

**Pushbuttons and Pilot Devices**



**4.1 Pushbutton and Pilot Devices**

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**Stacklights**



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**Panel Meters**



For our complete product offering, see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E.

**Operator Interfaces and Programming Software**



## Product Overview

### Pushbuttons and Pilot Devices Selection Guide



**M22—22.5 mm Modular Pushbuttons**

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**10250T—30 mm Pushbuttons**

Page V9-T4-37

Description	M22—22.5 mm Modular Pushbuttons Page V9-T4-4	10250T—30 mm Pushbuttons Page V9-T4-37
<b>Ease of Use</b>		
Mounting nut on operator installation	Yes	Yes
Mounting adapter installation/removal	Easy	—
Contact block installation	Snaps on mounting adapter	Screw in
Contact block/light unit installation/removal	Easy	Easy
Visible actuator indication from rear	Yes	Yes
Optional spring cage terminations	Yes	—
Optional quick-connect terminations	Yes	Yes
Built-in or separate anti-rotation locking ring installation	Built-in	Built-in
Mounting time	Low	Low
Removal time	Low	Low
<b>Flexibility and Modularity</b>		
Field convertible pushbuttons—color or inscribed button caps	Yes	—
Field convertible pushbuttons—maintained to momentary	Yes	—
Field convertible selector switches—momentary to maintained	Yes	—
Field convertible key selector switches—key removal position	Yes	—
Universal voltage range LED light units <sup>①</sup>	Yes	—
Stackable contact blocks	Yes	—
Enclosed limit switch contacts <sup>②</sup>	Yes	—
<b>Safety and Security</b>		
ISO/EN 13850/EN 418 rated E-stops	Yes	Yes
Safety yellow E-stop enclosures	Yes	—
Secure anti-rotation mounting	Good	Good
Self-monitoring contact blocks	Yes, available 4Q 2010	No
<b>Communications</b>		
ASi bus network communications	Yes	—
DeviceNet network communications	—	—
PROFIBUS-DP network communications	—	—
<b>Esthetics and Ergonomics</b>		
Low profile design	Yes	—
Low power integrated LED illuminated devices	Yes	—
Permanent and wear-resistant markings	Yes	—
Square bezel pushbuttons and pilot lights	—	—

#### Notes

<sup>①</sup> Eaton's M22 LED light units come in two convenient universal ranges: 12–30 Vac/Vdc and 85–244 Vac.

<sup>②</sup> Eaton's M22 pushbutton, selector switch, and E-stop operators can be attached directly to Eaton's LS Series miniature limit switches.

For our complete product offering, see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E.

## Pushbuttons and Pilot Devices Selection Guide, continued



M22—22.5 mm Modular Pushbuttons



10250T—30 mm Pushbuttons

Description	M22—22.5 mm Modular Pushbuttons	10250T—30 mm Pushbuttons
<b>Esthetics and Ergonomics</b>		
Positive detent on selector switches	Very good	Fair
Ergonomic dome shaped E-stop and palm switches	Yes	—
<b>Specialty Operator Types</b>		
Acoustic indicators (buzzers)	Yes	—
Double pushbutton operators	Yes	No
Elevator E-stops (with mechanical flag indication)	Yes	—
EMO E-stops	—	No
Four-way pushbutton operators	Yes	—
Joysticks	Yes	—
Potentiometers	Yes	Yes
Reset pushbutton operators	Yes	Yes
Selector pushbutton (roto-push) operators	—	—
Selector switches with key monitoring	—	—
Toggle switches	—	—
<b>Standards and Certifications</b>		
China Compulsory Certification—CCC (China)	Yes	—
Conformité Européenne—CE (Europe)	Yes	Yes
Canadian Standard Association—CSA (Canada)	Yes	Yes
Gosudarstvennyy Standart Russia—GOST R (Russia)	Yes	—
Underwriter's Laboratories—UL (United States)	Yes	Yes
<b>Marine Classification Societies</b>		
American Bureau of Shipping—ABS (United States)	—	—
Bureau Veritas—BV (France)	Yes	—
Det Norske Veritas—DNV (Norway)	Yes	—
Germanischer Lloyd—GL (Germany)	Yes	—
Lloyd's Register—LR (United Kingdom)	Yes	—
Polski Regestre Statkow—PRS (Poland)	—	—
Registro Italiano Navale—RINA (Italy)	—	—
Russian Maritime Register of Shipping—RMRS (CIS)	—	—
<b>Accessories</b>		
USB socket bulkhead interface	Yes	—
RJ45 socket bulkhead interface	Yes	—
Padlock attachments for pushbuttons	—	Yes
Padlock attachments for selector switches	—	Yes
Padlock attachments for E-stops	No	—
Protective shrouds for E-stops	Yes	Yes
DIN rail mounting adapter	Yes	—

For our complete product offering, see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E.

# 4.1

## Operator Interface

### Pushbutton and Pilot Devices

M22—22.5 mm Modular Pushbutton



4

#### Features

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 Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37 for further technical data

Innovative technologies

- ASi communicating devices
- Palm switches

#### Standards and Certifications



## Product Selection

## Non-Illuminated Pushbuttons, Flush, Momentary

## Complete Devices

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

**Note**

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

#### Non-Illuminated Pushbuttons, Flush

##### Components



###### M22-XD-G





##### Button Plates <sup>①</sup>

Color	Inscription	Catalog Number
Black	—	<b>M22-XD-S</b> <sup>②</sup>
	Custom	<b>M22-XD-S-ETCH</b> <sup>③</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>
	①	<b>M22-XD-S-X1</b>
②	<b>M22-XD-S-X2</b>	
+	<b>M22-XD-S-X4</b>	
⊖	<b>M22-XD-S-X5</b>	
①	<b>M22-XD-S-X7</b>	
Red	—	<b>M22-XD-R</b> <sup>②</sup>
	Custom	<b>M22-XD-R-ETCH</b> <sup>③</sup>
	STOP	<b>M22-XD-R-GB0</b>
	OFF	<b>M22-XD-R-GB5</b>
	⊙	<b>M22-XD-R-X0</b>
Green	—	<b>M22-XD-G</b> <sup>②</sup>
	Custom	<b>M22-XD-G-ETCH</b> <sup>③</sup>
	START	<b>M22-XD-G-GB1</b>
	ON	<b>M22-XD-G-GB6</b>
	①	<b>M22-XD-G-X1</b>
Blue	—	<b>M22-XD-B</b> <sup>②</sup>
	Custom	<b>M22-XD-B-ETCH</b> <sup>③</sup>
	RESET	<b>M22-XD-B-GB14</b>
	Ⓜ	<b>M22-XD-B-X6</b>
White	—	<b>M22-XD-W</b> <sup>②</sup>
	Custom	<b>M22-XD-W-ETCH</b> <sup>③</sup>
	START	<b>M22-XD-W-GB1</b>
	①	<b>M22-XD-W-X1</b>
Yellow	—	<b>M22-XD-Y</b> <sup>②</sup>
	Custom	<b>M22-XD-Y-ETCH</b> <sup>③</sup>
Black, red, green	—	<b>M22-XD-SRG</b>
Black, white, red, green, yellow, blue	—	<b>M22-XD-SWRGB</b>

##### Momentary Buttonless Operator

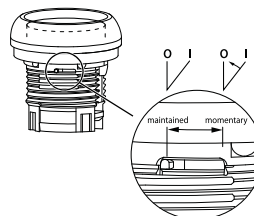
	Bezel	Catalog Number <sup>④</sup>
<b>M22-D-X</b>	Silver	<b>M22-D-X</b>
		
<b>M22S-D-X</b>	Black	<b>M22S-D-X</b>
		
<b>M22-DG-X</b>	Silver guarded	<b>M22-DG-X</b>
		

##### Maintained Buttonless Operator <sup>⑤</sup>

	Bezel	Catalog Number <sup>④</sup>
<b>M22-DR-X</b>	Silver	<b>M22-DR-X</b>
		
<b>M22S-DR-X</b>	Black	<b>M22S-DR-X</b>
		




##### Notes

- ① For complete listing of available button plates and contact blocks, see Accessories, **Pages V9-T4-31 to V9-T4-36**.
- ② Minimum order quantity of (10).
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) into the Order Notes. For example, M22-XD-S-ETCH; Order Notes: Mark with symbol X91, Line item #\_.
- ④ Includes contact block mounting adapter.
- ⑤ 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.



## Non-Illuminated Pushbuttons, Extended, Momentary

## Complete Devices

	Bezel	Button Color	Contact Block Configuration <sup>①</sup>	Catalog Number
<b>M22-DH-R-K10</b> 	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>
<b>M22S-DH-R-K10</b> 	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>
<b>M22-DGH-R-K10</b> 	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>

**Note**

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

#### Non-Illuminated Pushbuttons, Extended

##### Components

###### M22-XDH-R



##### Button Plates <sup>①</sup>

Color	Inscription	Catalog Number
Black	—	M22-XDH-S <sup>②</sup>
	Custom	M22-XDH-S-ETCH <sup>③</sup>
	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 <sup>②</sup>
	Custom	M22-XDH-R-ETCH <sup>③</sup>
	STOP	M22-XDH-R-GB0
	OFF	M22-XDH-R-GB5
	Ⓞ	M22-XDH-R-X0
Green	—	M22-XDH-G <sup>②</sup>
	Custom	M22-XDH-G-ETCH <sup>③</sup>
	START	M22-XDH-G-GB1
	ON	M22-XDH-G-GB6
①	M22-XDH-G-X1	
Blue	—	M22-XDH-B <sup>②</sup>
	Custom	M22-XDH-B-ETCH <sup>③</sup>
	RESET	M22-XDH-B-GB14
	Ⓞ	M22-XDH-B-X6
White	—	M22-XDH-W <sup>②</sup>
	Custom	M22-XDH-W-ETCH <sup>③</sup>
	START	M22-XDH-W-GB1
	①	M22-XDH-W-X1
Yellow	—	M22-XDH-Y <sup>②</sup>
	Custom	M22-XDH-Y-ETCH <sup>③</sup>
Black, red, green	—	M22-XDH-SRG
Black, white, red, green, yellow, blue	—	M22-XDH-SWRGYB

##### Momentary Buttonless Operator

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

###### M22-D-X



###### M22S-D-X



###### M22-DG-X



##### Maintained Buttonless Operator <sup>⑤</sup>

Bezel	Catalog Number <sup>④</sup>
Silver	M22-DR-X
Black	M22S-DR-X

###### M22-DR-X

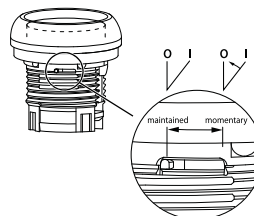


###### M22S-DR-X



##### Notes



- ① For complete listing of available button plates and contact blocks, see Accessories, Pages V9-T4-31 to V9-T4-36.
- ② Minimum order quantity of (10).
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) 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 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.





## Illuminated Pushbuttons, Flush, Momentary

## Complete Devices

	Bezel	Button Color	Contact Block Configuration <sup>①</sup>	Light Unit Voltage	Catalog Number
	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	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	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>
	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	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	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**

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

#### Illuminated Pushbuttons, Flush

##### 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>
	Ⓛ	<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>
	Ⓜ	<b>M22-XDL-B-X6</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

##### Momentary Buttonless Operator

Bezel	Catalog Number ④
-------	------------------

###### M22-DL-X



Silver

**M22-DL-X**

###### M22S-DL-X



Black

**M22S-DL-X**

###### M22-DGL-X



Silver guarded

**M22-DGL-X**

##### Maintained Buttonless Operator ⑤

Bezel	Catalog Number ④
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###### M22-DRL-X



Silver

**M22-DRL-X**

###### M22S-DRL-X

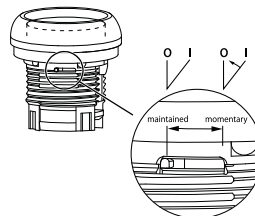


Black

**M22S-DRL-X**



##### Notes

- ① For complete listing of available button plates and contact blocks, see Accessories, **Pages V9-T4-31 to V9-T4-36**.
- ② Minimum order quantity of (10).
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) 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 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.



## Illuminated Pushbuttons, Extended, Momentary

## Complete Devices

	Bezel	Button Color	Contact Block Configuration <sup>①</sup>	Light Unit Voltage	Catalog Number
<b>M22-DLH-R-K11-R</b> 	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>
	Black	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>
<b>M22S-DLH-R-K11-R</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>
	Black	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>

**Note**

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

#### Illuminated Pushbuttons, Extended

##### Components

###### M22-XDH-R




4



##### Button Lenses <sup>①</sup>

Color	Inscription	Catalog Number
Red	—	<b>M22-XDLH-R</b> <sup>②</sup>
	Custom	<b>M22-XDLH-R-ETCH</b> <sup>③</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>②</sup>
	Custom	<b>M22-XDLH-G-ETCH</b> <sup>③</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>②</sup>
	Custom	<b>M22-XDLH-B-ETCH</b> <sup>③</sup>
	RESET	<b>M22-XDLH-B-GB14</b>
	Ⓜ	<b>M22-XDLH-B-X6</b>
White	—	<b>M22-XDLH-W</b> <sup>②</sup>
	Custom	<b>M22-XDLH-W-ETCH</b> <sup>③</sup>
Yellow	—	<b>M22-XDLH-Y</b> <sup>②</sup>
	Custom	<b>M22-XDLH-Y-ETCH</b> <sup>③</sup>

##### Momentary Buttonless Operator

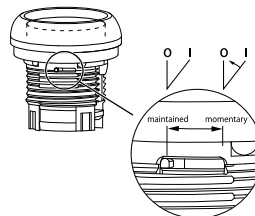
	Bezel	Catalog Number <sup>④</sup>
<b>M22-DL-X</b>	Silver	<b>M22-DL-X</b>
		
<b>M22S-DL-X</b>	Black	<b>M22S-DL-X</b>
		
<b>M22-DGL-X</b>	Silver guarded	<b>M22-DGL-X</b>
		

##### Maintained Buttonless Operator <sup>⑤</sup>

	Bezel	Catalog Number <sup>④</sup>
<b>M22-DRL-X</b>	Silver	<b>M22-DRL-X</b>
		
<b>M22S-DRL-X</b>	Black	<b>M22S-DRL-X</b>
		

##### Notes

- ① For complete listing of available button plates and contact blocks, see Accessories, **Pages V9-T4-31 to V9-T4-36**.
- ② Minimum order quantity of (10).
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) 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 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.



