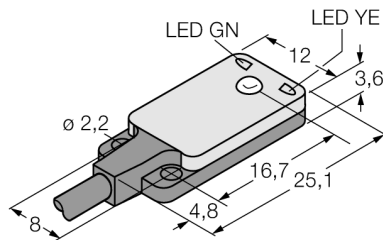


Photoelectric Sensor

Opposed Mode Sensor (Emitter/Receiver)

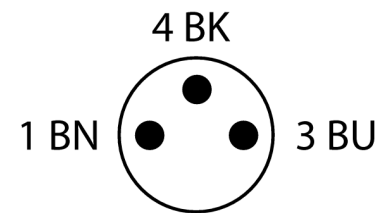
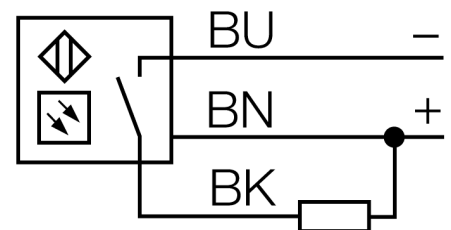
Miniature Sensor

VS2KRN5Q



- Cable with male end, M8 × 1, 3-pin, PVC, 150 mm
- Operating voltage: 10...30 VDC
- Ultra flat design
- NPN switching output, dark operation

Wiring Diagram



Type	VS2KRN5Q
ID	3070671

Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Light type	Red
Wavelength	940 nm
Range	0...3000 mm

Electrical data	
Operating voltage U_s	10...30 VDC
Residual ripple	< 10 % U_s
DC rated operating current I_s	≤ 50 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, NPN
Switching frequency	≤ 500 Hz
Readiness delay	≤ 100 ms
Response time typical	< 1 ms

Mechanical data	
Design	Rectangular, VS2
Housing material	Plastic, Thermoplastic material
Lens	plastic, MABS
Electrical connection	Cable with connector, M8 × 1, 0.15 m, PVC
Number of cores	3
Ambient temperature	-20...+55 °C
Protection class	IP67

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

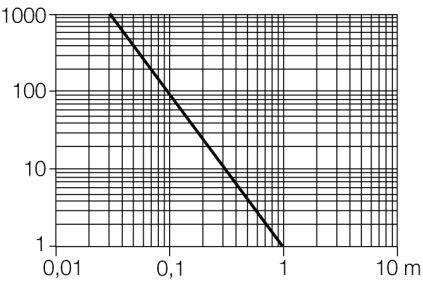
Functional principle

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

Tests/approvals	
Approvals	CE



Accessories

Type code	Ident no.		Dimension drawing
SMBVS2RA	3058603	mounting bracket, straight	