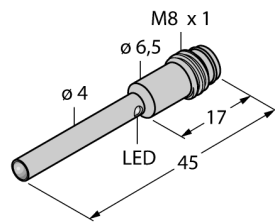


Photoelectric Sensor

Opposed Mode Sensor (Emitter/Receiver)

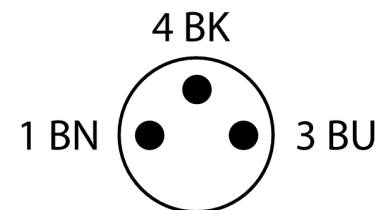
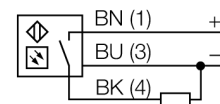
Miniature Sensor

VSM4RP6RQ7



- Stainless steel housing V2A
- Protection class IP67
- Male M8 × 1; 3-pin
- Lens, sapphire crystal glass
- Operating voltage: 10...30 VDC
- PNP switching output, dark operation

Wiring Diagram

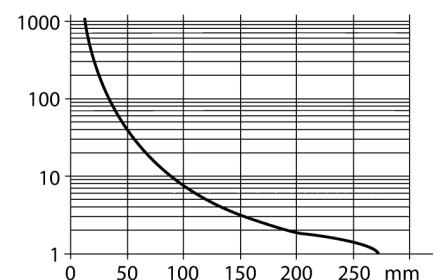


Type	VSM4RP6RQ7
ID	3013297
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...250 mm
Electrical data	
Operating voltage U_s	10...30 VDC
Residual ripple	< 10 % U_s
DC rated operating current I_o	≤ 100 mA
No-load current I_o	≤ 15 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, dark operation, PNP
Switching frequency	≤ 250 Hz
Readiness delay	≤ 20 ms
Response time typical	< 2.5 ms
Mechanical data	
Design	Tube, VSM
Dimensions	Ø 4 x 45 mm
Housing material	Metal, Stainless steel
Lens	glass, Sapphire
Electrical connection	Connector, M8 × 1, 2 m, PVC
Number of cores	3
Core cross-section	0.34 mm ²
Ambient temperature	0...+55 °C
Protection class	IP67
Special features	
Switching state	LED, Yellow
Excess gain indication	LED, flashing

Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite to each other whereby the emitted light aims 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



Tests/approvals

Approvals

CE, UL