

Photoelectric Sensor

Diffuse Mode Sensor with Fixed-Field Background Suppression

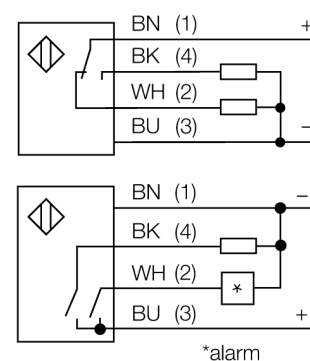
Q25SP6FF50 W/30



Type	Q25SP6FF50 W/30
ID	3033870
Optical data	
Function	Proximity switch
Operating mode	Background suppression, non-adjustable
Light type	IR
Wavelength	880 nm
Range	0...50 mm
Electrical data	
Operating voltage U_s	10...30 VDC
No-load current I_0	≤ 25 mA
Short-circuit protection	yes/Cyclic
Reverse polarity protection	yes
Output function	Connection programmable, PNP
Switching frequency	≤ 160 Hz
Readiness delay	≤ 100 ms
Response time typical	< 3 ms
Overcurrent release	> 220 mA
Mechanical data	
Design	Rectangular, Q25
Dimensions	Ø 18 x 30 x 25 x 50.2 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Cable, 9 m, PVC
Number of cores	4
Core cross-section	0.5 mm ²
Ambient temperature	-40...+70 °C
Protection class	IP69

- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

Wiring Diagram



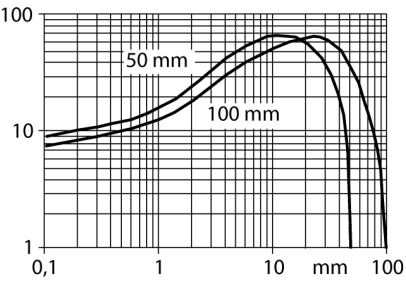
Functional principle

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.

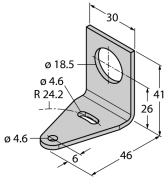
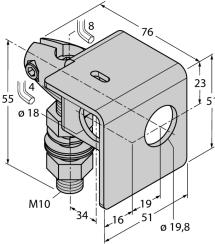
Excess gain curve

Excess gain in relation to the distance

Special features	Chemical-resistant Encapsulated
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing
Tests/approvals	
MTTF	448 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, UL, CSA



Accessories

Type code	Ident no.		Dimension drawing
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	