

LED element, white, front mount, 12-30VAC/DC

**Part no.** M22-LED-W  
**Catalog No.** 216557  
**Alternate Catalog No.** M22-LED-WQ  
**EL-Nummer (Norway)** 4355367

## Delivery program

Basic function accessories			LED elements
Connection technique			Screw terminals
Fixing			Front fixing
Rated operational voltage	$U_e$	V	12 - 30 V AC/DC, 50/60 Hz
<b>Rated operational current</b>	$I_e$	mA	5 - 14
Power consumption	$P_{max.}$	W	0.26
Lifespan to EN 60064 at $t_a = +25\text{ °C}$	$t_{mean}$ (AC)	h	100000
Degree of Protection			IP20
			at 24 V
<b>Colour</b>			White
Connection to SmartWire-DT			no
Connection technique			Screw terminals
<b>Notes</b>			
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 <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	$U_{imp}$	V AC	6000
Rated insulation voltage	$U_i$	V	500
Overvoltage category/pollution degree			III/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	$I_n$	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	0.45	
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				
			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 8.0

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 (ec@ss10.0.1-27-37-12-09 [AKF027014])				
Transformer integrated				No
With integrated voltage decreasing resistor				No
With light source				Yes
With integrated diode				Yes
Lamp holder				None
Rated voltage $U_e$ at AC 50 Hz		V		12 - 30
Rated voltage $U_e$ at AC 60 Hz		V		12 - 30
Rated voltage $U_e$ at DC		V		30 - 30
Voltage type for actuating				AC/DC
Lamp type				LED
Connection type auxiliary circuit				Screw connection
Colour lamp				White
Type of fastening				Front fastening

