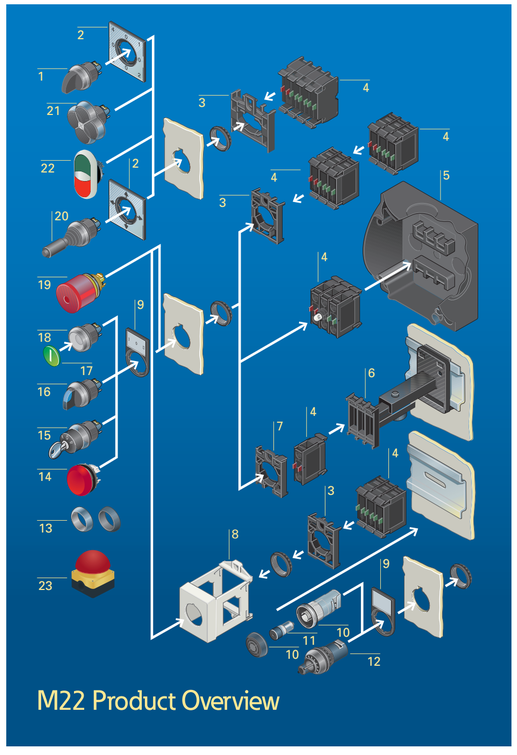
M22 – Design and Functionality
The new 22 mm line of pushbuttons



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

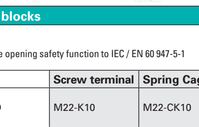


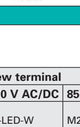
Pushbutton operators, flush			Pushbutton operators, extended		Mushroom-head operators				Selector switches			Key-operated selector switches		Illuminated pushbutton operators					Indicating light operators
Type 4X, 13 IP 67, 69K Black bezel: M22**S**...			Type 4X, 13 IP 67, 69K Black bezel: M22**S**...		Type 4X, 13 IP 67, 69K Black bezel: M22**S**...				Type 4X, 13 IP 66 Black bezel: M22**S**... = Maintained = Momentary			Type 4X, 13 IP 66 Black bezel: M22**S**...		Type 4X, 13 IP 67, 69K Black bezel: M22**S**...					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		**3-position**	**3-position**	**3-position**	**3-position**		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		M22-W3	M22-WK3	M22-WS3	M22-WS3-MS_		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-WR3	M22-WRK3	M22-WRS3	M22-WRS3-MS_	without	M22-DL-X	M22-DRL-X	M22-DL-X	M22-DRL-X	M22-L-X
	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-WRK3-1								
	M22-D-G-X1	M22-DR-G-X1	M22-DH-G-X1	M22-DRH-G-X1	without		M22-DP-Y-X	M22-DRP-Y-X			M22-WRK3-2								
without	M22-D-X	M22-DR-X	M22-D-X	M22-DR-X						**4-position**	**4-position**						**Lens Color**		
without button plate with guard ring	M22-DG-X									M22-WR4	M22-WRK4						**LED Color**		

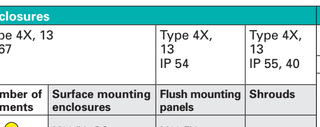
Note: For other laser etched plates and lenses, order buttonless operator and plate separately. For example: M22-D-X (buttonless momentary pushbutton); M22-XD-G-X1 (green, flush, ⓘ)

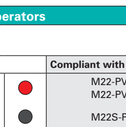


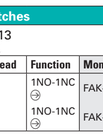
Double pushbutton		Illuminated selector switches						Joystick		Legend plates		Four-way pushbutton			
Type 4X, 13 IP 67, 69K Black bezel: M22**S**...		Type 4X, 13 IP 66 Black bezel: M22**S**...						2 and 4-position IP 66 Black bezel: M22**S**...		For use with joysticks, four-way push-buttons, and 4-position selector switches		IP 66 Black bezel: M22**S**...			
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**
I O	M22-DDL-GR-X1-X0		M22-WLK-W	M22-WRLK-W	M22-WLK3-W	M22-WRLK3-W	M22-WLKV-W	**Momentary**			For use with joysticks, four-way pushbuttons, and 4-position selec-tor switch operators M22-XCK	**Buttons not mechanically interlocked**			
I O	M22-DDL-WS-X1-X0		M22-WLK-R	M22-WRLK-R	M22-WLK3-R	M22-WRLK3-R	M22-WLKV-R	2-position horizontal	M22-WJ2H			All buttons Momentary	Directional arrows	Black	M22-D4-S-X7
START STOP	M22-DDL-GR-GB1-GB0		M22-WLK-G	M22-WRLK-G	M22-WLK3-G	M22-WRLK3-G	M22-WLKV-G	2-position vertical	M22-WJ2V		For use with 4-position joystick M22-XCK1	All buttons Momentary	None	Black	M22-D4-S
START STOP	M22-DDL-WS-GB1-GB0		M22-WLK-Y	M22-WRLK-Y	M22-WLK3-Y	M22-WRLK3-Y	M22-WLKV-Y	4-position	M22-WJ4			**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**			For use with 4-position selector switches M22-XCK2	All buttons Momentary	Directional arrows	Black	M22-DI4-S-X7
+ –	M22-DDL-S-X4-X5							2-position horizontal	M22-WRJ2H			All buttons Momentary	None	Black	M22-DI4-S
	M22-DDL-GR							2-position vertical	M22-WRJ2V		For use with 2-position joysticks M22-XCK3				
	M22-DDL-WS							4-position	M22-WRJ4						

