### DATASHEET - M22-DDL-GR-X1/X0/K11/230-W



Double actuator pushbutton, RMQ-Titan, Actuators and indicator lights non-flush, momentary, 1 NC, 1 N/O, White lens, LED element, 85 - 264 V AC, green, red, inscribed, Bezel: titanium



Part no. M22-DDL-GR-X1/X0/K11/230-W

**Catalog No.** 216509

Alternate Catalog M22-DDLGR-X1X0K11QWQ

No.

**EL-Nummer** 4355282

(Norway)			
Delivery program			
Product range			RMQ-Titan
Basic function			Double actuators
Mounting hole diameter	Ø	mm	22.5
Single unit/Complete unit			Complete unit
Design			Actuators and indicator lights non-flush
			momentary
Connection type			Screw connection
Description			White lens LED element 85 - 264 V AC
Button plate			
button plate			green, red
			inscribed
Degree of Protection			IP66
Front ring			Bezel: titanium
Connection to SmartWire-DT			no
Contacts			
N/C = Normally closed			1 NC →
N/0 = Normally open			1 N/0
Notes			e safety function, by positive opening to IEC/EN 60947-5-1
Actuator travel and actuation force as per DIN EN 60947-5-1, K.5.4.1			
	mm		4.8
Maximum travel	mm		5.7
Minimum force for positive opening	N		15
Contact sequence			$ \begin{bmatrix} & & & \\ & & & & $

# Technical data

General			
Standards			IEC/EN 60947 VDE 0660
Lifespan, mechanical (	Operations	x 10 <sup>6</sup>	>1
Operating frequency C	Operations/h		≦ 1800
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
Ambient temperature			
Open		°C	-25 - +70
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
			Lloyd's Register

### Contacts

|--|

## **Design verification as per IEC/EN 61439**

Design verification as per IEC/EN 61439			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	6
Heat dissipation per pole, current-dependent	$P_{vid}$	W	0.11
Equipment heat dissipation, current-dependent	$P_{vid}$	W	0
Static heat dissipation, non-current-dependent	$P_{vs}$	W	1
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70
EC/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	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
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) / Push button, complete (EC001028)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Command and alarm device / Push-button actuator, complete unit (ecl@ss10.0.1-27-37-12-28 [AKF046014])

[AKI 040014])		
Number of command positions		2
Type of button		Flat
Colour button		Red/green
Construction type lens		Round
Hole diameter	mm	22
Width opening	mm	0
Height opening	mm	0
Suitable for illumination		Yes
Switching function latching		No
Spring-return		Yes
Supply voltage lamp	V	230
Number of contacts as normally open contact		1
Number of contacts as normally closed contact		1
Number of contacts as change-over contact		0
Type of electric connection		Screw connection
With front ring		Yes
Material front ring		Plastic
Colour front ring		Chrome
Degree of protection (IP)		IP66
Degree of protection (NEMA)		4X

## 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

### **DATASHEET - M22-DDL-GR-X1/X0**



 $\label{eq:continuous} \textbf{Double actuator pushbutton, RMQ-Titan, Actuators and indicator lights}$ non-flush, momentary, White lens, green, red, inscribed, Bezel: titanium

Powering Business Worldwide



M22-DDL-GR-X1/X0 Part no. 216700 Catalog No.

**Alternate Catalog** 

M22-DDL-GR-X1-X0Q No.

4355311

**EL-Nummer** (Norway)

Delivery program			
Product range			RMQ-Titan
Basic function			Double actuators
Mounting hole diameter	Ø	mm	22.5
Single unit/Complete unit			Single unit
Design			Actuators and indicator lights non-flush
			momentary
Description			White lens
Button plate			
button plate			green, red
Button plate			
			0
			inscribed
Degree of Protection			IP66
Front ring			Bezel: titanium
Connection to SmartWire-DT			yes with SWD-RMQ connections

### **Technical data**

General			
Standards			IEC/EN 60947 VDE 0660
Lifespan, mechanical	Operations	x 10 <sup>6</sup>	> 0.2
Operating frequency	Operations/h		≦ 3600
Actuating force		n	<b>≤</b> 5
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Degree of Protection			IP66
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







Indoor and protected outdoor installation

Design verification as per IEC/EN 61439

Design vermication as per IEC/EN 01439  Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	0
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	w	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	W	
Operating ambient temperature min.	uiss	°C	-25
Operating ambient temperature max.		°C	70
IEC/EN 61439 design verification		U	
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 push button (EC000221)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Command and alarm device / Front element for push-button actuators (ecl@ss10.0.1-27-37-12-10 [AKF028014])

(ecl@ss10.0.1-27-37-12-10 [AKH028014])				
Colour button		Other		
Number of command positions		2		
Construction type lens		Round		
Hole diameter	mm	22.5		
Width opening	mm	0		

Height opening	mm	0
Type of button		Flat
Suitable for illumination		Yes
With protective cover		No
Labelled		Yes
Switching function latching		No
Spring-return		Yes
With front ring		Yes
Material front ring		Plastic
Colour front ring		Chrome
Degree of protection (IP), front side		IP66
Degree of protection (NEMA), front side		4X

## 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**



