

## The New Control Circuit Devices RMQ-Titan<sup>®</sup> are in Great Shape

**New for ATEX use  
See pages 56/57**

Modern styling has been combined with an optimum range of functions, – ideal for use at machines and on panels. The ergonomically shaped button elements are matched to the shape of a fingertip for even more comfortable operation.

Control circuit devices RMQ-Titan emit light non-stop for over 100 000 hours. Special lenses and coloured LEDs offer enduring reliability at a very attractive price. Emergency-Stop actuators are now illuminated as well. This safety component is thus clearly visible even in dark rooms and a separate indicator light is not required.



### Customised laser inscription

Whether at the control desk, in suspended operator panels or in the control cabinet, RMQ-Titan is number one when it comes to control circuit devices for machine and panel building. As well as the attractive and ergonomic design, the flexibility and versatility of the range always make it the ideal solution. All button plates, indicator lights and legend plates can be provided with abrasion resistant laser inscriptions of texts and symbols as required.



### Optimum degree of protection for safety

Apart from the acoustic indicator, all RMQ-Titan front elements come with protection to at least IP67, thus already providing virtually unlimited scope for applications. Pushbutton actuators and indicator lights even offers protection to IP 69K! They can therefore be cleaned safely with high-pressure and steam cleaners – a key benefit in applications where cleanliness and hygiene are important requirements.



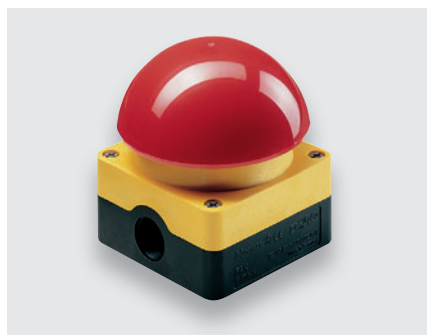
### Adapted to the location

Mushroom actuators with a large actuation area offer more safety thanks to their conspicuous design and their ability to even be actuated with gloved hands. Illuminated Emergency-Stop buttons and buzzers ensure reliable signal indication even in dark rooms. Special diaphragms are also available for protecting buttons against dust, flour or cement.



### Complete devices

For standard applications the RMQ-Titan pushbuttons, EMERGENCY-STOP buttons, selector switches and key switches are available for order as complete components for installation and mounting. You as the user save time with engineering design, ordering and mounting. The stock requirement is reduced.



### Foot and palm switches

The foot and palm switches FAK are ideal for intuitive and safe operation because of their design with a particularly large actuator surface. This is especially true for use as an EMERGENCY-STOP switch. The high degree of protection IP 69K makes it ideal for use in harsh environments. The FAK is available as a complete device or as individual components.



### Always well enclosed

The surface mounting enclosure for eight control circuit devices RMQ16 with protection to IP65 is specially designed for industrial applications. The surface mounting enclosure in the RMQ-Titan range even provides protection to IP66 with up to 6 mounting locations.

# System Overview

## RMQ-Titan®



### Push-button actuators, flush

NEMA 4X, 13  
IP 67, 69K

ATEX

Front ring black: M22S...

Button plate	Actuator spring-return	Actuator stay-put
	M22-D-S	M22-DR-S
	M22-D-W	M22-DR-W
	M22-D-R	M22-DR-R
	M22-D-G	M22-DR-G
	M22-D-Y	M22-DR-Y
	M22-D-B	M22-DR-B
	M22-D-R-X0	M22-DR-R-X0
	M22-D-G-X1	M22-DR-G-X1
	M22-D-S-X0	M22-DR-S-X0
	M22-D-W-X1	M22-DR-W-X1
Without	M22-D-X	M22-DR-X
Without button plate With guard ring	M22-DG-X	



