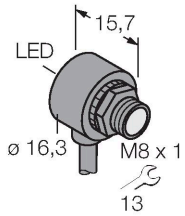
T8RN6D100Q5
Photoelectric Sensor – Diffuse Mode Sensor
Miniature Sensor





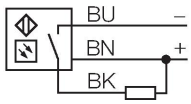
Technical data

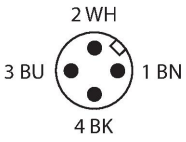
Type	T8RN6D100Q5
ID	3070642
Optical data	
Function	Proximity switch
Operating mode	Diffuse
Light type	Red
Wavelength	680 nm
Range	0…100 mm
Electrical data	
Operating voltage	10…30 VDC
Residual ripple	< 10 % U_{ss}
DC rated operational current	≤ 50 mA
No-load current	≤ 25 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, dark operation, NPN
Switching frequency	≤ 500 Hz
Readiness delay	≤ 150 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 × 1, 0.15 m, PVC

Features

- Cable with male end M12 × 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

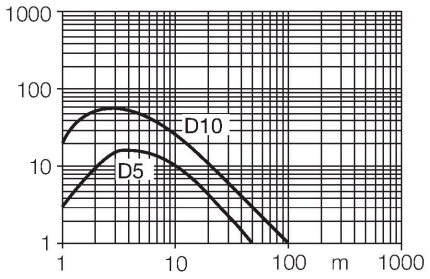
Identical to retro-reflective sensors, emitter and receiver circuitry are incorporated in the same housing of the diffuse mode sensors. However, diffuse mode sensors do not detect the interruption of the light beam but the reflection of the target. A target is detected if it reflects a sufficient amount of light back to the receiver. The switching distance of diffuse mode sensors thus largely depends on the reflectivity of the target. This type of sensor is especially suited for detection of transparent objects (diffuse mode sensor with or without background suppression or convergent mode sensors).

Excess gain curve
Excess gain in relation to the distance

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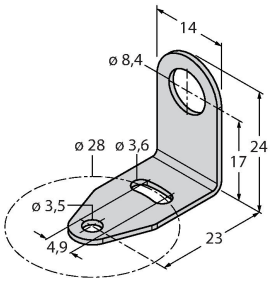
Technical data

Number of cores	4
Core cross-section	0.1 mm²
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
Tests/approvals	
Approvals	CE



Accessories

SMB8MM 3067363



Mounting bracket, material VA 1.4401, for T8 or T8L series

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