M22-WLK-Y</b>
			Blue	<b>M22-WLK-B</b>
			Black	
	Black		White	<b>M22S-WLK-W</b>
			Red	<b>M22S-WLK-R</b>
			Green	<b>M22S-WLK-G</b>
			Yellow	<b>M22S-WLK-Y</b>
			Blue	<b>M22S-WLK-B</b>
			Black	
	Maintained 	Silver	White	<b>M22-WRLK-W</b>
			Red	<b>M22-WRLK-R</b>
			Green	<b>M22-WRLK-G</b>
			Yellow	<b>M22-WRLK-Y</b>
			Blue	<b>M22-WRLK-B</b>
			Black	
Black		White	<b>M22S-WRLK-W</b>	
		Red	<b>M22S-WRLK-R</b>	
		Green	<b>M22S-WRLK-G</b>	
		Yellow	<b>M22S-WRLK-Y</b>	
		Blue	<b>M22S-WRLK-B</b>	
		Black		
Maintained V 	Silver	White	<b>M22-WLKV-W</b>	
		Red	<b>M22-WLKV-R</b>	
		Green	<b>M22-WLKV-G</b>	
		Yellow	<b>M22-WLKV-Y</b>	
		Blue	<b>M22-WLKV-B</b>	
		Black		
	Black		White	<b>M22S-WLKV-W</b>
			Red	<b>M22S-WLKV-R</b>
			Green	<b>M22S-WLKV-G</b>
			Yellow	<b>M22S-WLKV-Y</b>
			Blue	<b>M22S-WLKV-B</b>
			Black	

#### Notes

- ① Includes contact block mounting adapter.
- ② Momentary selector switches can be converted in the field to maintained operation with the removal of a color coded adapter. See **Page V7-T37-103**.

**Illuminated Selector Switches**

**Components**

M22-WLK3-W



**Operators Only, Knob Type ①**

Type	Switching Position	Bezel	Button Color	Catalog Number	
Three-position	Momentary ②	Silver	White	M22-WLK3-W	
			Red	M22-WLK3-R	
			Green	M22-WLK3-G	
			Yellow	M22-WLK3-Y	
			Blue	M22-WLK3-B	
			Black	M22S-WLK3-W	
		Red	M22S-WLK3-R		
		Green	M22S-WLK3-G		
		Yellow	M22S-WLK3-Y		
		Blue	M22S-WLK3-B		
		Maintained	Silver	White	M22-WRLK3-W
				Red	M22-WRLK3-R
	Green			M22-WRLK3-G	
	Yellow			M22-WRLK3-Y	
	Blue			M22-WRLK3-B	
	Black			M22S-WRLK3-W	
	Red		M22S-WRLK3-R		
	Green		M22S-WRLK3-G		
	Yellow		M22S-WRLK3-Y		
	Blue		M22S-WRLK3-B		
	Maintained, return from right		Silver	White	M22-WRLK3-1-W
				Red	M22-WRLK3-1-R
		Green		M22-WRLK3-1-G	
		Yellow		M22-WRLK3-1-Y	
Blue		M22-WRLK3-1-B			
Black		M22S-WRLK3-1-W			
Red		M22S-WRLK3-1-R			
Green		M22S-WRLK3-1-G			
Yellow		M22S-WRLK3-1-Y			
Blue		M22S-WRLK3-1-B			
Maintained, return from left		Silver	White	M22-WRLK3-2-W	
			Red	M22-WRLK3-2-R	
	Green		M22-WRLK3-2-G		
	Yellow		M22-WRLK3-2-Y		
	Blue		M22-WRLK3-2-B		
	Black		M22S-WRLK3-2-W		
	Red	M22S-WRLK3-2-R			
	Green	M22S-WRLK3-2-G			
	Yellow	M22S-WRLK3-2-Y			
	Blue	M22S-WRLK3-2-B			

**Notes**

- ① Includes contact block mounting adapter.
- ② Momentary selector switches can be converted in the field to maintained operation with the removal of a color coded adapter. See **Page V7-T37-103**.



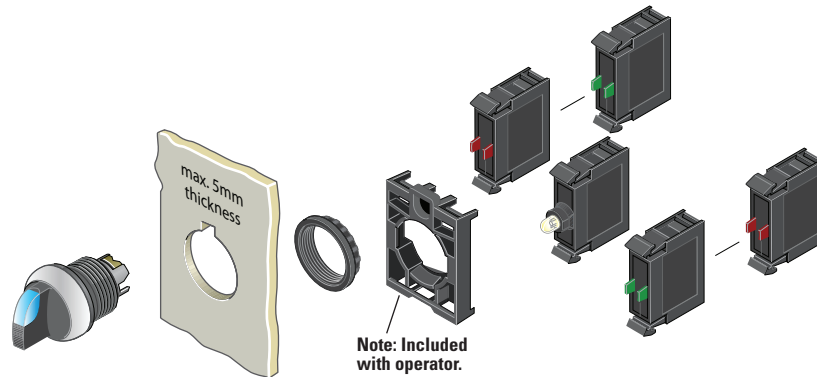
# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

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#### Illuminated Selector Switches



#### M22-LED-W



#### Light Units ①⑥

Terminal Type	LED Color	Light Unit Voltage	Catalog Number
Screw	White	12–30 Vac/Vdc	<b>M22-LED-W</b>
	Red		<b>M22-LED-R</b>
	Green		<b>M22-LED-G</b>
	Blue		<b>M22-LED-B</b>
Screw	White	85–264 Vac	<b>M22-LED230-W</b>
	Red		<b>M22-LED230-R</b>
	Green		<b>M22-LED230-G</b>
	Blue		<b>M22-LED230-B</b>

#### M22-K10



#### Contact Blocks ①

Terminal Type	Contact Configuration ③	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>

#### Accessories

	Description	Catalog Number
<b>M22-XW</b> 	Plunger bridge ②	<b>M22-XW</b>
<b>M22-XWS</b> 	Key cover	<b>M22-XWS</b>
<b>M22-XC-R</b> 	Key withdraw adapter ④	<b>M22-XC-R</b>
<b>M22-XC-Y</b> 	Coding adapter	<b>M22-XC-Y</b>
<b>M22-XGWK</b> 	Guard ring	<b>M22-XGWK</b>

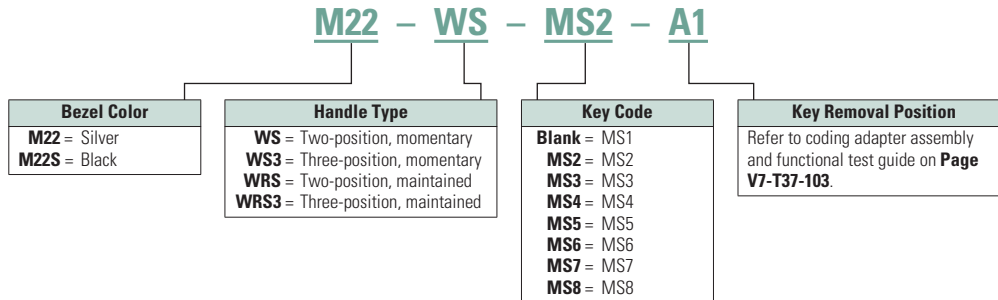
#### Notes

- ① For complete listing of available light units and contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.
- ② Plunger needed to actuate center-mounted contact blocks. Used for non-illuminated three-position selector switches only.
- ③ All NC contact blocks are positively driven contact. ⊖
- ④ Enables a keyed selector switch to be set to user-selected key withdraw position.
- ⑤ Select the same color LED element as lens color; for yellow lens, choose a white LED.

**Catalog Number Selection**

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

**Key-Operated Selector Switches**



**Product Selection**

**Key-Operated Selector Switches** <sup>①②</sup>

**Components**

M22-WS

**Operators Only** <sup>③</sup>



Type	Switching Position	Bezel	Key Removal Position	Key Code	Catalog Number	
Two-position	Momentary <sup>④</sup> 	Silver	Return from right, key removable left	MS1	<b>M22-WS</b>	
				MS2	<b>M22-WS-MS2</b>	
				MS3	<b>M22-WS-MS3</b>	
				MS4	<b>M22-WS-MS4</b>	
				MS5	<b>M22-WS-MS5</b>	
				MS6	<b>M22-WS-MS6</b>	
				MS7	<b>M22-WS-MS7</b>	
				MS8	<b>M22-WS-MS8</b>	
	Black			Return from right, key removable left	MS1	<b>M22S-WS</b>
					MS2	<b>M22S-WS-MS2</b>
					MS3	<b>M22S-WS-MS3</b>
					MS4	<b>M22S-WS-MS4</b>
					MS5	<b>M22S-WS-MS5</b>
					MS6	<b>M22S-WS-MS6</b>
					MS7	<b>M22S-WS-MS7</b>
					MS8	<b>M22S-WS-MS8</b>

**Notes**

- ① Includes one key.
- ② Key removal positions can be modified in the field using coding adapters; see chart on **Page V7-T37-103**.
- ③ Includes contact block mounting adapter.
- ④ Momentary selector switches can be converted in the field to maintained operation with the removal of a color coded adapter. See **Page V7-T37-103**.

# 37.4



## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

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#### Key-Operated Selector Switches <sup>①②</sup> Components

##### Operators Only, continued <sup>③</sup>

Type	Switching Position	Bezel	Key Removal Position	Key Code	Catalog Number	
<b>M22S-WRS</b> 	Two-position	Maintained	Silver	Key removable left	MS1	<b>M22-WRS-A1</b>
					MS2	<b>M22-WRS-MS2-A1</b>
					MS3	<b>M22-WRS-MS3-A1</b>
					MS4	<b>M22-WRS-MS4-A1</b>
					MS5	<b>M22-WRS-MS5-A1</b>
					MS6	<b>M22-WRS-MS6-A1</b>
					MS7	<b>M22-WRS-MS7-A1</b>
					MS8	<b>M22-WRS-MS8-A1</b>
			Key removable left/right	MS1	<b>M22-WRS</b>	
				MS2	<b>M22-WRS-MS2</b>	
				MS3	<b>M22-WRS-MS3</b>	
				MS4	<b>M22-WRS-MS4</b>	
				MS5	<b>M22-WRS-MS5</b>	
				MS6	<b>M22-WRS-MS6</b>	
				MS7	<b>M22-WRS-MS7</b>	
				MS8	<b>M22-WRS-MS8</b>	
			Black	Key removable left	MS1	<b>M22S-WRS-A1</b>
					MS2	<b>M22S-WRS-MS2-A1</b>
					MS3	<b>M22S-WRS-MS3-A1</b>
					MS4	<b>M22S-WRS-MS4-A1</b>
					MS5	<b>M22S-WRS-MS5-A1</b>
					MS6	<b>M22S-WRS-MS6-A1</b>
					MS7	<b>M22S-WRS-MS7-A1</b>
					MS8	<b>M22S-WRS-MS8-A1</b>
Key removable left/right	MS1	<b>M22S-WRS</b>				
	MS2	<b>M22S-WRS-MS2</b>				
	MS3	<b>M22S-WRS-MS3</b>				
	MS4	<b>M22S-WRS-MS4</b>				
	MS5	<b>M22S-WRS-MS5</b>				
	MS6	<b>M22S-WRS-MS6</b>				
	MS7	<b>M22S-WRS-MS7</b>				
	MS8	<b>M22S-WRS-MS8</b>				
<b>M22-WS3-X93</b> 	Three-position	Momentary <sup>④</sup>	Silver	Return from left/right, key removable center	MS1	<b>M22-WS3</b>
					MS2	<b>M22-WS3-MS2</b>
					MS3	<b>M22-WS3-MS3</b>
					MS4	<b>M22-WS3-MS4</b>
					MS5	<b>M22-WS3-MS5</b>
					MS6	<b>M22-WS3-MS6</b>
					MS7	<b>M22-WS3-MS7</b>
					MS8	<b>M22-WS3-MS8</b>
			Black	Return from left/right, key removable center	MS1	<b>M22S-WS3</b>
					MS2	<b>M22S-WS3-MS2</b>
					MS3	<b>M22S-WS3-MS3</b>
					MS4	<b>M22S-WS3-MS4</b>
					MS5	<b>M22S-WS3-MS5</b>
					MS6	<b>M22S-WS3-MS6</b>
					MS7	<b>M22S-WS3-MS7</b>
					MS8	<b>M22S-WS3-MS8</b>

#### Notes

- ① Includes one key.
- ② Key removal positions can be modified in the field using coding adapters; see chart on **Page V7-T37-103**.
- ③ Includes contact block mounting adapter.
- ④ Momentary selector switches can be converted in the field to maintained operation with the removal of a color coded adapter. See **Page V7-T37-103**.

**Key-Operated Selector Switches** <sup>①②</sup>  
**Components**

M22-WS3-X93



**Operators Only, continued** <sup>③</sup>

Type	Switching Position	Bezel	Key Removal Position	Key Code	Catalog Number
Three-position	Maintained 	Silver	Key removable center	MS1	<b>M22-WRS3-A1</b>
				MS2	<b>M22-WRS3-MS2-A1</b>
				MS3	<b>M22-WRS3-MS3-A1</b>
				MS4	<b>M22-WRS3-MS4-A1</b>
				MS5	<b>M22-WRS3-MS5-A1</b>
				MS6	<b>M22-WRS3-MS6-A1</b>
				MS7	<b>M22-WRS3-MS7-A1</b>
				MS8	<b>M22-WRS3-MS8-A1</b>
			Key removable center/left	MS1	<b>M22-WRS3-A2</b>
				MS2	<b>M22-WRS3-MS2-A2</b>
				MS3	<b>M22-WRS3-MS3-A2</b>
				MS4	<b>M22-WRS3-MS4-A2</b>
				MS5	<b>M22-WRS3-MS5-A2</b>
				MS6	<b>M22-WRS3-MS6-A2</b>
				MS7	<b>M22-WRS3-MS7-A2</b>
				MS8	<b>M22-WRS3-MS8-A2</b>
			Key removable center/right	MS1	<b>M22-WRS3-A3</b>
				MS2	<b>M22-WRS3-MS2-A3</b>
				MS3	<b>M22-WRS3-MS3-A3</b>
				MS4	<b>M22-WRS3-MS4-A3</b>
				MS5	<b>M22-WRS3-MS5-A3</b>
				MS6	<b>M22-WRS3-MS6-A3</b>
				MS7	<b>M22-WRS3-MS7-A3</b>
				MS8	<b>M22-WRS3-MS8-A3</b>
Key removable left/right	MS1	<b>M22-WRS3</b>			
	MS2	<b>M22-WRS3-MS2</b>			
	MS3	<b>M22-WRS3-MS3</b>			
	MS4	<b>M22-WRS3-MS4</b>			
	MS5	<b>M22-WRS3-MS5</b>			
	MS6	<b>M22-WRS3-MS6</b>			
	MS7	<b>M22-WRS3-MS7</b>			
	MS8	<b>M22-WRS3-MS8</b>			
Return from left, key removable center	MS1	<b>M22-WRS3-A7</b>			
	MS2	<b>M22-WRS3-MS2-A7</b>			
	MS3	<b>M22-WRS3-MS3-A7</b>			
	MS4	<b>M22-WRS3-MS4-A7</b>			
	MS5	<b>M22-WRS3-MS5-A7</b>			
	MS6	<b>M22-WRS3-MS6-A7</b>			
	MS7	<b>M22-WRS3-MS7-A7</b>			
	MS8	<b>M22-WRS3-MS8-A7</b>			
Return from left, key removable center/right	MS1	<b>M22-WRS3-A6</b>			
	MS2	<b>M22-WRS3-MS2-A6</b>			
	MS3	<b>M22-WRS3-MS3-A6</b>			
	MS4	<b>M22-WRS3-MS4-A6</b>			
	MS5	<b>M22-WRS3-MS5-A6</b>			
	MS6	<b>M22-WRS3-MS6-A6</b>			
	MS7	<b>M22-WRS3-MS7-A6</b>			
	MS8	<b>M22-WRS3-MS8-A6</b>			

**Notes**


- ① Includes one key.
- ② Key removal positions can be modified in the field using coding adapters; see chart on **Page V7-T37-103**.
- ③ Includes contact block mounting adapter.

