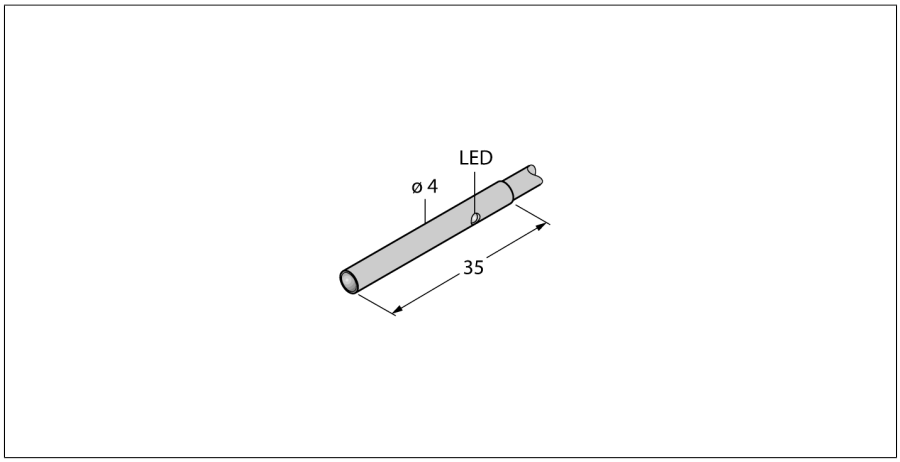
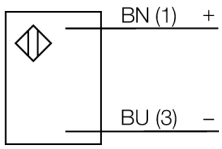
Photoelectric Sensor
Opposed Mode Sensor (Emitter)
Miniature Sensor
VSM46E



- Stainless steel housing V2A
- Protection class IP67
- Cable, 2 m, 2-wire
- Lens, sapphire crystal glass
- Operating voltage: 10…30 VDC

Wiring Diagram

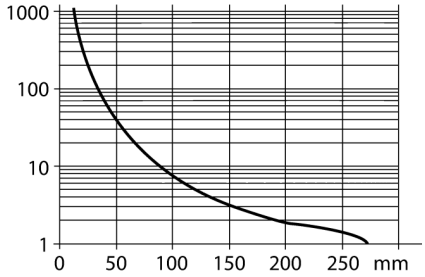


Type	VSM46E
ID	3013286
Optical data	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	IR
Wavelength	880 nm
Range	0…250 mm
Electrical data	
Operating voltage	10…30 VDC
Residual ripple	< 10 % U_{ss}
No-load current I_0	≤ 15 mA
Reverse polarity protection	yes
Readiness delay	≤ 20 ms
Response time typical	< 2.5 ms
Mechanical data	
Design	Tube, VSM
Dimensions	Ø 4 x 35 mm
Housing material	Metal, Stainless steel
Lens	glass, Saphir
Electrical connection	Cable, 2 m, PVC
Number of cores	2
Core cross-section	0.34 mm²
Ambient temperature	0…+55 °C
Protection class	IP67
Special features	Chemical-resistant
Excess gain indication	LED
Tests/approvals	
Approvals	CE, UL

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



Edition • 2023-11-01T00:22:40+01:00