## DATASHEET - M22-LED-B

Light element, LED, blue, front mount, 12-30VAC/DC, screw connection



Part no.	M22-LED-B
Catalog No.	218057
Alternate Catalog	M22-LED-BQ
No.	
EL-Nummer	0004355370
(Norway)	

#### **Delivery program**

Derivery program			
Basic function accessories			LED elements
Connection technique			Screw terminals
Fixing			Front fixing
Rated operational voltage	U <sub>e</sub>	V	12 - 30 V AC/DC, 50/60 Hz
Rated operational current	l <sub>e</sub>	mA	8 - 15
Power consumption	P <sub>max.</sub>	W	0.26
Lifespan to EN 60064 at t <sub>a</sub> = +25 °C	t <sub>mean</sub> (AC)	h	100000
Degree of Protection			IP20
			at 24 V
Colour			
Connection to SmartWire-DT			no
Approval			LED
Actuator travel and actuation force as per DIN EN 60947-5-1, K.5.4.1			
Minimum force for positive opening	Ν		0
Connection technique			Screw terminals
Notes			
For indicator lights, illuminated pushbutton actuators, and illuminated selector switch actuators, the following applies:			
M22R only in combination with M22-LEDR			
M22G only in combination with M22-LEDG			
M22W only in combination with M22-LEDW			
M22Y only in combination with M22-LEDW			
M22B in combination with M22-LEDW or M22-LEDB			

# 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 <sup>2</sup>	
Solid		mm <sup>2</sup>	0.75 - 2.5
Stranded		mm <sup>2</sup>	0.5 - 2.5
Contacts			
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	6000
Rated insulation voltage	Ui	V	500
Overvoltage category/pollution degree			111/3
Indoor and protected outdoor installation			

## Design verification as per IEC/EN 61439

Technical data for design verification Rated operational current for specified heat dissipation	I <sub>n</sub>		
	la.		
	-11	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	0.45
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 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) / Lamp holder block for control circuit devices (EC000204)

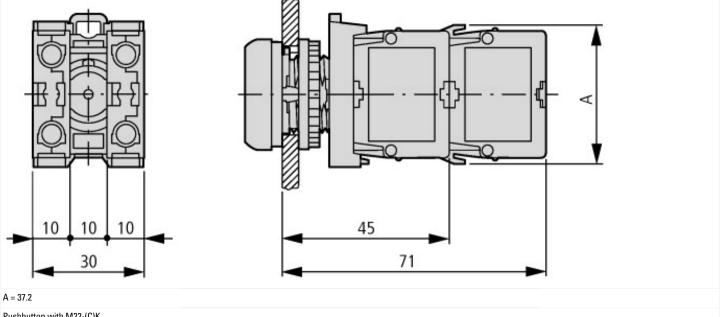
Electric engineering, automation, process control engineering / Low-voltage switch technology / Command and alarm device / Bulb socket block for command and alarm devices (ecl@ss10.0.1-27-37-12-09 [AKF027014])

Transformer integratedNoWith integrated voltage decreasing resistorNoWith light sourceYesWith integrated diodeNoLamp holderNoRated voltage Ue at AC 50 HzYesRated voltage Ue at AC 60 HzYesRated voltage Ue at DCYesVoltage type for actuatingYesLamp typeYesLamp typeYesConcetion type auxiliary circuitYes	(ecl@ss10.0.1-27-37-12-09 [AKF027014])		
With light source   Yes     With integrated diode   Yes     Lamp holder   None     Rated voltage Ue at AC 50 Hz   Yes     Rated voltage Ue at AC 60 Hz   Yes     Voltage Up et AC 60 Hz   Yes     Voltage Ue at DC   Yes     Voltage type for actuating   Yes     Lamp type   Image: Amplite type for actual ing type auxiliary circuit     Kated voltage Ue auxiliary circuit   Image: Amplite type for actual ing type for ac	Transformer integrated		No
With integrated diode   Mes     Lamp holder   None     Rated voltage Ue at AC 50 Hz   I     Rated voltage Ue at AC 60 Hz   I     Rated voltage Ue at AC 60 Hz   I     Rated voltage Ue at AC 60 Hz   I     Voltage type for actuating   I     Lamp type   I     Connection type auxiliary circuit   I	With integrated voltage decreasing resistor		No
Lamp holder   None     Rated voltage Ue at AC 50 Hz   V   12 - 30     Rated voltage Ue at AC 60 Hz   V   12 - 30     Rated voltage Ue at DC   V   12 - 30     Voltage type for actuating   V   12 - 30     Lamp type   ED   ED     Connection type auxiliary circuit   Image: Serie Connection type auxiliary circuit   Serie Connection type auxiliary circuit	With light source		Yes
Rated voltage Ue at AC 50 Hz V 12 - 30   Rated voltage Ue at AC 60 Hz V 12 - 30   Rated voltage Ue at DC V 12 - 30   Voltage type for actuating V 12 - 30   Lamp type AC/DC LED   Connection type auxiliary circuit Image: Series Connection type auxiliary circuit Image: Series Connection type auxiliary circuit	With integrated diode		Yes
Rated voltage Ue at AC 60 Hz V 12 - 30   Rated voltage Ue at DC V 12 - 30   Voltage type for actuating V AC/DC   Lamp type ED ED	Lamp holder		None
Rated voltage Ue at DC V 12 - 30   Voltage type for actuating C AC/DC   Lamp type ED ED   Connection type auxiliary circuit C Screw connection	Rated voltage Ue at AC 50 Hz	V	12 - 30
Voltage type for actuating AC/DC   Lamp type LED   Connection type auxiliary circuit Screw connection	Rated voltage Ue at AC 60 Hz	V	12 - 30
Lamp type LED   Connection type auxiliary circuit Screw connection	Rated voltage Ue at DC	V	12 - 30
Connection type auxiliary circuit Screw connection	Voltage type for actuating		AC/DC
	Lamp type		LED
	Connection type auxiliary circuit		Screw connection
Colour lamp Blue	Colour lamp		Blue
Type of fastening Front fastening	Type of fastening		Front fastening

#### Approvals

Ahhiovais	
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**



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

#### **Assets (links)**

Declaration of CE Conformity 00003113

#### **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