

Photoelectric Sensor

Diffuse Mode Sensor with Fixed-Field Background Suppression

S30AW3FF400Q3

Type	S30AW3FF400Q3
ID	3036902

Optical data	
Function	Proximity switch
Operating mode	Background suppression, non-adjustable
Light type	IR
Wavelength	880 nm
Range	0...400 mm

Electrical data	
Operating voltage U_a	20...250VAC
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	Threaded barrel, S30
Dimensions	Ø 30 mm
Housing material	Plastic, PBT
Lens	plastic, Acrylic
Electrical connection	Connector, M12 × 1, PVC
Number of cores	5
Ambient temperature	-40...+70 °C
Protection class	IP69

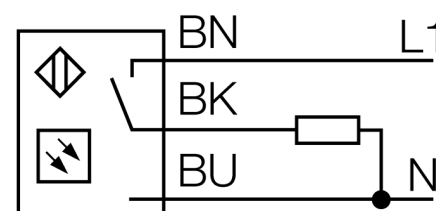
Special features	Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED

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



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

Wiring Diagram

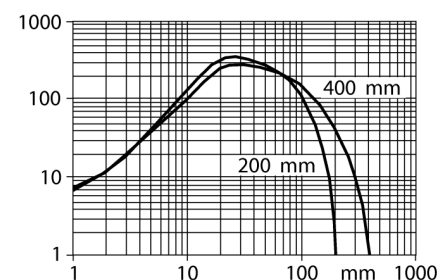


Functional principle

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



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	