

S18AW3FF100Q

Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



Technical data

Type	S18AW3FF100Q
ID	3030886
Optical data	
Function	Proximity switch
Operating mode	Background suppression, non-adjustable
Light type	IR
Wavelength	880 nm
Range	0...100 mm
Electrical data	
Operating voltage	20...250 VAC
AC rated operational current	≤ 200 mA
Output function	Light 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 84.1 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Connector, 1/2", PVC
Number of cores	5
Ambient temperature	-40...+70 °C
Protection class	IP67 IP69
Special features	Encapsulated

Features

- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C

Wiring diagram

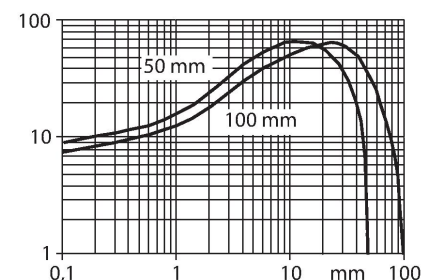


Functional principle

The emitter and receiver are incorporated in a single housing. The light reflection of the target is detected and triggers the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

Excess gain in relation to the distance

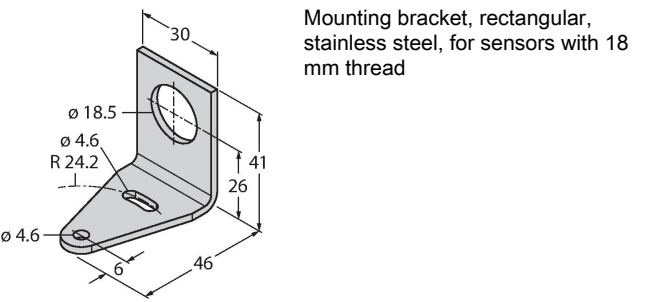


Technical data

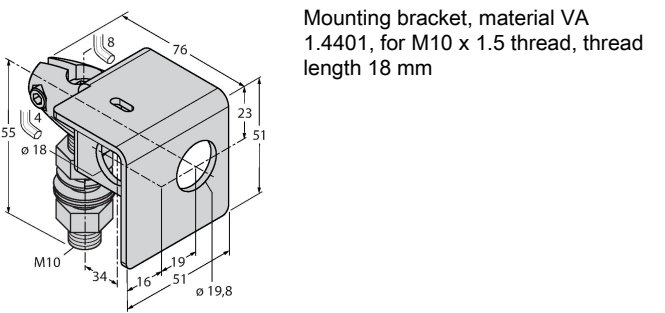
	Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED
Tests/approvals	
MTTF	448 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, UL, CSA

Accessories

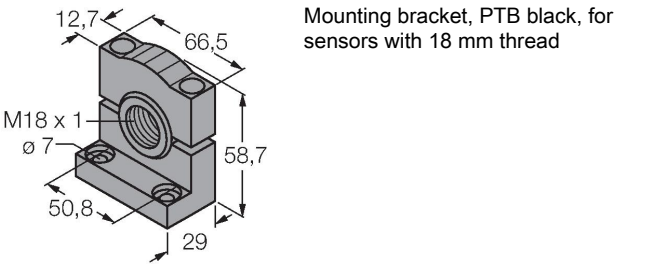
SMB18A 3033200



SMB18AFAM10 3012558



SMB3018SC 3053952



SMBAMS18P 3073134