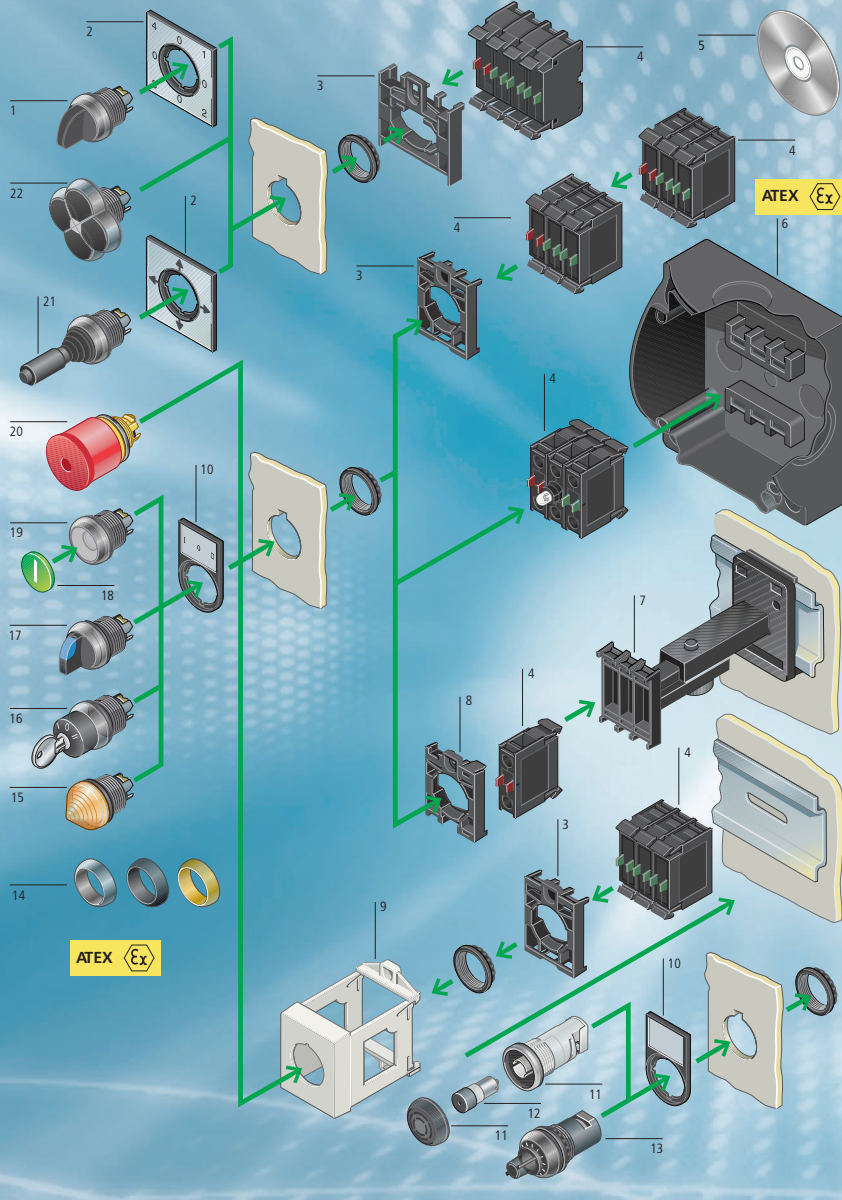
### Push-button extended

NEMA 4X, 13  
IP 67, 69K

ATEX

Front ring black: M22S...

Button plate	Actuator spring-return	Actuator stay-put
	M22-DH-S	M22-DHR-S
	M22-DH-W	M22-DHR-W
	M22-DH-R	M22-DHR-R
	M22-DH-G	M22-DHR-G
	M22-DH-Y	M22-DHR-Y
	M22-DH-B	M22-DHR-B
	M22-DH-R-X0	M22-DHR-R-X0
	M22-DH-G-X1	M22-DHR-G-X1
	M22-DH-S-X0	M22-DHR-S-X0
	M22-DH-W-X1	M22-DHR-W-X1
Without	M22-DH-X	M22-DHR-X



