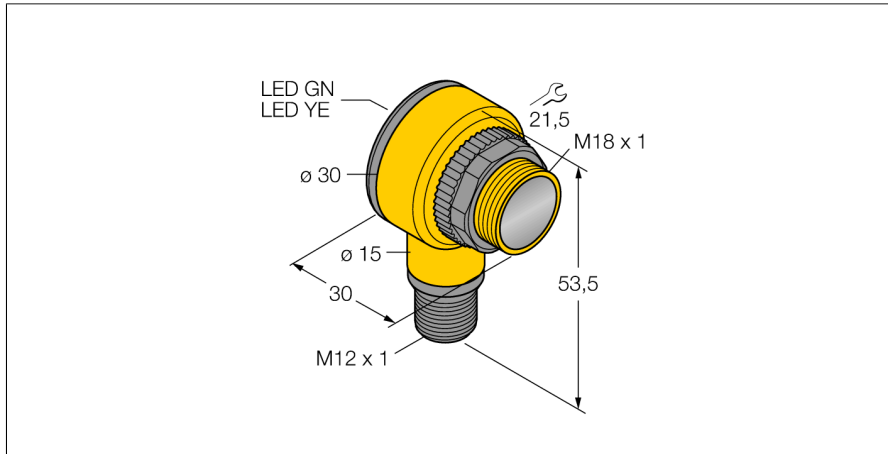


Photoelectric Sensor

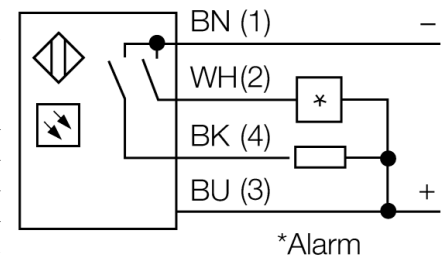
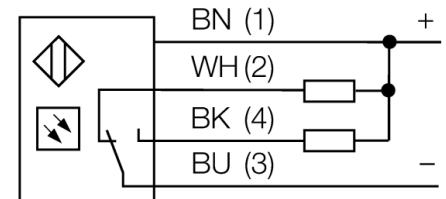
Diffuse Mode Sensor with Fixed-Field Background Suppression

T18SN6FF50Q



- M12 × 1 male, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40...+70 °C
- Operating voltage: 10...30 VDC
- NPN switching output, changeover

Wiring Diagram

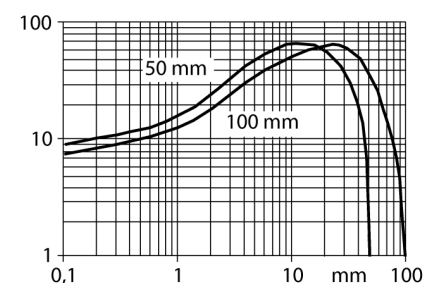


Functional principle

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

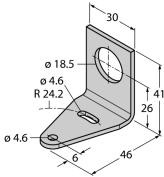
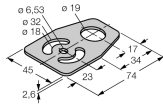
Excess gain in relation to the distance



Type	T18SN6FF50Q
ID	3033412
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_a	10...30 VDC
No-load current I_0	≤ 35 mA
Short-circuit protection	yes/Cyclic
Reverse polarity protection	yes
Output function	Connection programmable, NPN
Switching frequency	≤ 160 Hz
Readiness delay	≤ 100 ms
Response time typical	< 3 ms
Overcurrent release	> 220 mA
Mechanical data	
Design	Tube, T18
Dimensions	Ø 18 x 30 x 30 x 54 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Connector, M12 × 1, PVC
Number of cores	4
Ambient temperature	-40...+70 °C
Protection class	IP67
	IP69

Special features	Chemical-resistant Encapsulated Wash down
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
SMB1815SF	3053279	Mounting bracket, PBT black, for PICO-GUARD points	
SMB18A	3033200	Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread	
SMB18FM	3079421	mounting bracket, black, M22 x1.5 mm, male thread, female thread M18 x 1, for sensors with 18 mm thread	
SMBAMS18P	3073134	Mounting bracket, stainless steel, for sensors with 18 mm thread	