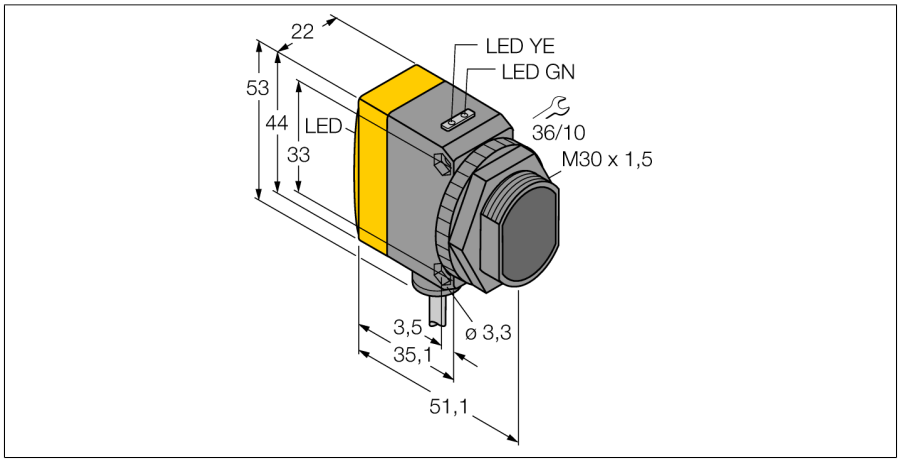
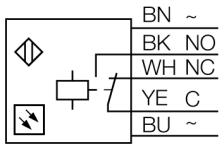
Photoelectric Sensor
Retroreflective Sensor with Polarizing Filter
QS30VR3LPQPMA3

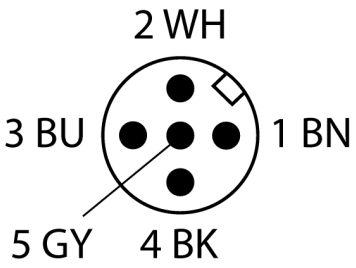


- Cable with male end M12 × 1, 5-pin, PUR, 150 mm
- Protection class IP67
- LED all-round visible
- Sensitivity adjusted via potentiometer
- Operating voltage: 12…250 VDC or 24… 250 VAC
- Relay output, changeover

Type	QS30VR3LPQPMA3
ID	3074797
Optical data	
Function	Retroreflective Sensor
Operating mode	Polarized
Reflector included in delivery	no
Light type	Red polarized
Wavelength	630 nm
Range	0…8000 mm
Electrical data	
Operating voltage U_B	12…250 VDC
Operating voltage U_B	24…250VAC
No-load current I_0	≤ 35 mA
Output function	NO/NC, Relay output
Switching frequency	≤ 250 Hz
Readiness delay	≤ 100 ms
Response time typical	< 15 ms
Mechanical data	
Design	Rectangular with thread, QS30
Dimensions	Ø 30 x 51.5 x 22 x 44 mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Cable with connector, 1/2″, 0.15 m, PUR
Number of cores	5
Ambient temperature	-20…+70 °C
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED, yellow, flashing
Tests/approvals	
Approvals	CE

Wiring Diagram





Functional principle

Retro-reflective sensors incorporate emitter and receiver in the same 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 incorporate some of the advantages of

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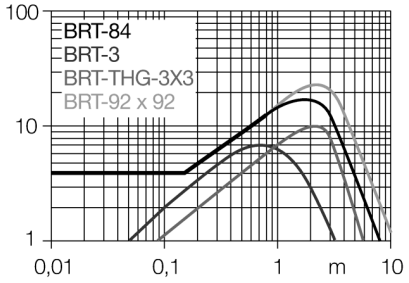
opposed mode sensors (good contrast and high excess gain). Further it is merely required to install and wire a single device. A smaller sensing range and susceptibility of devices without polarisation filter can be of disadvantage when shiny objects have to be detected.

Excess gain curve

Excess gain in relation to the distance



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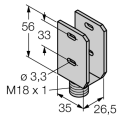
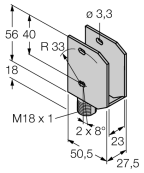
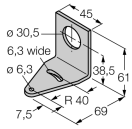
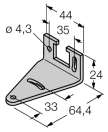
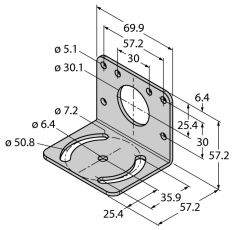
Accessories

Type code	Ident no.		Dimension drawing
SMBQS30Y	3002811	Protective housing, stainless steel, for QS30 series	
SMBQS30YL	3072741	Protective housing with safety glas panel, stainless steel, for QS30 series	
SMB30A	3032723	Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread	
SMBQS30L	3002809	Mounting bracket, stainless steel, for QS30 series	
SMB30MM	3027162	Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment	

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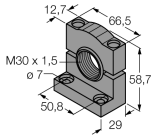
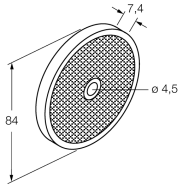
Accessories

Type code	Ident no.		Dimension drawing
SMB30SC	3052521	Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable	

Function accessories

Type code	Ident no.		Dimension drawing
BRT-84	3058979	Round reflector, reflection coefficient 1.4, material acrylic, ambient temperature -20 … +60 °C	

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