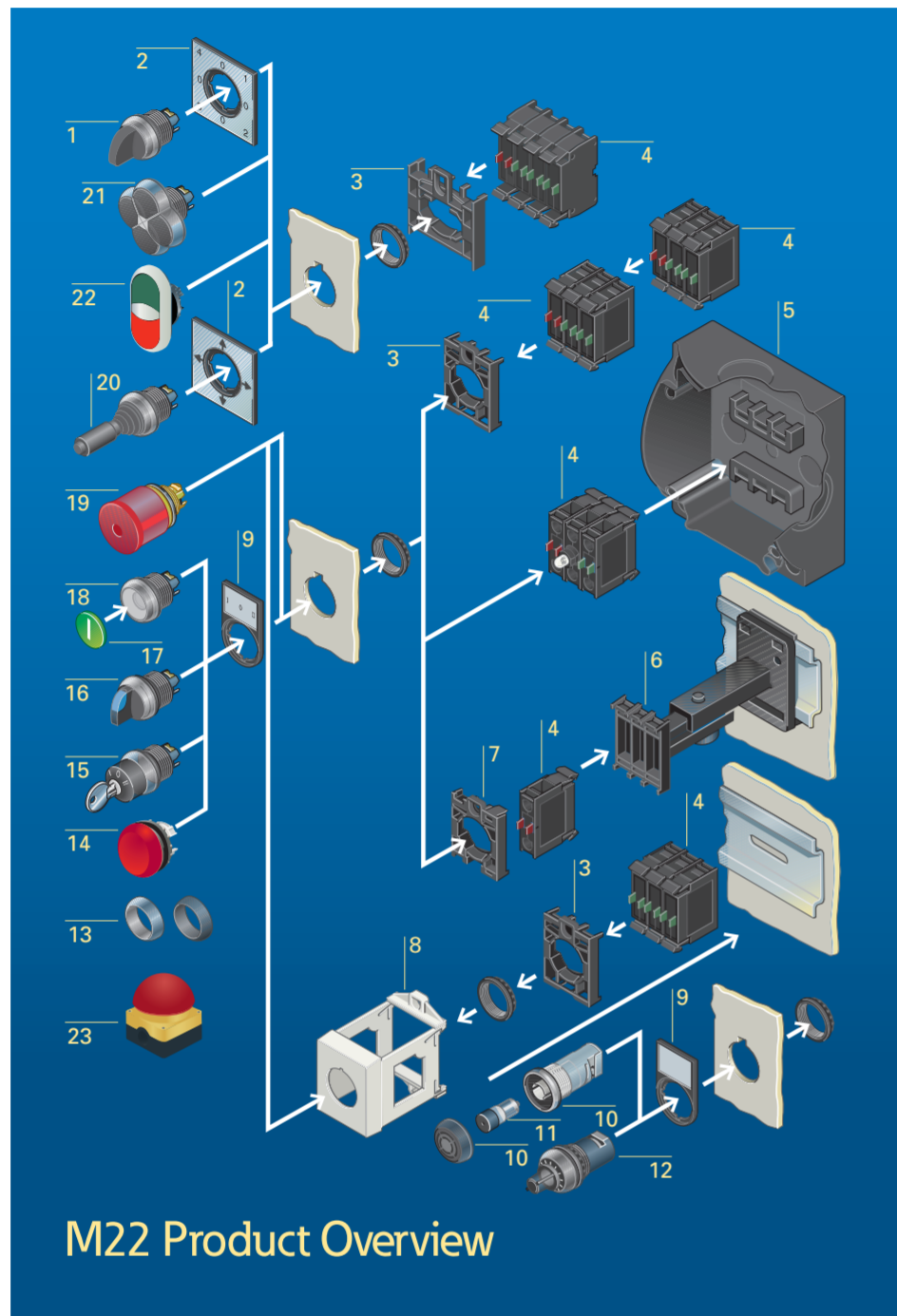


# M22 – Design and Functionality

## The new 22 mm line of pushbuttons



M22 Product Overview

Global 22.5 mm IEC Pushbuttons

- 1. Four-position selector switch
- 2. Legend plate for four-way selector switch/joystick
- 3. Mounting adapter
- 4. Contact block
- 5. Enclosure
- 6. Telescopic clip
- 7. Centering adapter
- 8. DIN-rail mounting adapter
- 9. Legend plate
- 10. Acoustic indicator
- 11. Buzzer
- 12. Potentiometer
- 13. Bezel, available in silver or black
- 14. Indicating light
- 15. Key operated selector switch
- 16. Selector switch
- 17. Button plate/button lens
- 18. Buttonless operator
- 19. Emergency-stop operator
- 20. Joystick
- 21. Four-way pushbutton
- 22. Double-pushbutton
- 23. Palm switch

Pushbutton operators, flush				Pushbutton operators, extended				Mushroom-head operators				Selector switches				Key-operated selector switches				Illuminated pushbutton operators					Indicating light operators
Type 4X, 13 IP 67, 69K Black bezel: M22S...				Type 4X, 13 IP 67, 69K Black bezel: M22S...				Type 4X, 13 IP 67, 69K Black bezel: M22S...				Type 4X, 13 IP 66 Black bezel: M22S... ↳ = Main-tained    ↳ = Momentary				Type 4X, 13 IP 66 Black bezel: M22S...				Type 4X, 13 IP 67, 69K Black bezel: M22S...					Type 4X, 13 IP 67, 69K
Button plate	Operator Momentary	Operator Maintained	Operator Momentary	Operator Maintained	Button plate	Mush-room	Momentary	Maintained	Function	Rotary 2-Position	Knob 2-Position	MS1 lock mechanism	MS2-8 lock mechanism	Button lens	Operators flush, momentary	Operators flush, maintained	Operators flush, momentary	Operators flush, maintained	Flush						
