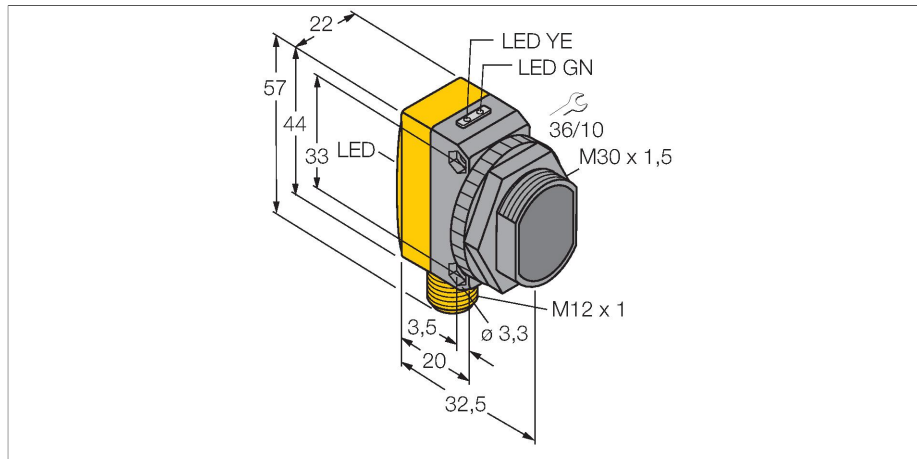


QS30RQ

Photoelectric Sensor – Opposed Mode Sensor (Emitter/Receiver)



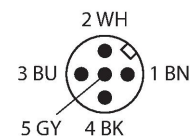
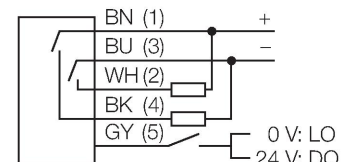
Technical data

Type	QS30RQ
ID	3073079
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...60000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U_{ss}
DC rated operational current	≤ 150 mA
No-load current	≤ 22 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 100 Hz
Readiness delay	≤ 100 ms
Response time typical	< 5 ms
Mechanical data	
Design	Rectangular with thread, QS30
Dimensions	$\varnothing 30 \times 35 \times 22 \times 57$ mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Connector, M12 $\times$ 1, PVC
Number of cores	5
Ambient temperature	-20...+70 °C
Protection class	IP67

Features

- Male M12 $\times$ 1, 5-pin
- Protection class IP67
- LED all-round visible
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

Wiring diagram



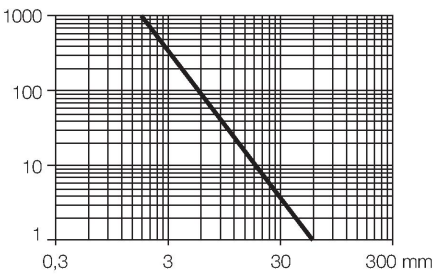
Functional principle

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 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

Technical data

Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, yellow
Tests/approvals	
MTTF	293 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE



Accessories

SMB30A3032723

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

SMBQS30L3002809

Mounting bracket, stainless steel, for QS30 series

SMB30MM3027162

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

SMB30SC3052521

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

Accessories

Dimension drawing	Type	ID	
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	
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	