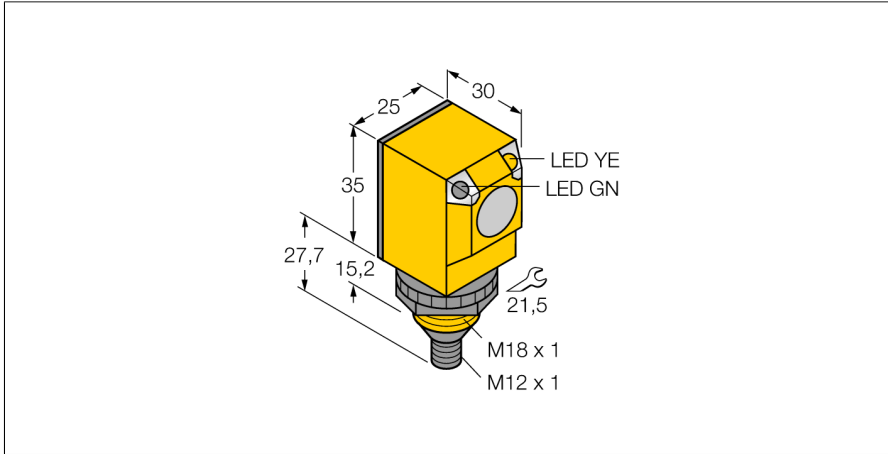


Photoelectric Sensor Opposed Mode Sensor (Receiver) Q25RW3RQ3



- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C
- Selectable light/dark operation or light operation with alarm function

Type	Q25RW3RQ3
ID	3036969
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...20000 mm

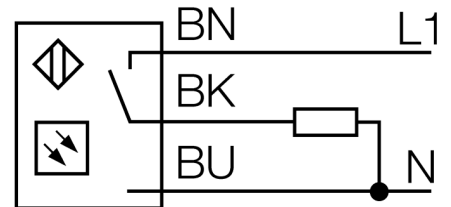
Electrical data	
Operating voltage U_s	20...250VAC
AC rated operational current	≤ 200 mA
Output function	Dark operation, Relay output
Switching frequency	≤ 40 Hz
Readiness delay	≤ 100 ms
Response time typical	< 16 ms

Mechanical data	
Design	Rectangular, Q25
Dimensions	Ø 18 x 30 x 25 x 62.7 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Polycarbonate
Electrical connection	Connector, M12 × 1, PVC
Number of cores	5
Ambient temperature	-40...+70 °C
Protection class	IP69

Special features	
	Chemical-resistant
	Encapsulated
	Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED

Tests/approvals	
Approvals	CE, UL, CSA

Wiring Diagram

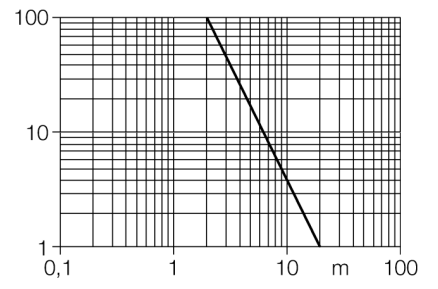


Functional principle

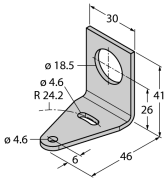
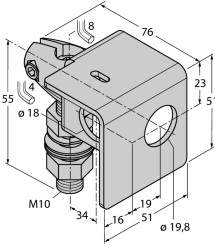
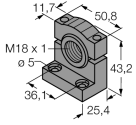
Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremely high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions.

Excess gain curve

Excess gain in relation to the distance



Accessories

Type code	Ident no.		Dimension drawing
SMB18A	3033200	Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread	 <p>Technical drawing of the SMB18A mounting bracket. It is a rectangular stainless steel bracket with a 18 mm thread. Dimensions include: top width 30 mm, total width 46 mm, total height 41 mm, mounting hole diameter $\phi 18.5$, hole offset $\phi 4.6$, and a radius $R24.2$.</p>
SMB18AFAM10	3012558	Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm	 <p>Technical drawing of the SMB18AFAM10 mounting bracket. It is a rectangular bracket made of VA 1.4401 material, designed for an M10 x 1.5 thread with an 18 mm thread length. Dimensions include: top width 76 mm, total width 55 mm, total height 51 mm, mounting hole diameter $\phi 18$, and a distance of 19 mm from the bottom edge to the center of the mounting hole.</p>
SMB18SF	3052519	Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable	 <p>Technical drawing of the SMB18SF mounting bracket. It is a small, rotatable PBT black bracket for sensors with an 18 mm thread. Dimensions include: top width 50.8 mm, total width 38.1 mm, total height 43.2 mm, and a mounting hole diameter $\phi 5$.</p>