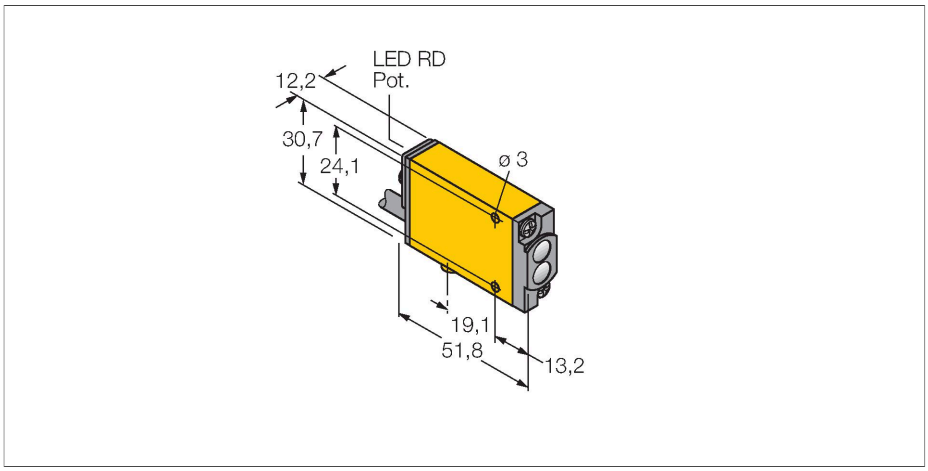
SM2A312DBZ W/30
Photoelectric Sensor – Diffuse Mode Sensor



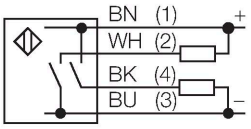
Technical data

Type	SM2A312DBZ W/30
ID	3035662
Optical data	
Function	Proximity switch
Operating mode	Diffuse
Light type	IR
Wavelength	650 nm
Range	300 mm
Electrical data	
Operating voltage	24…240 VAC
Output function	Relay output
Readiness delay	≤ 300 ms
Response time typical	< 8 ms
Setting option	Potentiometer
Mechanical data	
Design	Rectangular, Mini Beam
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Cable, 9 m, PVC
Number of cores	2
Ambient temperature	-20…+70 °C
Protection class	IP67
Special features	Encapsulated
Excess gain indication	LED
Tests/approvals	
Approvals	CE, cURus, CSA

Features

- Cable, PVC, 2 m
- Protection class IP67
- Sensitivity adjustable via potentiometer
- Alignment indicator
- Operating voltage: 24…240 VAC
- Switching output, bipolar
- Light/dark operation

Wiring diagram



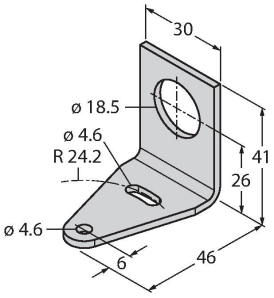
Functional principle

Diffuse mode sensors incorporate the emitter and receiver in a single housing. However, diffuse mode sensors do not detect the interruption of the light beam like opposed mode sensors, but the reflection of the target. A target is detected if it reflects a sufficient amount of light back to the receiver. The switching distance of diffuse mode sensors thus largely depends on the reflectivity of the target.

Excess gain curve
Excess gain in relation to the distance

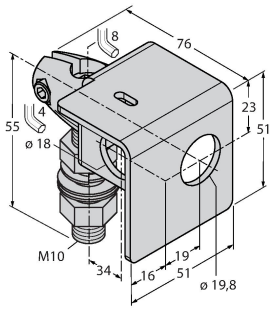
Accessories

SMB18A	3033200



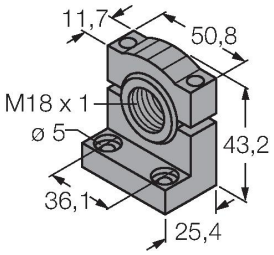
Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

SMB18AFAM10	3012558



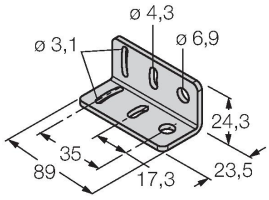
Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

SMB18SF	3052519



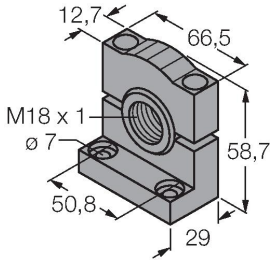
Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable

SMB312B	3025519



Mounting bracket, stainless steel, for MINI-BEAM NAMUR

SMB3018SC	3053952



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