## Key-Operated Selector Switches <sup>①②</sup> Components

M22-WS3-X93



### Operators Only, continued <sup>③</sup>

Type	Switching Position	Bezel	Key Removal Position	Key Code	Catalog Number	
Three-position	Maintained 	Silver	Return from right, key removable left/center	MS1	<b>M22-WRS3-A4</b>	
				MS2	<b>M22-WRS3-MS2-A4</b>	
				MS3	<b>M22-WRS3-MS3-A4</b>	
				MS4	<b>M22-WRS3-MS4-A4</b>	
				MS5	<b>M22-WRS3-MS5-A4</b>	
				MS6	<b>M22-WRS3-MS6-A4</b>	
				MS7	<b>M22-WRS3-MS7-A4</b>	
				MS8	<b>M22-WRS3-MS8-A4</b>	
			Return from right, key removable center	MS1	<b>M22-WRS3-A5</b>	
				MS2	<b>M22-WRS3-MS2-A5</b>	
				MS3	<b>M22-WRS3-MS3-A5</b>	
				MS4	<b>M22-WRS3-MS4-A5</b>	
				MS5	<b>M22-WRS3-MS5-A5</b>	
				MS6	<b>M22-WRS3-MS6-A5</b>	
				MS7	<b>M22-WRS3-MS7-A5</b>	
				MS8	<b>M22-WRS3-MS8-A5</b>	
		Black	Key removable center		MS1	<b>M22S-WRS3-A1</b>
					MS2	<b>M22S-WRS3-MS2-A1</b>
					MS3	<b>M22S-WRS3-MS3-A1</b>
					MS4	<b>M22S-WRS3-MS4-A1</b>
					MS5	<b>M22S-WRS3-MS5-A1</b>
					MS6	<b>M22S-WRS3-MS6-A1</b>
					MS7	<b>M22S-WRS3-MS7-A1</b>
					MS8	<b>M22S-WRS3-MS8-A1</b>
Key removable center/left			MS1	<b>M22S-WRS3-A2</b>		
			MS2	<b>M22S-WRS3-MS2-A2</b>		
			MS3	<b>M22S-WRS3-MS3-A2</b>		
			MS4	<b>M22S-WRS3-MS4-A2</b>		
			MS5	<b>M22S-WRS3-MS5-A2</b>		
			MS6	<b>M22S-WRS3-MS6-A2</b>		
			MS7	<b>M22S-WRS3-MS7-A2</b>		
			MS8	<b>M22S-WRS3-MS8-A2</b>		
Key removable center/right		MS1	<b>M22S-WRS3-A3</b>			
		MS2	<b>M22S-WRS3-MS2-A3</b>			
		MS3	<b>M22S-WRS3-MS3-A3</b>			
		MS4	<b>M22S-WRS3-MS4-A3</b>			
		MS5	<b>M22S-WRS3-MS5-A3</b>			
		MS6	<b>M22S-WRS3-MS6-A3</b>			
		MS7	<b>M22S-WRS3-MS7-A3</b>			
		MS8	<b>M22S-WRS3-MS8-A3</b>			
Key removable left/right/center		MS1	<b>M22S-WRS3</b>			
		MS2	<b>M22S-WRS3-MS2</b>			
		MS3	<b>M22S-WRS3-MS3</b>			
		MS4	<b>M22S-WRS3-MS4</b>			
		MS5	<b>M22S-WRS3-MS5</b>			
		MS6	<b>M22S-WRS3-MS6</b>			
		MS7	<b>M22S-WRS3-MS7</b>			
		MS8	<b>M22S-WRS3-MS8</b>			

#### Notes

- ① Includes one key.
- ② Key removal positions can be modified in the field using coding adapters; see chart on **Page V7-T37-103**.
- ③ Includes contact block mounting adapter.

**Key-Operated Selector Switches** ①②  
**Components**

M22-WS3-X93



**Operators Only, continued** ③

Type	Switching Position	Bezel	Key Removal Position	Key Code	Catalog Number
Three-position	Maintained 	Black	Return from left, key removable center	MS1	<b>M22S-WRS3-A7</b>
				MS2	<b>M22S-WRS3-MS2-A7</b>
				MS3	<b>M22S-WRS3-MS3-A7</b>
				MS4	<b>M22S-WRS3-MS4-A7</b>
				MS5	<b>M22S-WRS3-MS5-A7</b>
				MS6	<b>M22S-WRS3-MS6-A7</b>
				MS7	<b>M22S-WRS3-MS7-A7</b>
				MS8	<b>M22S-WRS3-MS8-A7</b>
			Return from left, key removable center/right	MS1	<b>M22S-WRS3-A6</b>
				MS2	<b>M22S-WRS3-MS2-A6</b>
				MS3	<b>M22S-WRS3-MS3-A6</b>
				MS4	<b>M22S-WRS3-MS4-A6</b>
				MS5	<b>M22S-WRS3-MS5-A6</b>
				MS6	<b>M22S-WRS3-MS6-A6</b>
				MS7	<b>M22S-WRS3-MS7-A6</b>
				MS8	<b>M22S-WRS3-MS8-A6</b>
			Return from right, key removable left/center	MS1	<b>M22S-WRS3-A4</b>
				MS2	<b>M22S-WRS3-MS2-A4</b>
				MS3	<b>M22S-WRS3-MS3-A4</b>
				MS4	<b>M22S-WRS3-MS4-A4</b>
				MS5	<b>M22S-WRS3-MS5-A4</b>
				MS6	<b>M22S-WRS3-MS6-A4</b>
				MS7	<b>M22S-WRS3-MS7-A4</b>
				MS8	<b>M22S-WRS3-MS8-A4</b>
			Return from right, key removable center	MS1	<b>M22S-WRS3-A5</b>
				MS2	<b>M22S-WRS3-MS2-A5</b>
				MS3	<b>M22S-WRS3-MS3-A5</b>
				MS4	<b>M22S-WRS3-MS4-A5</b>
				MS5	<b>M22S-WRS3-MS5-A5</b>
				MS6	<b>M22S-WRS3-MS6-A5</b>
				MS7	<b>M22S-WRS3-MS7-A5</b>
				MS8	<b>M22S-WRS3-MS8-A5</b>

**Notes**

- ① Includes one key.
- ② Key removal positions can be modified in the field using coding adapters; see chart on **Page V7-T37-103**.
- ③ Includes contact block mounting adapter.

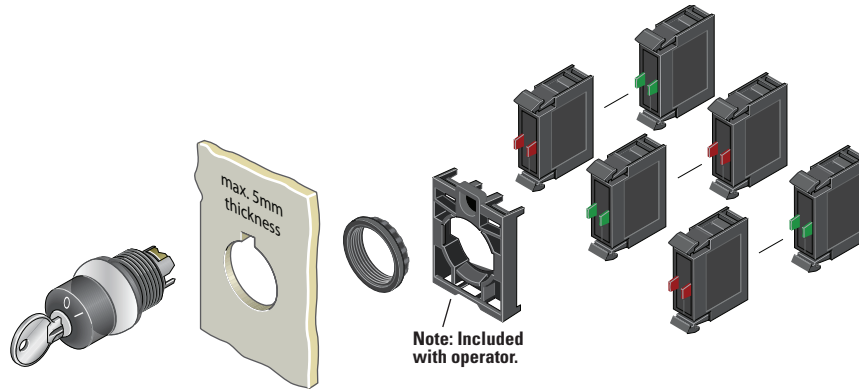
# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

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#### Key-Operated Selector Switches



#### Components

##### M22-K10



#### Contact Blocks <sup>①</sup>

Terminal Type	Contact Configuration <sup>②</sup>	Catalog Number
Screw	NO	M22-K10
	NO, early-make	M22-K10P
	NC	M22-K01
	NC, late-break	M22-K01D
Spring-cage	NO	M22-CK10
	NC	M22-CK01
	NC, late-break	M22-CK01D
	2NO	M22-CK20
	2NC	M22-CK02
	NO-NC	M22-CK11

##### M22-ES-MS1



#### Extra Keys

Key Code	Catalog Number
MS1	M22-ES-MS1
MS2	M22-ES-MS2
MS3	M22-ES-MS3
MS4	M22-ES-MS4
MS5	M22-ES-MS5
MS6	M22-ES-MS6
MS7	M22-ES-MS7
MS8	M22-ES-MS8

#### Accessories

	Description	Catalog Number
M22-XW	Plunger bridge <sup>③</sup>	M22-XW
M22-XWS	Key cover	M22-XWS
M22-XC-R	Key withdraw adapter <sup>④</sup>	M22-XC-R
M22-XC-Y	Coding adapter	M22-XC-Y
M22-XGWK	Guard ring	M22-XGWK

#### Notes

- ① For complete listing of available contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.
- ② All NC contact blocks are positively driven contact. ⊖
- ③ Plunger needed to actuate center-mounted contact blocks. Used for non-illuminated three-position selector switches only.
- ④ Enables a keyed selector switch to be set to user-selected key withdraw position.

## Mushroom Head Pushbuttons

### Product Description

Eaton's M22 mushroom head operators are a durable and unique way to include standard pushbutton functionality. Like the standard pushbutton line, the maintained pushbuttons are field convertible to momentary. They also offer laser engraving and a robust five million mechanical operations on the standard momentary operator. As with all operators, they can be ordered as a ready to install complete device or as modular components.

### Features

- Field convertible from maintained to momentary (available on maintained pushbuttons only)
- Customizable laser engraving on all buttons
- More than five million mechanical operations on momentary and one million on maintained pushbuttons
- Modular construction makes assembly fast and simplifies stocking of components and complete devices
- Capable of communicating via ASi protocol with ASi adapter modules

### Protection Type

- IP67, IP69K
- NEMA 4X, 13



# 37.4

## Pushbuttons and Indicating Lights

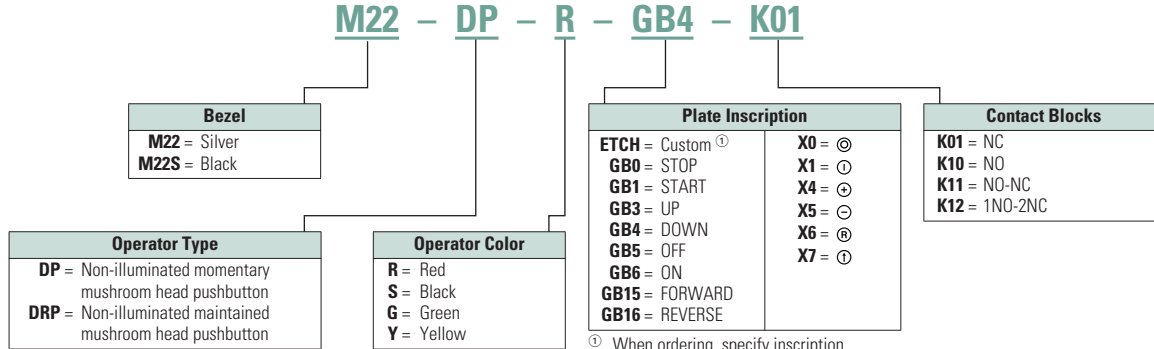
### 22.5 mm Modular Pushbuttons—M22

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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.

#### Mushroom Head Pushbuttons





<sup>①</sup> When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes.  
For example, M22-DP-R-ETCH;  
Order Notes: Mark with symbol X91,



**Product Selection**

**Mushroom Head Pushbuttons, Momentary <sup>①</sup>**


**Complete Devices**

	Bezel	Button Color	Contact Block Configuration <sup>②</sup>	Catalog Number
 <p><b>M22-DP-R-K01</b></p>	Silver	Red	NC	<b>M22-DP-R-K01</b>
			2NC	<b>M22-DP-R-K02</b>
			1NO-2NC	<b>M22-DP-R-K12</b>
			1NO-1NC	<b>M22-DP-R-K11</b>
 <p><b>M22S-DP-R-K01</b></p>	Black	Red	NC	<b>M22S-DP-R-K01</b>
			2NC	<b>M22S-DP-R-K02</b>
			1NO-2NC	<b>M22S-DP-R-K12</b>
			1NO-1NC	<b>M22S-DP-R-K11</b>

**Operators Only <sup>②</sup>**

	Bezel	Button Color	Catalog Number
 <p><b>M22-DP-G</b></p>	Silver	Black	<b>M22-DP-S</b>
		Red	<b>M22-DP-R</b>
		Green	<b>M22-DP-G</b>
		Yellow	<b>M22-DP-Y</b>
 <p><b>M22S-DP-G</b></p>	Black	Black	<b>M22S-DP-S</b>
		Red	<b>M22S-DP-R</b>
		Green	<b>M22S-DP-G</b>
		Yellow	<b>M22S-DP-Y</b>

**Notes**

- ① 35 mm diameter mushroom head button.
- ② Includes contact block mounting adapter. 

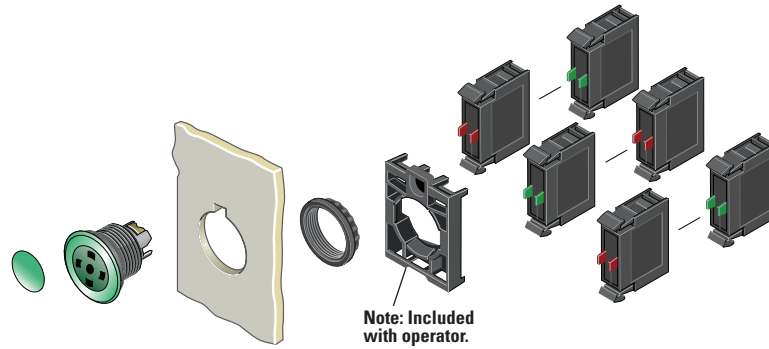
# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

37

#### Non-Illuminated Mushroom Head Pushbuttons, Momentary <sup>①</sup>



#### Components

##### M22-XDP-G



#### Mushroom Head Plates

Color	Inscription	Catalog Number
Black	—	<b>M22-XDP-S</b> <sup>②</sup>
	Custom	<b>M22-XDP-S-ETCH</b> <sup>③</sup>
	STOP	<b>M22-XDP-S-GB0</b>
	START	<b>M22-XDP-S-GB1</b>
	FORWARD	<b>M22-XDP-S-GB15</b>
	REVERSE	<b>M22-XDP-S-GB16</b>
	UP	<b>M22-XDP-S-GB3</b>
	DOWN	<b>M22-XDP-S-GB4</b>
	OFF	<b>M22-XDP-S-GB5</b>
	ON	<b>M22-XDP-S-GB6</b>
	⊙	<b>M22-XDP-S-X0</b>
	⓪	<b>M22-XDP-S-X1</b>
	⊕	<b>M22-XDP-S-X4</b>
⊖	<b>M22-XDP-S-X5</b>	
⓪	<b>M22-XDP-S-X7</b>	
Red	—	<b>M22-XDP-R</b> <sup>②</sup>
	Custom	<b>M22-XDP-R-ETCH</b> <sup>③</sup>
	STOP	<b>M22-XDP-R-GB0</b>
	OFF	<b>M22-XDP-R-GB5</b>
Green	—	<b>M22-XDP-G</b> <sup>②</sup>
	Custom	<b>M22-XDP-G-ETCH</b> <sup>③</sup>
	START	<b>M22-XDP-G-GB1</b>
	ON	<b>M22-XDP-G-GB6</b>
	⊙	<b>M22-XDP-G-X0</b>
White	—	<b>M22-XDP-W</b> <sup>②</sup>
	Custom	<b>M22-XDP-W-ETCH</b> <sup>③</sup>
Yellow	—	<b>M22-XDP-Y</b> <sup>②</sup>
	Custom	<b>M22-XDP-Y-ETCH</b> <sup>③</sup>

##### M22-DP-G-X



#### Insertless Mushroom Head Operators

Bezel	Color	Catalog Number
Silver	Black	<b>M22-DP-S-X</b>
	Red	<b>M22-DP-R-X</b>
	Green	<b>M22-DP-G-X</b>
	Yellow	<b>M22-DP-Y-X</b>
Black	Black	<b>M22S-DP-S-X</b>
	Red	<b>M22S-DP-R-X</b>
	Green	<b>M22S-DP-G-X</b>
	Yellow	<b>M22S-DP-Y-X</b>

##### M22-K10



#### Contact Blocks <sup>④</sup>

Terminal Type	Contact Configuration <sup>⑤</sup>	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>



#### Notes

- <sup>①</sup> 35 mm diameter mushroom head button.
- <sup>②</sup> Minimum order quantity of (10).
- <sup>③</sup> When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes. For example, M22-XDP-S-ETCH; Order Notes: Mark with symbol X91, Line item #\_.
- <sup>④</sup> For complete listing of available contact blocks, see Accessories, **Pages V7-T37-96–V7-T37-101**.
- <sup>⑤</sup> All NC contact blocks are positively driven contact. ⊖



**Product Selection**

**Non-Illuminated Mushroom Head Pushbuttons, Maintained** ① ②

**Complete Devices**

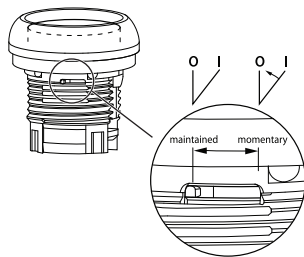
	Bezel	Button Color	Contact Block Configuration ③	Catalog Number
 <p><b>M22-DRP-R-K01</b></p>	Silver	Red	NC	<b>M22-DRP-R-K01</b>
			2NC	<b>M22-DRP-R-K02</b>
			1NO-2NC	<b>M22-DRP-R-K12</b>
			1NO-1NC	<b>M22-DRP-R-K11</b>
 <p><b>M22S-DRP-R-K01</b></p>	Black	Red	NC	<b>M22S-DRP-R-K01</b>
			2NC	<b>M22S-DRP-R-K02</b>
			1NO-2NC	<b>M22S-DRP-R-K12</b>
			1NO-1NC	<b>M22S-DRP-R-K11</b>

**Operators Only**

	Bezel	Button Color	Catalog Number
 <p><b>M22-DRP-G</b></p>	Silver	Black	<b>M22-DRP-S</b>
		Red	<b>M22-DRP-R</b>
		Green	<b>M22-DRP-G</b>
		Yellow	<b>M22-DRP-Y</b>
 <p><b>M22S-DRP-G</b></p>	Black	Black	<b>M22S-DRP-S</b>
		Red	<b>M22S-DRP-R</b>
		Green	<b>M22S-DRP-G</b>
		Yellow	<b>M22S-DRP-Y</b>

**Notes**

- ① 35 mm diameter mushroom head button.
- ② 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.
- ③ All NC contact blocks are positively driven contact. ⊖



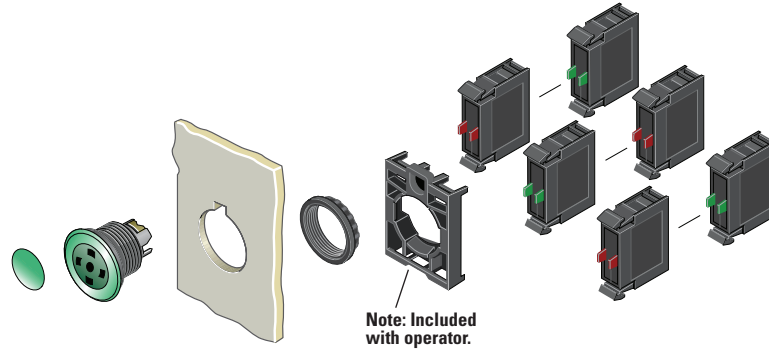
**Note:** This pilot device features a selectable function switch that enables the device to be set to either maintained or momentary operation.

# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

#### 37 Non-Illuminated Mushroom Head Pushbuttons, Maintained <sup>①②</sup>



#### Components

##### M22-XDP-G



##### Mushroom Head Plates <sup>⑤</sup>

Color	Inscription	Catalog Number
Black	—	<b>M22-XDP-S</b> <sup>③</sup>
	Custom	<b>M22-XDP-S-ETCH</b> <sup>④</sup>
	STOP	<b>M22-XDP-S-GB0</b>
	START	<b>M22-XDP-S-GB1</b>
	FORWARD	<b>M22-XDP-S-GB15</b>
	REVERSE	<b>M22-XDP-S-GB16</b>
	UP	<b>M22-XDP-S-GB3</b>
	DOWN	<b>M22-XDP-S-GB4</b>
	OFF	<b>M22-XDP-S-GB5</b>
	ON	<b>M22-XDP-S-GB6</b>
	⊙	<b>M22-XDP-S-X0</b>
	⓪	<b>M22-XDP-S-X1</b>
	⊕	<b>M22-XDP-S-X4</b>
⊖	<b>M22-XDP-S-X5</b>	
⓪	<b>M22-XDP-S-X7</b>	
Red	—	<b>M22-XDP-R</b> <sup>③</sup>
	Custom	<b>M22-XDP-R-ETCH</b> <sup>④</sup>
	STOP	<b>M22-XDP-R-GB0</b>
	OFF	<b>M22-XDP-R-GB5</b>
	⊙	<b>M22-XDP-R-X0</b>
Green	—	<b>M22-XDP-G</b> <sup>③</sup>
	Custom	<b>M22-XDP-G-ETCH</b> <sup>④</sup>
	START	<b>M22-XDP-G-GB1</b>
	ON	<b>M22-XDP-G-GB6</b>
	⊙	<b>M22-XDP-G-X0</b>
⓪	<b>M22-XDP-G-X1</b>	
White	—	<b>M22-XDP-W</b> <sup>③</sup>
	Custom	<b>M22-XDP-W-ETCH</b> <sup>④</sup>
Yellow	—	<b>M22-XDP-Y</b> <sup>③</sup>
	Custom	<b>M22-XDP-Y-ETCH</b> <sup>④</sup>

##### M22-DRP-G-X



##### Insertless Mushroom Head Operators

Bezel	Color	Catalog Number
Silver	Black	<b>M22-DRP-S-X</b>
	Red	<b>M22-DRP-R-X</b>
	Green	<b>M22-DRP-G-X</b>
	Yellow	<b>M22-DRP-Y-X</b>
Black	Black	<b>M22S-DRP-S-X</b>
	Red	<b>M22S-DRP-R-X</b>
	Green	<b>M22S-DRP-G-X</b>
	Yellow	<b>M22S-DRP-Y-X</b>

##### M22-K10



##### Contact Blocks <sup>⑤</sup>

Terminal Type	Contact Configuration <sup>⑥</sup>	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>

#### Notes

- ① 35 mm diameter mushroom head button.
- ② 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.
- ③ Minimum order quantity of (10).
- ④ When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes. For example, M22-XDP-S-ETCH; Order Notes: Mark with symbol X91, Line item #...
- ⑤ For complete listing of available button plates and contact blocks, see Accessories, **Pages V7-T37-96–V7-T37-101**.
- ⑥ All NC contact blocks are positively driven contact. ⊖

### Double Pushbuttons

#### Product Description

Eaton's M22 double pushbutton line is perfect for applications such as motor and pump starting, as well as anytime space is limited. In addition to the two buttons that fit in one 22 mm hole is the integrated white indicating light between them. These three operators allow for multiple functions to occur in a single space. Green/red, black/white and black/black color options along with laser engraving allow for further custom applications.

#### Features

- Flush and extended, as well as color options allow for the perfect combination button
- Integrated indicating light adds even more functionality in one standard 22 mm hole
- Customizable laser engraving on all buttons
- LED offering only for improved brightness quality and up to 100,000 hours of operation
- More than 200,000 mechanical operations
- Capable of communicating via ASi protocol with ASi adapter modules

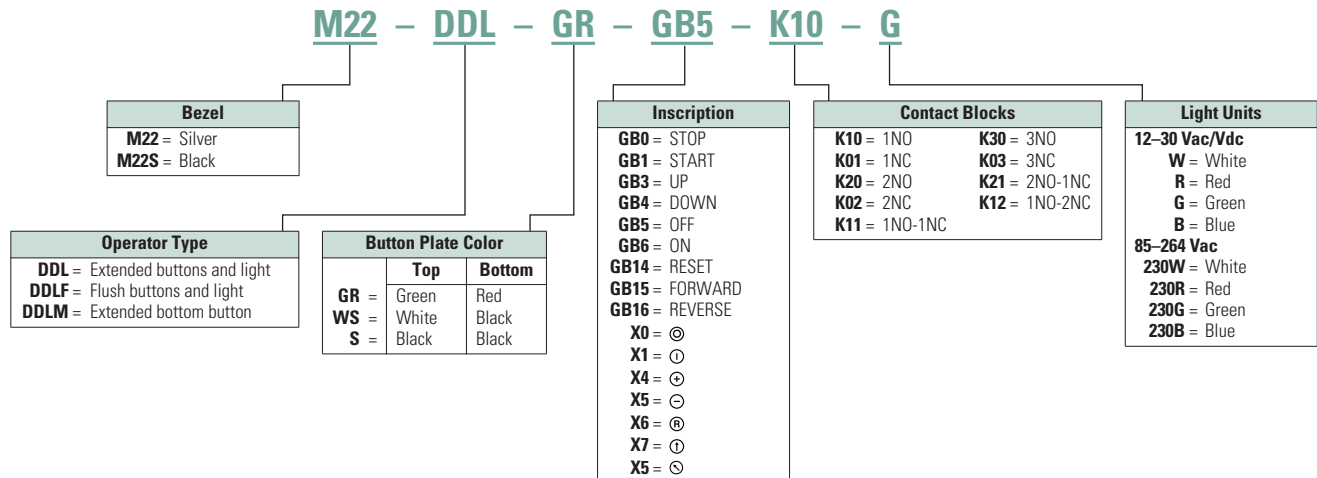
#### Protection Type

- IP66
- NEMA 4X, 13

### Catalog Number Selection

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

#### Double Pushbuttons



# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22



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#### Product Selection

#### Components

#### Double Pushbuttons, Extended Pushbuttons and Center Light, Momentary

#### Operators Only <sup>①</sup>



	Bezel	Color Top	Bottom	Inscription Top	Bottom	Catalog Number
 M22-DDL-GR-GB1-GB0	Silver	Green	Red	—	—	M22-DDL-GR
				Custom	Custom	M22-DDL-GR-ETCH <sup>②</sup>
				⓪	Ⓢ	M22-DDL-GR-X1-X0
				START	STOP	M22-DDL-GR-GB1-GB0
				—	—	M22-DDL-WS
		White	Black	Custom	Custom	M22-DDL-WS-ETCH <sup>②</sup>
				⓪	Ⓢ	M22-DDL-WS-X1-X0
				START	STOP	M22-DDL-WS-GB1-GB0
				—	—	M22-DDL-S
				Custom	Custom	M22-DDL-S-ETCH <sup>②</sup>
 M22S-DDL-GR-X1-X0	Black	Green	Red	—	—	M22S-DDL-GR
				Custom	Custom	M22S-DDL-GR-ETCH <sup>②</sup>
				⓪	Ⓢ	M22S-DDL-GR-X1-X0
				START	STOP	M22S-DDL-GR-GB1-GB0
				—	—	M22S-DDL-WS
		White	Black	Custom	Custom	M22S-DDL-WS-ETCH <sup>②</sup>
				⓪	Ⓢ	M22S-DDL-WS-X1-X0
				START	STOP	M22S-DDL-WS-GB1-GB0
				—	—	M22S-DDL-S
				Custom	Custom	M22S-DDL-S-ETCH <sup>②</sup>
Black	Black	—	—	Ⓢ	—	M22S-DDL-S-X4-X5
		—	—	⓪	⓪	M22S-DDL-S-X7-X7

#### Notes

- ① Includes contact block mounting adapter.
- ② When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes. For example, M22-DDL-S-ETCH; Order Notes: Mark with symbol X91, Line item #\_.



Double Pushbuttons, Flush Top Pushbuttons and Center Light, Momentary

Operators Only ①

	Bezel	Color Top	Bottom	Inscription Top	Bottom	Catalog Number
 <p><b>M22-DDLF-GR</b></p>	Silver	Green	Red	—	—	<b>M22-DDLF-GR</b>
				Custom	Custom	<b>M22-DDLF-GR-ETCH</b> ②
		White	Black	—	—	<b>M22-DDLF-WS</b>
				Custom	Custom	<b>M22-DDLF-WS-ETCH</b> ②
		Green	Red	①	⊙	<b>M22-DDLF-GR-X1-X0</b>
				White	Black	①
 <p><b>M22S-DDLF-GR-X1-X0</b></p>	Black	Green	Red	—	—	<b>M22S-DDLF-GR</b>
				Custom	Custom	<b>M22S-DDLF-GR-ETCH</b> ②
		White	Black	—	—	<b>M22S-DDLF-WS</b>
				Custom	Custom	<b>M22S-DDLF-WS-ETCH</b> ②
		Green	Red	①	⊙	<b>M22S-DDLF-GR-X1-X0</b>
				White	Black	①

Double Pushbuttons, Flush Top Pushbutton and Center Light, Extended Bottom Pushbutton, Momentary

Operators Only ①

	Bezel	Color Top	Bottom	Inscription Top	Bottom	Catalog Number
 <p><b>M22-DDLM-GR</b></p>	Silver	Green	Red	—	—	<b>M22-DDLM-GR</b>
				Custom	Custom	<b>M22-DDLM-GR-ETCH</b> ②
		White	Black	—	—	<b>M22-DDLM-WS</b>
				Custom	Custom	<b>M22-DDLM-WS-ETCH</b> ②
		Green	Red	①	⊙	<b>M22-DDLM-GR-X1-X0</b>
				White	Black	①
 <p><b>M22S-DDLM-GR-X1-X0</b></p>	Black	Green	Red	—	—	<b>M22S-DDLM-GR</b>
				Custom	Custom	<b>M22S-DDLM-GR-ETCH</b> ②
		White	Black	—	—	<b>M22S-DDLM-WS</b>
				Custom	Custom	<b>M22S-DDLM-WS-ETCH</b> ②
		Green	Red	①	⊙	<b>M22S-DDLM-GR-X1-X0</b>
				White	Black	①

Notes

- ① Includes contact block mounting adapter.
- ② When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes. For example, M22-DDLM-GR-ETCH; Order Notes: Mark with symbol X91, Line item #\_.

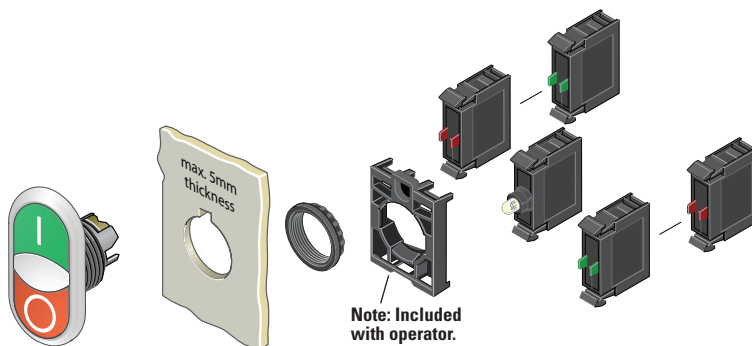


# 37.4 Pushbuttons and Indicating Lights

## 22.5 mm Modular Pushbuttons—M22

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### Double Pushbuttons



M22-LED-W



#### Light Units ①

Terminal Type	LED Color	Light Unit Voltage	Catalog Number
Screw	White	12–30 Vac/Vdc	<b>M22-LED-W</b>
		85–264 Vac	<b>M22-LED230-W</b>

M22-K10



#### Contact Blocks ①

Terminal Type	Contact Configuration ②	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>

#### Notes

① For complete listing of available light units and contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.

② All NC contact blocks are positively driven contact. ⊖

**Four-Way Pushbuttons**

**Product Description**

Eaton’s M22 four-way pushbutton is a truly unique offering. A four-way pushbutton offers four different buttons mounted in a single 22 mm hole. This is ideal not only for an application with limited space, but also directional applications (when ordered with the four arrow engraving option). Another unique option is the interlocked version, which prevents two opposite buttons from being actuated at the same time.

**Features**

- Four buttons in one operator allows for increased functionality in limited space
- Optional interlocking option, which prevents two buttons from being actuated at the same time
- Customizable laser engraving on all buttons for directional or other applications
- Capable of communicating via ASi protocol with ASi adapter modules

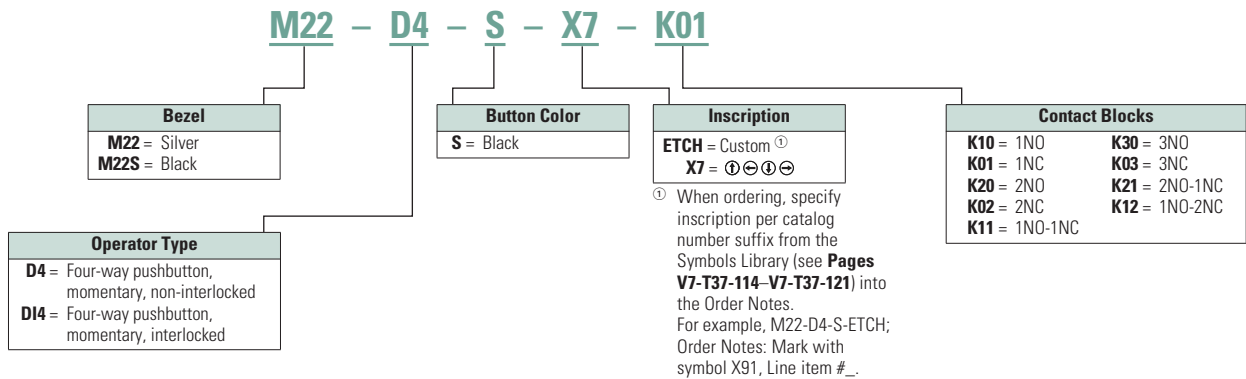
**Protection Type**

- IP66

**Catalog Number Selection**

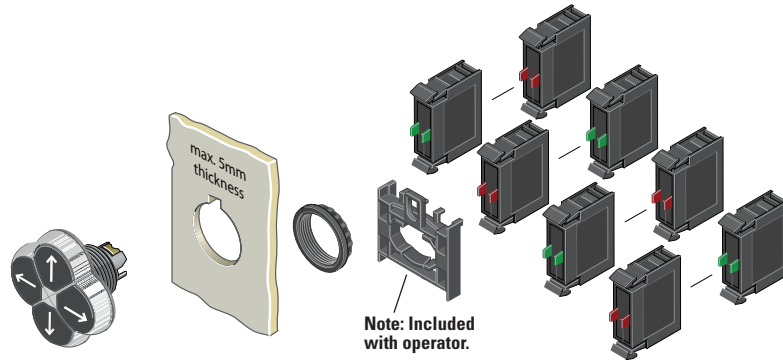
Catalog Number Selection is for illustrative purposes only and not to be used to create new catalog numbers.