- 1 4 position selector switch actuators
- 2 Front label for 4-way selector switch/joystick
- 3 Fixing adapter
- 4 Contact element
- 5 Inscription software
- 6 Enclosure
- 7 Telescopic clip
- 8 Centring adapter
- 9 Distribution board rail adapter
- 10 Label plate
- 11 Acoustic indicator
- 12 Buzzer
- 13 Potentiometer

- 14 Frontring Titanium M22  
Black M22S  
(add S to types if necessary)  
Gold: see page 44
- 15 Indicator light
- 16 Key switch
- 17 Selector switch
- 18 Button plate/button lens
- 19 Push-button
- 20 Emergency-stop button
- 21 Joystick
- 22 4 position button





„The order is handled via  
M22-COMBINATION-“

Additional order specification  
„M22-ATEX“



Mushroom actuators				Selector switch actuators			Key-operated actuators	
NEMA 4X, 13 IP 67, 69K Front ring black: M22S...				NEMA 4X, 13 IP 66 Front ring black: M22S... ↳ = stay-put    ↳ = spring-return			NEMA 4X, 13 IP 66 Front ring black: M22S...	
		ATEX				ATEX		ATEX
Button plate	Mush-room	spring-return	stay-put	Function	Rotary button 2 positions	Thumb-grip 2 positions	MS1 lock mechanism, 2 positions	MS2-20 lock mechanism, 2 positions
		M22-DP-S	M22-DRP-S	↳	M22-W	M22-WK	M22-WS	M22-WS-MS*
		M22-DP-R	M22-DRP-R	↳	M22-WR	M22-WRK	M22-WRS	M22-WRS-MS*
		M22-DP-G	M22-DRP-G	∨		M22-WKV		
		M22-DP-Y	M22-DRP-Y					
		M22-DP-R-X0	M22-DRP-R-X0	↔	3 positions	3 positions	3 positions	3 positions
		M22-DP-G-X1	M22-DRP-G-X1	↕	M22-W3	M22-WK3	M22-WS3	M22-WS3-MS*
		M22-DP-S-X0	M22-DRP-S-X0	↕	M22-WR3	M22-WRK3	M22-WRS3	M22-WRS3-MS*
		M22-DP-S-X0	M22-DRP-S-X0	↕		M22-WRK3-1	Also available with lock mechanism suitable for master key systems	
		M22-DP-W-X1	M22-DRP-W-X1	↕		M22-WRK3-2		
Without		M22-DP-S-X	M22-DRP-S-X		4 positions	4 positions		
Without		M22-DP-R-X	M22-DRP-R-X		M22-WR4	M22-WRK4	Protective diaphragm for use with	
Without		M22-DP-G-X	M22-DRP-G-X				M22-WS ...	M22-XWS
Without		M22-DP-Y-X	M22-DRP-Y-X					



Illuminated push-button actuators					Indicator light lens assemblies	
NEMA 4X, 13 IP 67, 69K Front ring black: M22S...					NEMA 4X, 13 IP 67, 69K	
		ATEX				
Button lens	Actuators flush, spring-return	Actuators flush, stay-put	Actuators extended, spring-return	Actuators extended, spring-return	Flush	Extended, conical ATEX
	M22-DL-W	M22-DRL-W	M22-DLH-W	M22-DRLH-W	M22-L-W	M22-LH-W
	M22-DL-R	M22-DRL-R	M22-DLH-R	M22-DRLH-R	M22-L-R	M22-LH-R
	M22-DL-G	M22-DRL-G	M22-DLH-G	M22-DRLH-G	M22-L-G	M22-LH-G
	M22-DL-Y	M22-DRL-Y	M22-DLH-Y	M22-DRLH-Y	M22-L-Y	M22-LH-Y
	M22-DL-B	M22-DRL-B	M22-DLH-B	M22-DRLH-B	M22-L-B	M22-LH-B
Without	M22-DL-X	M22-DRL-X	M22-DLH-X	M22-DRLH-X	M22-L-X	M22-LH-X
	M22-DL-R-X0	M22-DRL-R-X0	M22-DLH-R-X0	M22-DRLH-R-X0	<div>Colour Lens, thumb-grip</div> <div></div> <div></div> <div></div> <div></div>	<div>Colour LED</div> <div></div> <div></div> <div></div> <div></div>
	M22-DL-G-X1	M22-DRL-G-X1	M22-DLH-G-X1	M22-DRLH-G-X1		
	M22-DL-W-X0	M22-DRL-W-X0	M22-DLH-W-X0	M22-DRLH-W-X0		
	M22-DL-W-X1	M22-DRL-W-X1	M22-DLH-W-X1	M22-DRLH-W-X1		