## 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

## M22S-DLH-R-K11-R



## Complete Press-to-Test Units

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

## Components

## M22-XL-R

Lenses <sup>①</sup>

Color	Inscription	Catalog Number
Red	—	<b>M22-XL-R</b> <sup>②</sup>
	Custom	<b>M22-XL-R-ETCH</b> <sup>③</sup>
	OFF	<b>M22-XL-R-GB5</b>
Green	—	<b>M22-XL-G</b> <sup>②</sup>
	Custom	<b>M22-XL-G-ETCH</b> <sup>③</sup>
	ON	<b>M22-XL-G-GB6</b>
	REVERSE	<b>M22-XL-G-GB16</b>
Blue	—	<b>M22-XL-B</b> <sup>②</sup>
	Custom	<b>M22-XL-B-ETCH</b> <sup>③</sup>
	FAULT	<b>M22-XL-B-GB8</b>
White	—	<b>M22-XL-W</b> <sup>②</sup>
	Custom	<b>M22-XL-W-ETCH</b> <sup>③</sup>
	OFF	<b>M22-XL-W-GB5</b>
	ON	<b>M22-XL-W-GB6</b>
	FAULT	<b>M22-XL-W-GB8</b>
	FORWARD	<b>M22-XL-W-GB15</b>
Yellow	—	<b>M22-XL-Y</b> <sup>②</sup>
	Custom	<b>M22-XL-Y-ETCH</b> <sup>③</sup>
Amber	—	<b>M22-XL-A</b> <sup>②</sup>
	Custom	<b>M22-XL-A-ETCH</b> <sup>③</sup>

## M22-L-X



## Lensless Indicating Light

## Catalog Number

**M22-L-X**

## Notes

- ① For complete listing of available lenses and light units, see Accessories, **Pages V9-T4-31 to V9-T4-36**.
- ② Minimum order quantity of (10).
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) into the Order Notes. For example, M22-XL-R-ETCH; Order Notes: Mark with symbol X91, Line item #\_.

## 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>

## Components

Operators Only <sup>②</sup>

M22-PV



Type	Color	Catalog Number
Push-pull	Red	<b>M22-PV</b>
	Black	<b>M22S-PV</b>

M22S-PVT



Twist-to-release	Red	<b>M22-PVT</b>
	Black	<b>M22S-PVT</b>

Key release <sup>③</sup>	Red	<b>M22-PVS <sup>④</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>

## Notes

- ① All NC contact blocks are positively driven contact. ↻
- ② Includes contact block mounting adapter.
- ③ Key included. For identical locks and keys, use the same key code. One key is included with actuator; additional keys are available as accessories.
- ④ Includes Key Code MS1.

#### 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>						

#### Components

#### Operators Only <sup>②</sup>

M22-PVL



Type	Color	Catalog Number
Push-pull	Red	<b>M22-PVL</b>
	Black	<b>M22S-PVL</b>

M22S-PVLT



Type	Color	Catalog Number
Twist-to-release	Red	<b>M22-PVLT</b>
	Black	<b>M22S-PVLT</b>

#### Notes

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






**Non-Illuminated Selector Switches**

M22-WKV-K10

**Complete Devices, Knob Type** ①



Type	Switching Position	Bezel	Contact Block Configuration ②	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, continued








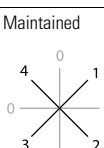
##### Components

M22-WK



4

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

Type	Switching Position	Bezel	Catalog Number
Two-position	Momentary <sup>②</sup> 	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 <sup>②</sup> 	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

- <sup>①</sup> Includes contact block mounting adapter.
- <sup>②</sup> Momentary selector switches can be converted in the field to maintained operation with the removal of a color coded adapter. See Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37.

**Non-Illuminated Selector Switches, continued**

**Components**

**M22S-WR3-X94**



**Operators Only, Rotary Type** <sup>①</sup>

Type	Switching Position	Bezel	Inscription	Catalog Number
Two-position	Momentary <sup>②</sup>	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> <sup>③</sup>
			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> <sup>③</sup>
			AUTO-HAND	<b>M22S-WR-X91</b>
			II-I	<b>M22S-WR-X92</b>
Three-position	Momentary <sup>②</sup>	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> <sup>③</sup>
			AUTO-O-MAN	<b>M22-WR3-X94</b>
		Black	I-O-II	<b>M22S-WR3</b>
			Custom	<b>M22S-WR3-ETCH</b> <sup>③</sup>
			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 Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37.
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) into the Order Notes. For example, M22-WR3-ETCH; Order Notes: Mark with symbol X88, Line item #\_.

#### Illuminated Selector Switches

##### Components

M22-WLK-W

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

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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	White	<b>M22S-WLK-W</b>
			Red	<b>M22S-WLK-R</b>
			Green	<b>M22S-WLK-G</b>
			Yellow	<b>M22S-WLK-Y</b>
	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	White	<b>M22S-WRLK-W</b>
			Red	<b>M22S-WRLK-R</b>
			Green	<b>M22S-WRLK-G</b>
			Yellow	<b>M22S-WRLK-Y</b>
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	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	White	<b>M22S-WLKV-B</b>	
		Red	<b>M22S-WLKV-R</b>	
		Green	<b>M22S-WLKV-G</b>	
		Yellow	<b>M22S-WLKV-Y</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 Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37.





## Illuminated Selector Switches, continued

## Components

M22-WLK3-W



## Operators Only, Knob Type ①

Type	Switching Position	Bezel	Button Color	Catalog Number
Three-position	Momentary ② 	Silver	White	<b>M22-WLK3-W</b>
			Red	<b>M22-WLK3-R</b>
			Green	<b>M22-WLK3-G</b>
			Yellow	<b>M22-WLK3-Y</b>
			Blue	<b>M22-WLK3-B</b>
		Black	White	<b>M22S-WLK3-W</b>
			Red	<b>M22S-WLK3-R</b>
			Green	<b>M22S-WLK3-G</b>
			Yellow	<b>M22S-WLK3-Y</b>
			Blue	<b>M22S-WLK3-B</b>
Maintained		Silver	White	<b>M22-WRLK3-W</b>
			Red	<b>M22-WRLK3-R</b>
			Green	<b>M22-WRLK3-G</b>
			Yellow	<b>M22-WRLK3-Y</b>
			Blue	<b>M22-WRLK3-B</b>
		Black	White	<b>M22S-WRLK3-W</b>
			Red	<b>M22S-WRLK3-R</b>
			Green	<b>M22S-WRLK3-G</b>
			Yellow	<b>M22S-WRLK3-Y</b>
			Blue	<b>M22S-WRLK3-B</b>
Maintained, return from right		Silver	White	<b>M22-WRLK3-1-W</b>
			Red	<b>M22-WRLK3-1-R</b>
			Green	<b>M22-WRLK3-1-G</b>
			Yellow	<b>M22-WRLK3-1-Y</b>
			Blue	<b>M22-WRLK3-1-B</b>
		Black	White	<b>M22S-WRLK3-1-W</b>
			Red	<b>M22S-WRLK3-1-R</b>
			Green	<b>M22S-WRLK3-1-G</b>
			Yellow	<b>M22S-WRLK3-1-Y</b>
			Blue	<b>M22S-WRLK3-1-B</b>
Maintained, return from left		Silver	White	<b>M22-WRLK3-2-W</b>
			Red	<b>M22-WRLK3-2-R</b>
			Green	<b>M22-WRLK3-2-G</b>
			Yellow	<b>M22-WRLK3-2-Y</b>
			Blue	<b>M22-WRLK3-2-B</b>
		Black	White	<b>M22S-WRLK3-2-W</b>
			Red	<b>M22S-WRLK3-2-R</b>
			Green	<b>M22S-WRLK3-2-G</b>
			Yellow	<b>M22S-WRLK3-2-Y</b>
			Blue	<b>M22S-WRLK3-2-B</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 Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37.

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

For additional key code options, see Volume 7—Solid-State Motor Control, CA08100008E, Tab 37.

#### Components

#### Operators Only <sup>③</sup>



Type	Switching Position	Key Code	Bezel	Key Removal Position	Catalog Number	
<b>M22-WS</b> 	Two-position Momentary <sup>④</sup> 	MS1	Silver	Return from right, key removable left	<b>M22-WS</b>	
			Black	Return from right, key removable left	<b>M22S-WS</b>	
<b>M22S-WRS</b> 	Two-position Maintained 	MS1	Silver	Key removable left	<b>M22-WRS-A1</b>	
			Black	Key removable left	<b>M22S-WRS-A1</b>	
		MS1	Silver	Key removable left/right	<b>M22-WRS</b>	
			Black	Key removable left/right	<b>M22S-WRS</b>	
<b>M22-WS3-X93</b> 	Three-position Momentary <sup>④</sup> 	MS1	Silver	Return from left/right, key removable center	<b>M22-WS3</b>	
			Black	Return from left/right, key removable center	<b>M22S-WS3</b>	
			Maintained 	Silver	Key removable center	<b>M22-WRS3-A1</b>
				Black	Key removable center/left	<b>M22-WRS3-A2</b>
				Black	Key removable center/right	<b>M22-WRS3-A3</b>
				Black	Key removable left/right	<b>M22-WRS3</b>
			Black	Return from left, key removable center	<b>M22-WRS3-A7</b>	
				Return from left, key removable center/right	<b>M22-WRS3-A6</b>	
	Return from right, key removable left/center	<b>M22-WRS3-A4</b>				
	Return from right, key removable center	<b>M22-WRS3-A5</b>				
	Key removable center	<b>M22S-WRS3-A1</b>				
	Key removable center/left	<b>M22S-WRS3-A2</b>				
	Key removable center/right	<b>M22S-WRS3-A3</b>				
	Key removable left/right/center	<b>M22S-WRS3</b>				
	Black	Return from left, key removable center	<b>M22S-WRS3-A7</b>			
		Return from left, key removable center/right	<b>M22S-WRS3-A6</b>			
Return from right, key removable left/center		<b>M22S-WRS3-A4</b>				
Return from right, key removable center		<b>M22S-WRS3-A5</b>				

#### Notes

- ① Includes one key.
- ② Key removal positions can be modified in the field using coding adapters; see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37.
- 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 Volume 7—Logic Control, Operator Interface and Connectivity Solutions CA08100008E, Tab 37.



## Mushroom Head Pushbuttons ①

## Momentary Complete Devices

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

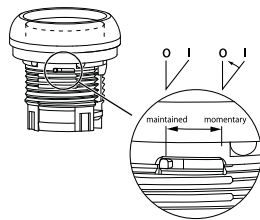
## Non-Illuminated Mushroom Head Pushbuttons, Maintained ① ③

## Complete Devices

	Bezel	Button Color	Contact Block Configuration ④	Catalog Number
 M22-DP-R-K01	Silver	Red	NC	M22-DRP-R-K01
			2NC	M22-DRP-R-K02
			1NO-2NC	M22-DRP-R-K12
			1NO-1NC	M22-DRP-R-K11
 M22S-DP-R-K01	Black	Red	NC	M22S-DRP-R-K01
			2NC	M22S-DRP-R-K02
			1NO-2NC	M22S-DRP-R-K12
			1NO-1NC	M22S-DRP-R-K11

## Notes

- ① 35 mm diameter mushroom head button.
- ② Includes contact block mounting adapter. Ⓣ
- ③ 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.
- ④ All NC contact blocks are positively driven contact. Ⓣ



#### Non-Illuminated Mushroom Head Pushbuttons ①

##### Components

###### M22-XDP-G



##### Mushroom Head Plates

Color	Inscription	Catalog Number
Black	—	<b>M22-XDP-S</b> ②
	Custom	<b>M22-XDP-S-ETCH</b> ③
	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> ②
	Custom	<b>M22-XDP-R-ETCH</b> ③
	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> ②
	Custom	<b>M22-XDP-G-ETCH</b> ③
	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> ②
	Custom	<b>M22-XDP-W-ETCH</b> ③
Yellow	—	<b>M22-XDP-Y</b> ②
	Custom	<b>M22-XDP-Y-ETCH</b> ③

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



##### Momentary 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-DRP-G-X

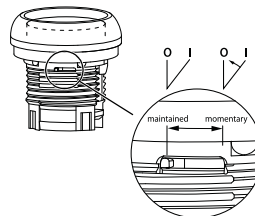


##### Maintained Insertless Mushroom Head Operators ④

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>

##### Notes

- ① 35 mm diameter mushroom head button.
- ② Minimum order quantity of (10).
- ③ When ordering, specify inscription per catalog number suffix from the Symbols Library (see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) into the Order Notes. For example, M22-XDP-S-ETCH; Order Notes: Mark with symbol X91, Line item #\_.
- ④ 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.







Components

Double Pushbuttons, Extended Pushbuttons and Center Light, Momentary

Operators Only ①



	Bezel	Color		Inscription		Catalog Number
		Top	Bottom	Top	Bottom	
 <p>M22-DDL-GR-GB1-GB0</p>	Silver	Green	Red	—	—	M22-DDL-GR
				Custom	Custom	M22-DDL-GR-ETCH ②
				①	Ⓢ	M22-DDL-GR-X1-X0
				START	STOP	M22-DDL-GR-GB1-GB0
		White	Black	—	—	M22-DDL-WS
				Custom	Custom	M22-DDL-WS-ETCH ②
				①	Ⓢ	M22-DDL-WS-X1-X0
				START	STOP	M22-DDL-WS-GB1-GB0
		Black	Black	—	—	M22-DDL-S
				Custom	Custom	M22-DDL-S-ETCH ②
				—	—	M22-DDL-S-X4-X5
				①	①	M22-DDL-S-X7-X7
 <p>M22S-DDL-GR-X1-X0</p>	Black	Green	Red	—	—	M22S-DDL-GR
				Custom	Custom	M22S-DDL-GR-ETCH ②
				①	Ⓢ	M22S-DDL-GR-X1-X0
				START	STOP	M22S-DDL-GR-GB1-GB0
		White	Black	—	—	M22S-DDL-WS
				Custom	Custom	M22S-DDL-WS-ETCH ②
				①	Ⓢ	M22S-DDL-WS-X1-X0
				START	STOP	M22S-DDL-WS-GB1-GB0
		Black	Black	—	—	M22S-DDL-S
				Custom	Custom	M22S-DDL-S-ETCH ②
				⊕	—	M22S-DDL-S-X4-X5
				①	①	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 Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) 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
<b>M22-DDLF-GR</b> 	Silver	Green	Red	—	—	<b>M22-DDLF-GR</b>
		White	Black	—	—	<b>M22-DDLF-GR-ETCH</b> ②
		Green	Red	⓪	⓪	<b>M22-DDLF-GR-X1-X0</b>
		White	Black	⓪	⓪	<b>M22-DDLF-WS-X1-X0</b>
		Green	Red	⓪	⓪	<b>M22-DDLF-GR-X1-X0</b>
<b>M22S-DDLF-GR-X1-X0</b> 	Black	Green	Red	—	—	<b>M22S-DDLF-GR</b>
		White	Black	—	—	<b>M22S-DDLF-GR-ETCH</b> ②
		Green	Red	⓪	⓪	<b>M22S-DDLF-GR-X1-X0</b>
		White	Black	⓪	⓪	<b>M22S-DDLF-WS-X1-X0</b>
		Green	Red	⓪	⓪	<b>M22S-DDLF-GR-X1-X0</b>

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

##### Operators Only ①

	Bezel	Color Top	Bottom	Inscription Top	Bottom	Catalog Number
<b>M22-DDLM-GR</b> 	Silver	Green	Red	—	—	<b>M22-DDLM-GR</b>
		White	Black	—	—	<b>M22-DDLM-GR-ETCH</b> ②
		Green	Red	⓪	⓪	<b>M22-DDLM-GR-X1-X0</b>
		White	Black	⓪	⓪	<b>M22-DDLM-WS-X1-X0</b>
		Green	Red	⓪	⓪	<b>M22-DDLM-GR-X1-X0</b>
<b>M22S-DDLM-GR-X1-X0</b> 	Black	Green	Red	—	—	<b>M22S-DDLM-GR</b>
		White	Black	—	—	<b>M22S-DDLM-GR-ETCH</b> ②
		Green	Red	⓪	⓪	<b>M22S-DDLM-GR-X1-X0</b>
		White	Black	⓪	⓪	<b>M22S-DDLM-WS-X1-X0</b>
		Green	Red	⓪	⓪	<b>M22S-DDLM-GR-X1-X0</b>

##### Notes

① Includes contact block mounting adapter.

