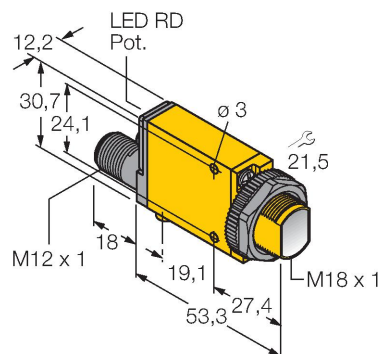


SM312LVAGMHIQD

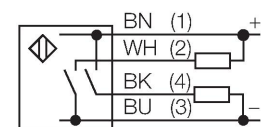
Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter



Features

- Male M12 × 1, 4-pin
- Protection class IP67
- Sensitivity adjustable via potentiometer
- Alignment indicator
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light/dark operation

Wiring diagram



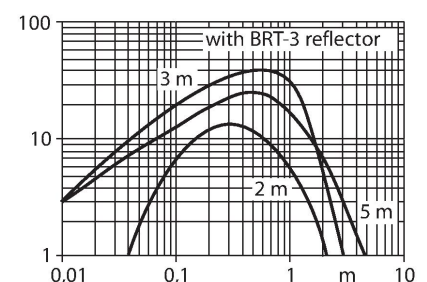
Technical data

Type	SM312LVAGMHIQD
ID	3072023
Optical data	
Function	Retroreflective Sensor
Operating mode	Polarized
Reflector included in delivery	no
Light type	Red polarized
Wavelength	650 nm
Range	0...3000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 150 mA
No-load current	≤ 25 mA
Output function	NO contact, PNP/NPN
Switching frequency	≤ 500 Hz
Readiness delay	≤ 100 ms
Overcurrent release	> 220 mA
Mechanical data	
Design	Rectangular, Mini Beam
Dimensions	71.3 x 12.3 x 30.7 mm
Housing material	Plastic, PBT, Yellow
Lens	plastic, Acrylic
Electrical connection	Connector, M12 × 1
Ambient temperature	-20...+70 °C
Protection class	IP67

Functional principle

Retro-reflective sensors incorporate emitter and receiver in a single compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors incorporate some of the advantages of opposed mode sensors (good contrast and high excess gain). Further it is merely required to install and wire a single device. A smaller sensing range and susceptibility of devices without polarisation filter can be of disadvantage when shiny objects have to be detected.

Excess gain curve
Excess gain in relation to the distance

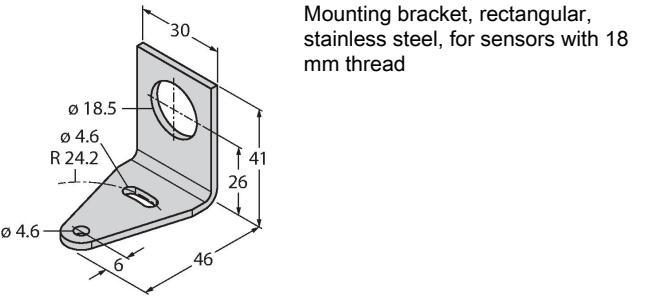


Technical data

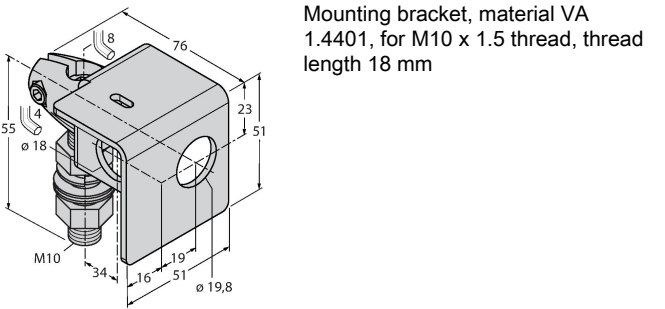
Switching state	LED, Red
Excess gain indication	LED, red, flashing
Tests/approvals	
Approvals	CE, cURus, CSA

Accessories

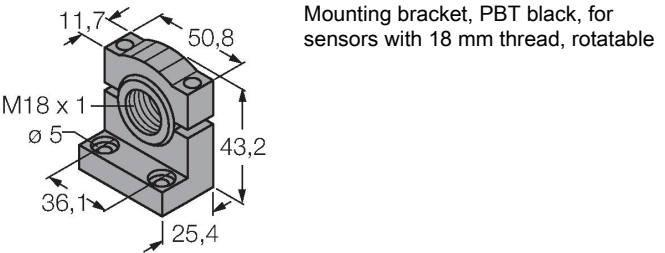
SMB18A 3033200



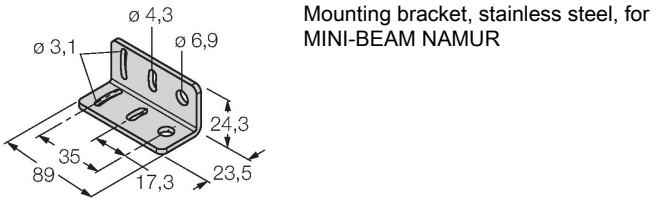
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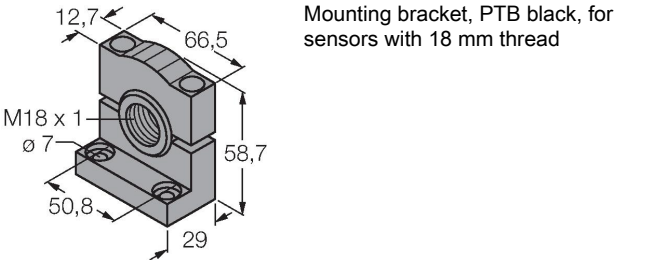
SMB18SF 3052519



SMB312B 3025519



SMB3018SC 3053952



Accessories

Dimension drawing	Type	ID	
Ø 5.2 [0.21] 7 [0.28] Ø 81 [3.19]	BRT-3	3016164	Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20...+60 °C