#### **DATASHEET - M22-LED230-R**



LED element, red, front mount, 85-264VAC

Part no. M22-LED230-R Catalog No. 216564

**Alternate Catalog** 

No.

**EL-Nummer** (Norway)

4355376

M22-LED230-RQ



#### **Delivery program**

Connection technique  Fixing  Rated operational voltage  Rated operational current  Power consumption  Lifespan to EN 60064 at t <sub>a</sub> = +25 °C  Degree of Protection  Colour  Colour  Connection to SmartWire-DT  Approval	Delivery program			
Fixing Rated operational voltage  Rated operational current  Power consumption Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Degree of Protection  Colour  Connection to SmartWire-DT  Approval  Fixing  Front fixing  V 85 - 264 V AC, 50/60 Hz  Ie mAA 5 - 15  1000000  1000000  1P20 At 230 V  Colour  To mo  Approval	Basic function accessories			LED elements
Rated operational voltage  Rated operational current  le mA 5 - 15  Power consumption  Lifespan to EN 60064 at t <sub>a</sub> = +25 °C  Degree of Protection  Colour  Connection to SmartWire-DT  Approval	Connection technique			Screw terminals
Rated operational current  Power consumption Pmax. W 0.33 Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Degree of Protection  Colour  Connection to SmartWire-DT Approval  Approval  Approval  Approval  Pmax. W 0.33  Lifespan to EN 60064 at t <sub>a</sub> = +25 °C  tmean (AC)   h   100000  Life DO (10000)  Life DO	Fixing			Front fixing
Power consumption Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN 60064 at t <sub>a</sub> = +25 °C Lifespan to EN	Rated operational voltage	U <sub>e</sub>	V	85 - 264 V AC, 50/60 Hz
Lifespan to EN 60064 at t <sub>a</sub> = +25 °C  Degree of Protection  Colour  Connection to SmartWire-DT  Approval	Rated operational current	I <sub>e</sub>	mA	5 - 15
Degree of Protection  Colour  Colour  Connection to SmartWire-DT  Approval  Approval	Power consumption	P <sub>max</sub> .	W	0.33
Colour  Connection to SmartWire-DT  Approval	Lifespan to EN 60064 at $t_a = +25^{\circ}\text{C}$	t <sub>mean</sub> (AC)	h	100000
Connection to SmartWire-DT  Approval	Degree of Protection			IP20
Connection to SmartWire-DT  Approval  Line				At 230 V
Approval LED.	Colour			
Approval LED.				
LED	Connection to SmartWire-DT			no
Connection technique Screw terminals	Approval			1 '
	Connection technique			Screw terminals

#### Notes

For indicator lights, illuminated pushbutton actuators, and illuminated selector switch actuators, the following applies:

M22...-R only in combination with M22-LED...-R

M22...-G only in combination with M22-LED...-G

M22...-W only in combination with M22-LED...-W

M22...-Y only in combination with M22-LED...-W

M22...-B in combination with M22-LED...-W or M22-LED...-B

# **Technical data**

General		
Standards		IEC 60947-5-1
Operating torque (screw terminals)	Nm	≦ 0.8
Degree of Protection		IP20
Climatic proofing		Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature		
Open	°C	-25 - +70
Storage	°C	- 40 - + 80
Mounting position		As required
Mechanical shock resistance according to IEC 60068-2-27 Shock duration 11 ms, half-sinusoidal	g	> 30

Mechanical shock resistance		g	30 Shock duration 11 ms Sinusoidal according to IEC 60068-2-27	
Terminal capacities		$mm^2$		
Solid		$\mathrm{mm}^2$	0.75 - 2.5	
Stranded		$\mathrm{mm}^2$	0.5 - 2.5	
Contacts				
Rated impulse withstand voltage	$U_{imp}$	V AC	6000	
Rated insulation voltage	Ui	V	500	
Overvoltage category/pollution degree			III/3	
Indoor and protected outdoor installation				

## **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	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	1
Heat dissipation capacity	P <sub>diss</sub>	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			Meets the product standard's requirements.
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 b observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must b 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) / Lamp holder block for control circuit devices (EC000204)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Command and alarm device / Bulb socket block for command and alarm devices (ecl@ss10.0.1-27-37-12-09 [AKF027014])

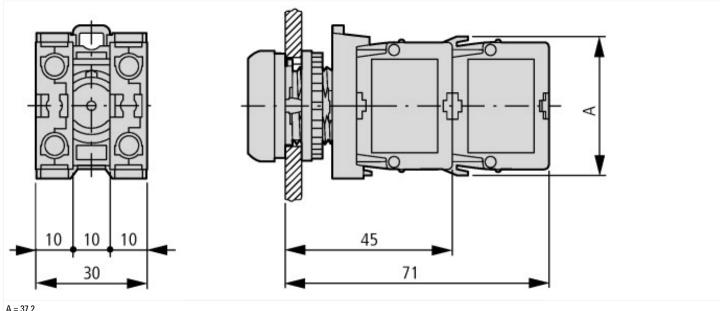
(66) 660 16.6.1 27 67 12 66 [Fill 627611]/	
Transformer integrated	No
With integrated voltage decreasing resistor	No

With light source		Yes
With integrated diode		Yes
Lamp holder		None
Rated voltage Ue at AC 50 Hz	V	230 - 230
Rated voltage Ue at AC 60 Hz	V	230 - 230
Rated voltage Ue at DC	V	0 - 0
Voltage type for actuating		AC
Lamp type		LED
Connection type auxiliary circuit		Screw connection
Colour lamp		Red
Type of fastening		Front fastening

# **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: -

# **Dimensions**



#### A = 37.2

Pushbutton with M22-(C)K...
Pushbutton with M22-(C) LED... + M22-XLED...

## **Assets (links)**

**Declaration of CE Conformity** 

00003256

## **Additional product information (links)**

IL04716002Z (AWA1160-1745) RMQ-Titan System

IL04716002Z (AWA1160-1745) RMQ-Titan System

ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL04716002Z2018\_10.pdf