② When ordering, specify inscription per catalog number suffix from the Symbols Library (see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) into the Order Notes. For example, M22-DDLM-GR-ETCH; Order Notes: Mark with symbol X91, Line item #\_.

## 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</b> <sup>②</sup>
			Directional arrows	<b>M22-D4-S-X7</b>
	Black	Black	—	<b>M22S-D4-S</b>
			Custom	<b>M22S-D4-S-ETCH</b> <sup>②</sup>
			Directional arrows	<b>M22S-D4-S-X7</b>
Interlocked	Silver	Black	—	<b>M22-DI4-S</b>
			Custom	<b>M22-DI4-S-ETCH</b> <sup>②</sup>
			Directional arrows	<b>M22-DI4-S-X7</b>
	Black	Black	—	<b>M22S-DI4-S</b>
			Custom	<b>M22S-DI4-S-ETCH</b> <sup>②</sup>
			Directional arrows	<b>M22S-DI4-S-X7</b>

## Joysticks

### Components

#### M22-WJ2H



#### Operators Only <sup>①</sup>

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
	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>	

#### Notes

- <sup>①</sup> Includes contact block mounting adapter.
- <sup>②</sup> When ordering, specify inscription per catalog number suffix from the Symbols Library (see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) into the Order Notes. For example, M22-DDLM-GR-ETCH; Order Notes: Mark with symbol X91, Line item #\_

#### 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

##### 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



#### Components

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

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

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

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

#### 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>

#### Complete Devices

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

FAK-S-KC11-I



Button Color	Contact Block Configuration <sup>②</sup>	Catalog Number
<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>

FAK-R-V-KC01-IY



Button Color	Contact Block Configuration <sup>②</sup>	Catalog Number
<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 V9-T4-31 to V9-T4-36.

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

## Accessories

## Mounting Adapters

	Description	Catalog Number
<b>M22-A</b>	Contact block mounting adapter. ①	<b>M22-A</b>
		
<b>M22-A4</b>	Contact block mounting adapter, four-position (for use with four-way pushbuttons, joysticks and four-position selector switches only). ①	<b>M22-A4</b>
		
<b>M22-LS</b>	Allows mounting of M22 pushbuttons to LS-Titan limit switch bodies (for the full LS-Titan catalog section, see <b>PG08301004E</b> ).	<b>M22-LS</b>
		

## Contact Blocks

Mounting Location	Terminal Type	Contact Configuration ②	Package Qty.	Catalog Number		
Front	Screw	NO	1	<b>M22-K10</b>		
		NO	25	<b>M22-K10-B25</b>		
		NO	100	<b>M22-K10-B100</b>		
		NO, early-make	1	<b>M22-K10P</b>		
		NC	1	<b>M22-K01</b>		
		NC	25	<b>M22-K01-B25</b>		
		NC	100	<b>M22-K01-B100</b>		
		NC, late-break	1	<b>M22-K01D</b>		
		Base		NO	1	<b>M22-KC10</b>
NO	25			<b>M22-KC10-B25</b>		
NO	100			<b>M22-KC10-B100</b>		
NC	1			<b>M22-KC01</b>		
NC	25			<b>M22-KC01-B25</b>		
NC	100			<b>M22-KC01-B100</b>		
Front	Spring cage			NO	1	<b>M22-CK10</b>
				NC	1	<b>M22-CK01</b>
				NC, late-break	1	<b>M22-CK01D</b>
		2NO ③	1	<b>M22-CK20</b>		
		2NC ③	1	<b>M22-CK02</b>		
		NO-NC ③	1	<b>M22-CK11</b>		
		Base		NO	1	<b>M22-CKC10</b>
NC	1			<b>M22-CKC01</b>		

## Notes

- ① Included with each operator.  
 ② All NC contact blocks are positively driven contact. ⊖  
 ③ Not stackable.

M22-K10;



M22-LED-W



## Light Units

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



**M22-XLED60****LED Resistor and Test Elements**

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

**Legend Plate Holders and Inserts, Pushbuttons and Double Pushbuttons ③****M22S-ST-X**

Description	Inscription	Catalog Number
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>

**M22-XST-GB0**

Legend plate insert	—	<b>M22-XST</b>
	Custom	<b>M22-XST-ETCH ④</b>
	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>
0 I	<b>M22-XST-X88</b>	
0 - I	<b>M22-XST-X89</b>	
I O II	<b>M22-XST-X93</b>	

**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.
- ③ Legend plates are IP66 and NEMA 4X/13.
- ④ When ordering, specify inscription per catalog number suffix from the Symbols Library (see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) into the Order Notes. For example, M22-XD-S-ETCH; Order Notes: Mark with symbol X91, Line item # \_\_.

**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, Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37, identified by GB15 suffix.
4. Indicate on the order form in the order notes—suffix GB15, line item # \_\_\_\_.

#### Legend Plates, Complete ①



	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-X52</b>
		1	<b>M22S-ST-X53</b>
		2	<b>M22S-ST-GB10</b>
		OFF ON	<b>M22S-ST-GB11</b>
		MAN. AUTO	<b>M22S-ST-GB12</b>
		MAN. O AUTO	<b>M22S-ST-D11</b>
		HAND AUTO	<b>M22S-ST-D12</b>
HAND O AUTO	<b>M22S-ST-X88</b>		
O I	<b>M22S-ST-X89</b>		
O - I	<b>M22S-ST-X93</b>		
I O II	<b>M22S-ST-X93</b>		
<b>M22-XZK</b> 	Emergency-stop operators	Rectangular yellow legend plate	<b>M22-XZK</b>
		—	<b>M22-XZK-ETCH</b> ②
		Custom	<b>M22-XZK-GB99</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</b> ②
		EMERGENCY-STOP four-language	<b>M22-XYK1</b>
		EMERGENCY-STOP (top and bottom)	<b>M22-XYK5</b>
		—	<b>M22-XAK</b>
<b>M22-XBK1</b> 	Emergency-stop operators	Round yellow legend plate, 90 mm	<b>M22-XAK</b>
		—	<b>M22-XAK-ETCH</b> ②
		Custom	<b>M22-XAK1</b>
		EMERGENCY-STOP four-language	<b>M22-XAK5</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>
		—	<b>M22-XBK-ETCH</b> ②
		Custom	<b>M22-XBK1</b>
		EMERGENCY-STOP four-language	<b>M22-XBK5</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>
		—	<b>M22-XCK-ETCH</b> ②
		Custom	<b>M22-XCK1</b>
		Four directional arrows	<b>M22-XCK2</b>
		0-1-0-2-0-3-0-4	<b>M22-XCK3</b>
Two directional arrows	<b>M22-XCK3</b>		

#### Notes


① Legend plates are IP66 and NEMA 4X/13.

② When ordering, specify inscription per catalog number suffix from the Symbols Library (see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E, Tab 37) into the Order Notes. For example, M22-XD-S-ETCH; Order Notes: Mark with symbol X91, Line item #\_.


**Surface Mounting Enclosures** ①

	Description	Catalog Number
	Yellow top, black base for emergency-stop operators	<b>M22-IY1-PG</b>
	One-element enclosure	<b>M22-I1-PG</b>
	Two-element enclosure	<b>M22-I2-PG</b>
	Three-element enclosure	<b>M22-I3-PG</b>
	Four-element enclosure	<b>M22-I4-PG</b>
	Six-element enclosure	<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
	One-element	IP55	<b>M22-H1</b>
	Two-element	IP55	<b>M22-H2</b>
	Three-element	IP55	<b>M22-H3</b>
	Four-element	IP40	<b>M22-H4</b>
	Five-element	IP40	<b>M22-H5</b>
	Six-element	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
	Plunger bridge ②	<b>M22-XW</b>
	Key cover	<b>M22-XWS</b>
	Key withdraw adapter ③	<b>M22-XC-R</b>
	Coding adapter	<b>M22-XC-Y</b>
	Guard ring	<b>M22-XGWK</b>

**Emergency Stop Operator Accessories**

	Description	Catalog Number
	Yellow guard ring	<b>M22-XGVP</b>
	Gray guard ring	<b>M22G-XGPV</b>
	Sealing shroud	<b>M22-PL-PV</b>

**Blanking Plugs**

	Color	Catalog Number
	Gray	<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.

# 4.1

## Operator Interface

### Pushbutton and Pilot Devices

4

#### Mounting Accessories

	Description	Catalog Number
	Telescopic clip with top-hat rail	<b>M22-TC</b>
	Telescopic clip	<b>M22-TA</b>
	Telescopic clip extension	<b>M22-TCV</b>
	DIN rail mounting adapter	<b>M22-IVS</b>
	Mounting ring	<b>M22-GR</b>
	Mounting ring tool	<b>M22-MS</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-SWRGYB	<b>M22-KT1</b>

10250T—30 mm Pushbuttons



Features

- Heavy-duty zinc die-cast construction
- Enclosed silver contacts with reliability nibs
- Diaphragm seals with drainage holes
- Grounding nibs on the operator casing

Product Selection

10250T—30 mm Pushbuttons

Flush Button



Extended Button



Mushroom Button



Jumbo Mushroom



Non-Illuminated Pushbutton Units—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Contact Type	Button Color	Catalog Number			
		Flush Button	Extended Button	Mushroom Button	Jumbo Mushroom <sup>①</sup>
1NO	Black	10250T23B	10250T25B	10250T26B	10250T27B
	Red	10250T23R	10250T112-53	10250T122-53	10250T172-53
	Green	10250T23G	10250T25G	10250T26G	10250T27G
	Yellow	10250T23Y	10250T25Y	10250T26Y	10250T27Y
	Red—Engraved EMERG. STOP	—	—	—	10250T17213-53
1NC	Black	10250T101-51	10250T111-51	10250T121-51	10250T171-51
	Red	10250T102-51	10250T25R	10250T26R	10250T27R
	Green	10250T103-51	10250T113-51	10250T123-51	10250T173-51
	Yellow	10250T104-51	10250T120-51	10250T124-51	10250T174-51
	Red—Engraved EMERG. STOP	—	—	—	10250T29
1NO-1NC	Black	10250T30B	10250T31B	10250T32B	10250T33B
	Red	10250T30R	10250T31R	10250T32R	10250T33R
	Green	10250T30G	10250T31G	10250T32G	10250T33G
	Yellow	10250T30Y	10250T31Y	10250T32Y	10250T33Y
	Red—Engraved EMERG. STOP	—	—	—	10250T33
2NO	Black	10250T101-2	10250T111-2	10250T121-2	10250T171-2
	Red	10250T102-2	10250T112-2	10250T122-2	10250T172-2
	Green	10250T103-2	10250T113-2	10250T123-2	10250T173-2
	Yellow	10250T104-2	10250T120-2	10250T124-2	10250T174-2
	Red—Engraved EMERG. STOP	—	—	—	10250T17213-2
2NC	Black	10250T101-3	10250T111-3	10250T121-3	10250T171-3
	Red	10250T102-3	10250T112-3	10250T122-3	10250T172-3
	Green	10250T103-3	10250T113-3	10250T123-3	10250T173-3
	Yellow	10250T104-3	10250T120-3	10250T124-3	10250T174-3
	Red—Engraved EMERG. STOP	—	—	—	10250T17213-3

Note

① Anodized aluminum head is not suitable for use in ultraviolet light applications.

24V Full Voltage Illuminated Pushbutton



#### Illuminated Pushbutton Units—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Type	Voltage	Color	LED/Lamp Number	Catalog Number			
				Illuminated Pushbutton 1N0	1N0-1NC	1NC	
<b>LED Lamp</b>							
Full voltage	24 Vac/Vdc	Red	Bayonet base	10250T397LRD24-53	10250T397LRD24-1	10250T397LRD24-51	
				10250T397LGD24-53	10250T397LGD24-1	10250T397LGD24-51	
				10250T397LAD24-53	10250T397LAD24-1	10250T397LAD24-51	
				10250T397LYD24-53	10250T397LYD24-1	10250T397LYD24-51	
				10250T397LLD24-53	10250T397LLD24-1	10250T397LLD24-51	
				10250T397LWD24-53	10250T397LWD24-1	10250T397LWD24-51	
				10250T397LRD2A-53	10250T397LRD2A-1	10250T397LRD2A-51	
	120 Vac	Green	10250T397LGD2A-53	10250T397LGD2A-1	10250T397LGD2A-51		
			10250T397LAD2A-53	10250T397LAD2A-1	10250T397LAD2A-51		
			10250T397LYD2A-53	10250T397LYD2A-2	10250T397LYD2A-51		
			10250T397LLD2A-53	10250T397LLD2A-1	10250T397LLD2A-51		
			10250T397LWD2A-53	10250T397LWD2A-1	10250T397LWD2A-51		
			10250T411LRD06-53	10250T411LRD06-1	10250T411LRD06-51		
	Transformer	120 Vac	Red	120MB	10250T411LGD06-53	10250T411LGD06-1	10250T411LGD06-51
					10250T411LAD06-53	10250T411LAD06-1	10250T411LAD06-51
					10250T411LYD06-53	10250T411LYD06-1	10250T411LYD06-51
					10250T411LLD06-53	10250T411LLD06-1	10250T411LLD06-51
					10250T411LWD06-53	10250T411LWD06-1	10250T411LWD06-51
					10250T411LRD06-53	10250T411LRD06-1	10250T411LRD06-51
	<b>Incandescent Lamp</b>						
	Full voltage	24 Vac/Vdc	Red	#757	10250T476C21-53	10250T476C21-1	10250T476C21-51
10250T476C22-53					10250T476C22-1	10250T476C22-51	
10250T476C43-53					10250T476C43-1	10250T476C43-51	
10250T476C23-53					10250T476C23-1	10250T476C23-51	
10250T476C24-53					10250T476C24-1	10250T476C24-51	
10250T476C25-53					10250T476C25-1	10250T476C25-51	
10250T476C26-53					10250T476C26-1	10250T476C26-51	
Resistor		120 Vac/Vdc	Green	120MB	10250T471C21-53	10250T471C21-1	10250T471C21-51
					10250T471C22-53	10250T471C22-1	10250T471C22-51
					10250T471C43-53	10250T471C43-1	10250T471C43-51
					10250T471C23-53	10250T471C23-1	10250T471C23-51
					10250T471C24-53	10250T471C24-1	10250T471C24-51
					10250T471C25-53	10250T471C25-1	10250T471C25-51
					10250T471C26-53	10250T471C26-1	10250T471C26-51
Transformer		120 Vac	Red	#755	10250T75R ①	10250T76R ①	10250T77R ①
					10250T75G ①	10250T76G ①	10250T77G ①
					10250T75A ①	10250T76A ①	10250T77A ①
					10250T75Y ①	10250T76Y ①	10250T77Y ①
					10250T75B ①	10250T76B ①	10250T77B ①
					10250T75C ①	10250T76C ①	10250T77C ①
					10250T75W ①	10250T76W ①	10250T77W ①

**Note**

① For flashing module catalog number 10250TFL1, add suffix code **FM** to listed catalog number. Example: 10250T75R**FM**.