●	M22-D-S	M22-DR-S	M22-DH-S	M22-DRH-S	●	●	M22-DP-S	M22-DRP-S	↳	M22-W	M22-WK	M22-WS	M22-WS-MS_	○	M22-DL-W	M22-DRL-W	M22-DLH-W	M22-DRLH-W	M22-L-W						
○	M22-D-W	M22-DR-W	M22-DH-W	M22-DRH-W	●	●	M22-DP-R	M22-DRP-R	↳	M22-WR	M22-WRK	M22-WRS	M22-WRS-MS_	●	M22-DL-R	M22-DRL-R	M22-DLH-R	M22-DRLH-R	M22-L-R						
●	M22-D-R	M22-DR-R	M22-DH-R	M22-DRH-R	●	●	M22-DP-G	M22-DRP-G	↳		M22-WKV			●	M22-DL-G	M22-DRL-G	M22-DLH-G	M22-DRLH-G	M22-L-G						
●	M22-D-G	M22-DR-G	M22-DH-G	M22-DRH-G	●	●	M22-DP-Y	M22-DRP-Y	↳					●	M22-DL-Y	M22-DRL-Y	M22-DLH-Y	M22-DRLH-Y	M22-L-Y						
●	M22-D-Y	M22-DR-Y	M22-DH-Y	M22-DRH-Y	without	●	M22-DP-S-X	M22-DRP-S-X	↳	3-position	3-position	3-position	3-position	without	M22-DL-B	M22-DRL-B	M22-DLH-B	M22-DRLH-B	M22-L-B						
●	M22-D-B	M22-DR-B	M22-DH-B	M22-DRH-B	without	●	M22-DP-R-X	M22-DRP-R-X	↳	M22-W3	M22-WK3	M22-WS3	M22-WS3-MS_												
●	M22-D-R-X0	M22-DR-R-X0	M22-DH-R-X0	M22-DRH-R-X0	without	●	M22-DP-G-X	M22-DRP-G-X	↳	M22-WR3	M22-WRK3	M22-WRS3	M22-WRS3-MS_												
●	M22-D-G-X1	M22-DR-G-X1	M22-DH-G-X1	M22-DRH-G-X1	without	●	M22-DP-G-X	M22-DRP-G-X	↳		M22-WRK3-1														
●	M22-D-X	M22-DR-X	M22-D-X	M22-DR-X	without	●	M22-DP-Y-X	M22-DRP-Y-X	↳		M22-WRK3-2														
without	M22-DG-X								⚡	4-position	4-position														
without button plate with guard ring										M22-WR4	M22-WRK4														

