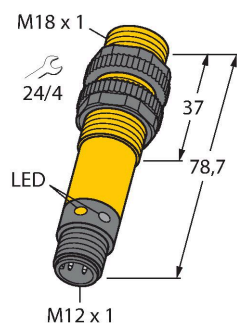


S18RW3REQ1

Photoelectric Sensor – Opposed Mode Sensor (Receiver)



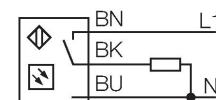
Technical data

Type	S18RW3REQ1
ID	3037083
Optical data	
Function	Opposed mode sensor
Operating mode	Emitter/receiver pair
Range	0...20000 mm
Electrical data	
Operating voltage	20...250 VAC
AC rated operational current	≤ 200 mA
Output function	Dark operation, Relay output
Switching frequency	≤ 40 Hz
Readiness delay	≤ 100 ms
Response time typical	< 16 ms
Mechanical data	
Design	Tube, S18
Dimensions	Ø 18 x 78.7 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Polycarbonate
Electrical connection	Connector, 1/2", PVC
Number of cores	4
Ambient temperature	-40...+70 °C
Protection class	IP67 IP69
Special features	Encapsulated Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED

Features

- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C
- Selectable light/dark operation or light operation with alarm function

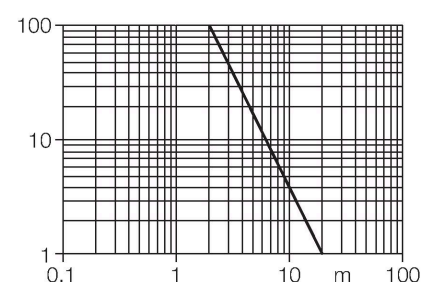
Wiring diagram



Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremely high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions. Excess gain curve

Excess gain in relation to the distance

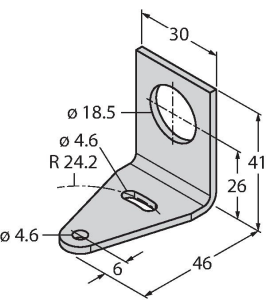


Technical data

Tests/approvals	
Approvals	CE, UL, CSA

Accessories

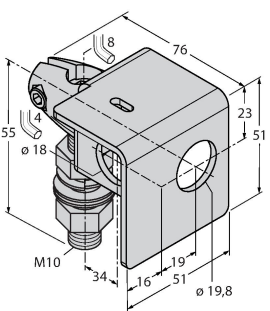
SMB18A 3033200



Technical drawing of the SMB18A mounting bracket. It is a rectangular bracket made of stainless steel, designed for sensors with an 18 mm thread. The drawing shows the bracket from a side perspective, highlighting its L-shaped profile. Key dimensions include a top flange width of 30 mm, a vertical height of 41 mm, and a base width of 46 mm. The mounting hole has a diameter of 18.5 mm. There are two smaller holes with a diameter of 4.6 mm, one of which is offset by a radius of 24.2 mm. The base has a thickness of 6 mm.

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

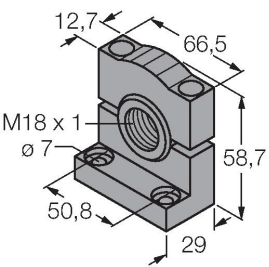
SMB18AFAM10 3012558



Technical drawing of the SMB18AFAM10 mounting bracket. It is a rectangular bracket made of material VA 1.4401, designed for M10 x 1.5 thread sensors with a thread length of 18 mm. The drawing shows the bracket from a side perspective, highlighting its L-shaped profile. Key dimensions include a top flange width of 76 mm, a vertical height of 51 mm, and a base width of 51 mm. The mounting hole has a diameter of 19.8 mm. There are two smaller holes with a diameter of 16 mm. The base has a thickness of 16 mm.

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

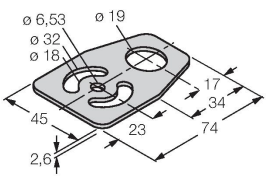
SMB3018SC 3053952



Technical drawing of the SMB3018SC mounting bracket. It is a rectangular bracket made of PTB black material, designed for sensors with an 18 mm thread. The drawing shows the bracket from a side perspective, highlighting its L-shaped profile. Key dimensions include a top flange width of 66.5 mm, a vertical height of 58.7 mm, and a base width of 50.8 mm. The mounting hole has a diameter of 18 mm. There are two smaller holes with a diameter of 7 mm. The base has a thickness of 29 mm.

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

SMBAMS18P 3073134



Technical drawing of the SMBAMS18P mounting bracket. It is a rectangular bracket made of stainless steel, designed for sensors with an 18 mm thread. The drawing shows the bracket from a side perspective, highlighting its L-shaped profile. Key dimensions include a top flange width of 74 mm, a vertical height of 17 mm, and a base width of 45 mm. The mounting hole has a diameter of 19 mm. There are two smaller holes with a diameter of 6.53 mm. The base has a thickness of 2.6 mm.

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