

S30SP6FF600 W/30

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

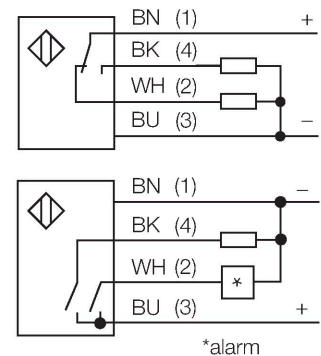
Technical data

Type	S30SP6FF600 W/30
ID no.	3033891
Optical data	
Function	Proximity switch
Operating mode	Background suppression, non-adjustable
Light type	IR
Wavelength	880 nm
Range	0...600 mm
Electrical data	
Operating voltage	10...30 VDC
No-load current	≤ 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	Threaded barrel, S30
Dimensions	Ø 30 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Cable, 9 m, PVC
Number of cores	4
Ambient temperature	-40...+70 °C
Protection class	IP67
Special features	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

Features

- Cable, 9 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

Wiring diagram

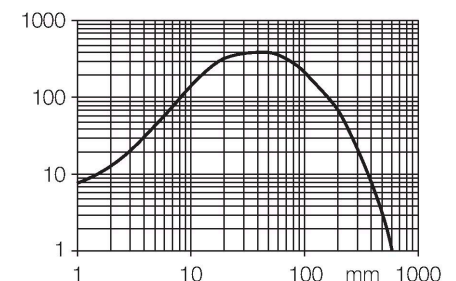


Functional principle

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

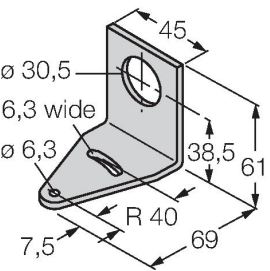


Technical data

Approvals	CE, UL, CSA
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Accessories

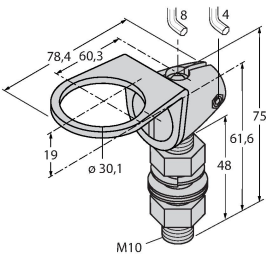
SMB30A	3032723
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Technical drawing of the SMB30A mounting bracket. It is a rectangular stainless steel bracket for sensors with a 30mm thread. Dimensions include: top width 45, mounting hole diameter $\varnothing 30,5$, bracket width 6,3, bottom hole diameter $\varnothing 6,3$, bottom hole offset 38,5, total height 61, bottom flange width 69, bottom flange thickness 7,5, and a rounded corner with radius R 40.

Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

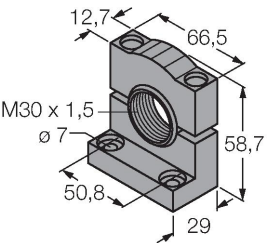
SMB30FAM10	3011185
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Technical drawing of the SMB30FAM10 mounting bracket. It is a stainless steel bracket for M10 x 1.5 thread sensors. Dimensions include: top width 78,4, mounting hole diameter $\varnothing 30,1$, bracket width 60,3, bottom hole diameter $\varnothing 8$, bottom hole offset 19, total height 75, bottom flange width 61,6, bottom flange thickness 48, and a threaded section with M10 thread.

Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm

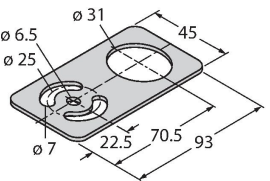
SMB30SC	3052521
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Technical drawing of the SMB30SC mounting bracket. It is a black PBT bracket for sensors with a 30 mm thread. Dimensions include: top width 12,7, mounting hole diameter $\varnothing 6,5$, bracket width 66,5, bottom hole diameter $\varnothing 7$, bottom hole offset 58,7, total height 50,8, and a threaded section with M30 x 1,5 thread.

Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

SMBAMS30P	3073135
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Technical drawing of the SMBAMS30P mounting bracket. It is a stainless steel bracket for sensors with a 30 mm thread. Dimensions include: top width 45, mounting hole diameter $\varnothing 31$, bracket width 70,5, bottom hole diameter $\varnothing 6,5$, bottom hole offset 22,5, total height 93, and a threaded section with M10 x 1,5 thread.

Mounting bracket, stainless steel, for sensors with 30 mm thread