**Four-Way Pushbuttons**



## Product Selection

### Four-Way Pushbuttons, Momentary



## Components

### M22-D4-S-X7



### Operators Only <sup>①</sup>

Type	Bezel	Color	Inscription	Catalog Number
Non-interlocked	Silver	Black	—	<b>M22-D4-S</b>
			Custom	<b>M22-D4-S-ETCH <sup>③</sup></b>
			Directional arrows	<b>M22-D4-S-X7</b>
	Black	Black	—	<b>M22S-D4-S</b>
			Custom	<b>M22S-D4-S-ETCH <sup>③</sup></b>
			Directional arrows	<b>M22S-D4-S-X7</b>
Interlocked	Silver	Black	—	<b>M22-DI4-S</b>
			Custom	<b>M22-DI4-S-ETCH <sup>③</sup></b>
			Directional arrows	<b>M22-DI4-S-X7</b>
	Black	Black	—	<b>M22S-DI4-S</b>
			Custom	<b>M22S-DI4-S-ETCH <sup>③</sup></b>
			Directional arrows	<b>M22S-DI4-S-X7</b>

### M22-K10



### Contact Blocks <sup>②</sup>

Terminal Type	Contact Configuration <sup>④</sup>	Catalog Number
Screw	NO	<b>M22-K10</b>
	NO, early-make	<b>M22-K10P</b>
	NC	<b>M22-K01</b>
	NC, late-break	<b>M22-K01D</b>
Spring-cage	NO	<b>M22-CK10</b>
	NC	<b>M22-CK01</b>
	NC, late-break	<b>M22-CK01D</b>
	2NO	<b>M22-CK20</b>
	2NC	<b>M22-CK02</b>
	NO-NC	<b>M22-CK11</b>

### Notes

- ① Includes contact block mounting adapter.
- ② For complete listing of available contact blocks, see Accessories, **Pages V7-T37-96–V7-T37-101**.
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes.  
For example, M22-D4-S-ETCH; Order Notes: Mark with symbol X91, Line item #\_.
- ④ All NC contact blocks are positively driven contact. ⊖

**Joysticks**

**Product Description**

Eaton’s M22 joystick line comes in a wide variety of options. From vertical and horizontal two-position switches to the maintained four-position, these operators fit a variety of applications. An additional option, two switch points, allows for eight isolated circuits to be actuated individually on a single operator.

**Features**

- Available in four-position and two-position
- Two switch point option allows for two contacts in each direction (up to eight total contacts in one operator)
- Capable of communicating via ASi protocol with ASi adapter modules

**Protection Type**

- IP66

**Product Selection**

**Joysticks**

**Components**

M22-WJ2H



**Operators** ①

Bezel	Number of Directions	Switching Position	Catalog Number
Silver	Two-position horizontal	Momentary	<b>M22-WJ2H</b>
	Two switch points		<b>M22-WJ2H-2P</b>
	Two-position horizontal	Maintained	<b>M22-WRJ2H</b>
	Two-position vertical	Momentary	<b>M22-WJ2V</b>
	Two switch points		<b>M22-WJ2V-2P</b>
	Two-position vertical	Maintained	<b>M22-WRJ2V</b>
	Four-position	Momentary	<b>M22-WJ4</b>
	Two switch points		<b>M22-WJ4-2P</b>
	Four-position	Maintained	<b>M22-WRJ4</b>
Black	Two-position horizontal	Momentary	<b>M22S-WJ2H</b>
	Two switch points		<b>M22S-WJ2H-2P</b>
	Two-position horizontal	Maintained	<b>M22S-WRJ2H</b>
	Two-position vertical	Momentary	<b>M22S-WJ2V</b>
	Two switch points		<b>M22S-WJ2V-2P</b>
	Two-position vertical	Maintained	<b>M22S-WRJ2V</b>
	Four-position	Momentary	<b>M22S-WJ4</b>
	Two switch points		<b>M22S-WJ4-2P</b>
	Four-position	Maintained	<b>M22S-WRJ4</b>

**Note**

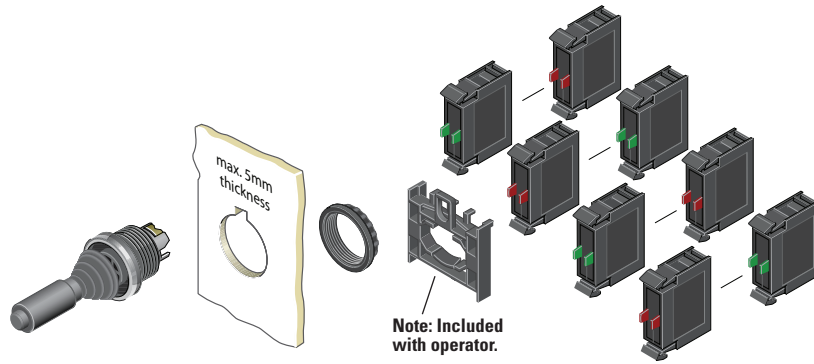
① Includes contact block mounting adapter.

# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

#### Joysticks



M22-K10



#### Contact Blocks ①②

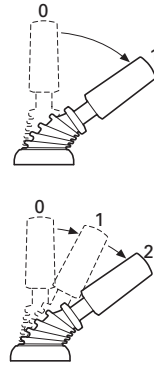
Terminal Type	Contact Configuration ③	Catalog Number
Screw	NO	M22-K10
	NO, early-make	M22-K10P
	NC	M22-K01
	NC, late-break	M22-K01D
Spring-cage	NO	M22-CK10
	NC	M22-CK01
	NC, late-break	M22-CK01D
	2NO	M22-CK20
	2NC	M22-CK02
	NO-NC	M22-CK11

**Notes**

- ① Includes contact block mounting adapter.
- ② For complete listing of available contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.
- ③ All NC contact blocks are positively driven contact. ⊖

#### Joystick with Double Contact

The joystick allows the control of up to four directions of movement on machines. Different variants of the joystick have two/four-positions and other variants have two settings for each position. This allows, for example, two-speed settings for each direction. For this application, a standard normally open contact and an early-make contact are fitted in series. Momentary contact and latching contact versions are available.



**Potentiometers**

**Product Description**

Eaton’s M22 potentiometers allow for a ready to use operator in a conveniently sized package. M22 potentiometers include the resistive element, instead of just a knob, and a built in legend surrounding the knob. The slim design, with integrated contacts and the range of resistances available, allows for a quick install.

**Features**

- Scale markings on the knob allows the operator to be used without an additional legend plate
- Oversized knob option available
- Slim design allows for space saving and simple wiring and installation

**Protection Type**

- IP66
- NEMA 4X, 13

**Product Selection**

**Potentiometers**

M22-R10K



**Complete Devices**

Bezel	Resistance Rk	Catalog Number
Silver	1	M22-R1K
	4.7	M22-R4K7
	10	M22-R10K
	47	M22-R47K
	100	M22-R100K
	470	M22-R470K
Black	1	M22S-R1K
	4.7	M22S-R4K7
	10	M22S-R10K
	47	M22S-R47K
	100	M22S-R100K
	470	M22S-R470K
<b>Oversized Knob</b>		
Silver	1	M22-R1K-RH
	4.7	M22-R4K7-RH
	10	M22-R10K-RH
	47	M22-R47K-RH
	100	M22-R100K-RH
	470	M22-R470K-RH
Black	1	M22S-R1K-RH
	4.7	M22S-R4K7-RH
	10	M22S-R10K-RH
	47	M22S-R47K-RH
	100	M22S-R100K-RH
	470	M22S-R470K-RH

**Acoustic Devices**

**Product Description**

Eaton’s M22 acoustic devices are a simple and aesthetic way to add a buzzer or indicator to any application. Fitting in the same 22 mm hole, these devices can be ordered in continuous or pulsed tone and with or without the IP40 enclosure.

**Features**

- Continuous or pulsed tone available
- 83dB/10 cm decibel rating
- Slim design allows for space saving and simple wiring and installation

**Protection Type**

- IP40
- NEMA 12

**Product Selection**

**Acoustic Devices**

M22-AMC-XAM



**Complete Devices**

Description	Decibel Rating	Catalog Number
Indicator with buzzer, black continuous tone, 18–30 Vac/Vdc	83 dB/10 cm	M22-AMC-XAM
Indicator with buzzer, black pulsed tone, 18–30 Vac/Vdc	83 dB/10 cm	M22-AMC-XAMP

M22-XAM



**Buzzers**

Description	Decibel Rating	Catalog Number
Indicator without buzzer, black	83 dB/10 cm	M22-AMC
Buzzer only, continuous tone, 18–30 Vac/Vdc	83 dB/10 cm	M22-XAM
Buzzer only, pulsed tone, 18–30 Vac/Vdc	83 dB/10 cm	M22-XAMP

# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

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#### Through-the-Door Operators

##### Product Description

Eaton's M22 through-the-door operators use the same familiar flush pushbutton look with the addition of a cut-to-length rod that allows for a simple reset operator.

##### Features

- Customizable laser engraving on all buttons
- More than five million mechanical operations
- Pushrod can be cut to length

##### Protection Type

- IP67, IP69K
- NEMA 4X, 13

#### Product Selection

##### Through-the-Door Operators <sup>①</sup>

###### M22-DZ-B-X6



##### Complete Devices

Color	Inscription	Catalog Number
Blue	—	<b>M22-DZ-B</b>
	RESET	<b>M22-DZ-B-GB14</b>
	Ⓜ	<b>M22-DZ-B-X6</b>
Red	—	<b>M22-DZ-R</b>
	Ⓞ	<b>M22-DZ-R-X0</b>
	STOP	<b>M22-DZ-R-GB0</b>

###### M22-DZ-X



##### Buttonless Operator

Bezel	Catalog Number
Silver	<b>M22-DZ-X</b>

###### M22-XD-B



##### Button Plates <sup>②</sup>

Color	Inscription	Catalog Number
Blue	—	<b>M22-XD-B</b> <sup>③</sup>
	RESET	<b>M22-XD-B-GB14</b>
	Ⓜ	<b>M22-XD-B-X6</b>
Red	—	<b>M22-XD-R</b> <sup>③</sup>
	Ⓞ	<b>M22-XD-R-X0</b>
	STOP	<b>M22-XD-R-GB0</b>

#### Bulkhead Interfaces

##### Product Description

Eaton's M22 bulkhead interfaces are another unique offering in the M22 line. This device allows for a secure connection to any USB or RJ45 connected device within an enclosure or panel. With an IP66 rating when closed, these devices are not only convenient, but robust and reliable.

##### Features

- Convenient and safe way to make a data connection to inside of the panel without opening the panel door

##### Protection Type

- IP66 when closed, IP20 when connected

#### Product Selection

##### Bulkhead Interfaces

###### M22-USB-SA



##### USB Socket <sup>④⑤</sup>

Description	Catalog Number
Used for USB connection USB 2.0 Type A plug IP65 when closed IP20 when connected	<b>M22-USB-SA</b>

###### M22-RJ45-SA



##### RJ45 Socket <sup>⑥</sup>

Description	Catalog Number
Used for RJ45 Ethernet connection IP65 when closed IP20 when connected	<b>M22-RJ45-SA</b>

##### Notes

- <sup>①</sup> The pushrod is 3.24 in long and can be cut to length.
- <sup>②</sup> Any combination of plate color and inscription is available.
- <sup>③</sup> Minimum order quantity of (10).
- <sup>④</sup> USB interface is complete with 2-ft-long USB cable.
- <sup>⑤</sup> UL and CSA pending.
- <sup>⑥</sup> RJ45 interface is an eight-wire connector.

## ASi Adapter Modules

### Product Description

Eaton's M22 ASi adapter modules add functionality to every operator in the M22 line. These devices can be connected to any operator that uses contact blocks or LED units. The simple snap-on design allows for a quick integration of an entire application of operators to a communicating network.

### Features

- Allows compatible operators to communicate on an ASi network
- Not only can the status of a contact block be read, but LEDs can be illuminated by an ASi adapter
- ASi adapters simply clip on to the back of the contact blocks and LEDs
- Insulation displacement connectors allow for installation of adapters without any tools
- Two integrated LEDs indicate status of communications

### Protection Type

- IP20

## Product Selection

### ASi Adapter Modules

#### M22-ASi



#### Complete Devices

Description	Catalog Number
ASi adapter module	<b>M22-ASi</b>
ASi adapter module for base mounting	<b>M22-ASi-C</b>
ASi adapter module for E-stop	<b>M22-ASi-S</b>
ASi adapter module for E-stop base mounting	<b>M22-ASi-CS</b>



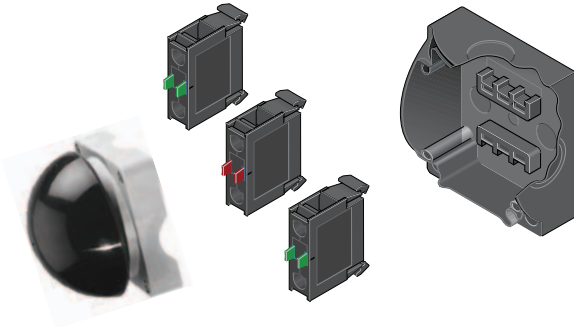
# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

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#### Palm Switches



#### Product Description

Eaton's M22 palm switches are an oversized button that mount directly to an enclosure base. This allows for a standalone button that can be mounted anywhere. The enclosure uses base-mounted contact blocks, which allows for quick wiring and mounting. The palm switches come in momentary or maintained versions. As with other M22 operators, the palm switches are available as complete devices, including the enclosure and contact blocks or as modular components.

#### Features

- Oversized operator in black, red and yellow color options
- Button integrated directly into an enclosure
- Base mounting contact blocks allow for simple wiring and installation
- More than one million mechanical operations on momentary and 100,000 on maintained operators

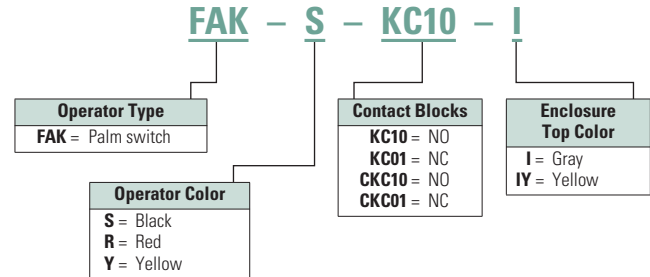
#### Protection Type

- IP67, IP69K
- NEMA 4X, 13

#### Catalog Number Selection

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

#### Palm Switches, Type 4X/13 Enclosure



#### Product Selection

##### Complete Devices

##### Operator, Base and Contact Blocks <sup>①</sup>

Button Color	Contact Block Configuration <sup>②</sup>	Catalog Number
<b>FAK-S-KC11-I</b>		
<b>Momentary</b>		
Black	1NO-1NC	<b>FAK-S-KC11-I</b>
Red	1NO-1NC	<b>FAK-R-KC11-I</b>
Yellow	1NO-1NC	<b>FAK-Y-KC11-I</b>
<b>FAK-R-V-KC01-IY</b>		
<b>Maintained</b>		
Red	NC	<b>FAK-R-V-KC01-IY</b>
	2NC	<b>FAK-R-V-KC02-IY</b>
	1NO-2NC	<b>FAK-R-V-KC12-IY</b>
	1NO-1NC	<b>FAK-R-V-KC11-IY</b>

#### Notes

<sup>①</sup> For complete listing of available contact blocks, see Accessories, Pages V7-T37-96-V7-T37-101.

