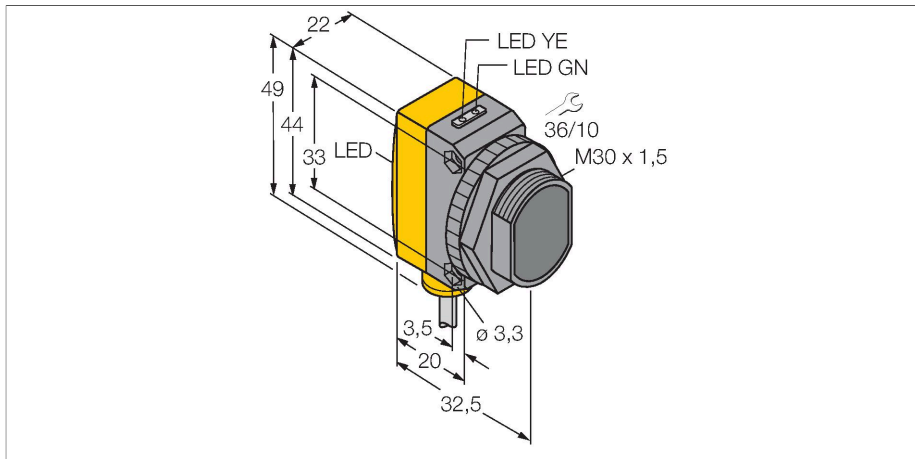


QS30R

Photoelectric Sensor – Opposed Mode Sensor (Emitter/Receiver)



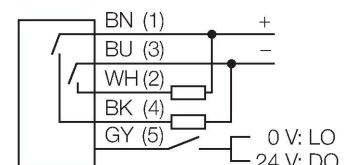
Technical data

Type	QS30R
ID	3073078
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	Ø 30 x 35 x 22 x 49 mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC
Number of cores	5
Core cross-section	0.5 mm ²
Ambient temperature	-20...+70 °C

Features

- Cable, PVC, 2 m
- Protection class IP67
- LED all-round visible
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

Wiring diagram



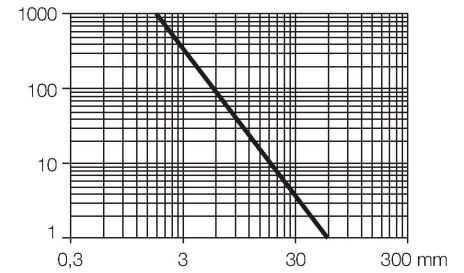
Functional principle

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

Protection class	IP67
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

<p>SMBQS30Y</p>	<p>3002811</p> <p>Protective housing, stainless steel, for QS30 series</p>	<p>SMBQS30YL</p>	<p>3072741</p> <p>Protective housing with safety glass panel, stainless steel, for QS30 series</p>
<p>SMB30A</p>	<p>3032723</p> <p>Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread</p>	<p>SMBQS30L</p>	<p>3002809</p> <p>Mounting bracket, stainless steel, for QS30 series</p>
<p>SMB30MM</p>	<p>3027162</p> <p>Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread, wide holes for accurate alignment</p>	<p>SMB30SC</p>	<p>3052521</p> <p>Mounting bracket, PBT black, for sensors with 30mm thread, rotatable</p>