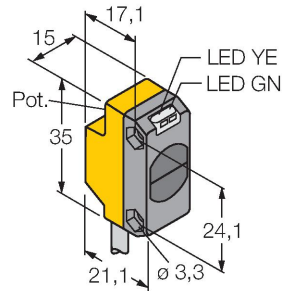


QS18VN6RB

Photoelectric Sensor – Opposed Mode Sensor (Emitter/Receiver)



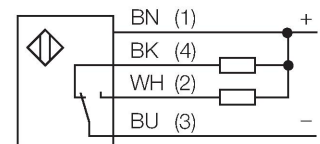
Technical data

Type	QS18VN6RB
ID	3061669
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...3000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	$< 10 \% U_{ss}$
DC rated operational current	$\leq 100 \text{ mA}$
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO/NC, NPN
Current output	100 mA
Switching frequency	$\leq 400 \text{ Hz}$
Readiness delay	$\leq 100 \text{ ms}$
Response time typical	$< 0.75 \text{ ms}$
Mechanical data	
Design	Rectangular, QS18
Dimensions	27.7 x 15 x 35 mm
Housing material	Plastic, ABS
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC
Number of cores	4
Core cross-section	0.35 mm ²
Ambient temperature	-20...+70 °C

Features

- Cable, PVC, 2 m
- 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

Protection class	IP67
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

SMBQS18A

3069721

Mounting bracket, stainless steel, for 18 mm thread

Technical drawing of the SMBQS18A mounting bracket. It shows a side view with dimensions: 41 (height), 21 (width), 24,9 (base width), and 19,4 (base depth). The mounting hole is labeled M18 x 1.

SMBQS18AF

3067467

Mounting bracket, stainless steel, for 18 mm thread

Technical drawing of the SMBQS18AF mounting bracket. It shows a side view with dimensions: 27,6 (height), 12,7 (width), 20,3 (base width), 31,8 (base depth), 15,2 (base depth), and 4,32 (hole diameter). The mounting hole is labeled Ø 3.