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M22-COMBINATION-“

Additional order specification  
„M22-ATEX“



### Double actuator

NEMA 4X, 13  
IP 67, 69K



Front ring black: M22S...

Button plates	Actuator and indicator light extended	Actuator and indicator light flush	ON buttons and indicator light flush, OFF button extended
                Colours and symbols customised	M22-DDL-GR-X1/X0 M22-DDL-WS-X1/X0 M22-DDL-GR-GB1/GB0 M22-DDL-WS-GB1/GB0 M22-DDL-S-X7/X7 M22-DDL-S-X4/X5 M22-DDL-GR M22-DDL-WS M22-DDL-*-*-*	M22-DDLF-GR-X1/X0 M22-DDLF-WS-X1/X0       M22-DDLF-*-*-*	M22-DDLM-GR-X1/X0 M22-DDLM-WS-X1/X0



### Illuminated selector switch actuators

NEMA 4X, 13  
IP 66



Front ring black: M22S...

### Selector switch actuators

NEMA 4X, 13  
IP 66



Thump-Grip	2 positions spring-return	2 positions stay-put	3 positions spring-return	3 positions stay-put	2 positions (V position, 60°) spring-return	2 positions (V position, 60°) stay-put
    	M22-WLK-W M22-WLK-R M22-WLK-G M22-WLK-Y M22-WLK-B	M22-WRLK-W M22-WRLK-R M22-WRLK-G M22-WRLK-Y M22-WRLK-B	M22-WLK3-W M22-WLK3-R M22-WLK3-G M22-WLK3-Y M22-WLK3-B	M22-WRLK3-W M22-WRLK3-R M22-WRLK3-G M22-WRLK3-Y M22-WRLK3-B	M22-WLKV-W M22-WLKV-R M22-WLKV-G M22-WLKV-Y M22-WLKV-B	M22-WKV

### Front ring gold



Front ring gold-plated




#### Version

Order only via  
M22 combination  
as complete unit

#### Part no.

M22 combination - \*  
M22-FR-AU  
M22..... (basic unit)










Joystick			Selector switch actuators		
2 and 4 positions IP 66		ATEX 	NEMA 4X, 13 IP 66		ATEX 
Front ring black: M22S...			Front ring black: M22S...		
Function One position per direction	Part no. Front ring titanium Front ring black		Function	Rotary button, 4 positions	Thumbgrip 4 positions
in 2 positions horizontal	<b>Spring-return</b> M22-WJ2H	<b>Stay-put</b> M22-WRJ2H		M22-WR4	M22-WRK4
in 2 positions vertical	M22-WJ2V	M22-WRJ2V			
in 4 positions	M22-WJ4	M22-WRJ4			
Function Two positions per direction. <sup>1)</sup>	Part no. Front ring titanium Front ring black				
in 2 positions horizontal	<b>Spring-return</b> M22-WJ2H-2P	<b>Stay-put</b> —			
in 2 positions vertical	M22-WJ2V-2P	—			
in 4 positions	M22-WJ4-2P	—			

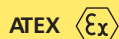
<sup>1)</sup> The joystick is combined with two positions per actuation direction with "normally closing" M22-K10 and "early closing" M22-K10P.