<sup>②</sup> All NC contact blocks are positively driven contact. ⊖

Components

FAK-S



Operators Only

Type	Button Color	Catalog Number
Momentary	Black	FAK-S
	Red	FAK-R
	Yellow	FAK-Y
Maintained	Red	FAK-R-V-Y

FAK-IU



Palm Switch Enclosure Base

Catalog Number

FAK-IU

M22-KC10



Contact Blocks ①

Terminal Type	Contact Configuration ②	Catalog Number
Screw	NO	M22-KC10
	NC	M22-KC01
Spring-cage	NO	M22-CKC10
	NC	M22-CKC01

Notes

- ① For complete listing of available contact blocks, see Accessories, Pages V7-T37-96–V7-T37-101.
- ② All NC contact blocks are positively driven contact. ⊖

## Accessories

M22-XD-S



M22-XDH-R



M22-XDP-G



### Button Plates

Color	Inscription	Catalog Number Flush Pushbutton	Catalog Number Extended Pushbutton	Catalog Number Mushroom Head Button
Black	—	M22-XD-S	M22-XDH-S	M22-XDP-S
White	—	M22-XD-W	M22-XDH-W	M22-XDP-W
Red	—	M22-XD-R	M22-XDH-R	M22-XDP-R
Green	—	M22-XD-G	M22-XDH-G	M22-XDP-G
Yellow	—	M22-XD-Y	M22-XDH-Y	M22-XDP-Y
Blue	—	M22-XD-B	M22-XDH-B	—
Black, white, red, green, yellow, blue	—	M22-XD-SWRGYB	M22-XDH-SWRGYB	—
Black, red, green	—	M22-XD-SRG	M22-XDH-SRG	—
Black	Custom	M22-XD-S-ETCH	M22-XDH-S-ETCH	M22-XDP-S-ETCH
White	Custom	M22-XD-W-ETCH	M22-XDH-W-ETCH	M22-XDP-W-ETCH
Red	Custom	M22-XD-R-ETCH	M22-XDH-R-ETCH	M22-XDP-R-ETCH
Green	Custom	M22-XD-G-ETCH	M22-XDH-G-ETCH	M22-XDP-G-ETCH
Yellow	Custom	M22-XD-Y-ETCH	M22-XDH-Y-ETCH	M22-XDP-Y-ETCH
Blue	Custom	M22-XD-B-ETCH	M22-XDH-B-ETCH	—
Black	STOP	M22-XD-S-GB0	M22-XDH-S-GB0	M22-XDP-S-GB0
Red	STOP	M22-XD-R-GB0	M22-XDH-R-GB0	M22-XDP-R-GB0
Black	START	M22-XD-S-GB1	M22-XDH-S-GB1	M22-XDP-S-GB1
White	START	M22-XD-W-GB1	M22-XDH-W-GB1	—
Green	START	M22-XD-G-GB1	M22-XDH-G-GB1	M22-XDP-G-GB1
Black	CLOSE	M22-XD-S-GB2	M22-XDH-S-GB2	—
Black	UP	M22-XD-S-GB3	M22-XDH-S-GB3	M22-XDP-S-GB3
Black	DOWN	M22-XD-S-GB4	M22-XDH-S-GB4	M22-XDP-S-GB4
Black	OFF	M22-XD-S-GB5	M22-XDH-S-GB5	M22-XDP-S-GB5
Red	OFF	M22-XD-R-GB5	M22-XDH-R-GB5	M22-XDP-R-GB5
Black	ON	M22-XD-S-GB6	M22-XDH-S-GB6	M22-XDP-S-GB6
Green	ON	M22-XD-G-GB6	M22-XDH-G-GB6	M22-XDP-G-GB6
Black	TEST	M22-XD-S-GB9	M22-XDH-S-GB9	—
Blue	RESET	M22-XD-B-GB14	M22-XDH-B-GB14	—
Black	FORWARD	M22-XD-S-GB15	M22-XDH-S-GB15	M22-XDP-S-GB15
Black	REVERSE	M22-XD-S-GB16	M22-XDH-S-GB16	M22-XDP-S-GB16
Black	RAISE	M22-XD-S-GB17	M22-XDH-S-GB17	—
Black	LOWER	M22-XD-S-GB18	M22-XDH-S-GB18	—
Black	Ⓞ	M22-XD-S-X0	M22-XDH-S-X0	M22-XDP-S-X0
Red	Ⓞ	M22-XD-R-X0	M22-XDH-R-X0	M22-XDP-R-X0
Green	Ⓞ	—	—	M22-XDP-G-X0
Black	Ⓛ	M22-XD-S-X1	M22-XDH-S-X1	M22-XDP-S-X1
White	Ⓛ	M22-XD-W-X1	M22-XDH-W-X1	—
Green	Ⓛ	M22-XD-G-X1	M22-XDH-G-X1	M22-XDP-G-X1
Black	Ⓛ	M22-XD-S-X2	M22-XDH-S-X2	—
Green	Ⓛ	M22-XD-G-X2	M22-XDH-G-X2	—
Black	Ⓢ	M22-XD-S-X4	M22-XDH-S-X4	M22-XDP-S-X4
Black	Ⓢ	M22-XD-S-X5	M22-XDH-S-X5	M22-XDP-S-X5
Blue	Ⓢ	M22-XD-B-X6	M22-XDH-B-X6	—
Black	Ⓛ	M22-XD-S-X7	M22-XDH-S-X7	M22-XDP-S-X7
Black	Ⓛ	M22-XD-S-X8	M22-XDH-S-X8	—
Black	See ① below	M22-XD-S-X9	M22-XDH-S-X9	—
Black	See ① below	M22-XD-S-X10	M22-XDH-S-X10	—
Black	See ① below	M22-XD-S-X11	M22-XDH-S-X11	—
Black	See ① below	M22-XD-S-X12	M22-XDH-S-X12	—
Black	See ① below	M22-XD-S-X13	M22-XDH-S-X13	—
Black	See ① below	M22-XD-S-X14	M22-XDH-S-X14	—
Black	See ① below	M22-XD-S-X15	M22-XDH-S-X15	—
Black	See ① below	M22-XD-S-X16	M22-XDH-S-X16	—
Black	See ① below	M22-XD-S-X17	M22-XDH-S-X17	—

**Note**

① Refer to the Symbols Library, (see Pages V7-T37-114–V7-T37-121), for symbol image.

M22-XDLH-W



M22-XDL-G



Button Lenses

Color	Inscription	Catalog Number Flush	Catalog Number Extended	Color	Inscription	Catalog Number Flush	Catalog Number Extended
White	—	M22-XDL-W	M22-XDLH-W	Blue	Custom	M22-XDL-B-ETCH	M22-XDLH-B-ETCH
Red	—	M22-XDL-R	M22-XDLH-R	Red	STOP	M22-XDL-R-GB0	M22-XDLH-R-GB0
Green	—	M22-XDL-G	M22-XDLH-G	Green	START	M22-XDL-G-GB1	M22-XDLH-G-GB1
Yellow	—	M22-XDL-Y	M22-XDLH-Y	Red	OFF	M22-XDL-R-GB5	M22-XDLH-R-GB5
Blue	—	M22-XDL-B	M22-XDLH-B	Green	ON	M22-XDL-G-GB6	M22-XDLH-G-GB6
White	Custom	M22-XDL-W-ETCH	M22-XDLH-W-ETCH	Blue	RESET	M22-XDL-B-GB14	M22-XDLH-B-GB14
Red	Custom	M22-XDL-R-ETCH	M22-XDLH-R-ETCH	Red	⊙	M22-XDL-R-X0	M22-XDLH-R-X0
Green	Custom	M22-XDL-G-ETCH	M22-XDLH-G-ETCH	Green	⓪	M22-XDL-G-X1	M22-XDLH-G-X1
Yellow	Custom	M22-XDL-Y-ETCH	M22-XDLH-Y-ETCH	Blue	Ⓢ	M22-XDL-B-X6	M22-XDLH-B-X6

Mounting Adapters

M22-A



Description	Catalog Number
Contact block mounting adapter	M22-A

M22-A4



Contact block mounting adapter, four-position (for use with four-way pushbuttons, joysticks and four-position selector switches only).	M22-A4
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M22-LS



Allows mounting of M22 pushbuttons to LS-Titan limit switch bodies (for the full LS-Titan catalog section, see PG08301004E).	M22-LS
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M22-K10



Contact Blocks

Mounting Location	Terminal Type	Contact Configuration ①	Package Qty.	Catalog Number		
Front	Screw	NO	1	M22-K10		
		NO	25	M22-K10-B25		
		NO	100	M22-K10-B100		
		NO, early-make	1	M22-K10P		
		NC	1	M22-K01		
		NC	25	M22-K01-B25		
		NC	100	M22-K01-B100		
		NC, late-break	1	M22-K01D		
		SMCB, NC	1	M22-K01SMC10		
		SMCB, 2NC	1	M22-K02SMC10		
		Base	Spring-cage	NO	1	M22-KC10
				NO	25	M22-KC10-B25
				NO	100	M22-KC10-B100
				NC	1	M22-KC01
NC	25			M22-KC01-B25		
NC	100			M22-KC01-B100		
SMCB, NC	1			M22-KC01SMC10		
SMCB, 2NC	1			M22-KC02SMC10		
Front	Spring-cage			NO	1	M22-CK10
				NC	1	M22-CK01
				NC, late-break	1	M22-CK01D
				2NO ②	1	M22-CK20
				2NC ②	1	M22-CK02
				NO-NC ②	1	M22-CK11
		Base	Spring-cage	NO	1	M22-CKC10
NC	1			M22-CKC01		

Notes

- ① All NC contact blocks are positively driven contact. ⊖
- ② Not stackable.

M22-LED-W



#### Light Units

Terminal Type	Mounting Location	LED Color	Light Unit Voltage	Catalog Number	
Screw	Front	White	12–30 Vac/Vdc	M22-LED-W	
		Red		M22-LED-R	
		Green		M22-LED-G	
		Blue		M22-LED-B	
		White	85–264 Vac	M22-LED230-W	
		Red		M22-LED230-R	
		Green		M22-LED230-G	
		Blue		M22-LED230-B	
		White	207–264 Vac	M22-LED230H-W	
		Red		M22-LED230H-R	
		Green		M22-LED230H-G	
		Blue		M22-LED230H-B	
	Base	12–30 Vac/Vdc	White	M22-LEDC-W	
			Red	M22-LEDC-R	
			Green	M22-LEDC-G	
			Blue	M22-LEDC-B	
		85–264 Vac	White	M22-LEDC230-W	
			Red	M22-LEDC230-R	
			Green	M22-LEDC230-G	
			Blue	M22-LEDC230-B	
		207–264 Vac	White	M22-LEDC230H-W	
			Red	M22-LEDC230H-R	
			Green	M22-LEDC230H-G	
			Blue	M22-LEDC230H-B	
Spring-cage	Front	White	12–30 Vac/Vdc	M22-CLED-W	
		Red		M22-CLED-R	
		Green		M22-CLED-G	
		Blue		M22-CLED-B	
		White	85–264 Vac	M22-CLED230-W	
		Red		M22-CLED230-R	
		Green		M22-CLED230-G	
		Blue		M22-CLED230-B	
		Base	12–30 Vac/Vdc	White	M22-CLEDC-W
				Red	M22-CLEDC-R
				Green	M22-CLEDC-G
				Blue	M22-CLEDC-B
	85–264 Vac		White	M22-CLEDC230-W	
			Red	M22-CLEDC230-R	
			Green	M22-CLEDC230-G	
			Blue	M22-CLEDC230-B	

M22-XLED60





#### LED Resistor and Test Elements

Terminal Type	Mounting Location	Element Type	Voltage	Catalog Number
Screw	Front	Resistor <sup>①②</sup>	42–60 Vac/Vdc	M22-XLED60
			220 Vdc	M22-XLED220
		Test	12–240 Vac/Vdc	M22-XLED-T
			85–264 Vac	M22-XLED230-T

**Notes**

- ① Resistor units to be used with 12–30V light units.
- ② Refer to **IL04716002E** for use of resistor elements in series for higher DC voltage.

**Legend Plate Holders and Inserts, Pushbuttons and Double Pushbuttons** ②

	Description	Inscription	Catalog Number
<b>M22S-ST-X</b> 	Legend plate holder, without legend plate insert, for pushbuttons	—	<b>M22S-ST-X</b>
	Legend plate holder, without legend plate insert, for double pushbuttons	—	<b>M22S-STDD-X</b>
<b>M22-XST-GB0</b> 	Legend plate insert	—	<b>M22-XST</b>
		Custom	<b>M22-XST-ETCH</b> ①
		STOP	<b>M22-XST-GB0</b>
		START	<b>M22-XST-GB1</b>
		OFF	<b>M22-XST-GB5</b>
		ON	<b>M22-XST-GB6</b>
		RUN	<b>M22-XST-GB7</b>
		FAULT	<b>M22-XST-GB8</b>
		OFF ON	<b>M22-XST-GB10</b>
		MAN. AUTO	<b>M22-XST-GB11</b>
		MAN. O AUTO	<b>M22-XST-GB12</b>
		HAND AUTO	<b>M22-XST-D11</b>
		HAND O AUTO	<b>M22-XST-D12</b>
		1	<b>M22-XST-X52</b>
2	<b>M22-XST-X53</b>		
O I	<b>M22-XST-X88</b>		
O - I	<b>M22-XST-X89</b>		
I O II	<b>M22-XST-X93</b>		

**Notes**

① When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes.

For example, M22-XD-S-ETCH; Order Notes: Mark with symbol X91, Line item # \_\_.







② Legend plates are IP66 and NEMA 4X/13.

**Example**

To order a legend plate for a pushbutton with non-standard markings (FORWARD):

1. Select legend plate holder—M22S-ST-X.
2. Select legend plate insert—M22-XST-ETCH.
3. Select FORWARD from the Symbols Library, **Pages V7-T37-114–V7-T37-121**, identified by GB15 suffix.
4. Indicate on the order form in the order notes—suffix GB15, line item # \_\_ .



#### Legend Plates, Complete <sup>②</sup>

	Description	Inscription	Catalog Number		
<b>M22S-ST-GB0</b> 	For use with pushbuttons and indicating lights	Legend plate holder with insert	<b>M22S-ST-GB0</b>		
			STOP	<b>M22S-ST-GB1</b>	
			START	<b>M22S-ST-GB5</b>	
			OFF	<b>M22S-ST-GB6</b>	
			ON	<b>M22S-ST-GB7</b>	
			RUN	<b>M22S-ST-GB8</b>	
			FAULT	<b>M22S-ST-GB8</b>	
			1	<b>M22S-ST-X52</b>	
			2	<b>M22S-ST-X53</b>	
		Selector switches	—	OFF ON	<b>M22S-ST-GB10</b>
				MAN. AUTO	<b>M22S-ST-GB11</b>
				MAN. 0 AUTO	<b>M22S-ST-GB12</b>
				HAND AUTO	<b>M22S-ST-D11</b>
	HAND 0 AUTO		<b>M22S-ST-D12</b>		
	O I		<b>M22S-ST-X88</b>		
	O - I		<b>M22S-ST-X89</b>		
	I O II		<b>M22S-ST-X93</b>		
<b>M22-XZK</b> 	Emergency-stop operators	Rectangular yellow legend plate	<b>M22-XZK</b>		
			Custom	<b>M22-XZK-ETCH <sup>①</sup></b>	
			EMERGENCY-STOP	<b>M22-XZK-GB99</b>	
<b>M22-XYK</b> 	Emergency-stop operators	Square yellow legend plate	<b>M22-XYK</b>		
			—	<b>M22-XYK-ETCH <sup>①</sup></b>	
			EMERGENCY-STOP four-language	<b>M22-XYK1</b>	
			EMERGENCY-STOP (top and bottom)	<b>M22-XYK5</b>	
		<b>M22-XAK</b> 	Emergency-stop operators	Round yellow legend plate, 90 mm	<b>M22-XAK</b>
	Custom			<b>M22-XAK-ETCH <sup>①</sup></b>	
	EMERGENCY-STOP four-language			<b>M22-XAK1</b>	
	EMERGENCY-STOP (top and bottom)			<b>M22-XAK5</b>	
<b>M22-XBK1</b> 	Emergency-stop operators			Round yellow legend plate, 60 mm	<b>M22-XBK</b>
			Custom	<b>M22-XBK-ETCH <sup>①</sup></b>	
			EMERGENCY-STOP four-language	<b>M22-XBK1</b>	
			EMERGENCY-STOP (top and bottom)	<b>M22-XBK5</b>	
		<b>M22-XCK1</b> 	Four-way pushbutton, joystick and four-position selector switches	Silver square legend plate	<b>M22-XCK</b>
	Custom			<b>M22-XCK-ETCH <sup>①</sup></b>	
	Four directional arrows			<b>M22-XCK1</b>	
	0-1-0-2-0-3-0-4			<b>M22-XCK2</b>	
	Two directional arrows			<b>M22-XCK3</b>	

**Notes**

- ① When ordering, specify inscription per catalog number suffix from the Symbols Library (see **Pages V7-T37-114–V7-T37-121**) into the Order Notes. For example, M22-XD-S-ETCH; Order Notes: Mark with symbol X91, Line item #\_.
- ② Legend plates are IP66 and NEMA 4X/13.


