



**Mushroom actuator, black, without button plate, momentary**



**Part no.** M22-DP-S-X  
**Catalog No.** 216728  
**Alternate Catalog No.** M22-DP-S-XQ  
**EL-Nummer (Norway)** 4355680

**Delivery program**

Product range			RMQ-Titan
Basic function			Mushroom-headed pushbutton
Single unit/Complete unit			Single unit
Design			Mushroom momentary
<b>Colour</b>			
Mushroom			black
Mushroom colour			
<b>Button plate</b>			
button plate			Without button plate
Degree of Protection			IP66, IP67, IP69
Front ring			Bezel: titanium
Connection to SmartWire-DT			yes with SWD-RMQ connections
<b>Actuator travel and actuation force as per DIN EN 60947-5-1, K.5.4.1</b>			
Minimum force for positive opening	N		0
Front dimensions			22 x 22
Function			momentary

**Technical data**

**General**

Standards			IEC/EN 60947 VDE 0660
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	> 5
Operating frequency	Operations/h		≅ 3600
Actuating force		n	≅ 5
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Degree of Protection			IP66, IP67, IP69
Ambient temperature			
Open		°C	-25 - +70
Storage		°C	-40 - +80
Mounting position			As required
Mechanical shock resistance		g	30 Shock duration 11 ms Sinusoidal according to IEC 60068-2-27
shipping classification			DNV GL LR



## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	$I_n$	A	0
Heat dissipation per pole, current-dependent	$P_{vid}$	W	0
Equipment heat dissipation, current-dependent	$P_{vid}$	W	0
Static heat dissipation, non-current-dependent	$P_{vs}$	W	0
Heat dissipation capacity	$P_{diss}$	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Please enquire
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			Not applicable.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

## Technical data ETIM 7.0

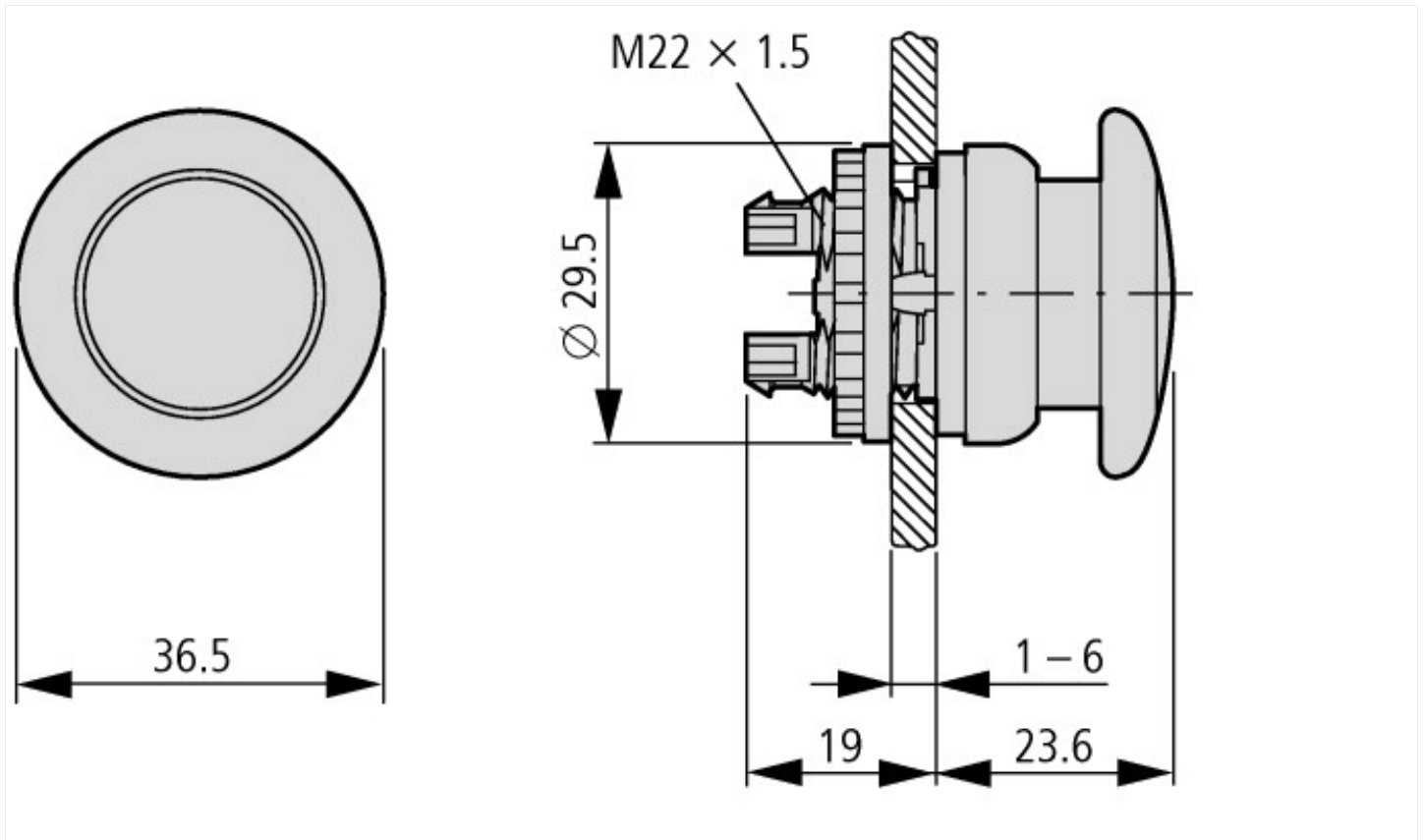
Low-voltage industrial components (EG000017) / Front element for mushroom push-button (EC001038)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Command and alarm device / Front element for mushroom push-button actuators (ecl@ss10.0.1-27-37-12-12 [AKF030014])			
Colour button			Black
Construction type lens			Round
Diameter cap		mm	36.5
Hole diameter		mm	22.5
Width opening		mm	0
Height opening		mm	0