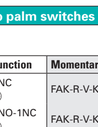












Contact blocks			Mounting adapters (supplied with operators)			Light units					Enclosures				Emergency-stop operators		Palm switches			Emergency-stop palm switches		
IP 20 ⊖ = Positive opening safety function to IEC / EN 60 947-5-1						IP 20					Type 4X, 13 IP 67		Type 4X, 13 IP 54	Type 4X, 13 IP 55, 40	Type 4X, 13 IP 66, 69K		Type 4X, 13 IP 67, 69K			Type 4X, 13 IP 67, 69K		
Function		**Screw terminal**	**Spring Cage**		**Note**			**Screw terminal**		**Spring Cage**	**Number of elements**	**Surface mounting enclosures**	**Flush mounting panels**	**Shrouds**	**Function**	**Compliant with ISO/EN 13850/EN418**	**Mushroom head**	**Function**	**Momentary**	**Mushroom head**	**Function**	**Momentary**
Front mounted	1NO	M22-K10	M22-CK10					**12-30 V AC/DC**	**85-264 V AC**	**12-30 V AC/DC**	**85-264 V AC**					Non-illuminated	M22-PV[2] M22-PVT[3]		1NO-1NC ⊖	FAK-S-KC11-I		1NC ⊖	FAK-R-V-KC01-IY
	1NC ⊖	M22-K01	M22-CK01			Front mounted	○	M22-LED-W	M22-LED230-W	M22-CLED-W	M22-CLED230-W	1	M22-IY1-PG	M22-EY1		Non-illuminated	M22S-PV[2]		1NO-1NC ⊖	FAK-R-KC11-I		1NO-1NC ⊖	FAK-R-V-KC11-IY
	1NC ⊖	M22-K01D	M22-CK01D			Front mounted	●	M22-LED-R	M22-LED230-R	M22-CLED-R	M22-CLED230-R	1	M22-I1-PG	M22-E1	M22-H1	Illuminated	M22-PVL[2] M22-PVLT[3]	⊖ = Positive opening safety function to IEC / EN 60 947-5-1				2NC ⊖	FAK-R-V-KC02-IY
	1NO-1NC ⊖	–	M22-CK11			Front mounted	●	M22-LED-G	M22-LED230-G	M22-CLED-G	M22-CLED230-G	2	M22-I2-PG	M22-E2	M22-H2	Illuminated	M22S-PVL[2]					1NO-2NC ⊖	FAK-R-V-KC12-IY
	2NC ⊖	–	M22-CK02			Front mounted	●	M22-LED-B	M22-LED230-B	M22-CLED-B	M22-CLED230-B	3	M22-I3-PG	M22-E3	M22-H3	With key release MS1 individual lock mechanism	M22-PVS						
	2NO	–	M22-CK20									4	M22-I4-PG	M22-E4	M22-H4	With key release MS2-8 individual lock mechanism	M22-PVS-MS_						
Base mounted	1NO	M22-KC10	M22-CKC10			Base mounted	○	M22-LEDC-W	M22-LEDC230-W	M22-CLEDC-W	M22-CLEDC230-W	5		M22-E5	M22-H5								
	1NC ⊖	M22-KC01	M22-CKC01			Base mounted	●	M22-LEDC-R	M22-LEDC230-R	M22-CLEDC-R	M22-CLEDC230-R	6	M22-I6-PG	M22-E6	M22-H6								
				Front mounted	M22-A M22-A4	max. 3 contact blocks max. 4 contact blocks (only for 4-way pushbutton and Joystick)	Base mounted	●	M22-LEDC-G	M22-LEDC230-G	M22-CLEDC-G	M22-CLEDC230-G	12	M22-I12[4]										
				Base mounted	Built into the enclosure	max. 3 contact blocks	Base mounted	●	M22-LEDC-B	M22-LEDC230-B	M22-CLEDC-B	M22-CLEDC230-B	Connecting screw for M22-I...	M22-XI										



Sealable shroud	Protective collar for Emergency-Stop pushbuttons	Emergency-Stop legend plates
M22-PL-PV	M22-XG-PV	see M22 Catalog Sup-plement, CA04716001E

[4] Metric only. Will be introduced late 2009.

[2] Pull to release, [3] Twist to release

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