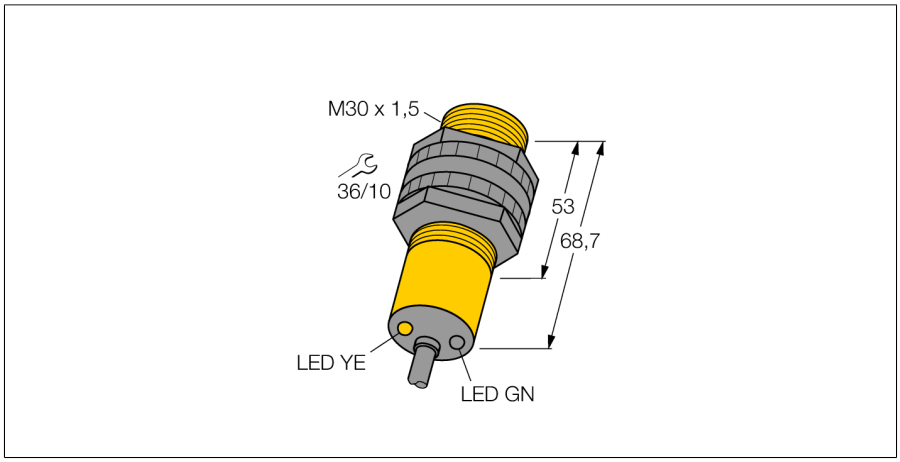
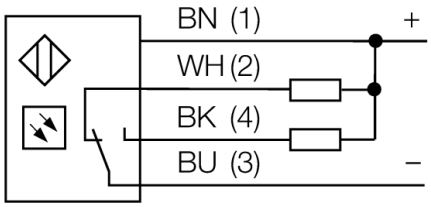
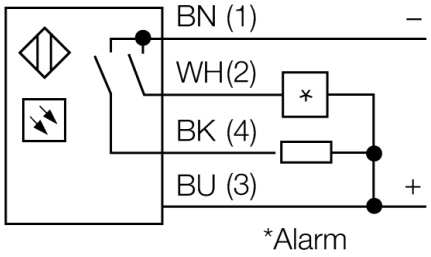
Photoelectric Sensor
Diffuse Mode Sensor with Fixed-Field Background Suppression
S30SN6FF100



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

Wiring Diagram





Type	S30SN6FF100
ID	3036768

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 U_B	10…30 VDC
No-load current I_0	≤ 25 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	Threaded barrel, S30
Dimensions	Ø 30 x 68.7 mm
Housing material	Plastic, PBT
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC
Number of cores	4
Core cross-section	0.5 mm²
Ambient temperature	-40…+70 °C
Protection class	IP67

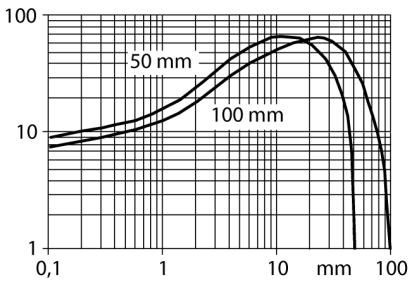
Special features	Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing

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



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Tests/approvals	
MTTF	448 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, UL, CSA

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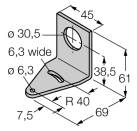
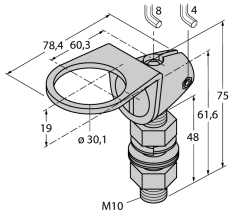
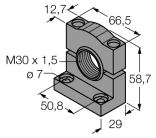
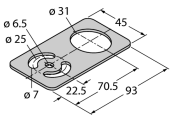
Accessories

Type code	Ident no.		Dimension drawing
SMB30A	3032723	Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread	
SMB30FAM10	3011185	Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm	
SMB30SC	3052521	Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable	
SMBAMS30P	3073135	Mounting bracket, stainless steel, for sensors with 30 mm thread	

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