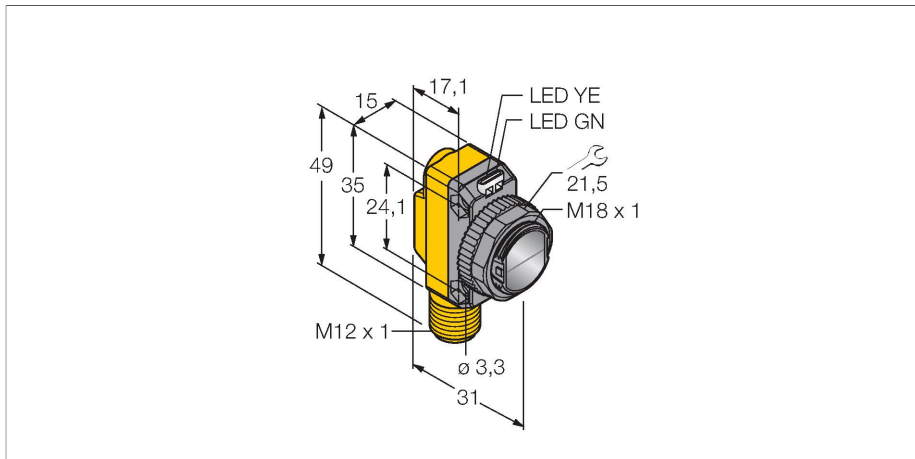


QS18VN6RQ8

Photoelectric Sensor – Opposed Mode Sensor (Emitter/Receiver)



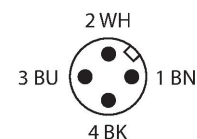
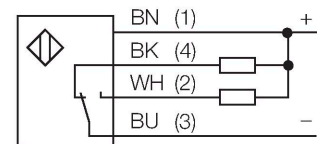
Technical data

Type	QS18VN6RQ8
ID no.	3066449
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...20000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 100 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO/NC, NPN
Current output	100 mA
Switching frequency	≤ 400 Hz
Readiness delay	≤ 100 ms
Response time typical	< 0.75 ms
Mechanical data	
Design	Rectangular with thread, QS18
Dimensions	Ø 18 x 31 x 15 x 35 mm
Housing material	Plastic, ABS
Lens	plastic, Acrylic
Electrical connection	Connectors, M12 × 1, PVC
Number of cores	4
Ambient temperature	-20...+70 °C
Protection class	IP67

Features

- Male M12 × 1, 4-pin
- Protection class IP67
- LED all-round visible
- Operating voltage: 10...30 VDC
- NPN switching output, changeover

Wiring diagram



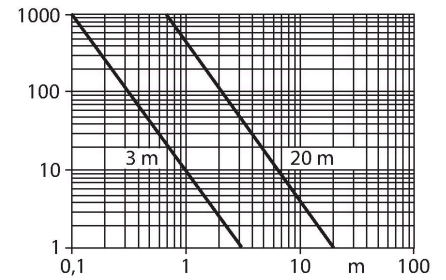
Functional principle

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. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. The excellent light/dark contrast and the high excess gain allow operation over larger distances and under difficult conditions.

Excess gain curve
Excess gain in relation to the distance (type 6EB/RB)

Technical data

Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, yellow, flashing
Tests/approvals	
MTTF	2952 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus



Accessories

SMB18A 	3033200 Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread	SMB18AFAM10 	3012558 Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm
SMBQS18A 	3069721 Mounting bracket, stainless steel, for 18 mm thread	SMB18SF 	3052519 Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable

Accessories

Dimension drawing	Type	ID no.	
	RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	WKC4.4T-2/TEL	6625025	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com