4 position push-button			
IP 66			
Front ring black: M22S...			
Function	Inscription	Colour	Part no.
Buttons not mechanically interlocked			
All buttons spring-return	Directional arrows	Black	M22-D4-S-X7
All buttons spring-return	None	Black	M22-D4-S
All buttons spring-return	Individual	Individual	M22-D4-*-*
Opposing buttons mechanically interlocked			
All buttons spring-return	Directional arrows	Black	M22-DI4-S-X7
All buttons spring-return	Individual	Individual	M22-DI4-*-*

Labels	
for joystick for 4-way selector switch	
Version	Part no.
	M22-XCK
Blank	
	M22-XCK-1 for joystick 4 positions
Arrows	
	M22-XCK-3 for joystick 2 positions
Arrows	
	M22-XCK-2 for 4-way selector switch
0-1-0-2-0-3-0-4	
	M22-XCK-*
with individual inscription	















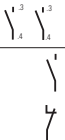







Built-in sockets	
Design	Part No.
	M22-USB-SA for USB 2.0 A/A with connection cable IP65 with closed cover IP20 with plug connected
	M22-RJ45-SA Front mounting 8/8 IP65 with closed cover IP20 with plug connected



„The order is handled via  
M22-COMBINATION-“

Additional order specification  
„M22-ATEX“



Emergency-Stop actuators			Contact elements			
NEMA 4X, 13 IP 66, 69K		ATEX 	IP 20 ⊕ = Positive opening safety function to IEC / EN 60 947-5-1			
Function		Tamper proof	Function		Screw terminal	Cage Clamp <sup>3)</sup>
Non-illuminated		M22-PV <sup>(1)</sup> M22-PVT <sup>(2)</sup>	<b>Front fixing</b> 		M22-K10	M22-CK10
Non-illuminated		M22S-PV <sup>(1)</sup>			M22-K01	M22-CK01
illuminated		M22-PVL <sup>(1)</sup> M22-PVLT <sup>(2)</sup>			M22-K10P	—
illuminated		M22S-PVL <sup>(1)</sup>			M22-K01D	M22-CK01D
With key-telease MS1 individual lock mechanism		M22-PVS <sup>(1)</sup>			—	M22-CK11
With key-telease MS2-20 individual lock mechanism		M22-PVS-MS <sup>*1)</sup>			—	M22-CK02
			<b>Base fixing</b> 		—	M22-CK20
  					M22-KC10	M22-CKC10
					M22-KC01	M22-CKC01
Adapters						
Sealable shroud	Protective collar for Emergency-Stop push-buttons	Emergency-Stop labels		Screw terminal Cage Clamp <sup>3)</sup>	Note	
M22-PL-PV	M22-XG-PV	see current Industrial Switchgear main catalogue		M22-A M22-A4	max. 3 contact elements max. 4 contact elements (only for 4-way switch and Joystick)	
			Front fixing			
			Base fixing	Built into the enclosure	max. 3 contact elements	



Acoustic indicators	LED elements				
IP 40	IP 20				
<b>Compact without buzzer</b>	<b>Front fixing</b> 	<b>Screw terminal</b>		<b>Cage Clamp<sup>3)</sup></b>	
		12-30 V AC/DC	85-264 V AC	12-30 V AC/DC	85-264 V AC
M22-AMC		M22-LED-W	M22-LED230-W	M22-CLED-W	M22-CLED230-W
		M22-LED-R	M22-LED230-R	M22-CLED-R	M22-CLED230-R
<b>Buzzer 24 V AC/DC +10% / -15%</b>	<b>Front fixing</b> 	M22-LED-G	M22-LED230-G	M22-CLED-G	M22-CLED230-G
		M22-LED-B	M22-LED230-B	M22-CLED-B	M22-CLED230-B
<b>Continuous tone M22-XAM</b> <b>Pulsed tone M22-XAMP</b>	<b>Base fixing</b> 	M22-LED-W	M22-LED230-W	M22-CLED-W	M22-CLED230-W
		M22-LED-R	M22-LED230-R	M22-CLED-R	M22-CLED230-R
		M22-LED-G	M22-LED230-G	M22-CLED-G	M22-CLED230-G
		M22-LED-B	M22-LED230-B	M22-CLED-B	M22-CLED230-B