**Surface Mounting Enclosures** ①

Description	Catalog Number
<b>M22-IY1-PG</b> 	<b>M22-IY1-PG</b>
<b>M22-IY-PG</b> 	<b>M22-I1-PG</b>
	<b>M22-I2-PG</b>
	<b>M22-I3-PG</b>
	<b>M22-I4-PG</b>
	<b>M22-I6-PG</b>
M20 connecting screw	<b>M22-XI</b>
M20 cord grip	<b>V-M20</b>






**Flush Mounting Plates, Aluminum**

Finish	Rating	Catalog Number
<b>One Hole</b>		
Yellow paint for emergency-stop operators	—	<b>M22-EY1</b>
Gray anodized	IP65	<b>M22-E1</b>
<b>Two Holes</b>		
Gray anodized	IP65	<b>M22-E2</b>
<b>Three Holes</b>		
Gray anodized	IP65	<b>M22-E3</b>
<b>Four Holes</b>		
Gray anodized	IP65	<b>M22-E4</b>
<b>Five Holes</b>		
Gray anodized	IP65	<b>M22-E5</b>
<b>Six Holes</b>		
Anodized	IP40	<b>M22-E6</b>




**Shrouds, Plastic**

Description	Rating	Catalog Number
<b>M22-H1</b> 	IP55	<b>M22-H1</b>
	IP55	<b>M22-H2</b>
	IP55	<b>M22-H3</b>
	IP40	<b>M22-H4</b>
	IP40	<b>M22-H5</b>
	IP40	<b>M22-H6</b>
Mounting plate	—	<b>M22-XE5</b>
Plaster keys for flush mounting	—	<b>M22-UPE</b>

**Selector Switch Accessories**

Description	Catalog Number
<b>M22-XW</b> 	<b>M22-XW</b>
<b>M22-XWS</b> 	<b>M22-XWS</b>
<b>M22-XC-R</b> 	<b>M22-XC-R</b>
<b>M22-XC-Y</b> 	<b>M22-XC-Y</b>
<b>M22-XGWK</b> 	<b>M22-XGWK</b>

**Emergency Stop Operator Accessories**

Description	Voltage	Catalog Number
<b>M22-XGVP</b> 	—	<b>M22-XGVP</b>
<b>M22G-XGVP</b> 	—	<b>M22G-XGVP</b>
<b>M22-PL-PV</b> 	—	<b>M22-PL-PV</b>
Illuminated ring	24 Vac/Vdc	<b>M22-XPV60-Y-24</b>
	120 Vac	<b>M22-XPV60-Y-120</b>
	230 Vac	<b>M22-XPV60-Y-230</b>

**Blanking Plugs**

Color	Catalog Number
<b>M22-B</b> 	<b>M22-B</b>
Black	<b>M22S-B</b>

**Notes**

- ① Requires use of base mounted contact blocks.
- ② Plunger needed to actuate center-mounted contact blocks. Used for non-illuminated three-position selector switches only.
- ③ Enables a keyed selector switch to be set to user-selected key withdraw position.






# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

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#### Mounting Accessories

	Description	Catalog Number
<b>M22-TC and M22-TA</b> 	Telescopic clip with top-hat rail	<b>M22-TC</b>
	Telescopic clip	<b>M22-TA</b>
	Telescopic clip extension	<b>M22-TCV</b>
<b>M22-IVS</b> 	DIN rail mounting adapter	<b>M22-IVS</b>
<b>M22-GR</b> 	Mounting ring	<b>M22-GR</b>
<b>M22-MS</b> 	Mounting ring tool	<b>M22-MS</b>
<b>M22S-R30</b> 	Adapter ring set for 30 mm holes	<b>M22S-R30</b>

#### M22-T-D and M22-T-DD



#### Protective Diaphragm

For Use with ...	Catalog Number
Flush pushbuttons and indicating lights	<b>M22-T-D</b>
Double pushbuttons	<b>M22-T-DD</b>

#### M22-ADC4



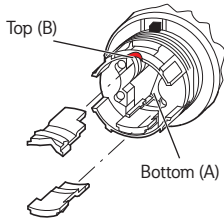
#### Dust Covers

Description	Catalog Number
Contact block dust cover	<b>M22-XKDP</b>
Operator dust cover, max three contact blocks	<b>M22-ADC</b>
Operator dust cover, max four contact blocks	<b>M22-ADC4</b>

#### Kits

Description	Catalog Number
Includes one each: M22-XW, M22-XC-R, M22-XC-Y, M22S-B, M22-A, M22-XD-SWRGB	<b>M22-KT1</b>

**Coding Adapter Guide**  
**Selector Switches**



**Two-Position Selector Switch**

Top (B)	Bottom (A)	Catalog Number	Function
		M22(S)-W(L)(K)	Momentary
		M22(S)-WR(L)(K)	Maintained

**Three-Position Selector Switch**

Top (B)	Bottom (A)	Catalog Number	Function Left	Right
		M22(S)-W(L)(K)3	Momentary	Momentary
		M22(S)-WR(L)(K)3	Maintained	Maintained
		M22(S)-WR(L)(K)3-1	Maintained	Momentary
		M22(S)-WR(L)(K)3-2	Momentary	Maintained

**Two-Position Key-Operated Selector Switch**

Top (B)	Bottom (A)	Catalog Number	Center Key Withdraw	Right Function	Key Withdraw
		M22(S)-WS	Yes	Momentary	No
		M22(S)-WRS	Yes	Maintained	Yes
		M22(S)-WRS-A1	Yes	Maintained	No

**Three-Position Key-Operated Selector Switch**

Top (B)	Bottom (A)	Catalog Number	Left Function	Key Withdraw	Center Key Withdraw	Right Function	Key Withdraw
		M22(S)-WS3	Momentary	No	Yes	Momentary	No
		M22(S)-WRS3	Maintained	Yes	Yes	Maintained	Yes
		M22(S)-WRS3-A1	Maintained	No	Yes	Maintained	No
		M22(S)-WRS3-A2	Maintained	Yes	Yes	Maintained	No
		M22(S)-WRS3-A3	Maintained	No	Yes	Maintained	Yes
		M22(S)-WRS3-A4	Maintained	Yes	Yes	Momentary	No
		M22(S)-WRS3-A5	Maintained	No	Yes	Momentary	No
		M22(S)-WRS3-A6	Momentary	No	Yes	Maintained	Yes
		M22(S)-WRS3-A7	Momentary	No	Yes	Maintained	No

## Technical Data and Specifications

## Pushbuttons, Indicating Lights, Selector Switches and Emergency-Stop Operators

Description			Momentary Pushbuttons	Maintained Pushbuttons	Indicating Lights, Buzzers and Potentiometers	Emergency-Stop Operators	Selector Switches	Key-Operated Operators	Double Pushbuttons
<b>General</b>									
Standards			IEC/EN 60947 VDE 0660	IEC/EN 60947 VDE 0660	IEC/EN 60947 VDE 0660	IEC/EN 60947 VDE 0660	IEC/EN 60947 VDE 0660	IEC/EN 60947 VDE 0660	IEC/EN 60947 VDE 0660
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	>5	>1	—	>0.1	>0.1	>0.1	>0.2
Operating frequency	Operations/h		≥3600	≥1800	—	≥600	≥2000	≥100	≥3600
Actuating force	n		≥5	≥5	—	≥50	—	—	≥5
Operating torque (screw terminals)	Nm		—	—	—	—	≥0.3	≥0.5	—
<b>Protection Type</b>									
IP			IP67, IP69K	IP67, IP69K	Indicating lights: IP67, 69K Buzzers: IP40 Potentiometers: IP66	IP67, IP69K	IP66	IP66	IP66
UL type			4X, 13	4X, 13	Indicating lights: 4X/13 Buzzers: 12 Potentiometers: 4X/13	4X, 13	4X, 13	4X, 13	4X, 13
Climatic proofing			Damp heat, constant, according to IEC 60068-2-78 Damp heat, cyclical to IEC 60068-2-30						
Ambient temperature, operating	°F (°C)		–13 to 158 (–25 to 70)	–13 to 158 (–25 to 70)	–13 to 158 (–25 to 70)	–13 to 158 (–25 to 70)	–13 to 158 (–25 to 70)	–13 to 158 (–25 to 70)	–13 to 158 (–25 to 70)
Mounting position			As required						
Mechanical shock resistance to IEC 60068-2-27 shock duration 11 ms, half-sinusoidal	g		>30	>30	>30	>50	>30	>30	>30
<b>Terminal Capacities</b>									
Solid	AWG	—	—	—	20-16	—	—	—	—
	mm <sup>2</sup>	—	—	—	0.5–1.5	—	—	—	—
Stranded	AWG	—	—	—	20-16	—	—	—	—
	mm <sup>2</sup>	—	—	—	0.5–1.5	—	—	—	—
<b>Contacts</b>									
Rated impulse withstand voltage	U <sub>imp</sub>	Vac	—	—	4000	—	—	—	—
Rated insulation voltage	U <sub>i</sub>	V	—	—	2500	—	—	—	—
Overvoltage category/pollution degree			—	—	III/3	—	—	—	—

Contact Blocks and Light Units

Description			Contact Blocks	LED Light Units
<b>General</b>				
Standards			IEC/EN 60947 VDE 0660	IEC/EN 60947 VDE 0660
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	>5	—
Operating frequency	Operations/h		≥3600	—
Actuating force		n	≥5	—
Operating torque (screw terminals)		Nm	≥0.8	—
<b>Protection Type</b>				
IP			IP20	IP20
UL type			—	—
Climatic proofing			Damp heat, constant, according to IEC 60068-2-78 Damp heat, cyclical to IEC 60068-2-30	
Ambient temperature, operating		°F (°C)	–13 to 158 (–25 to 70)	–13 to 158 (–25 to 70)
Mounting position			As required	As required
Mechanical shock resistance to IEC 60068-2-27 shock duration 11 ms, half-sinusoidal		g	>30	>30
<b>Terminal Capacities</b>				
Solid		AWG	18–14	18–14
		mm <sup>2</sup>	0.75–2.5	0.75–2.5
Stranded		AWG	20–14	20–14
		mm <sup>2</sup>	0.5–2.5	0.5–2.5
<b>Contacts</b>				
Rated impulse withstand voltage	U <sub>imp</sub>	Vac	6000	6000
Rated insulation voltage	U <sub>i</sub>	V	500	500
Overvoltage category/ pollution degree			III/3	III/3
NEMA contact ratings			A600, Q300	—
Current draw			—	5–15 mA
<b>Control Circuit Reliability</b>				
at 24 Vdc/5 mA	H <sub>F</sub>	Fault probability	<10 <sup>-7</sup> , <1 fault in 10 <sup>7</sup> operations	—
at 5 Vdc/1 mA	H <sub>F</sub>	Fault probability	<5 x 10 <sup>-6</sup> , <1 fault in 5 x 10 <sup>6</sup> operations	—
<b>Max. Short-Circuit Protective Device</b>				
Fuse	gG/gL	A	10	—
<b>Switching Capacity</b>				
<b>Rated Operational Current</b>				
AC-15				
115V	I <sub>e</sub>	A	6	—
230V	I <sub>e</sub>	A	6	—
400V	I <sub>e</sub>	A	4	—
500V	I <sub>e</sub>	A	2	—
DC-13				
24V	I <sub>e</sub>	A	3	—
42V	I <sub>e</sub>	A	1.7	—
60V	I <sub>e</sub>	A	1.2	—
110V	I <sub>e</sub>	A	0.8	—
220V	I <sub>e</sub>	A	0.3	—
<b>Lifespan, Electrical</b>				
AC-15				
230V/0.5A	Operations	x 10 <sup>6</sup>	1.6	—
230V/1.0A	Operations	x 10 <sup>6</sup>	1	—
230V/3.0A	Operations	x 10 <sup>6</sup>	0.7	—
DV-13				
12V/2.8A	Operations	x 10 <sup>6</sup>	1.2	—

Contact Element Note: >200 Vac/60 Hz: –25/55°C

#### Palm Switches

Description		Momentary	Maintained	FAK-R-V-KC11-I
<b>General</b>				
Standards		IEC/EN 60947 VDE 0660	IEC/EN 60947 VDE 0660	IEC/EN 60947 VDE 0660
Lifespan, mechanical	Operations x 10 <sup>6</sup>	>1	>0.1	>0.1
Operating frequency	Operations/h	≥3600	≥600	≥600
Actuating force	n	20–40	40–60	15–25
Operating torque	Nm	—	—	—
Degree of protection, IEC/EN 60529	IP	IP67, IP69K	IP67, IP69K	IP65
	UL Type	4X, 13	4X, 13	4X, 13
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30		
Ambient temperature, operating	°F (°C)	–73 to 104 (–25 to 40)	–73 to 104 (–25 to 40)	–73 to 104 (–25 to 40)
Mounting position		As required		
Mechanical shock resistance to IEC 60068-2-27 shock duration 11 ms, half-sinusoidal		g	>15	>15

#### ASi Adapter Modules

Description		M22-ASI	M22-ASI-C
<b>General</b>			
Standards		IEC/EN 60947, DIN EN 50295	IEC/EN 60947, DIN EN 50295
Radio interference suppression		EN 55011, EN 55022	EN 55011, EN 55022
Limit value class		—	—
Protection type		IP20	IP00
Climatic proofing		Damp heat, constant, to IEC 60068-2-78, cyclical, to IEC 60068-2-30	
Ambient temperature, operating	°F (°C)	–13 to 131 (–25 to 55)	–13 to 131 (–25 to 55)
Shock resistance shock duration 11 ms	g	>30	>30
Vibration to IEC 60068-2-27 (amplitude 1 mm)	Hz	—	—
Dimensions	mm	—	—
Weight	kg	—	—
Mounting		Front mounting	Front mounting
Mounting position		As required	As required
<b>Power supply</b>			
Rated voltage to AS-interface specification	Vdc	26.5–31.6	26.5–31.6
Connection technique		Yellow plug-in terminal as insulation piercing terminal	Two cables onboard
Power supply		Completely from the AS-interface cable	
Addressing		Via connection to AS-interface cable	
Total power consumption of the AS-interface	mA	≥40	≥40
AS-interface		—	—
Rated operational current at full load	mA	—	—
Rated operational current when idle (no I, O set)	mA	—	—
Status LEDs		POWER AS-interface cable: green LED on the rear side of the element ERROR AS-interface, AS-interface master failure: red LED on the rear side of the element	POWER AS-interface cable: green LED on the board ERROR AS-interface, AS-interface master failure: red LED on the board

**ASi-S Adapter Modules**

Description		M22-ASI-S	M22-ASI-CS
<b>Inputs</b>			
Inputs, protected against short-circuit	Number	Two (normally 22V/5 mA)	Two (normally 22V/5 mA)
Voltage range	Vdc	—	—
Rated current per input	mA	—	—
High signal level	V	—	—
Low signal	mA	—	—
Length of connecting cables	cm	—	—
<b>Outputs</b>			
Outputs, protected against short-circuit	Number	One (normally 19V/8 mA)	One (normally 19V/8 mA)
Voltage range	Vdc	—	—
<b>Max. Current Carrying Capacity</b>			
All outputs		—	—
Σ three external outputs		—	—
Length of connecting cables	cm	—	—
Profile		S-3.A.E	S-3.A.E
Specification		2.1	2.1
Addresses	Number	62	62
<b>Emergency-Stop Circuits</b>			
Connection of the AS-interface line		Yellow plug terminal with insulation piercing	Two cables on the circuit board
Power supply		Complete from AS-interface, cable 26.5–31.6 Vdc	Complete from AS-interface, cable 26.5–31.6 Vdc
Fixing		Front mounted	Base mounted
Addressing		Via AS-interface cable	Via AS-interface cable
Max. total current	A	45 mA	45 mA
Ambient temperature, operating	°F (°C)	–13 to 131 (–25 to 55)	–13 to 131 (–25 to 55)
Shock resistance		30g/11 ms as per IEC 60068-2-27	30g/11 ms as per IEC 60068-2-27
Protection type		IP20	IP00
Climatic proofing		Damp heat, constant, to IEC 60068-2-78, cyclical, to IEC 60068-2-30	Damp heat, constant, to IEC 60068-2-78, cyclical, to IEC 60068-2-30
Mounting position		As required	As required
Standards		EN 50178 EN 50 295	EN 50178 EN 50 295
Inputs		Two-channel input (22V/5 mA) (moduled by code sequence) (two break contact sets M22-K01)	Two-channel input (22V/5 mA) (moduled by code sequence) (two break contact sets M22-K01)
Outputs		One output, typically 19V/8 mA, short-circuit proof	One output, typically 19V/8 mA, short-circuit proof
<b>Status Displays</b>			
Power, AS-interface cable		Green LED on the back	Green LED on the back
AS-interface error, AS-interface master failure		Red LED on the back	Red LED on the back
Profile		S-7.B.E	S-7.B.E

