

Photoelectric Sensor

Retroreflective Sensor with Polarizing Filter

S30RW3LPQ3

Type	S30RW3LPQ3
ID	3036900

Optical data	
Function	Retroreflective Sensor
Operating mode	Polarized
Reflector included in delivery	no
Light type	Red polarized
Wavelength	680 nm
Range	50...6000 mm

Electrical data	
Operating voltage U_a	20...250VAC
AC rated operational current	≤ 200 mA
Output function	Dark operation, Relay output
Switching frequency	≤ 40 Hz
Readiness delay	≤ 100 ms
Response time typical	< 16 ms

Mechanical data	
Design	Tube, S30
Dimensions	$\varnothing 30$ mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Connector, M12 $\times$ 1, PVC
Number of cores	5
Ambient temperature	-40...+70 °C
Protection class	IP69

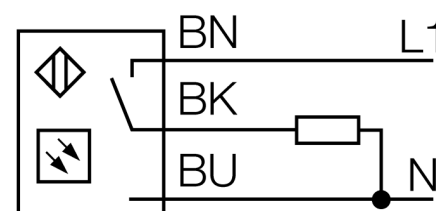
Special features	
	Encapsulated
	Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED

Tests/approvals	
Approvals	CE, UL, CSA



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

Wiring Diagram

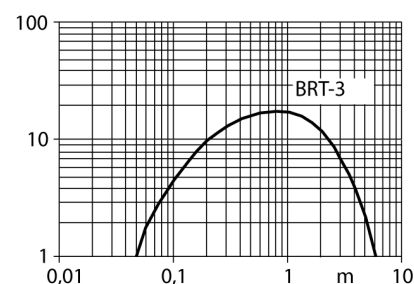


Functional principle

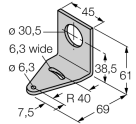
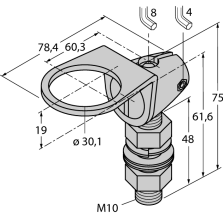
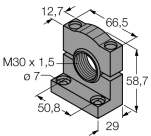
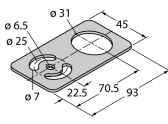
Retro-reflective sensors incorporate emitter and receiver in a single compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors have a high function gain and good contrast performance. Further it is merely required to install and wire a single device.

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	

Function accessories

Type code	Ident no.		Dimension drawing
BRT-3	3016164	Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20...+60 °C	