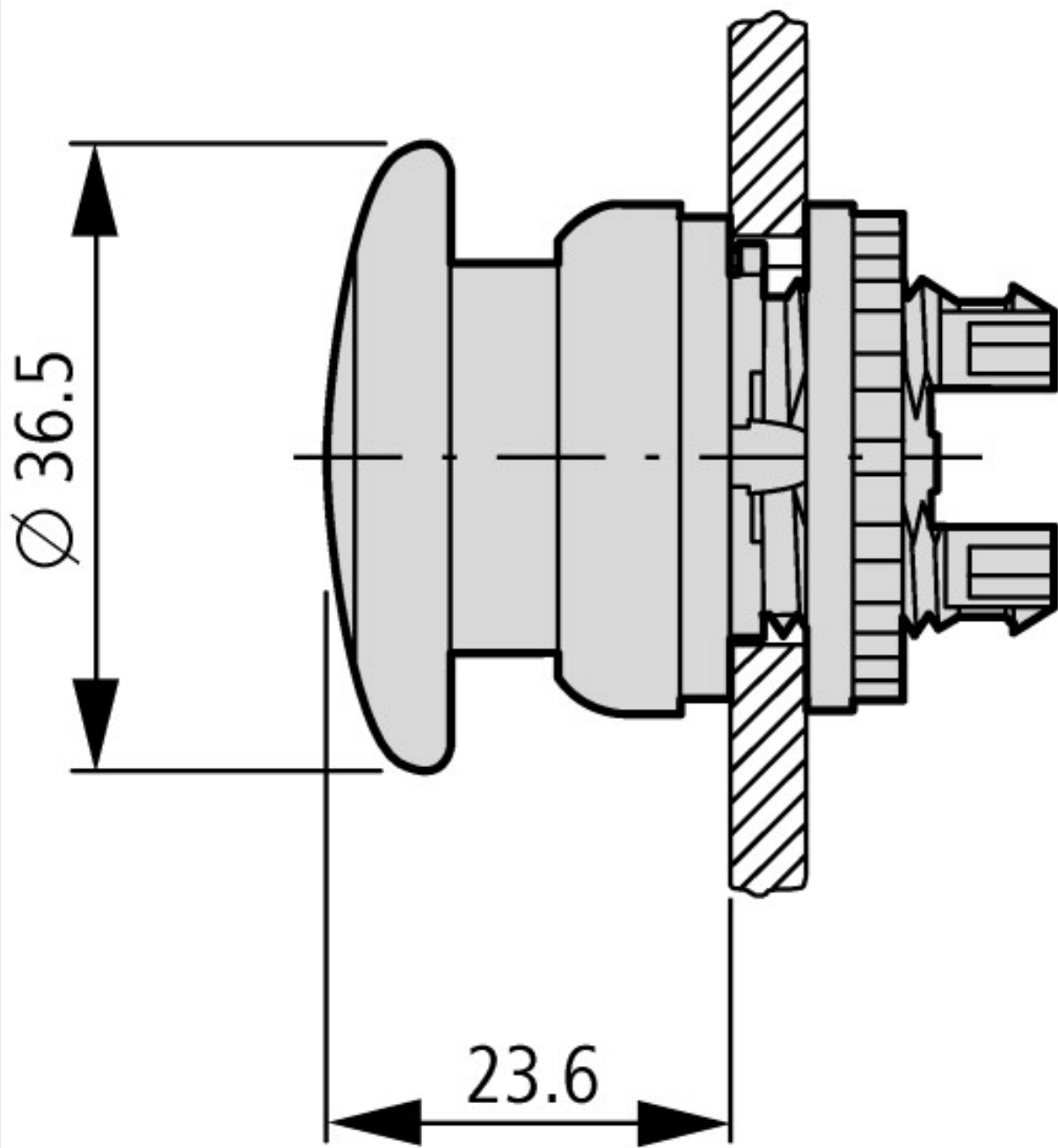
Degree of protection (IP)		IP67/IP69K
Degree of protection (NEMA)		4X
Type of button		Flat
Suitable for illumination		No
Switching function latching		No
Spring-return		Yes
With front ring		Yes
Material front ring		Plastic
Colour front ring		Chrome
Suitable for emergency stop		No
Unlocking method		None

## Approvals

Product Standards		IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94-91; CE marking
UL File No.		E29184
UL Category Control No.		NKCR
CSA File No.		012528
CSA Class No.		3211-03
North America Certification		UL listed, CSA certified
Degree of Protection		UL/CSA Type 3R, 4X, 12, 13

## Dimensions





## Assets (links)

[Declaration of CE Conformity](#)

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