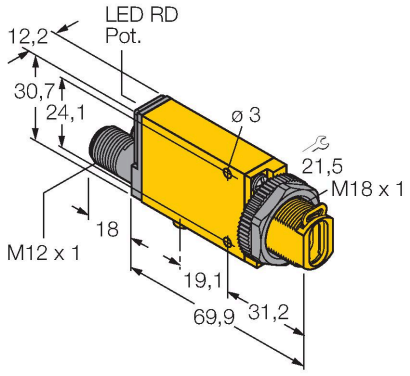
SM312FPBQD
Photoelectric Sensor – Photoelectric Sensor for Plastic Fibers



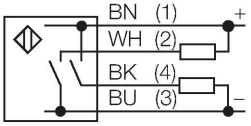
Technical data

Type	SM312FPBQD
ID	3047279
Optical data	
Function	Fiber optic sensor
Operating mode	Plastic fiber
Fiber-optic type	plastic
Light type	Blue
Wavelength	475 nm
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
Response time typical	< 1 ms
Overcurrent release	> 220 mA
Setting option	Potentiometer
Mechanical data	
Design	Rectangular, Mini Beam
Dimensions	71.3 x 12.3 x 30.7 mm
Housing material	Plastic, Thermoplastic material, Yellow
Electrical connection	Connector, M12 × 1, PVC
Number of cores	4
Ambient temperature	-20…+70 °C
Relative humidity	0…90 %

Features

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

Wiring diagram



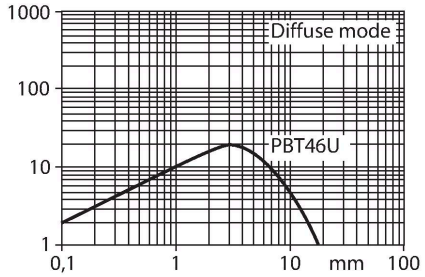
Functional principle

Glass or plastic fibers are the optimum choice for high-temperature applications and limited spaces. Optical fibers transfer the light from the sensor to a remote object. Individual fibers are used for opposed sensing mode, whereas bifurcated fibers are suited for diffuse sensing mode.

Excess gain curve
Excess gain in relation to distance

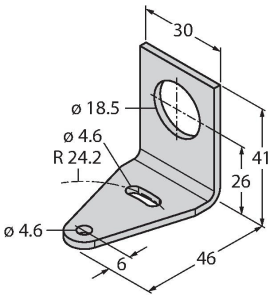
Technical data

Protection class	IP67
Special features	Wash down
Switching state	LED, Red
Excess gain indication	LED, red, flashing
Tests/approvals	
Approvals	CE, cURus, CSA



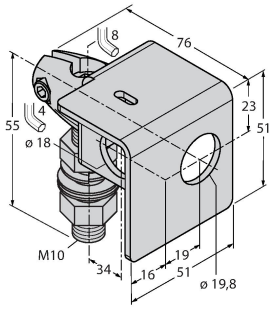
Accessories

SMB18A 3033200



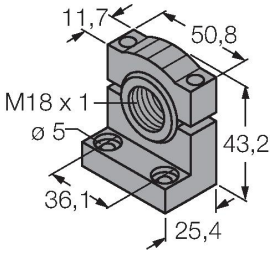
Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

SMB18AFAM10 3012558



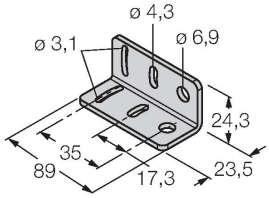
Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

SMB18SF 3052519



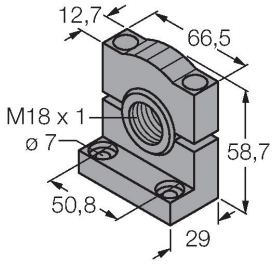
Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable

SMB312B 3025519



Mounting bracket, stainless steel, for MINI-BEAM NAMUR

SMB3018SC 3053952



Mounting bracket, PTB black, for sensors with 18 mm thread