# 37.4

## Pushbuttons and Indicating Lights

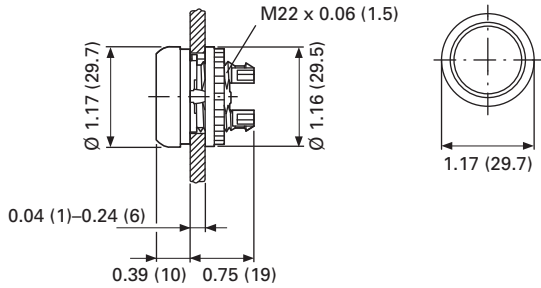
### 22.5 mm Modular Pushbuttons—M22

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#### Dimensions

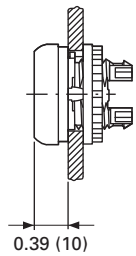
Approximate Dimensions in Inches (mm)

#### Operators and Indicating Lights

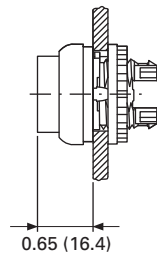


#### Pushbuttons

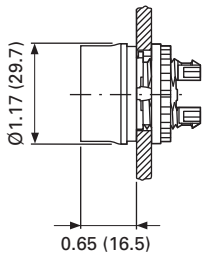
M22...-D-  



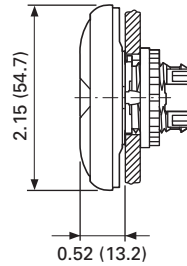
M22...-DH-  



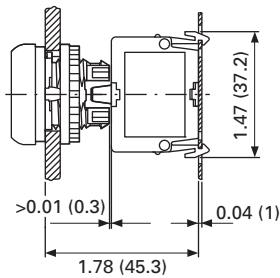
M22-DG(L)-  



M22...-DD-  

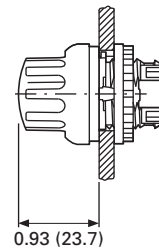


M22-D, Base Mounted

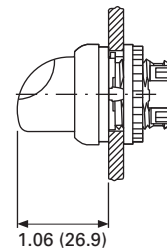


#### Selector Switches Operators

M22...-W-  

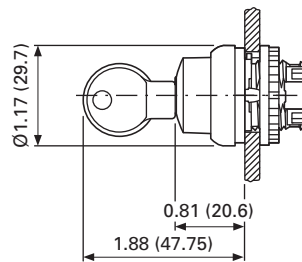


M22...-WL-  



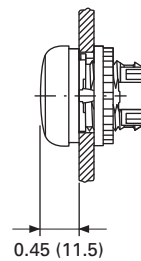
#### Key-Operated Selector Switches

M22...-W(R)S-  



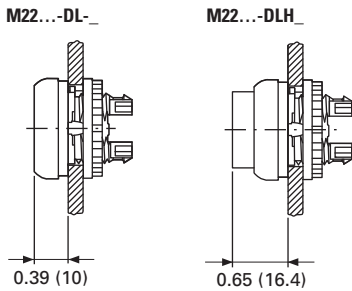
#### Indicating Light

M22-L-  

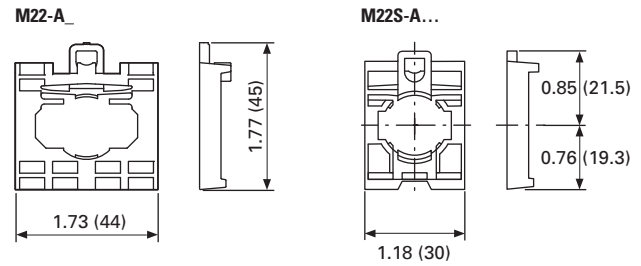


Approximate Dimensions in Inches (mm)

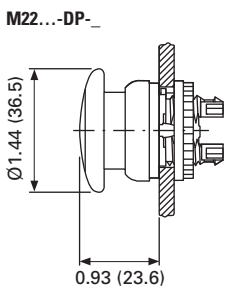
**Illuminated Pushbuttons**



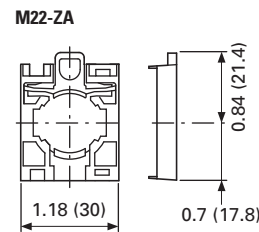
**Contact Block Mounting Adapter**



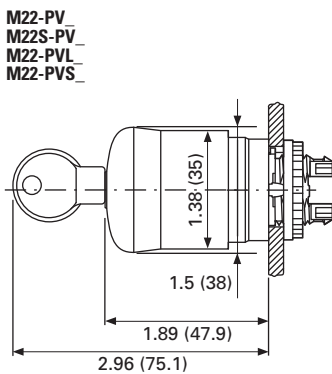
**Mushroom Head Pushbutton**



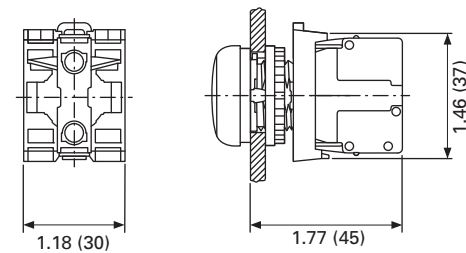
**Front Mounted Centering Adapter**



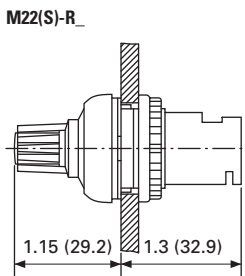
**Emergency-Stop Operators**



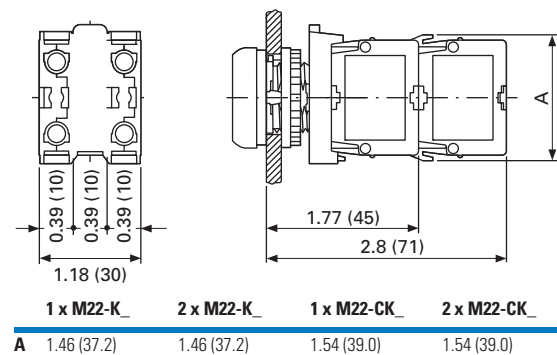
**Front Mounted Indicating Light**



**Potentiometer**



**Pushbutton, Complete Devices**





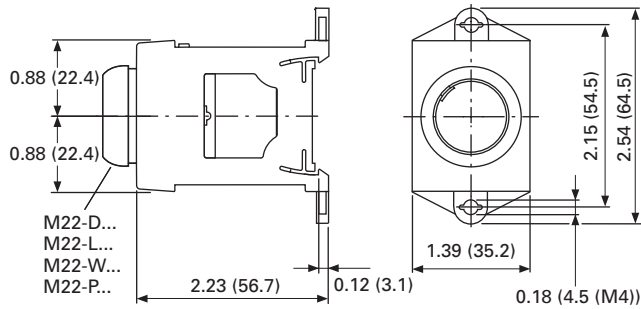
# 37.4 Pushbuttons and Indicating Lights

## 22.5 mm Modular Pushbuttons—M22

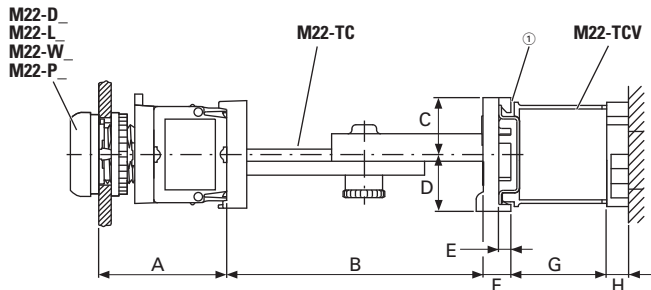
37

Approximate Dimensions in Inches (mm)

### DIN-Rail Mounting Adapter



### Pushbuttons and Indicating Lights with M22-TC Telescopic Clip and M22-TVC Extension

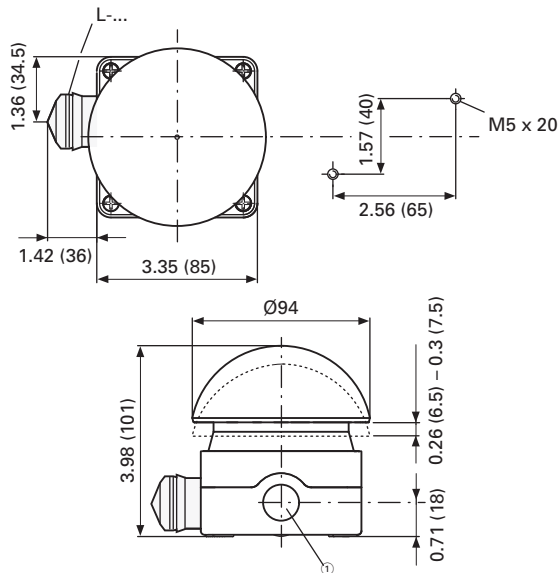


A	B	C	D	E	F	G	H
1.77 (45)	2.36–3.94 (60–100)	0.79 (20)	0.79 (20)	0.18 (4.5)	0.39 (10)	154 (39)	0.39 (10)

① Top-hat rail to IEC/EN 60715.

### Palm Switches

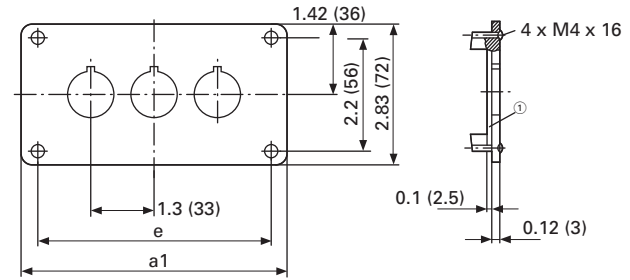
FAK\_



① 3 x M20 lateral, 1 x M16 in bottom.

### Front Mounted Mounting Plate

M22-E\_

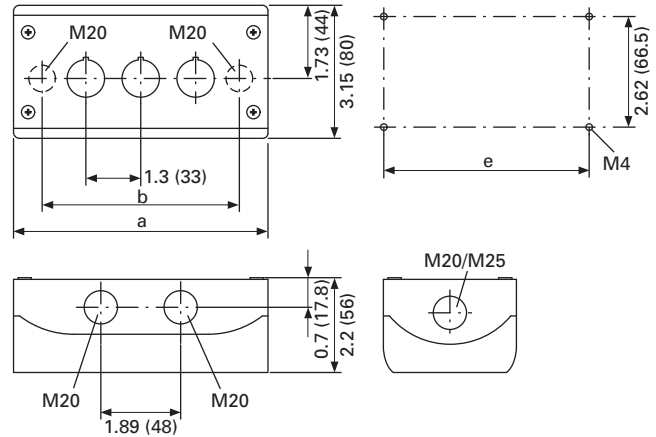


Catalog Number	a1	e
M22-E(Y) ①	2.83 (72)	2.21 (56)
M22-E2	4.13 (105)	3.50 (89)
M22-E3	5.43 (138)	4.80 (122)

Catalog Number	a1	e
M22-E4	6.73 (171)	6.10 (155)
M22-E5	8.03 (204)	7.40 (188)
M22-E6	9.33 (237)	8.70 (221)

### Base Mounted Surface Mounting Enclosure

M22-I\_

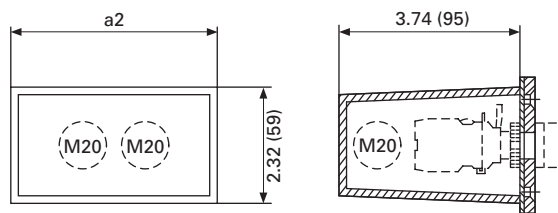


Catalog Number	Mounting Locations	a	b	e	Cable Entries
M22-I(Y)1	1	2.83 (72.0)	1.68 (42.6)	2.30 (58.5)	2 x M16 3 x M20 2 x M25
M22-I2	2	4.72 (120.0)	3.37 (85.6)	4.19 (106.5)	2 x M20 3 x M20 2 x M25
M22-I3	3	6.02 (153.0)	4.67 (118.6)	5.49 (139.5)	2 x M20 2 x M25 4 x M20
M22-I4	4	7.32 (186.0)	5.97 (151.6)	6.79 (172.5)	2 x M20 2 x M25 4 x M20
M22-I6	6	9.92 (252.0)	8.57 (217.6)	9.39 (238.5)	2 x M20 2 x M25 4 x M20

Approximate Dimensions in Inches (mm)

**Covers**

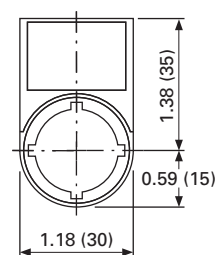
**M22-H\_**



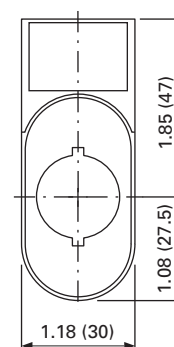
Catalog Number	a2	Cable Entry	Style
M22-H1	1.65 (42)	3 x M20	One-piece
M22-H2	2.95 (75)	4 x M20	
M22-H3	4.25 (108)	4 x M20	
M22-H4	5.55 (141)	4 x M20	Split
M22-H5	6.85 (174)	5 x M20	
M22-HE6	8.15 (207)	6 x M20	

**Legend Plates**

**M22S-ST\_**

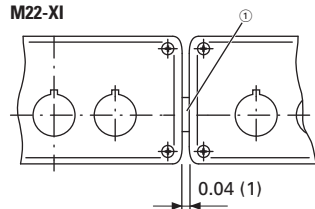


**M22S-STDD-X**



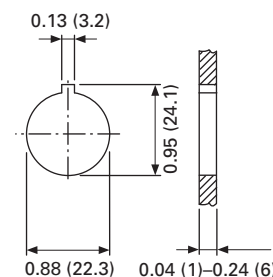
**Connecting Screw**

**M22-XI**



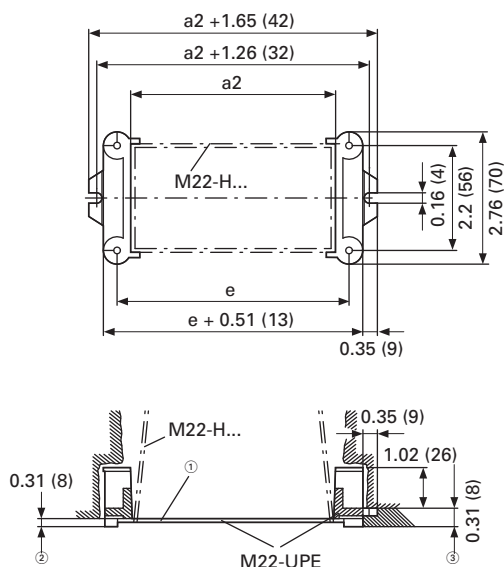
① Gasket.

**Mounting Hole with Lug Slot**



**Shroud with Plaster Keys**

**M22-UPE**



- ① Box for closing off when plastering.
- ② Plaster thickness less than 8 mm.
- ③ Plaster thickness more than 8 mm

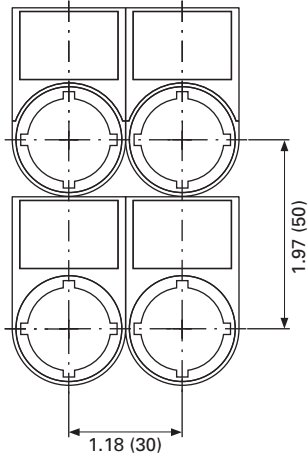
# 37.4 Pushbuttons and Indicating Lights

## 22.5 mm Modular Pushbuttons—M22

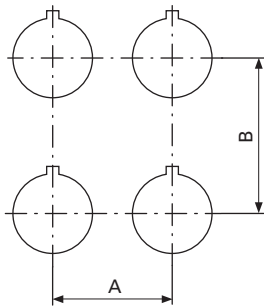
37

Approximate Dimensions in Inches (mm)

### Grid Dimension to IEC/EN 60947

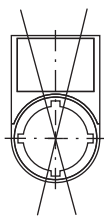


### Grid Dimension for Various Combinations



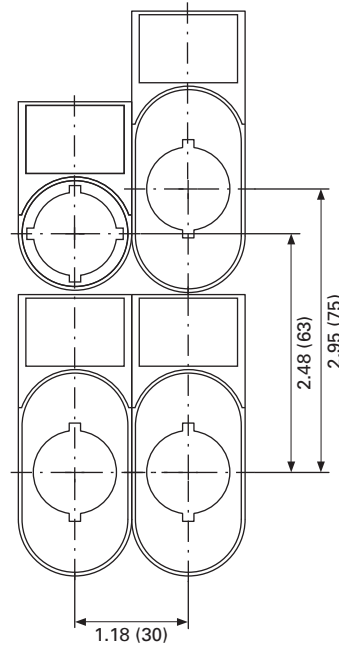
### Pushbutton Diaphragm

Pushbutton diaphragm cannot be combined with label mount.