## Indicating Light Units

## 24V Full Voltage Illuminated Light



## 120 Vac Transformer Pres Test



## Indicating Light Units—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13 ①

Type	Voltage	Color	LED/Lamp Number	Catalog Number 24V Full Voltage Indicating Light—Red Catalog Number 10250T206NC1N	Catalog Number 120V AC Transformer Pres Test—Green Catalog Number 10250T74NG		
<b>LED Lamp</b>							
Full voltage	24 Vac/Vdc	Red	Bayonet base	10250T197LRP24	10250T297LRP24		
		Green		10250T197LGP24	10250T297LGP24		
		Amber		10250T197LAP24	10250T297LAP24		
		Yellow		10250T197LYP24	10250T297LYP24		
		Blue		10250T197LLP24	10250T297LLP24		
		White		10250T197LWP24	10250T297LWP24		
		120 Vac		Red	10250T197LRP2A	10250T297LRP2A	
				Green	10250T197LGP2A	10250T297LGP2A	
				Amber	10250T197LAP2A	10250T297LAP2A	
	Yellow		10250T197LYP2A	10250T297LYP2A			
	Blue		10250T197LLP2A	10250T297LLP2A			
	White		10250T197LWP2A	10250T297LWP2A			
	Transformer		120 VAC	Red	10250T181LRP06	10250T221LRP06	
				Green	10250T181LGP06	10250T221LGP06	
				Amber	10250T181LAP06	10250T221LAP06	
		Yellow		10250T181LYP06	10250T221LYP06		
		Blue		10250T181LLP06	10250T221LLP06		
		White		10250T181LWP06	10250T221LWP06		
<b>Incandescent Lamp</b>							
Full voltage		24 Vac/Vdc		Red	#757	10250T206NC1N	10250T235NC21
				Green		10250T206NC2N	10250T235NC22
	Amber		10250T206NC19N	10250T235NC43			
	Yellow		10250T206NC3N	10250T235NC23			
	Blue		10250T206NC4N	10250T235NC24			
	Clear		10250T206NC5N	10250T235NC25			
	Resistor	120 Vac/Vdc	Red	120MB	10250T201NC1N	10250T231NC21	
			Green		10250T201NC2N	10250T231NC22	
			Amber		10250T201NC19N	10250T231NC43	
			Yellow		10250T201NC3N	10250T231NC23	
			Blue		10250T201NC4N	10250T231NC24	
			Clear		10250T201NC5N	10250T231NC25	
Transformer ②	120 VAC	Red	#755	10250T34R	10250T74NR		
		Green		10250T34G	10250T74NG		
		Amber		10250T34A	10250T74NA		
		Yellow		10250T34Y	10250T74NY		
		Blue		10250T34B	10250T74NB		
		Clear		10250T34C	10250T74NC		
		White		10250T34W	10250T74NW		

**Notes**

① Standard indicating lights are rated UL (NEMA) 3S as well.

② For flashing lamp, add letter **F** to listed catalog number. Example: 10250T34RF.

# 4.1













## Operator Interface

### Pushbutton and Pilot Devices

4

#### Two-Position Push-Pull Units—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13







Operator Position ①

	Operator Position ①		Button Type/Color	Contact Type	Mounting Location		Catalog Number
	Pull	Push			A	B	
<b>Two-Position Maintained Push, Maintained Pull</b>							
<b>10250T5B62-1X</b> 	0	X	40 mm/red	1NO			<b>10250T5B62-1X</b>
	X	0		1NC			
<b>10250T5B63-1X</b> 	0	X	40 mm engraved EMERG. STOP/red	1NO			<b>10250T5B63-1X</b>
	X	0		1NC			
<b>10250T5J63-1X</b> 	0	X	65 mm aluminum engraved EMERG. STOP/red	1NO			<b>10250T5J63-1X</b>
	X	0		1NC			
<b>10250ED1080-2</b> 	0	X	65 mm aluminum engraved EMERG. STOP/red  Special security jumbo mushroom head	1NO			<b>10250ED1080-2</b>
	X	0		1NC			

#### Three-Position Push-Pull Units—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Operator Position ①



	Operator Position ①			Button Type/Color	Contact Type	Mounting Location		Catalog Number
	Pull	Intermediate	Push			A	B	
<b>Three-Position Maintained Push, Momentary Pull</b>								
X	0	0	40 mm/black	1NC			<b>10250T9B60-3X</b>	
	X	X	40 mm/red	1NC				<b>10250T9B62-3X</b>
			40 mm engraved EMERG. STOP/red					
<b>Three-Position Momentary Push, Momentary Pull</b>								
X	0	0	40 mm/black	1NC			<b>10250T4B60-3X</b>	
	X	X	40 mm/red	1NC				<b>10250T4B62-3X</b>
0	0	X	40 mm/black	1NO			<b>10250T10B60-1X</b>	
X	0	0	40 mm/red	1NC				<b>10250T10B62-1X</b>

**Note**

① X = closed circuit, 0 = open circuit.



**Two-Position Push-Pull Operator**



**Two-Position Illuminated Maintained Push, Maintained Pull—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13**

Operator Position ①

Maintained—Pull	Maintained—Push	Lamp	Type	Voltage	Contact Type	Mounting Location A B	LED/Lamp Number	Red Standard Push-Pull Catalog Number		
0	X	LED	Full Voltage	24 Vac/Vdc	1NO		Bayonet base	10250T597LRD24-1X		
X	0			120 Vac/Vdc	1NC			10250T597LRD2A-1X		
				Transformer	24 Vac				10250T589LRD06-1X	
				120 Vac				10250T563LRD06-1X		
0	X	Incandescent	Full voltage	24 Vac/Vdc	1NO		#757	10250T579C47-1X		
X	0			120 Vac/Vdc	1NC			120MB	10250T580C47-1X	
				Transformer	24 Vac				#755	10250T589C47-1X
					120 Vac					10250T563C47-1X

**Three-Position Push-Pull Operator**



**Three-Position Illuminated Momentary Push, Momentary Pull—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13**

Operator Position ①

Momentary—Pull	Maintained—Intermediate	Momentary—Push	Lamp	Type	Voltage	Contact Type	Mounting Location A B	LED/Lamp Number	Red Standard Push-Pull Catalog Number		
0	0	X	LED	Full voltage	24 Vac/Vdc	1NO		Bayonet base	10250T1097LRD24-1X		
X	0	0			120 Vac	1NC			10250T1097LRD2A-1X		
					Transformer	24 Vac				10250T1089LRD06-1X	
					120 Vac			10250T1063LRD06-1X			
X	0	0	Incandescent	Full voltage	24 Vac/Vdc	1NC		Bayonet base	10250T497LRD24-3X		
X	X	0			120 Vac	1NC			10250T497LRD2A-3X		
					Transformer	24 Vac				10250T489LRD06-3X	
					120 Vac					10250T463LRD06-3X	
0	0	X	Incandescent	Full voltage	24 Vac/Vdc	1NO		#757	10250T1079C47-1X		
X	0	0			120 Vac	1NC			120MB	10250T1080C47-1X	
					Transformer	24 Vac				#755	10250T1089C47-1X
					120 Vac			10250T1063C47-1X			
X	0	0	Incandescent	Full voltage	24 Vac/Vdc	1NC		#757	10250T479C47-3X		
X	X	0			120 Vac	1NC			120MB	10250T480C47-3X	
					Transformer	24 Vac				#755	10250T489C47-3X
					120 Vac						10250T463C47-3X

**Note**

① X = closed circuit, 0 = open circuit.

# 4.1

## Operator Interface

### Pushbutton and Pilot Devices

#### Three-Position Push-Pull Operator



#### Three-Position Illuminated Maintained Push, Momentary Pull—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

##### Operator Position<sup>①</sup>

Momentary— Pull	Maintained— Intermediate	Momentary— Push	Lamp	Type	Voltage	Contact Type	Mounting Location		LED/ Lamp Number	Red Standard Push-Pull Catalog Number	
							A	B			
X	0	0	LED	Full voltage	24 Vac/Vdc	1NC	o   o	Bayonet base	<b>10250T997LRD24-3X</b>		
X	X	0			120 Vac	1NC	o   o		<b>10250T997LRD2A-3X</b>		
					Transformer	24 Vac				<b>10250T989LRD06-3X</b>	
					120 Vac					<b>10250T963LRD06-3X</b>	
X	0	0	Incan- descent	Full voltage	24 Vac/Vdc	1NC	o   o	#757	<b>10250T979C47-3X</b>		
X	X	0			120 Vac	1NC	o   o		<b>10250T980C47-3X</b>		
					Transformer	24 Vac				#755	<b>10250T989C47-3X</b>
					120 Vac					<b>10250T963C47-3X</b>	

#### Potentiometers

#### Vertical or Horizontal<sup>②</sup> One-Hole Mounting



#### Potentiometer with Knob and Standard Dial Plate—Linear Type ±10%—UL (NEMA) Type 3, 3R, 4, 12, 13

Potentiometer Ohms	Catalog Number
<b>2 Watt (60V Max.) Single Potentiometer with Standard Aluminum Dial Plate<sup>③④</sup></b>	
1000	<b>10250T331</b>
2500	<b>10250T332</b>
5000	<b>10250T338</b>
10000	<b>10250T333</b>
25000	<b>10250T334</b>
50000	<b>10250T335</b>
Operator only <sup>⑤</sup>	<b>10250T330</b>
Alternative—black plastic large legend with standard markings	<b>E34LP99</b>

##### Notes

- ① X = closed circuit, 0 = open circuit.
- ② Shown with standard aluminum dial plate.
- ③ Large dial plate with space for legend is available at no charge. To order, add suffix **36** to catalog number. Example: 10250T331**36**. To order separately, see footnote ④ below.
- ④ Large dial plate has space at top for 15 letters. 3/32 in high. For custom stamped legend plates, order legend plate as separate item **10250TR30** and specify stamping.
- ⑤ For use with commercially purchased potentiometers having shaft dimensions per dimension drawing

Selector Switch Units

Two-Position Maintained Switch



Two-Position Selector Switch—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Operator Position ①		Operator Action ②	Contact Type	Mounting Location		Non-Illuminated		Illuminated—120V Transformer	
X	O			A	B	Black Knob Catalog Number ③	Black Lever Catalog Number ③	Red Knob Catalog Number ③	Red Lever Catalog Number ③
X	O		1NC			<u>10250T20KB</u>	<u>10250T20LB</u>	<u>10250ED1117-KR</u>	<u>10250ED1117-LR</u>
O	X		1NO						

Three-Position Maintained Switch



Three-Position Selector Switch—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Operator Position ①			Operator Action ②	Contact Type	Mounting Location		Non-Illuminated		Illuminated—120V Transformer	
X	O	O			A	B	Black Knob Catalog Number ③	Black Lever Catalog Number ③	Red Knob Catalog Number ③	Red Lever Catalog Number ③
X	O	O		1NO			<u>10250T21KB</u>	<u>10250T21LB</u>	<u>10250ED1117-2KR</u>	<u>10250ED1117-2LR</u>
O	O	X		1NO						
X	O	O		1NO			<u>10250T22KB</u>	<u>10250T22LB</u>	<u>10250ED1117-3KR</u>	<u>10250ED1117-3LR</u>
O	X	O		2NC (Series)						
O	O	X		1NO						

Four-Position Maintained Switch



Four-Position Selector Switch—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Operator Position ①				Operator Action ②	Contact Type	Mounting Location		Non-Illuminated		Illuminated—120V Transformer	
X	O	O	O			A	B	Black Knob Catalog Number ③	Black Lever Catalog Number ③	Red Knob Catalog Number ③	Red Lever Catalog Number ③
X	O	O	O		1NC			<u>10250T46KB</u>	<u>10250T46LB</u>	<u>10250ED1117-4KR</u>	<u>10250ED1117-4LR</u>
O	X	O	O		1NO						
O	O	X	O		1NO						
O	O	O	X		1NC						

Color Selection

Illuminated						Non-Illuminated					
Color	Code Letter	Color	Code Letter	Color	Code Letter	Color	Code Letter	Color	Code Letter	Color	Code Letter
Red	<u>R</u>	White	<u>W</u>	Amber	<u>A</u>	Black	<u>B</u>	Green	<u>G</u>	Blue	<u>L</u>
Green	<u>G</u>	Blue	<u>B</u>	Clear	<u>C</u>	Red	<u>R</u>	White	<u>W</u>	Orange	<u>O</u>

Notes

① X = closed circuit, O = open circuit.

② M = Maintained.

③ To order different type or color selector switch, substitute the underlined character with appropriate suffix code from the Color Selection table. Example: 10250T20KG.

#### Legend Plates

##### Square Legend Plate



##### 1/2 Round Legend Plate



4

#### For Pushbutton Operators and Indicating Lights—Standard

Legend	Color of Field	Square <sup>①</sup> Catalog Number	1/2 Round Catalog Number	Legend	Color of Field	Square <sup>①</sup> Catalog Number	1/2 Round Catalog Number
<b>Blank—see table on Page V9-T4-46.</b>							
<b>Letters on Legend Plates Below are 3/16 in High</b>							
CLAMP	Black	10250TS90	10250TM90	OFF	Red	10250TS24	10250TM24
CLOSE		10250TS73	10250TM11	ON	Black	10250TS25	10250TM25
DOWN		10250TS74	10250TM12	OPEN		10250TS26	10250TM26
EMERG. STOP	Red	10250TS13	10250TM13	OUT		10250TS27	10250TM27
FAST	Black	10250TS75	10250TM14	POWER ON		10250TS80	10250TM80
FASTER		10250TS87	10250TM87	RAISE		10250TS28	10250TM28
FEEDER ON		10250TS94	10250TM94	READY		10250TS86	10250TM86
FEEDER OFF		10250TS95	10250TM95	RESET		10250TS29	10250TM29
FORWARD		10250TS15	10250TM15	REVERSE		10250TS30	10250TM30
HIGH		10250TS16	10250TM16	RUN		10250TS31	10250TM31
IN		10250TS17	10250TM17	SAFE		10250TS85	10250TM85
INCH		10250TS18	10250TM18	SLOW		10250TS32	10250TM32
JOG		10250TS19	10250TM19	SLOWER		10250TS88	10250TM88
JOG FOR.		10250TS20	10250TM20	START		10250TS33	10250TM33
JOG REV.		10250TS21	10250TM21	STOP	Red	10250TS34	10250TM34
LOW		10250TS22	10250TM22	TEST	Black	10250TS83	10250TM83
LOWER		10250TS23	10250TM23	TRANSFER		10250TS93	10250TM93
LUBE-FAIL		10250TS92	10250TM92	TRIP		10250TS84	10250TM84
MOTOR RUN		10250TS81	10250TM81	UNCLAMP		10250TS91	10250TM91
MOTOR STOP		10250TS82	10250TM82	UP		10250TS35	10250TM35

#### Blank Plastic Legend Plates—Square

Color Lettering	Field	Standard Catalog Number	Jumbo <sup>②</sup> Catalog Number	Extra Large Catalog Number
Black	White or silver <sup>③</sup>	10250TSP76	10250TLP76	10250TEP76
White	Red or black <sup>③</sup>	10250TSP77	10250TLP77	10250TEP77

#### Notes

- ① Square legend plates have a satin aluminum field. Color is on lower portion.
- ② Cannot be used on cast enclosures except for top row. Suitable for most sheet metal enclosures.
- ③ If legend plate is to be engraved, specify field color required.