Housing	
NEMA 4X, 13 IP 67	
M22 enclosure ATEX also available as individual unit	
<b>Locations</b>	<b>Surface mounting enclosures</b>
1	M22-IY1, M22-IY1-ATEX
1	M22-I1, M22-I1-ATEX
2	M22-I2, M22-I2-ATEX
3	M22-I3, M22-I3-ATEX
4	M22-I4, M22-I4-ATEX
6	M22-I6, M22-I6-ATEX
12	M22-I12
Connecting screw for M22-I...	M22-XI
NEMA 4X, 13 IP 54	
<b>Locations</b>	<b>Flush mounting panels</b>
1	M22-EY1
1	M22-E1
2	M22-E2
3	M22-E3
4	M22-E4
5	M22-E5
6	M22-E6
NEMA 4X, 13 IP 55, 40*	
<b>Locations</b>	<b>Shrouds</b>
1	M22-H1
2	M22-H2
3	M22-H3
4	M22-H4*
5	M22-H5*
6	M22-H6*
<b>Dust protection cover</b>	
with fixing adapter IP 53 (IP 4X)	
for one M22... device 5xM20 knock-outs	
<b>Contacts/LEDs</b>	<b>Dust protection cover</b>
max. 3	M22-ADC
max. 4	M22-ADC4
Attachment plate	M22-XADC





„The order for FAK-ATEX  
is handled via  
FAK-COMBINATION-\* with  
the specification FAK-ATEX“



Foot and palm switches			Emergency-Stop button		
NEMA 4X, 13 IP 67, 69K			NEMA 4X, 13 IP 67, 69K tamper proof		
		<b>ATEX</b>			<b>ATEX</b>
Mush- room head	Function	Spring-return	Mush- room head	Function	Spring-return
	$\Rightarrow$	FAK-S/KC11/I		$\Rightarrow$	FAK-R/V/KC01/IY
	$\Rightarrow$	FAK-R/KC11/I		$\Rightarrow$	FAK-R/V/KC11/IY
				$\Rightarrow$	FAK-R/V/KC02/IY

$\Rightarrow$  = Positive opening safety function to IEC / EN 60 947-5-1

Indicator lights	
conical, BA9s	
Lens	for filament lamps, neon lamps and LEDs
	L-R
	L-W
	L-G
	L-Y



Accessories							
For use with	IVS top-hat rail adapter	For use with	Actuators diaphragms	For use with	Telescopic clips		Legend plates
Top-hat rail EN 50 022	M22-IVS	Push-button actuators indicator lights, flush  Double actuators	M22-T-D  M22-T-DD	Mounting depth compensation 115–155 mm With top-hat rail	M22-TC  M22-TA	With various languages and symbols	M22S-ST-...



LED series elements for front and base fixing	
Function	Part no.
LED resistor element for connection of 12-30 V LED's to 42-60 V AC/DC	M22-XLED60
LED resistor element for connection of 12-30 V LED's to 220 V DC	M22-XLED220
LED test element for decoupled function test (lamp test) on 12-30 V AC/DC	M22-XLED-T
LED test element for decoupled function test (lamp test) on 85-264 V AC	M22-XLED230-T

AS-Interface for RMQ Titan	
For use with	Part no.
<b>AS-Interface connection</b>	
Flush mounting panel	M22-ASI
Base fixing	M22-ASI-C
Surface mounting enclosure	RMQ-M1C-ASI
<b>Emergency-Stop connections for safety monitor</b>	
Front fixing	M22-ASI-S
Base fixing	M22-ASI-CS

Potentiometer, IP 66	
<b>ATEX</b>	<b>Part no.</b> Front ring black: M22S...
Resistance K $\Omega$	
1	M22-R1K
4.7	M22-R4K7
10	M22-R10K
47	M22-R47K
100	M22-R100K
470	M22-R470K