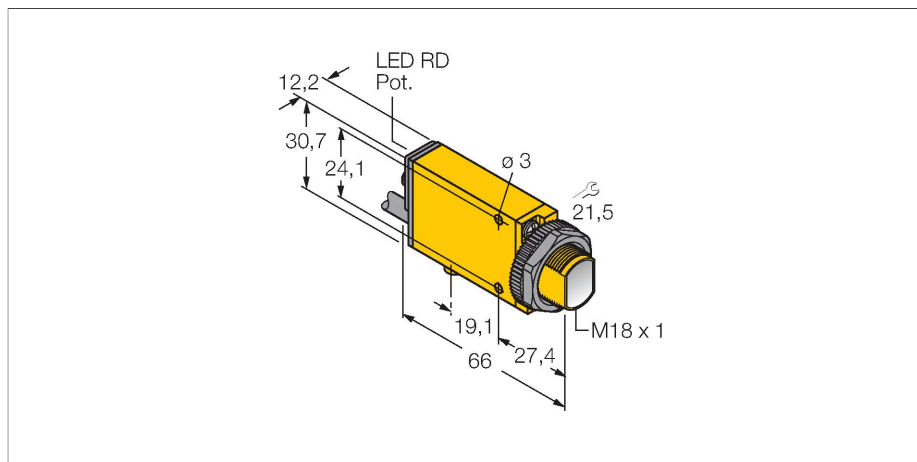


MIAD9CV W/30

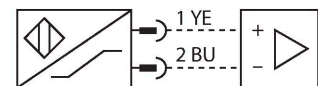
Photoelectric Sensor – Convergent Mode Sensor



Features

- Cable, PVC, 9 m
- Protection class IP67
- Sensitivity adjustable via potentiometer
- Alignment indicator
- Operating voltage: 5...15 VDC (NAMUR)
- NAMUR output in accordance with DIN 19234 (IEC/EN 60947-5-6)

Wiring diagram



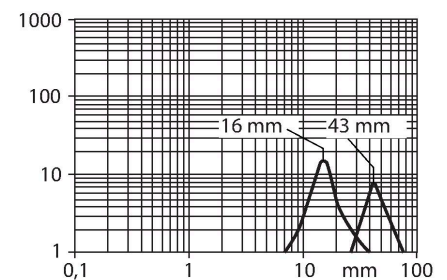
Technical data

Type	MIAD9CV W/30
ID	3038022
Optical data	
Function	Proximity switch
Operating mode	Convergent
Light type	Red
Wavelength	650 nm
Focal distance	16 mm
Range	16 mm
Electrical data	
Operating voltage	5...15 VDC
Voltage	Nom. 8.2 VDC
Current consumption non-actuated	≤ 1.2 mA
Actuated current consumption	≥ 2.1 mA
Output function	Light operation, NAMUR
Switching frequency	≤ 100 Hz
Readiness delay	≤ 0 ms
Response time typical	< 5 ms
Setting option	Potentiometer
Mechanical data	
Design	Rectangular with thread, Mini Beam
Dimensions	Ø 18 x 66 x 12.3 x 30.7 mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Cable, 9 m, PVC
Number of cores	2
Core cross-section	0.5 mm ²

Functional principle

Convergent mode sensors are equipped with a lens in front of the emitter diode that produces a small and intense focal point at a defined distance from the sensor. Similar to diffuse mode sensors, the light reflected by the target is evaluated. Convergent mode sensors are ideal for detection of small targets or colour marks and edge guiding or positioning control of transparent materials. The targets must always be within the focal depth of the sensors. The focal depth is defined as the area in front of or behind the focal point within which the object can be detected. Based on the intense light concentration in the focal point, convergent mode sensors are capable of detecting targets with a low reflectivity.

Excess gain curve
Excess gain in relation to the distance



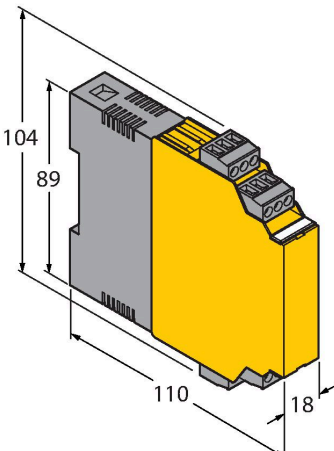
Technical data

Ambient temperature	-40...+70 °C
Protection class	IP67
Special features	Encapsulated
Switching state	LED, Red
Excess gain indication	LED, red, flashing
Tests/approvals	
Approvals	CE, FM, CSA
Ignition protection category	Ex ia IIC T5 Ga
Ex approval acc. to conformity certificate	FM12ATEX0094X

Accessories

<p>SMB18A</p>	<p>3033200</p> <p>Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread</p>	<p>SMB18AFAM10</p>	<p>3012558</p> <p>Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm</p>
<p>SMB18SF</p>	<p>3052519</p> <p>Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable</p>	<p>SMB312B</p>	<p>3025519</p> <p>Mounting bracket, stainless steel, for MINI-BEAM NAMUR</p>
<p>SMB3018SC</p>	<p>3053952</p> <p>Mounting bracket, PTB black, for sensors with 18 mm thread</p>		

Accessories

Dimension drawing	Type	ID	
	IM1-22EX-R	7541231	<p>Isolating switching amplifier, 2-channel; 2 relay outputs; input NAMUR signal; selectable ON/OFF mode for wire-break and short-circuit monitoring; adjustable output mode (NO / NC mode); removable terminal blocks; width 18 mm; universal power supply unit</p>