## Square Legend Plate



## 1/2 Round Legend Plate



## For Selector Switch and Roto-Push Operators—Standard Size

Legend	Color of Field	Square <sup>①</sup> Catalog Number	1/2 Round Catalog Number	Legend	Color of Field	Square <sup>①</sup> Catalog Number	1/2 Round Catalog Number
<b>Blank—see table on Page V9-T4-46.</b>							
<b>Two-Position—5/32 in High Lettering</b>				<b>Three-Position—1/8 in High Lettering</b>			
FOR. REV.	Black	10250TS38	10250TM38	AUTO OFF HAND	Black	10250TS49	10250TM49
HAND AUTO		10250TS39	10250TM39	FOR. OFF REV.		10250TS50	10250TM50
HIGH LOW		10250TS40	10250TM40	FOR. SAFE REV.		10250TS69	10250TM69
JOG RUN		10250TS41	10250TM41	HAND OFF AUTO		10250TS51	10250TM51
MAN. AUTO		10250TS67	10250TM67	MAN. OFF AUTO		10250TS68	10250TM68
OFF ON		10250TS42	10250TM42	OPEN OFF CLOSE		10250TS53	10250TM53
OPEN CLOSE		10250TS43	10250TM43	RUN SAFE JOG		10250TS70	10250TM70
RUN JOG		10250TS44	10250TM44	UP OFF DOWN		10250TS54	10250TM54
SAFE RUN		10250TS45	10250TM45	ON STOP SAFE	Red	10250TS71	10250TM71
START JOG		10250TS46	10250TM46				
START STOP		10250TS47	10250TM47				
UP DOWN		10250TS48	10250TM48				

## 70 mm Round—Plastic Legend Plate



## 45 mm and 70 mm Plastic—Round

Color	Lettering	Field	Catalog Number
<b>45 mm</b>			
Blank		Yellow or red <sup>②</sup>	10250TRP78
<b>70 mm</b>			
Blank		Yellow or red <sup>②</sup>	10250TRP76
Red EMERG. STOP		Yellow	10250TRP79

For Push-Pull Units <sup>③</sup>

Legend	Color of Field	Square <sup>①</sup> Catalog Number	1/2 Round Catalog Number
<b>Standard Size—Letters on Legend Plates Below are 3/32 in High</b>			
PULL START/PUSH STOP	Green/red	10250TPP2	10250TR2
PUSH ON/PULL OFF	Black	10250TPP5	10250TR5
PULL OPEN/PUSH CLOSE	Black	10250TPP8	10250TR8
PULL UP/PUSH DOWN	Black	10250TPP11	10250TR11
<b>Jumbo Size—Letters on Legend Plates Below are 1/8 in High</b>			
PULL START/PUSH STOP	Green/red	10250TPP3	10250TR3
PULL ON/PUSH OFF	Black	10250TPP6	10250TR6
PULL OPEN/PUSH CLOSE	Black	10250TPP9	10250TR9
PULL UP/PUSH DOWN	Black	10250TPP12	10250TR12

**Notes**

- ① Square legend plates have a satin aluminum field. Color is on lower portion.
- ② If legend plate is to be engraved, specify field color required.
- ③ All push-pull legend plates include the symbols ≠ ∅ in the center of the plate.

## Blank and Custom Engraved Legend Plates
















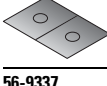

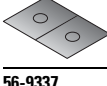





Style	Color					Four-Position Selector Switch		Push-Pull with Symbols <sup>④</sup>	
		Small Catalog Number	Standard Catalog Number	Jumbo <sup>①</sup> Catalog Number	Extra Large <sup>②</sup> Catalog Number	Custom <sup>③</sup> Catalog Number	Standard Catalog Number	Standard Catalog Number	Jumbo <sup>①</sup> Catalog Number
Square <sup>⑤</sup>	Black	<b>10250TMS36</b>	<b>10250TS36</b>	<b>10250TL36</b>	—	<b>10250TS76</b>	<b>10250TS72</b>	<b>10250TPP17</b>	<b>10250TPP18</b>
	Red	<b>10250TMS37</b>	<b>10250TS37</b>	<b>10250TL37</b>	—	—	—	—	—
	Green/red	—	—	—	—	—	—	<b>10250TPP20</b>	<b>10250TPP21</b>
	Satin alum.	—	—	—	<b>10250TNP99</b>	—	—	—	—
1/2 Round	Black	<b>10250TP36</b>	<b>10250TM36</b>	<b>10250TJ36</b>	—	—	<b>10250TM72</b>	<b>10250TR17</b>	<b>10250TR18</b>
	Red	<b>10250TP37</b>	<b>10250TM37</b>	<b>10250TJ37</b>	—	—	—	—	—
	Green/red	—	—	—	—	—	—	<b>10250TR20</b>	<b>10250TR21</b>
	Satin alum.	—	<b>10250TM89</b>	<b>10250TJ89</b>	—	—	—	—	—

**Notes**

- ① Cannot be used on cast enclosures except for top row. Suitable for most sheet metal enclosures.
- ② When used to meet Ford Motor Co. specifications, specify engraved legend. Cannot be used on standard cast or sheet metal enclosures.
- ③ Slightly larger than standard size for legends requiring more space—fits cast enclosures.
- ④ All push-pull legend plates include the symbols ≠ ∅ in the center of the plate.
- ⑤ Square legend plates have a satin aluminum field. Color is on lower portion.

## Accessories









## Accessories






	Description	Catalog Number	Description	Catalog Number
<b>Padlock Attachments</b>				
	<b>Padlocking Attachment for Flush Pushbutton Operators</b> Permits locking NC contacts in open position with 1/4 in padlock. Will not lock NO contact.	10250TA2		<b>Boots</b>
	<b>Padlocking Attachment for Use with Extended Pushbutton</b> Permits locking NC contacts in open position with 1/4 in padlock.	10250TA26		<b>Flexible Weather Resistant Boot</b> For use with button operators (extended buttons preferred). Temperature to -25°F (-32°C). (See <b>Page V9-T4-48</b> for 10250TA96 Tightening Tool.)
	<b>Padlocking Cover Guard</b> Cover locked over flush button makes it inaccessible or on extended button locks NC contacts open. Takes 1/4 in shank size padlock.	10250TA36		Black <b>10250TA3</b>
	<b>Padlock Hasp or Flip-Up Guard</b> When used with a 1/4 in padlock, makes flush and long button and knob selector switch inaccessible, but not locked down. Without the padlock, it is a flip-up guard. Padlock hasp can be removed before assembly.	10250TA38		Red <b>10250TA4</b> ①
	<b>Padlocking Attachment for Use with Flexible Weather Resistant Boot</b> Used on long button operators. Stainless steel. Use only for locking NC contacts open.	10250TA63		Green <b>10250TA10</b>
	<b>Padlock Attachment</b> For use with illuminated pushbuttons and maintained push-pull operators having standard button or lens only. Use 1/4 in padlock. Locks in down position only.	10250TA64		<b>Transparent Boot</b> For regular illuminated pushbutton operators and PresTest—Temperature to -38°F (-39°C). ②
	<b>Padlocking Attachment for Non-Illuminated Knob Selector Switches</b> Provision for up to 5, 1/4 in padlocks.	10250TA11		<b>Boot for Flush Pushbutton</b>
<b>Shrouds and Guards</b>				
	<b>Shroud for Mushroom Head Operator</b> Prevents accidental operation. (Not for push-pull operators.)	10250TA6		Clear <b>10250TA46</b>
	<b>Extended Retaining Nut</b> Replaces standard nut and provides guard for flush head pushbutton operators.	10250TA12		Black <b>10250TA47</b>
	<b>Guard for Illuminated Pushbutton</b>	10250TA15		Red <b>10250TA48</b>
	<b>Shroud</b> For jumbo mushroom head operator.			Green <b>10250TA49</b>
	Gray <b>10250TA56</b>			<b>Hardware and Kits</b>
	Yellow <b>10250TA56Y</b>			<b>Thrust Washers</b> To meet Ford Motor Co. mounting specifications. <b>10250TK3</b>
	<b>Half Shroud—Yellow</b> For jumbo mushroom head operator.	10250ED1241		<b>Contact Block Tape Seal</b> Seals plunger openings on last contact block. Order in multiples of 10 pieces. <b>10250TK5</b>
	<b>Fingerproof Shroud</b> 10 per package Fits new style contact blocks and light units.	10250TA101		<b>Selector Switch Operator Gasket</b> Seals out dust from getting in between the cam and contact block plungers. Supplied as standard with all selector switches. <b>56-9337</b>
				<b>Special Retaining Nut</b> To accommodate thick panel: Indicating lights <b>10250TA30</b> PresTest, pushbuttons and selector switches <b>10250TA31</b>
				<b>Terminal Block</b> Two terminals, each will accommodate two wire terminations. <b>10250TA62</b>
				<b>Spacer Ring</b> Used when legend plate is not required. <b>10250TA8</b>
				<b>Stacking Screw</b> Replaces transformer mounting screws on indicating light so terminal block 10250TA62 can be mounted to light to support and connect a series resistor. This screw also fits all contact blocks. Order in multiples of 10. <b>10250TA79</b>

## Notes

- ① Should not be used on flush button for STOP function.
- ② Not suitable for single contact block depth cast enclosure. Cover is too thick.

#### Accessories, continued

	Description	Catalog Number
<b>Hardware and Kits, continued</b>		
	<b>Base Mounting Spacers</b> ① Equivalent to contact block in depth—complete with screws, washers, etc. 1 block deep 2 block deep	<b>10250TA22</b> <b>10250TA23</b>
	<b>Grounding Kits</b> Kits consist of a ring connector and a #6 screw for mounting connector to rear of contact block mounting screw. All components except standard indicating lights and PresTest indicating lights. Standard indicating lights PresTest indicating lights	<b>10250TKG1</b> <b>10250TKG2</b> ② <b>10250TKG3</b> ②
	<b>Contact Block Terminal Jumpers</b> Available in multiples of 100 only. Terminal to terminal—within block (short) 100 per pkg. 1000 per pkg. Terminal to terminal—block to block (long) 100 per pkg. 1000 per pkg.	<b>10250TA70</b> <b>10250TA70-2</b> <b>10250TA71</b> <b>10250TA71-2</b>
<b>Special Operators and Attachments</b>		
	<b>Wobble Stick</b> Complete with retaining nut—fits standard button.	<b>10250TA5</b>
	<b>Lever Operator</b> For use with two vertically mounted flush pushbuttons.	<b>10250TA14</b>
	<b>Maintained Contact Attachment Release Button Assembly</b> ① Mechanically interlocks with another pushbutton and contact block (not included). Provides mode indication. Minimum hole centers 1.62 in (41.1 mm), maximum 2.31 in (58.8 mm). Black Red Green Yellow Same with long button—black	<b>10250TA17</b> <b>10250TA18</b> <b>10250TA19</b> <b>10250TA20</b> <b>10250TA39</b>
	<b>Maintained Contact Attachment</b> ① Mechanically interlocks two buttons and provides position indication for one. Use with two pushbutton operators and one or more contact blocks.	<b>10250TA1</b>
	<b>Roto-Push Lever Operator</b> Used to provide lever operation for Roto-Push operators.	<b>10250TA13</b>

	Description	Catalog Number
<b>Special Light Modules</b>		
	<b>Master Test (Dual Input) Module</b> Internal Form C relay suitable for either AC or DC applications. Total electrical isolation between monitored and test circuit. Fits all illuminated 10250T, E22, E30 and E34 devices. 48 Vdc	<b>10250TMT8</b>
	<b>Flasher Module</b> Changes any AC illuminated device to a controlled flashing light. Fits 10250T, E30 and E34 devices. 24V 120V	<b>10250TFL2</b> <b>10250TFL1</b>
	<b>Flashing Incandescent Lamp</b> For use with 120V transformer type or 6V full voltage type indicating lights including PresTest and most E29 devices.	<b>10250ED986-4</b>
<b>Hole Plugs</b>		
	<b>Plug</b> For unused holes—steel, painted gray (stainless steel, use <b>E30KT5</b> )	<b>10250TA7</b>
<b>Tools</b>		
	<b>10250TA95</b>	<b>10250TA95</b>
	<b>E22CW</b>	<b>E22CW</b>
	<b>10250TA96</b> Used to install boot Catalog Numbers 10250TA3, A4, A10 and A25.	<b>10250TA96</b>
	<b>10250T, E34 Allen Wrench</b> Used for removal of jumbo mushroom head.	<b>10250TA102</b>
	<b>Lamp Removal Tools</b> For transformer type illuminated pushbuttons, push-pull and selector switches. Fits #12 lamp.	<b>10250TA74</b>
	<b>E30KV1</b>	<b>E30KV1</b>
	<b>E29KLT</b>	<b>E29KLT</b>

**Notes**

- ① Component only. Not to be used for custom built (factory assembled) stations.
- ② Not suitable for single contact block depth cast enclosure. Cover is too thick.