Note: For other laser etched plates and lenses, order buttonless operator and plate separately. For example: M22-D-X (buttonless momentary pushbutton); M22-XD-G-X1 (green, flush, ①)



Double pushbutton		Illuminated selector switches						Joystick		Legend plates		Four-way pushbutton			
Type 4X, 13 IP 67, 69K Black bezel: M22S...		Type 4X, 13 IP 66 Black bezel: M22S...						2 and 4-position IP 66 Black bezel: M22S...		For use with joysticks, four-way push-buttons, and 4-position selector switches		IP 66 Black bezel: M22S...			
Button plates	Buttons and Center Light Extended	Knob	2-position momentary	2-position maintained	3-position momentary	3-position maintained	2-position (V-position, 60°) maintained	Function	Catalog Number	Version	Catalog Number	Function	Inscription	Color	Catalog Number
■	M22-DDL-GR-X1-X0	○	M22-WLK-W	M22-WRLK-W	M22-WLK3-W	M22-WRLK3-W	M22-WLKV-W	Momentary	M22-WJ2H	○	M22-WJ2H	Buttons not mechanically interlocked			
■	M22-DDL-WS-X1-X0	●	M22-WLK-R	M22-WRLK-R	M22-WLK3-R	M22-WRLK3-R	M22-WLKV-R	2-position horizontal	M22-WJ2V	○	M22-WJ2V	All buttons Momentary	Directional arrows	Black	M22-D4-S-X7
■	M22-DDL-GR-GB1-GB0	●	M22-WLK-G	M22-WRLK-G	M22-WLK3-G	M22-WRLK3-G	M22-WLKV-G	2-position vertical	M22-WJ4	○	M22-WJ4	All buttons Momentary	None	Black	M22-D4-S
■	M22-DDL-WS-GB1-GB0	●	M22-WLK-Y	M22-WRLK-Y	M22-WLK3-Y	M22-WRLK3-Y	M22-WLKV-Y	4-position		○		Opposing buttons mechanically interlocked			
■	M22-DDL-S-X7-X7	●	M22-WLK-B	M22-WRLK-B	M22-WLK3-B	M22-WRLK3-B	M22-WLKV-B	Maintained	M22-WRJ2H	○	M22-WRJ2H	All buttons Momentary	Directional arrows	Black	M22-D4-S-X7
■	M22-DDL-S-X4-X5							2-position horizontal	M22-WRJ2V	○	M22-WRJ2V	All buttons Momentary	None	Black	M22-D4-S
■	M22-DDL-GR							2-position vertical		○		All buttons Momentary	None	Black	M22-D4-S
■	M22-DDL-WS							4-position	M22-WRJ4	○	M22-WRJ4	All buttons Momentary	None	Black	M22-D4-S

