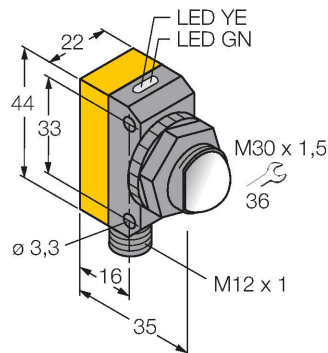


QS30RRXQ

Photoelectric Sensor – Opposed Mode Sensor (Emitter/Receiver)



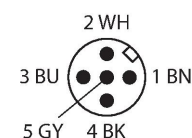
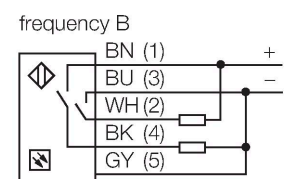
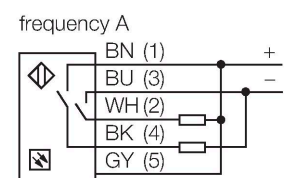
Technical data

Type	QS30RRXQ
ID	3071741
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Wavelength	875 nm
Range	0...213000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 100 mA
No-load current	≤ 22 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, dark operation, PNP/NPN
Switching frequency	≤ 16 Hz
Readiness delay	≤ 100 ms
Response time typical	< 5 ms
Mechanical data	
Design	Rectangular with thread, QS30
Dimensions	Ø 30 x 35 x 22 x 57 mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Zeonex
Electrical connection	Connector, M12 × 1, PVC
Number of cores	5
Ambient temperature	-20...+70 °C

Features

- Male M12 × 1, 5-pin
- Protection classes IP67 / IP69K
- LED all-round visible
- Selectable operating frequency, protection against crosstalk
- 4-segment bargraph
- Operating voltage: 10...30 VDC
- Switching output, bipolar, dark operation

Wiring diagram



Functional principle

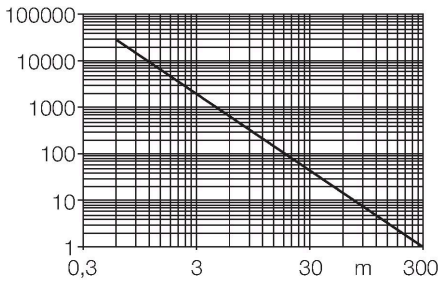
Opposed mode sensors consist of an emitter and receiver. They are installed opposite to each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the

Technical data

Protection class	IP69
Special features	Encapsulated Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	Bargraph, red, flashing
Tests/approvals	
MTTF	293 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE

sensor switches. Large distance operation is possible due to an excellent light/dark contrast and an extremely high excess gain.

Excess gain curve
Excess gain in relation to the distance



Accessories

SMB30A3032723

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

Technical drawing of the SMB30A mounting bracket. Dimensions: 45mm top width, 6.3mm wide, 6.3mm hole diameter, 38.5mm height, 61mm total height, 7.5mm bottom width, 69mm total width, R 40mm radius.

SMBQS30L3002809

Mounting bracket, stainless steel, for QS30 series

Technical drawing of the SMBQS30L mounting bracket. Dimensions: 44mm top width, 35mm hole diameter, 24mm height, 33mm bottom width, 64.4mm total width, 4.3mm hole diameter.

SMB30MM3027162

Mounting bracket, rectangular, stainless steel, for sensors with 30 mm thread, wide holes for accurate alignment

Technical drawing of the SMB30MM mounting bracket. Dimensions: 69.9mm top width, 57.2mm hole diameter, 30mm hole diameter, 6.4mm height, 25.4mm total height, 30mm total width, 25.4mm bottom width, 35.9mm total width, 57.2mm total width, 50.8mm hole diameter, 6.4mm hole diameter, 7.2mm hole diameter, 5.1mm hole diameter, 30.1mm hole diameter.

SMB30SC3052521

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

Technical drawing of the SMB30SC mounting bracket. Dimensions: 12.7mm top width, 66.5mm hole diameter, 58.7mm height, 29mm bottom width, 50.8mm total width, 7mm hole diameter, M30 x 1.5mm thread.

Accessories

Dimension drawing	Type	ID	
Technical drawing of the WKC4.5T-2/TEL connection cable. Dimensions: 15mm diameter, M12 x 1 thread, 14mm length, 26.5mm total length, 32mm cable length, 50mm total length.	WKC4.5T-2/TEL	6625028	Connection cable, female M12, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com

Dimension drawing	Type	ID	
	RKC4.5T-2/TEL	6625016	Connection cable, female M12, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com

