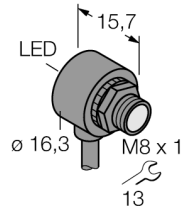


Photoelectric Sensor

Opposed Mode Sensor (Emitter/Receiver)

Miniature Sensor

T8RN6RQ5



Type	T8RN6RQ5
ID	3070644

Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...2000 mm

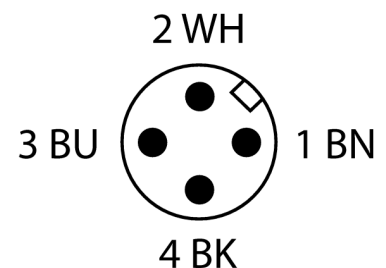
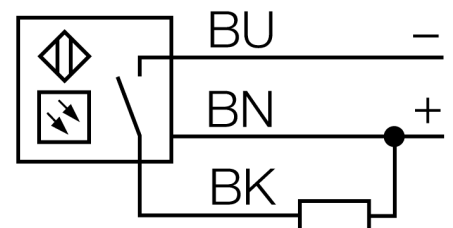
Electrical data	
Operating voltage U_s	10...30 VDC
Residual ripple	< 10 % U_s
DC rated operating current I_s	≤ 50 mA
No-load current I_0	≤ 25 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, dark operation, NPN
Switching frequency	≤ 666 Hz
Readiness delay	≤ 100 ms
Response time typical	< 1 ms

Mechanical data	
Design	Tube, T8
Dimensions	Ø 8 x 15.8 mm
Housing material	Plastic, Thermoplastic material, Black
Lens	plastic, Acrylic
Electrical connection	Cable with connector, M12 x 1, 0.15 m, PVC
Number of cores	4
Core cross-section	0.1 mm ²
Ambient temperature	-20...+55 °C
Protection class	IP67

Power-on indication	LED, Green
Switching state	LED, Red
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED red Flashing

- Cable with male end M12 x 1, PVC, 150 mm
- Protection class IP67
- Ambient temperature: -20...+55 °C
- Ideal for confined spaces
- Operating voltage: 10...30 VDC
- NPN switching output, dark operation

Wiring Diagram



Functional principle

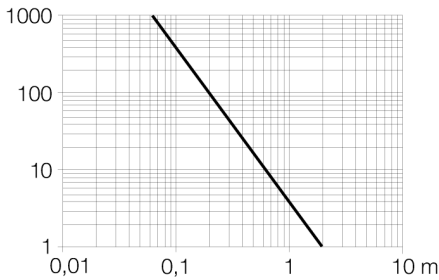
Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the

Tests/approvals	
Approvals	CE

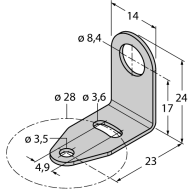
sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremely high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions.

Excess gain curve

Excess gain in relation to the distance



Accessories

Type code	Ident no.		Dimension drawing
SMB8MM	3067363	Mounting bracket, material VA 1.4401, for T8 or T8L series	 Technical drawing of a mounting bracket (SMB8MM) showing dimensions: 14, 24, 17, 23, 4.9, 3.5, 28, 3.6, 8.4.