## Product Overview

### Product Selection Guide



<b>Description</b>	<b>E26</b>
	<b>Page V9-T4-50</b>
<b>Standards and Certifications</b>	
	CE 60947-5-1 UL 508—File #E131568 cUL C22.2 No. 14—File #E131568
Ingress protection	Stacklight base and light units: IP65, Type 4, 4X and 13 Alarm units: IP20, Type 1
Electrical shock protection	Stacklight base and light unit: IP2X Alarm units: IPOX
<b>Technical Data and Specifications</b>	
Mechanical ratings	Shock (IEC 68-2-27): 11 ms, 15g Vibration (IEC 68-2-6): 10 sweeps 10–150 Hz, 2g Bump (IEC 68-2-29): 1000 pulses, 6 ms, 15g
Climate conditions	Operating: maximum 104°F (40°C) at 95% RH, Temperature –4° to 140°F (–20° to 60°C) Storage: temperature –40° to 176°F (–40° to 80°C)
Materials	Cover: polycarbonate Lenses: polycarbonate Stacklight base: nylon Extension tubes: aluminum Mounting base: zinc die cast
Terminals	14–30 AWG (2.5–0.05 mm <sup>2</sup> ) for single conductors and 18–26 AWG (0.75–0.14 mm <sup>2</sup> ) for two conductors of the same size. Do not mix solid and stranded wire in the same terminal. Recommended tightening torque is 4.4–5.3 lb-in (0.5–0.6 Nm)
Electrical ratings	Insulation voltage (U <sub>i</sub> ): 690V Operational voltage (U <sub>o</sub> ): 250V Impulse withstand voltage (U <sub>imp</sub> ): 1.5 kV
Bulb specifications	Incandescent lamp type: BA15d Maximum lamp wattage: 6W Bulbs—average life: Incandescent: 7,000–12,000 hrs. (based on voltage) Xenon flasher: 20,000 hrs. LED: 60,000–100,000 hrs. (based on colors)
LED/Incandescent comparison	Incandescent lamps Average operating life of 7,000 hours Each lamp can be used with any color lens Low cost results in short-term savings  LED lamps Average operating life of 60,000–100,000 hours Low power consumption Extended life results in long-term savings

For our complete product offering, see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E.

E26 Stacklights



4

**Features**

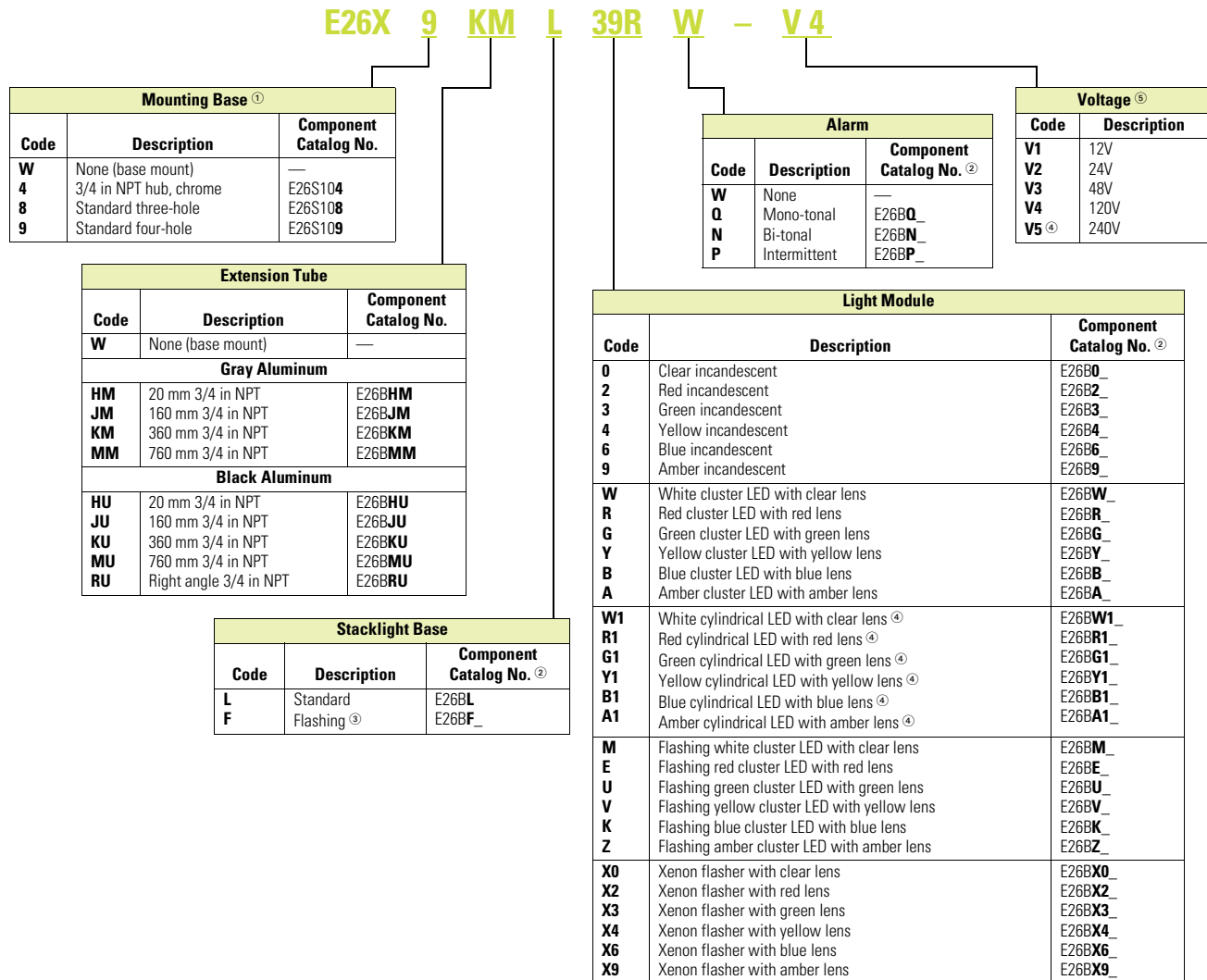
- Modular construction
- Six lens colors
- Variety of lamp types and voltages
- Mono-tonal, bi-tonal and intermittent audible alarms
- Combination of visible and audible alarms
- Modular components reduce inventory requirements, increase flexibility
- Steady and flashing modes allow one light to signal multiple conditions
- No-tools assembly permits easy lamp replacement

One, two and three-Light assembled stacklights:

- Base mountable
- Incandescent or LED versions
- 24V and 120V versions

Catalog Number Selection

E26 Stacklights



Voltage Codes

Voltage Code	Incandescent Lamp	Cluster LED	Cylindrical LED	Xenon Flasher	Flasher Base/Alarm
(Blank)	No lamp supplied	No LED supplied	No LED supplied	—	—
V1	12 Vac/Vdc	12 Vac/Vdc	12 Vac/Vdc	12 Vac/Vdc	12 Vac/Vdc
V2	24 Vac/Vdc	24 Vac/Vdc	24 Vac/Vdc	24 Vac/Vdc	24 Vac/Vdc
V3	48 Vac/Vdc	48 Vac/Vdc	48 Vac/Vdc	48 Vac/Vdc	48 Vac/Vdc
V4	120 Vac/Vdc	120 Vac	120 Vac	120 Vac	120 Vac/Vdc
V5	240 Vac/Vdc	240 Vac	—	240 Vac	240 Vac/Vdc

Notes

- ① Unless base mount is specified, an extension tube must be selected for a complete unit.
- ② Component catalog numbers for flashing bases, alarm units and light modules are incomplete and require the addition of a suffix code to specify the required voltage rating. See table above.
- ③ Flashing base is for use with incandescent lamps.
- ④ 240V not available for cylindrical LEDs.
- ⑤ If no voltage is specified, assembled stacklight will be supplied without lamps or LEDs.

## Product Selection

### Assembled Units

#### One-Light Unit Stacklight

Volts AC/DC	Alarm	First Level Color	Illumination Type	Catalog Number
24V	None	Red	Incandescent—steady	E26XWWL2W-V2
24V	None	Red	Cylindrical LED—steady	E26XWWLR1W-V2
24V	None	Green	Incandescent—steady	E26XWWL3W-V2
24V	None	Green	Cylindrical LED—steady	E26XWWLG1W-V2
24V	None	Amber	Incandescent—steady	E26XWWL9W-V2
24V	None	Amber	Cylindrical LED—steady	E26XWWLA1W-V2
120V	None	Red	Incandescent—steady	E26XWWL2W-V4
120V <sup>①</sup>	None	Red	Cylindrical LED—steady	E26XWWLR1W-V4
120V	None	Green	Incandescent—steady	E26XWWL3W-V4
120V <sup>①</sup>	None	Green	Cylindrical LED—steady	E26XWWLG1W-V4
120V	None	Amber	Incandescent—steady	E26XWWL9W-V4
120V <sup>①</sup>	None	Amber	Cylindrical LED—steady	E26XWWLA1W-V4

#### Two-Light Unit Stacklight

Volts AC/DC	Alarm	First Level Color	Illumination Type	Second Level Color	Illumination Type	Catalog Number
24V	None	Green	Incandescent—steady	Red	Incandescent—steady	E26XWWL32W-V2
24V	None	Green	Cylindrical LED—steady	Red	Cylindrical LED—steady	E26XWWLG1R1W-V2
120V	None	Green	Incandescent—steady	Red	Incandescent—steady	E26XWWL32W-V4
120V <sup>①</sup>	None	Green	Cylindrical LED—steady	Red	Cylindrical LED—steady	E26XWWLG1R1W-V4

#### Three-Light Unit Stacklight

Volts AC/DC	Alarm	First Level Color	Illumination Type	Second Level Color	Illumination Type	Third Level Color	Illumination Type	Catalog Number
24V	None	Green	Incandescent—steady	Amber	Incandescent—steady	Red	Incandescent—steady	E26XWWL392W-V2
24V	None	Green	Cylindrical LED—steady	Amber	Cylindrical LED—steady	Red	Cylindrical LED—steady	E26XWWLG1A1R1W-V2
120V	None	Green	Incandescent—steady	Amber	Incandescent—steady	Red	Incandescent—steady	E26XWWL392W-V4
120V <sup>①</sup>	None	Green	Cylindrical LED—steady	Amber	Cylindrical LED—steady	Red	Cylindrical LED—steady	E26XWWLG1A1R1W-V4

#### Note

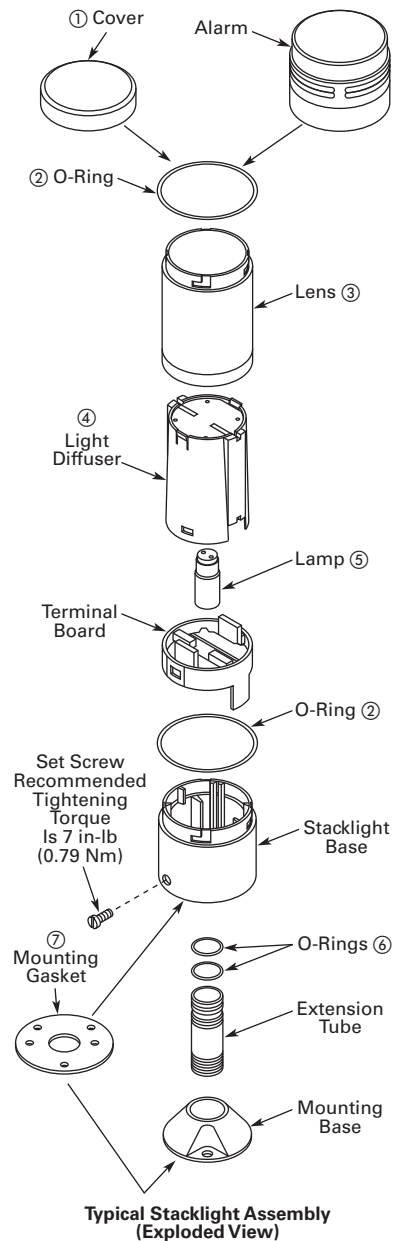
<sup>①</sup> LED modules have very low current draw and should not be used with triac output devices like PLC triac output modules. It is recommended that dry contact outputs be used to switch 120 Vac modules.

## Replacement Parts

### Stacklight Replacement Parts

Description	Notes	Diagram	Catalog Number
Replacement cover	Normally included with stacklight base	1	E26S68
Replacement lens O-ring	Normally included with light modules	2	E26S106 ①
Replacement lenses	Clear	3	E26S38
	Red		E26S39
	Green		E26S40
	Yellow		E26S41
	Blue		E26S42
	Amber		E26S43
Replacement Xenon strobe dual high (does not include lenses)	12 Vac/Vdc	4	E26S33
	24 Vac/Vdc		E26S34
	48 Vac/Vdc		E26S35
	120 Vac		E26S36
	240 Vac		E26S37
Replacement diffusers	White—normally supplied with incandescent light modules	4	E26S31
	Clear—normally supplied with LED light modules		E26S32
Replacement lamps	12V	5	E26S8
	24V		E26S9
	48V		E26S10
	120V		E26S11
	240V		E26S12
Replacement extension tube O-rings	Normally included with extension tubes	6	E26S107 ②
Replacement mounting gasket ③	Normally included with stacklight base	7	E26S105
Lamp removal tool	For E26 and E22 incandescent lamps		E22BA3

### Typical Stacklight Assemblies



#### Notes

- ① Sold in packages of 5 pieces.
- ② Sold in packages of 10 pieces.
- ③ Mounting gaskets have two sets of mounting holes—one set with center-to-center spacing of 1.75 in (44.5 mm) and another set with center-to-center spacing of 1.65 in (42 mm).

## Product Overview

### Product Selection Guide

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**E5 Panel Meters**



**Eclipse Series Panel Meters**

Description	<b>E5 Panel Meters</b> Page V9-T4-55	<b>Eclipse Series Panel Meters</b> Page V9-T4-55
Number of digits	5	4
Display technology	7-segment LED	7-segment LED
Display character height	8 mm	14 mm
Panel cut-out size	1/32 DIN (25 x 50 mm)	1/8 DIN (45 x 92 mm)
Available outputs	None	Dual relay, analog, RS-485
Available inputs	0–10V/2–10V/0–20 mA/4–20 mA	DC volt, AC volt, DC amp, AC amp, 5A AC, Temperature (J, K, T, PT100 RTD), 4–20 mA/0–10V/1–5V
Front panel protection	IP65	NEMA 4X
Connection method	Screw terminal	Depluggable screw terminals
Scaling	Programmable end points, linear interpolation	Programmable end points, linear interpolation
Input power options	10–30 Vdc	9–30 Vdc or 85–264 Vac
Update time	500 ms	400 ms
Automatic min/max capture	Yes	Yes
Input for display-hold	Yes	—

For our complete product offering, see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E.

