

Photoelectric Sensor

Opposed Mode Sensor (Receiver)

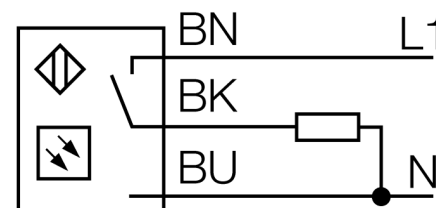
S30AW3RQ3

Type	S30AW3RQ3
ID	3036906
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...60000 mm
Electrical data	
Operating voltage U_s	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 x 89.4 mm
Housing material	Plastic, PBT
Lens	plastic, Lexan
Electrical connection	Connector, M12 × 1, PVC
Number of cores	5
Ambient temperature	-40...+70 °C
Protection class	IP69
Special features	
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED
Tests/approvals	
Approvals	CE, UL, CSA



- Male ½", 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40...+70 °C

Wiring Diagram

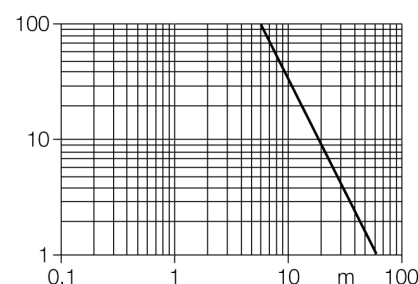


Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremely high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions.

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	