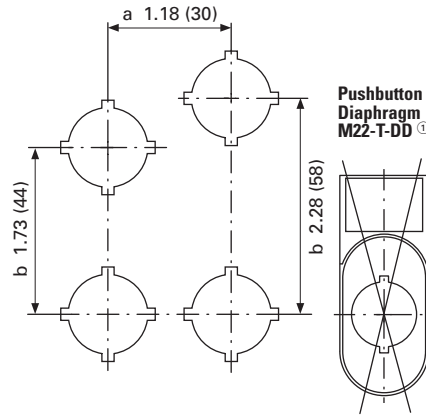


Catalog Number	A ≥	B ≥
M22(S)-_(IEC/EN 60947)	1.18 (30.0)	1.97 (50.0)
RMQ-Titan min.	1.18 (30.0)	1.58 (40.0)
M22-D_ + M22-T-D	1.30 (33.0)	1.58 (40.0)
M22-D(R)P_	1.50 (38.0)	1.58 (40.0)
M22-PV_	1.50 (38.0)	1.58 (40.0)
M22-PV(L) + M22-PL-PV	1.89 (48.0)	2.20 (56.0)
M22-PV(L)(S_) + M22-D_	1.30 (33.0)	1.58 (40.0)
M22-DDL_	1.18 (30.0)	2.17 (55.0)
M22-DDL_ + M22-T-DD	1.30 (33.0)	2.28 (58.0)
M22-ST_	1.18 (30.0)	1.97 (50.0)
M22-STDD_	1.18 (30.0)	2.95 (75.0)
M22-CK_	1.18 (30.0)	1.77 (45.0)
M22-CLED_	1.18 (30.0)	1.77 (45.0)
M22-XAK_	3.54 (90.0)	3.54 (90.0)
M22-XZK_	1.30 (33.0)	2.04 (52.0)
M22-XBK_	2.36 (60.0)	2.36 (60.0)
M22-XYK_	1.97 (50.0)	1.97 (50.0)
M22-D4	2.17 (55.0)	2.17 (55.0)
M22-WR...4	1.97 (50.0)	1.97 (50.0)
M22-W...J4	1.97 (50.0)	1.97 (50.0)

### Grid Dimension for M22-DD\_



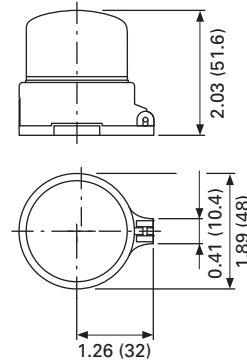
### Grid Dimension for M22-DDL\_



① Pushbutton diaphragm cannot be combined with label mount.

### Emergency Stop Sealing Cover

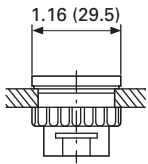
#### M22-PL-PV



Approximate Dimensions in Inches (mm)

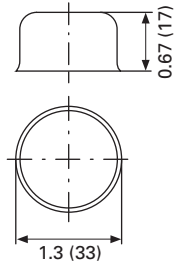
**Blanking Plugs**

M22...B-

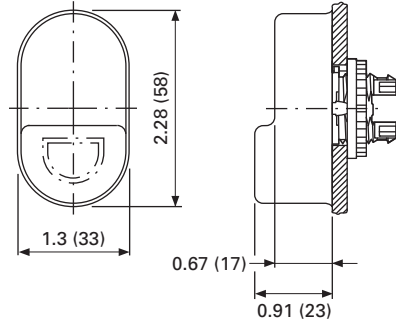


**Pushbutton Diaphragm**

M22-T-D

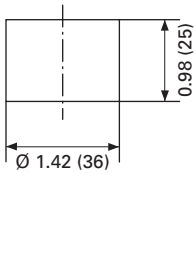


M22-T-D

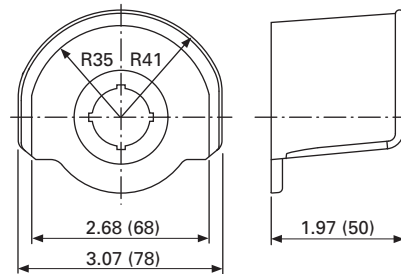


**Guard Ring**

M22-XGWK

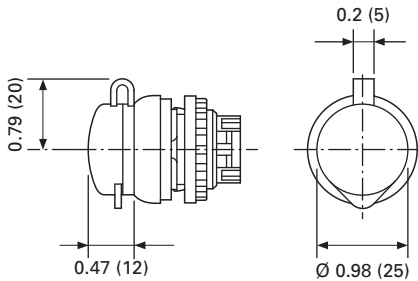


M22-XGPV



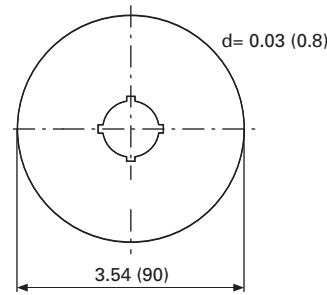
**Key Cover**

M22-XWS

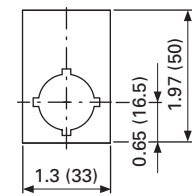


**Emergency Stop Legend Plate**

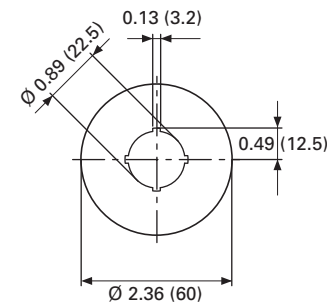
M22-XAK



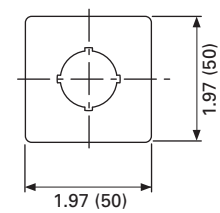
M22-X(Y)ZK



M22-XBK

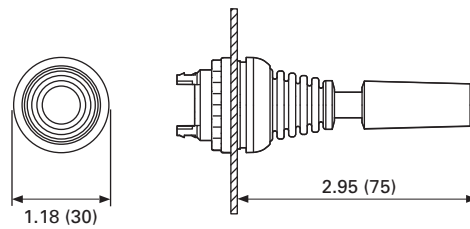


M22-XYK



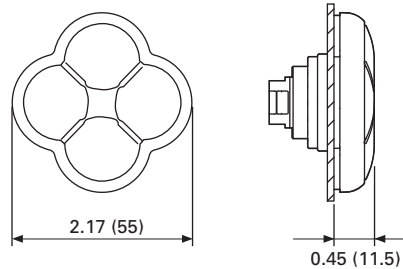
**Joystick**

M22...W...J



**Four-Way Pushbutton**

M22...D...4-



**Symbols Library****Instructions for Ordering Laser Incriptions**

1. Identify part number to be inscribed.
2. Pick symbol from library and identify suffix code associated with the symbol.
3. Order part number already listed in the catalog with -ETCH suffix.
4. When placing an order by fax or Vistaline on the Web, reference order item number and indicate appropriate suffix code.

**Example**

To order a green flush button plate with the inscription AUTO HAND:

Order Catalog Number: M22-XD-G-ETCH (see **Page V7-T37-38**).

AUTO HAND inscription is found on **Page V7-T37-118** in the Symbols Library, suffix code is X91.

In the order notes, reference item number and suffix X91.

Letter height 3 mm: max three lines, max. 12 characters per line.

Letter height 5 mm: max. two lines, max. eight characters per line.

**Note:** For symbols or text not found in the Symbols Library, please contact the Eaton Technical Resource Center at 1-877-ETN CARE (386-2273) or TRC@eaton.com.

**Letter Height Specifications:** ≤ five characters; letter height = 0.197 in (5 mm). > five characters; letter height = 0.118 in (3 mm).

**Text—English**

Inscription	Catalog Number Suffix
STOP	GB0
START	GB1
CLOSE	GB2
UP	GB3
DOWN	GB4
OFF	GB5
ON	GB6
RUN	GB7
FAULT	GB8
TEST	GB9
OFF ON	GB10
MAN. AUTO	GB11
MAN. 0 AUTO	GB12
RESET	GB14
FORWARD	GB15
REVERSE	GB16
RAISE	GB17

**Text—German**

Inscription	Catalog Number Suffix
LOWER	GB18
LEFT	GB19
RIGHT	GB20
BRAKE	GB21
HIGH	GB22
LOW	GB23
FAST	GB24
SLOW	GB25
FASTER	GB26
SLOWER	GB27
OPEN	GB32
PROG	GB62
CALL	GB63
OCCUPIED	GB64
BYPASS 0 1	GB65
BYPASS UP	GB66
EMERGENCY-STOP	GB99

Inscription	Catalog Number Suffix
Halt	D0
Start	D1
Zu	D2
Auf	D3
Ab	D4
Aus	D5
En	D6
Betrieb	D7
Störung	D8
Prüfung	D9
Aus Ein	D10
HAND AUTO	D11
HAND 0 AUTO	D12
Antrieb	D13
Entsperren	D14
Vorwärts	D15
Rückwärts	D16
Heben	D17
Senken	D18
Links	D19
Rechts	D20
Bremsen	D21
Hoch	D22
Niedrig	D23
Schnell	D24

Inscription	Catalog Number Suffix
Langsam	D25
HAND	D28
AUTO	D29
Einrichten	D30
Tippen	D31
Öffnen	D32
Steuerspannung	D33
Start Automatik	D34
Lampentest	D35
Phasenkontrolle	D36
Alarm	D37
Alarm - Reset	D38
Sammelstörung	D39
Quittieren	D40
Quittierung	D41
Steuerung Ein	D42
Steuerung Aus	D43
Störung quittieren	D44
FÜHLER int. ext.	D72
HEIZUNG 1 2	D73
AUS- BLASEN	D74
SOLLWERT int. ext.	D75
Not-Aus	D99
Not - Aus quittieren	D100

**Text Size: 3 mm**—Max. eight characters in first line; 10 characters in second line; eight characters in third line.



**Text Size: 5 mm**—Max. five characters per line.



# 37.4

## Pushbuttons and Indicating Lights

22.5 mm Modular Pushbuttons—M22

37

**Letter Height Specifications:** ≤ five characters; letter height = 0.197 in (5 mm). > five characters; letter height = 0.118 in (3 mm).

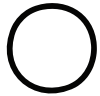
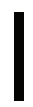


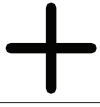








### Text—French



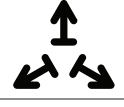
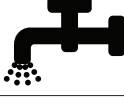







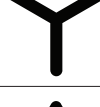

Inscription	Catalog Number Suffix
ARRÊT	F0
MARCHE	F1
FERMÉ	F2
MONTÉE	F3
DESCENTE	F4
ARRÊT	F5
MARCHE	F6
EN SERVICE	F7
PANNE	F8
ESSAI	F9
ARRÊT MARCHE	F10
MAN. AUTO	F11
MAN. 0 AUTO	F12
REARM.	F14
AVANT	F15
ARRIÈRE	F16
MONTER	F17
DESCENDRE	F18
GAUCHE	F19
DROITE	F20
DEFAULT	F67
SOUS TENSION	F68
ARRÊT D'URGENCE	F99

### Text—Swedish

Inscription	Catalog Number Suffix
STOPP	S0
START	S1
STÄNG	S2
UPP	S3
NED	S4
FRÅN	S5
TILL	S6
KÖR	S7
FEL	S8
PROV	S9
FRAN TILL	S10
MAN. AUTO	S11
MAN. 0 AUTO	S12
ATERSTÄLLNING	S14
FRAM	S15
BACK	S16
ÖKA	S17
MINSKA	S18
VÄNSTER	S19
HÖGER	S20
BROMS	S21
HÖG	S22
LÅG	S23
ÖPPNA	S32
IN	S45
UT	S46
NÖDSTOPP	S99

### Symbols

Inscription	Catalog Number Suffix
	X0
	X1
	X2
	X3
	X4
	X5
	X6
	X7
	X8
	X9
	X10
	X11
	X12





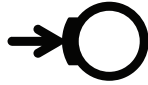




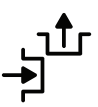
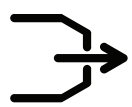




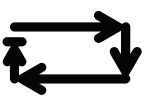


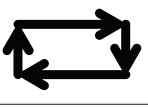





















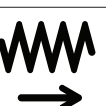

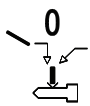
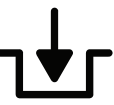

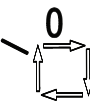
Inscription	Catalog Number Suffix
	X13
	X14
	X15
	X16
	X17
	X18
	X19
	X20
	X21
	X22
	X23
	X24
	X25

Text Size: 3 mm—Max. eight characters in first line; 10 characters in second line; eight characters in third line.



Text Size: 5 mm—Max. five characters per line.



Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix
	X26		X40	3	X54		X68
	X27		X41	4	X55		X69
	X28		X42	5	X56		X70
	X29		X43	6	X57		X71
	X30		X44	7	X58		X72
	X31		X45	8	X59		X73
	X32		X46	9	X60		X74
	X33		X47		X61		X75
	X34		X48		X62		X76
	X35		X49		X63		X77
	X36		X50		X64		X78
	X37	0	X51		X65		X79
	X38	1	X52		X66		X80
	X39	2	X53		X67		X81

Text Size: 3 mm—Max. eight characters in first line; 10 characters in second line; eight characters in third line.



Text Size: 5 mm—Max. five characters per line.





# 37.4

## Pushbuttons and Indicating Lights

### 22.5 mm Modular Pushbuttons—M22

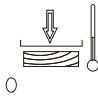


















































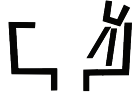




Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix
	X82		X104		X118		X132
	X83		X105		X119		X133
	X88		X106		X120		X134
	X89		X107		X121		X135
	X90		X108		X122		X136
	X91		X109		X123		X137
	X92		X110		X124		X138
	X93		X111		X125		X139
	X94		X112		X126		X140
	X95		X113		X127		X141
	X100		X114		X128		X142
	X101		X115		X129		X143
	X102		X116		X130		X144
	X103		X117		X131		X145

Text Size: 3 mm—Max. eight characters in first line; 10 characters in second line; eight characters in third line.



Text Size: 5 mm—Max. five characters per line.



Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix
	X146		X160		X174		X188
	X147		X161		X175		X189
	X148		X162		X176		X190
	X149		X163		X177		X191
	X150		X164		X178		X192
	X151		X165		X179		X193
	X152		X166		X180		X194
	X153		X167		X181		X195
	X154		X168		X182		X196
	X155		X169		X183		X197
	X156		X170		X184		X198
	X157		X171		X185		X199
	X158		X172		X186		X200
	X159		X173		X187		X201

Text Size: 3 mm—Max. eight characters in first line; 10 characters in second line; eight characters in third line.



Text Size: 5 mm—Max. five characters per line.

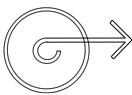
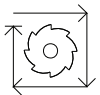



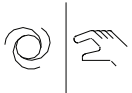

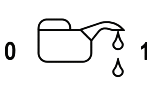
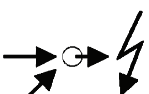










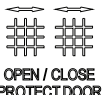
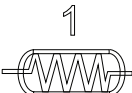















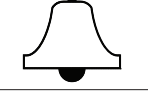











# 37.4

## Pushbuttons and Indicating Lights

22.5 mm Modular Pushbuttons—M22

37





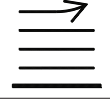





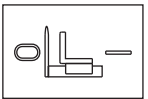













Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix
	X202		X216		X230		X244
	X203		X217		X231		X245
L 1	X204		X218		X232		X246
L 2	X205		X219		X233		X247
L 3	X206		X220		X234		X248
↑ A	X207		X221		X235		X249
↓ A	X208		X222		X236		X250
↓ B	X209		X223		X237		X251
↑ B	X210		X224		X238		X252
I	X211		X225		X239		X253
II	X212		X226		X240		X254
III	X213		X227		X241		X255
	X214		X228		X242		X256
	X215		X229		X243		X257

Text Size: 3 mm—Max. eight characters in first line; 10 characters in second line; eight characters in third line.



Text Size: 5 mm—Max. five characters per line.



Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix	Inscription	Catalog Number Suffix
	X258		X265	CHEM II	X272	 T1 - Tn CHANGE TOOL ARM	X279
	X259		X266	CHEM III	X273		X280
	X260		X267		X274	OUT OF SERVICE 	X281
	X261		X268		X275		X282
	X262		X269	CONTI CUT	X276		X283
	X263		X270		X277		X284
	X264	CHEM I	X271	 TOOL UNLOCKING	X278		X285

Text Size: 3 mm—Max. eight characters in first line; 10 characters in second line; eight characters in third line.



Text Size: 5 mm—Max. five characters per line.



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