Digital Panel Meters



Features

E5-324-E digital panel meters

- Galvanic isolation with protection against incorrect polarity
- Automatic min/max value detection
- Freely programmable characteristic curve end points
- Input range:
  - Single current measuring input (0/4–20 mA)
  - Single voltage measuring input (0/2–10V)

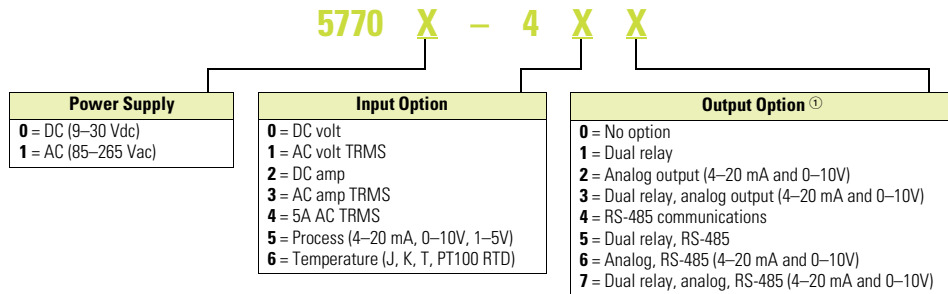
Eclipse Series digital panel meters

- Four full digits
- 1/8 DIN size
- Red, LED display
- Scalable display
- Flashing alarms
- Min/max data hold
- Optional analog, relay and RS-485 outputs
- Type 4X

Catalog Number Selection

Digital Panel Meters

Eclipse Series



Product Selection

E5-324-E0402



E5-324-E0402

Description	Catalog Number
LED digital panel meter, 24 x 48 mm	<b>E5-324-E0402</b>

Eclipse Series



Eclipse Series

Description	Catalog Number
Digital ammeter—5A AC, 85–264 Vac power	<b>57701440</b>
Digital ammeter—5A AC, 85–264 Vac power, 2 relay outputs	<b>57701441</b>
Digital process meter—4–20 mA/0–10V, 85–264 Vac power	<b>57701450</b>
Digital process meter—4–20 mA/0–10V, 85–264 Vac power, 2 relay outputs	<b>57701451</b>
Digital process meter—4–20 mA/0–10V, 85–264 Vac power, 2 relay outputs and analog retransmission	<b>57701453</b>
Digital temperature meter, 85–264 Vac power	<b>57701460</b>
Digital temperature meter, 85–264 Vac power, 2 relay outputs	<b>57701461</b>

Note

① Output options 0, 2, 4 are not available for models -41X and -43X.

#### Product Overview

#### Operator Interfaces and Programming Software Selection Guide



Description	ELC-GP Graphics Panel	HMI Operator Interface
	<b>Page V9-T4-59</b>	<b>Page V9-T4-60</b>
Screen size	Two-line and four-line	3.5 in, 5.7 in, 8.0 in and 10.4 in
Screen options	Monochrome	Blue mode, grey scale, 256 color STN or 65k color TFT
Interface	Keypad only	Resistive touchscreen only or touchscreen and keypad
Communication ports	2 serial	3 serial; 1 or 2 USB; Expansion port for Ethernet Modbus TCP or Local I/O
Simultaneous protocols	1	3 or 4
Ethernet drivers	—	Yes
Upload/download	Serial cable	Serial, Ethernet, and/or USB
Operating system	Proprietary	Proprietary
Third-party software support	—	—
Screen saver	—	Yes

#### Operator Interfaces and Programming Software Selection Guide, continued

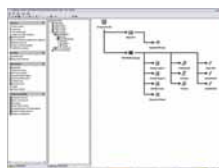


Description	XV Operator Interface	XP Operator Interface	PanelMate ePro PS Operator Interface
	<b>Page V9-T4-62</b>	<b>Page V9-T4-64</b>	<b>Page V9-T4-66</b>
Screen size	3.5 in, 5.7 in, 7.0 in, 8.4 in and 10.4 in	8.4 in, 10.4 in, 12.1 in, 15.0 in and blind node (no screen)	8 in, 10 in, 12 in, 15 in and blind node (no screen)
Screen options	Color TFT, 64k colors; resolutions from QVGA (320 x 240) to WVGA (800 x 480)	Color TFT, 16 million colors; resolutions from SVGA (800 x 600) to UVGA (1600 x 1200)	16 million color TFT; indoor and outdoor; resolutions from VGA (640 x 480) to UXGA (1600 x 1200)
Interface	Resistive touchscreen	Infrared, non-reflective safety glass	Touchscreen only
Communication ports	Ethernet, RS-232 and/or RS-485, USB	2 serial; 2 Ethernet; removable CompactFlash; 4 USB; VGA	2 serial; 1 Ethernet; 2 PCMCIA; 1 removable CompactFlash; 4 USB; VGA
Simultaneous protocols	3	5 or 8	3
Ethernet drivers	Yes	Yes	Yes
Upload/download	Serial, Ethernet, USB	Serial, Ethernet, USB	Serial, Ethernet, USB
Operating system	Windows CE 5.0 Professional	Windows XP Embedded (protected)	Windows XP Embedded (protected)
Third-party software support	—	Yes	Yes
Screen saver	Yes	Yes	Yes

For our complete product offering, see Volume 7—Logic Control, Operator Interface and Connectivity Solutions, CA08100008E.



### Software Product Selection Guide

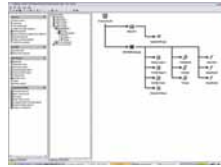


Description	Visual Designer	Canvas	HMISoft	ELCSoftGP
Overview	Feature-rich software package with SCADA functionality and web serving capabilities that can be run on XV, XP, ePro PS operator interfaces or personal computers	Feature-rich software package with SCADA functionality that can be run on ePro PS operator interfaces or personal computers	Use <b>HMISoft</b> to create, edit, upload and download applications to the <b>HMISoft</b> family of operator interfaces	Use <b>ELCSoftGP</b> to create, edit, upload and download applications to <b>ELC Graphics Panels</b>
<b>Catalog ID</b>				
Development software seat license	VISUALDCE (CE hardware) VISUALDXP5 (5-pack of VISUALDXP) VISUALDCE5 (5-pack of VISUALDCE) VISUALDXP (PCs, XPe, and CE hardware)	CANVASPRO (seat license) ① CANVASPROSL (site license) ②	HMISOFT	ELCSOFTGP
Runtime software for a PC	VISUALRTPC	CANVASPC ③	N/A	N/A
<b>Time-Saving Editor Features</b>				
On and off-line simulation	•	•	•	—
Macro capability	•	•	•	—
VB scripting	•	—	—	—
Math and Logic	•	•	•	—
Multi-language	•	•	•	—
System/internal variables	•	•	•	—
Auto-scale application to different resolution/ screen size	•	•	•	—
Scripting (IF, THEN, ELSE, GOTO)	•	•	•	—
Symbol factory/library	•	•	•	—
Master pages	• Screen groups	• Multiple master pages	•	—
User-created controls	•	•	—	—
Customizable application symbols	•	—	—	—
Action lists/math worksheets	•	•	• With macros	—
Reusable controls, images and pages	• Via indirect tag and/ or PLC assignments	• Index lists and client observer	—	—
Advanced search and replace	•	•	—	—
Advanced context sensitive help	•	•	—	—
Conversion of legacy PanelMate™ configurations	•	•	—	—
Optional PanelBuilder™ conversion utility	•	—	—	—
Online configuration/editing	•	—	—	—

#### Notes

- ① Includes Canvas software for developing applications, runtime software for the PanelMate ePro PS Series and supporting OPC servers/drivers. Single User License on CD-ROM.
- ② Site License—see CANVASPRO (for all users at 1 site location).
- ③ Installation CD and licensing to run Canvas runtime software on a PC with Windows XP Professional, Windows Vista or Windows 7 OS. Licenses for Keyware OPC servers are included.

#### Software Product Selection Guide, continued



4

Description	Visual Designer	Canvas	HMSoft	ELCSOFTGP
<b>Runtime Features</b>				
Clock synchronization	•	•	•	•
Sound actions or control	•	•	•	•
Security	• Advanced multi-level	• Advanced multi-level	• Multi-level	•
Pop-up screens	• And group screens	•	•	—
Animated graphics	•	•	•	—
Real-time trending	•	•	•	—
Recipes	•	•	•	—
Report generation	•	•	—	—
Timer scheduling	•	•	•	—
Calendar scheduling	•	•	—	—
Notification of data and events via e-mail/text messaging	•	•	—	—
Data archiving	•	•	•	—
Archive to shared network drive	•	•	—	—
Alarm and event archiving	•	•	—	—
Historical trending	•	—	•	—
Import/export from XML	•	•	—	—
Database interface	• ADO.net compliant	—	—	—
Vision system interfaces	•	• Cognex and DVT	—	—
Secure document and Web network browser	•	•	—	—
Remote access and control without having to install software on the remote PC	• Web Thin Client with Internet Explorer	—	—	—
Automatic scaling of web clients	•	—	—	—
Remote desktop	• With UltraVNC and RemoteClient	• With UltraVNC	—	—
Launch/control third-party applications	•	•	—	—
2-touch controls for safety	•	•	—	—
Embedded PLC logic	—	—	•	—

**ELC-GP Graphics Panel**



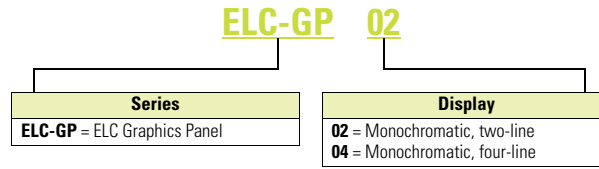
**Features**

- Simple to program and easily connects to ELC products
- Protocols—include Modbus ASCII/RTU, ASCII Slave and vendor-specific protocols from Allen-Bradley®, Siemens®, Mitsubishi®, Koyo® and many more

**Catalog Number Selection**

**ELC-GP Graphics Panel**

**ELC-GP**



**Product Selection**

**Graphics Panels**

Description	Catalog Number
160 x 32 pixels, 10 function keys, monochrome	<b>ELC-GP02</b>
128 x 64 pixels, 10 function keys, monochrome	<b>ELC-GP04</b>

**Accessories**

**Software and Accessories**

Description	Catalog Number
Programming software for GP units	<b>ELCSOFTGP</b>
Program transfer module	<b>ELC-GPXFERMOD</b>
Cable, PC to ELC-GPxx, 9.8 ft (3m)	<b>ELC-CBPCGP3</b>
Power supply, 24 watt, 1 amp	<b>ELC-PS01</b>
Power supply, 48 watt, 2 amp	<b>ELC-PS02</b>

#### HMI Operator Interface



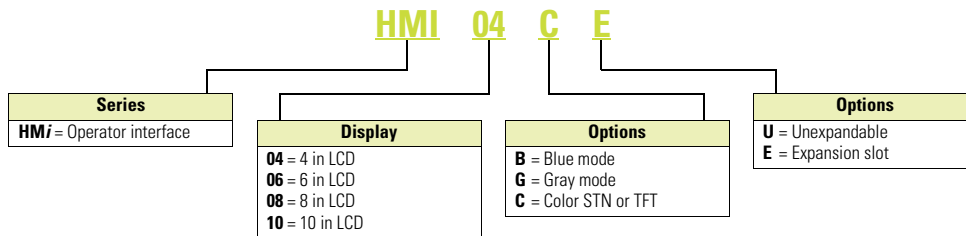
#### Features

- All units offer RS-232, RS-485 and RS-422 communications
- 6, 8 and 10 in models offer Ethernet communication options
- Retentive internal data storage

### Catalog Number Selection

#### HMI Operator Interface

##### HMI



### Product Selection

#### HMI Operator Interface

Description	Catalog Number
4 in blue mode touchscreen	HMI04BU
4 in color TFT without expansion slot	HMI04CU
6 in blue mode with expansion slot	HMI06BE
6 in gray scale mode with expansion slot	HMI06GE
6 in color STN with expansion slot	HMI06CE
6 in color TFT without expansion slot	HMI06CU
8 in color TFT with expansion slot	HMI08CE
10 in color TFT with expansion slot	HMI10CE

## Accessories

### Software and Accessories

Description	Catalog Number
Programming software	HMISOFT
Ethernet expansion module	HMIECENT
I/O expansion module, 8 in/6 out	HMIEC0806
I/O expansion module, 16 in/12 out	HMIEC1612
6 in adapter plate for PM1000	APPM1HMI6

### Adapter Plate

Description	Catalog Number
6 in <b>HMI</b> adapter plate for PM1000	APPM1HMI6

### Kits

Description	Catalog Number
8 in anti-glare overlay kit (5/kit)	17AGT
10 in anti-glare overlay kit (5/kit)	39AG
<b>HMI</b> spare parts kits (includes several power connectors, battery doors, gaskets, mounting clips, etc.)	HMI-SPKIT

### Replacement Gaskets

Description	Catalog Number
4 in <b>HMI</b> replacement gasket (2/kit)	HMI04-GASKET
6 in <b>HMI</b> replacement gasket (2/kit)	HMI06-GASKET
8 in <b>HMI</b> replacement gasket (2/kit)	HMI08-GASKET
10 in <b>HMI</b> replacement gasket (2/kit)	HMI10-GASKET

### Cable

Description	Catalog Number
1 meter cable to connect between the <b>HMI</b> and Eaton Logic Controller (ELC)	ELC-CBPCELC1
3 meter cable to connect between the <b>HMI</b> and Eaton Logic Controller (ELC)	ELC-CBPCELC3

### Power Supply

Description	Catalog Number
1 amp 24 Vdc power supply	ELC-PS01
2 amp 24 Vdc power supply	ELC-PS02

# 4.4

## Operator Interface

### Operator Interfaces and Programming Software

4

#### XV Operator Interface



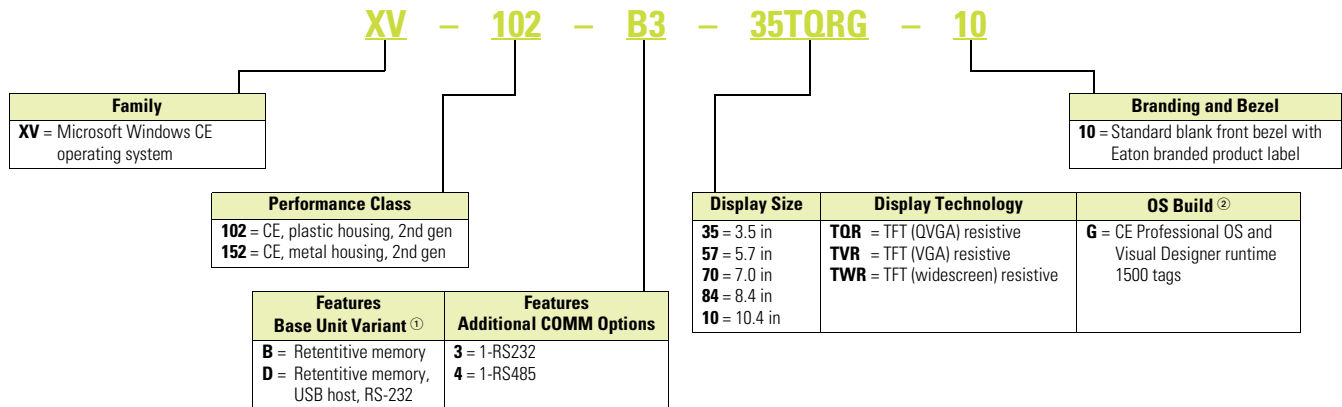
#### Features

- All XV models have a Microsoft Windows CE operating system
- Pre-licensed with Visual Designer runtime for up to 1500 tags, three simultaneous communication drivers, and one web session
- Field upgrades are available for up to 4000 tags, three drivers, and two, four, or eight simultaneous web sessions

#### Catalog Number Selection

##### XV Operator Interface

XV



#### Notes

- ① All 1xx performance class units have 400MHz processor, 64 MB DRAM, 1 x 10/100 Ethernet, and 1 x USB device.  
 ② Standard software on embedded hardware.