Contact blocks			Mounting adapters (supplied with operators)				Light units				Enclosures				Emergency-stop operators				Palm switches				Emergency-stop palm switches							
IP 20 ↳ Positive opening safety function to IEC / EN 60 947-5-1			Note				IP 20				Type 4X, 13 IP 67				Type 4X, 13 IP 54				Type 4X, 13 IP 55, 40				Type 4X, 13 IP 67, 69K				Type 4X, 13 IP 67, 69K			
Function	Screw terminal	Spring Cage	Screw terminal		Spring Cage		Screw terminal		Spring Cage		Screw terminal		Spring Cage		Function		Compliant with ISO/EN 13850/EN418		Mushroom head		Momentary		Mushroom head		Momentary					
1NO	M22-K10	M22-CK10	12-30 V AC/DC	85-264 V AC	12-30 V AC/DC	85-264 V AC	1	M22-IY1-PG	M22-EY1	M22-H1	M22-H1	Non-illuminated	●	M22-PV <sup>2)</sup>	M22-PVT <sup>3)</sup>	1NO-1NC	FAK-S-KC11-I	1NC	FAK-R-V-KC01-IY	1NO-1NC	FAK-R-V-KC11-IY	1NC	FAK-R-V-KC02-IY	1NO-2NC	FAK-R-V-KC12-IY					
1NC	M22-K01	M22-CK01					1	M22-I1-PG	M22-E1	M22-H1	M22-H1	Non-illuminated	●	M22S-PV <sup>2)</sup>		1NO-1NC	FAK-R-KC11-I	1NC	FAK-R-V-KC01-IY	1NO-1NC	FAK-R-V-KC11-IY	2NC	FAK-R-V-KC02-IY	1NO-2NC	FAK-R-V-KC12-IY					
1NC	M22-K01D	M22-CK01D					2	M22-I2-PG	M22-E2	M22-H2	M22-H2	illuminated	●	M22-PVL <sup>2)</sup>	M22-PVLT <sup>3)</sup>			1NC	FAK-R-V-KC01-IY	1NO-1NC	FAK-R-V-KC11-IY	2NC	FAK-R-V-KC02-IY	1NO-2NC	FAK-R-V-KC12-IY					
1NO-1NC		M22-CK11					3	M22-I3-PG	M22-E3	M22-H3	M22-H3	illuminated	●	M22S-PVL <sup>2)</sup>				1NC	FAK-R-V-KC01-IY	1NO-1NC	FAK-R-V-KC11-IY	2NC	FAK-R-V-KC02-IY	1NO-2NC	FAK-R-V-KC12-IY					
2NC		M22-CK02					4	M22-I4-PG	M22-E4	M22-H4	M22-H4	illuminated	●	M22-PVS				1NC	FAK-R-V-KC01-IY	1NO-1NC	FAK-R-V-KC11-IY	2NC	FAK-R-V-KC02-IY	1NO-2NC	FAK-R-V-KC12-IY					
2NO		M22-CK20					5	M22-I5-PG	M22-E5	M22-H5	M22-H5	With key release MS1 individual lock mechanism	●	M22-PVS				1NC	FAK-R-V-KC01-IY	1NO-1NC	FAK-R-V-KC11-IY	2NC	FAK-R-V-KC02-IY	1NO-2NC	FAK-R-V-KC12-IY					
1NO	M22-KC10	M22-CKC10					6	M22-I6-PG	M22-E6	M22-H6	M22-H6	With key release MS2-8 individual lock mechanism	●	M22-PVS-MS_				1NC	FAK-R-V-KC01-IY	1NO-1NC	FAK-R-V-KC11-IY	2NC	FAK-R-V-KC02-IY	1NO-2NC	FAK-R-V-KC12-IY					
1NC	M22-KC01	M22-CKC01					12	M22-I12 <sup>1)</sup>				Sealable shroud						1NC	FAK-R-V-KC01-IY	1NO-1NC	FAK-R-V-KC11-IY	2NC	FAK-R-V-KC02-IY	1NO-2NC	FAK-R-V-KC12-IY					
							Connecting screw for M22-I...	M22-XI				Protective collar for Emergency-Stop pushbuttons							1NC	FAK-R-V-KC01-IY	1NO-1NC	FAK-R-V-KC11-IY	2NC	FAK-R-V-KC02-IY	1NO-2NC	FAK-R-V-KC12-IY				

<sup>1)</sup> Metric only. Will be introduced late 2009.

<sup>2)</sup> Pull to release, <sup>3)</sup> Twist to release



Powering Business Worldwide