**Product Selection**

**XV Operator Interface**

**XV Operator Interface**



Description	Catalog Number
XV 3.5 in TFT, plastic housing, resistive touch, Ethernet and RS-232	<b>XV-102-B3-35TQRG-10</b>
XV 3.5 in TFT, plastic housing, resistive touch, Ethernet and RS-485	<b>XV-102-B4-35TQRG-10</b>
XV 5.7 in TFT, plastic housing, resistive touch, Ethernet, RS-232, RS-485	<b>XV-102-D4-57TVRG-10</b>
XV 7.0 in TFT wide screen, plastic housing, resistive touch, Ethernet, RS-232, RS-485	<b>XV-102-D4-70TWRG-10</b>
XV 5.7 in TFT, metal housing, resistive touch, Ethernet, RS-232, RS-485	<b>XV-152-D4-57TVRG-10</b>
XV 8.4 in TFT, metal housing, resistive touch, Ethernet, RS-232, RS-485	<b>XV-152-D4-84TVRG-10</b>
XV 10.4 in TFT, metal housing, resistive touch, Ethernet, RS-232, RS-485	<b>XV-152-D4-10TVRG-10</b>

**Visual Designer**

**Visual Designer Software**



Description	Catalog Number
<b>Visual Designer Development Software License Key</b>	
For CE hardware	<b>VISUALDCE</b>
For PCs, XPe, and CE hardware	<b>VISUALDXP</b>
For CE hardware, 5-pack of VISUALDCE	<b>VISUALDCE5</b>
For PCs, XPe hardware, 5-pack of VISUALDXP	<b>VISUALDXP5</b>

# 4.4

## Operator Interface

### Operator Interfaces and Programming Software

4

#### XP Operator Interface



#### Features

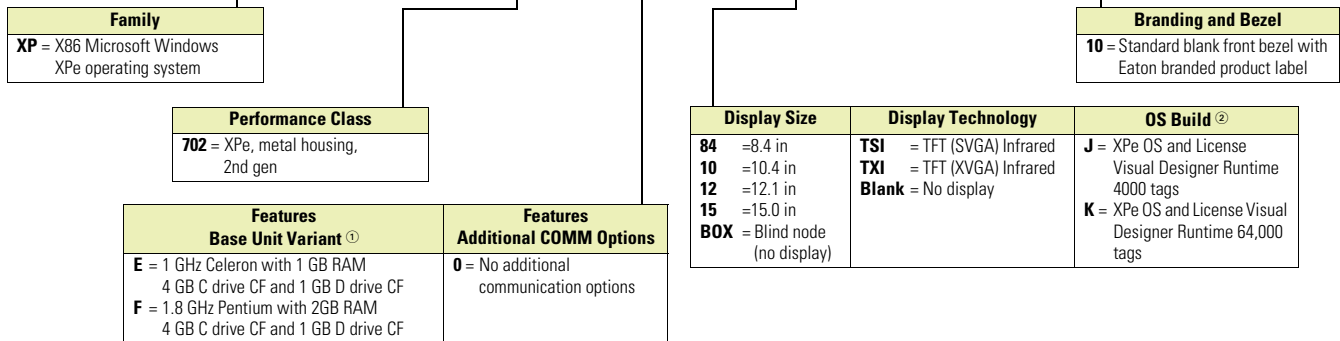
- All XP models have a Microsoft Windows XP embedded operating system
- Pre-licensed with Visual Designer runtime
- Standard models are licensed for 4000 tags, five simultaneous communication drivers, and one web session
- Enterprise models are licensed for 64,000 tags, eight simultaneous communication drivers, and one web session
- Field upgrades are available for up to 64,000 tags, eight drivers, and 2, 4, 8, 16, 32, 64, 128, or 256 simultaneous web sessions

#### Catalog Number Selection

##### XP Operator Interface

XP

**XP - 702 - F0 - 84TSIK - 10**



#### Notes

- ① All 7xx Performance Class units have 1 x 10/100, 1 x 10/100/1000 Ethernet, 4 x USB Host V2.0, 2 x RS-232.
- ② Standard software on embedded hardware.



## Product Selection

### XP Operator Interface



### XP Operator Interface

Description	Catalog Number
XP 8.4 in TFT, 1 GHz Celeron, 1 GB RAM, 4 GB C drive, 1 GB D drive, 4000 tags, 5 drivers, 1 web session	<b>XP-702-E0-84TSIJ-10</b>
XP 10.4 in TFT, 1 GHz Celeron, 1 GB RAM, 4 GB C drive, 1 GB D drive, 4000 tags, 5 drivers, 1 web session	<b>XP-702-E0-10TSIJ-10</b>
XP 12.1 in TFT, 1 GHz Celeron, 1 GB RAM, 4 GB C drive, 1 GB D drive, 4000 tags, 5 drivers, 1 web session	<b>XP-702-E0-12TXIJ-10</b>
XP 15.0 in TFT, 1 GHz Celeron, 1 GB RAM, 4 GB C drive, 1 GB D drive, 4000 tags, 5 drivers, 1 web session	<b>XP-702-E0-15TXIJ-10</b>
XP blind node (no display), 1 GHz Celeron, 1 GB RAM, 4 GB C drive, 1 GB D drive, 4000 tags, 5 drivers, 1 web session	<b>XP-702-E0-BOXJ-10</b>
XP 8.4 in TFT, 1.8 GHz Pentium, 2 GB RAM, 4 GB C drive, 1 GB D drive, 64k tags, 8 drivers, 1 web session	<b>XP-702-F0-84TSIK-10</b>
XP 10.4 in TFT, 1.8 GHz Pentium, 2 GB RAM, 4 GB C drive, 1 GB D drive, 64k tags, 8 drivers, 1 web session	<b>XP-702-F0-10TSIK-10</b>
XP 12.1 in TFT, 1.8 GHz Pentium, 2 GB RAM, 4 GB C drive, 1 GB D drive, 64k tags, 8 drivers, 1 web session	<b>XP-702-F0-12TXIK-10</b>
XP 15.0 in TFT, 1.8 GHz Pentium, 2 GB RAM, 4 GB C drive, 1 GB D drive, 64k tags, 8 drivers, 1 web session	<b>XP-702-F0-15TXIK-10</b>
XP blind node (no display), 1.8 GHz Pentium, 2 GB RAM, 4 GB C drive, 1 GB D drive, 64k tags, 8 drivers, 1 web session	<b>XP-702-F0-BOXK-10</b>

### Visual Designer



### Visual Designer Software

Description	Catalog Number
<b>Visual Designer Development Software License Key</b>	
For PCs, XPe, and CE hardware	<b>VISUALDXP</b>
For PCs, XPe hardware, 5-pack of VISUALDXP	<b>VISUALDXP5</b>
For a PC Runtime software license with a maximum of 64k tags, 8 drivers, 1 web session	<b>VISUALRTPC</b>
Visual Designer development software and PC runtime software licenses for a max of 64k tags, 8 drivers, 1 web session	<b>VISUALRTDEVPC</b>

#### PanelMate ePro PS Operator Interface



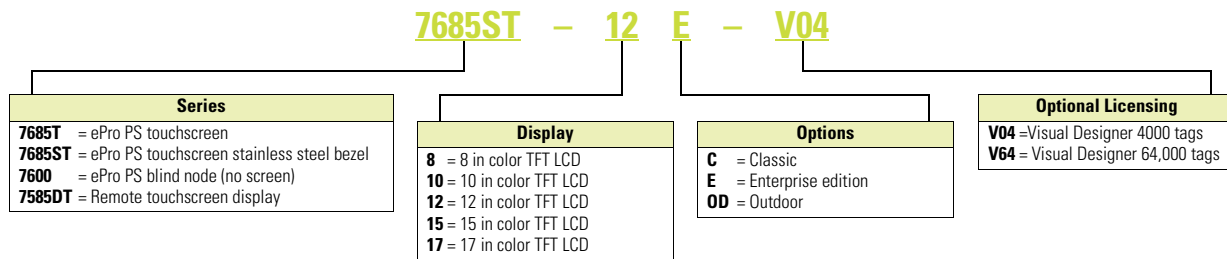
#### Features

- High-performance yet cost-effective operator interface with Microsoft Windows XP embedded operating system
- High temperature, shock, and vibration ratings make this product perfect for rugged environments
- Outdoor models that are viewable in direct sunlight
- Exclusive Protect Mode that provides protection for the operating system and software

#### Catalog Number Selection

##### PanelMate ePro PS Operator Interface

##### PanelMate ePro PS



#### Product Selection

##### PanelMate ePro PS Operator Interface (76xx Series)

Description	Catalog Number
<b>PanelMate ePro PS</b>	
8.4 in color TFT display, touchscreen (acrylic), OPC, DC, user manual on CD-ROM	<b>7685T-8</b>
10.4 in color TFT display, touchscreen (glass), OPC, painted steel, DC, user manual on CD-ROM	<b>7685T-10</b>
10.4 in color TFT display, touchscreen (glass), OPC, stainless steel, DC, user manual on CD-ROM	<b>7685ST-10</b>
12.1 in color TFT display, touchscreen (glass), OPC, painted steel, DC, user manual on CD-ROM	<b>7685T-12</b>
12.1 in color TFT display, touchscreen (glass), OPC, stainless steel, DC, User Manual on CD-ROM	<b>7685ST-12</b>
15.0 in color TFT display, touchscreen (glass), OPC, painted steel, DC, user manual on CD-ROM	<b>7685T-15</b>
15.0 in color TFT display, touchscreen (glass), OPC, stainless steel, DC, user manual on CD-ROM	<b>7685ST-15</b>
Blind node (no display, see table on <b>Page V9-T4-67</b> for display options), OPC, DC, user manual on CD-ROM	<b>7600</b>

#### Note

For ePro Enterprise Edition models with Visual Designer pre-licensed runtime:  
 Add suffix -V04 for 4000 tags, five drivers, one web session  
 Add suffix -V64 for 64,000 tags, eight drives one web session

**PanelMate ePro PS Operator Interface (76xx Series), continued**

Description	Catalog Number
<b>PanelMate ePro PS EE (Enterprise Edition)</b>	
8.4 in color TFT display, touchscreen (acrylic), OPC, DC, user manual on CD-ROM	7685T-8E
10.4 in color TFT display, touchscreen (glass), OPC, painted steel, DC, user manual on CD-ROM	7685T-10E
10.4 in color TFT display, touchscreen (glass), OPC, stainless steel, DC, user manual on CD-ROM	7685ST-10E
12.1 in color TFT display, touchscreen (glass), OPC, painted steel, DC, user manual on CD-ROM	7685T-12E
12.1 in color TFT display, touchscreen (glass), OPC, stainless steel, DC, user manual on CD-ROM	7685ST-12E
15.0 in color TFT display, touchscreen (glass), OPC, painted steel, DC, user manual on CD-ROM	7685T-15E
15.0 in color TFT display, touchscreen (glass), OPC, stainless steel, DC, user manual on CD-ROM	7685ST-15E
Blind node (no display, see table below for display options), OPC, DC, user manual on CD-ROM	7600E
<b>PanelMate ePro PS OD (Outdoor)</b>	
8.4 in color TFT display, touchscreen (acrylic), OPC, DC, user manual on CD-ROM	7685T-8OD
12.1 in color TFT display, touchscreen (glass), OPC, painted steel, DC, user manual on CD-ROM	7685T-12OD
12.1 in color TFT display, touchscreen (glass), OPC, stainless steel, DC, user manual on CD-ROM	7685ST-12OD
15.0 in color TFT display, touchscreen (glass), OPC, painted steel, DC, user manual on CD-ROM	7685T-15OD
15.0 in color TFT display, touchscreen (glass), OPC, stainless steel, DC, user manual on CD-ROM	7685ST-15OD
<b>PanelMate ePro PS Classic</b>	
8.4 in color TFT display, touchscreen (acrylic), OPC, DC, user manual on CD-ROM	7685T-8C
10.4 in color TFT display, touchscreen (glass), OPC, painted steel, DC, user manual on CD-ROM	7685T-10C
10.4 in color TFT display, touchscreen (glass), OPC, stainless steel, DC, user manual on CD-ROM	7685ST-10C
12.1 in color TFT display, touchscreen (glass), OPC, painted steel, DC, user manual on CD-ROM	7685T-12C
12.1 in color TFT display, touchscreen (glass), OPC, stainless steel, DC, user manual on CD-ROM	7685ST-12C
15.0 in color TFT display, touchscreen (glass), OPC, painted steel, DC, user manual on CD-ROM	7685T-15C
15.0 in color TFT display, touchscreen (glass), OPC, stainless steel, DC, user manual on CD-ROM	7685ST-15C
Blind node (no display, see table below for display options), OPC, DC, user manual on CD-ROM	7600C

**Stand-Alone Touchscreen Displays**

Description	Catalog Number
12.1 in color TFT display, standalone touchscreen display (glass), AC	7585DT-12
15.0 in color TFT display, standalone touchscreen display (glass), AC	7585DT-15
17.0 in color TFT display, standalone touchscreen display (glass), AC	7585DT-17

**Note**

For ePro Enterprise Edition models with Visual Designer pre-licensed runtime:  
 Add suffix -V04 for 4000 tags, five drivers, one web session  
 Add suffix -V64 for 64,000 tags, eight drives one web session

## Accessories

### Overlay Kits

Description	Catalog Number
8.4 in anti-glare overlay kit, 5 overlays/kit	<b>17AGT</b>
10.4 in anti-glare overlay kit, 5 overlays/kit	<b>39AG</b>
12.1 in anti-glare overlay kit, 5 overlays/kit	<b>AG-12</b>
15.0 in anti-glare overlay kit, 5 overlays/kit	<b>AG-15</b>
17.0 in anti-glare overlay kit, 5 overlays/kit	<b>AG-17</b>
Kit to restore ePro PS, OD and Classic units to the current factory image load	<b>76MLPS</b>
Kit to restore ePro PS EE units to the current factory image load	<b>76MLEE</b>

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### CANVASPRO



#### Canvas

Description	Catalog Number
Includes Canvas software for developing applications, Runtime software for the PanelMate ePro PS Series and supporting OPC servers/drivers. Single user license. On CD-ROM. Development software requires Windows 2000 or Windows XP operating system.	<b>CANVASPRO</b>
Site license—See CANVASPRO (for all users at 1 site location)	<b>CANVASPROSL</b>
Installation CD and licensing to run Canvas runtime software on a PC with Windows XP Professional OS. Licenses for Keyware OPC servers, Data archiving and recipe management are included.	<b>CANVASPC</b>

### Visual Designer



#### Visual Designer Software

Description	Catalog Number
<b>Visual Designer Development Software License Key</b>	
For PCs, XPe, and CE hardware	<b>VISUALDXP</b>
For PCs, XPe hardware, 5-pack of VISUALDXP	<b>VISUALDXP5</b>
For a PC Runtime software license with a maximum of 64k tags, 8 drivers, 1 web session	<b>VISUALRTPC</b>
Visual Designer development software and PC runtime software licenses for a max of 64k tags, 8 drivers, 1 web session	<b>VISUALRTDEVPC</b>