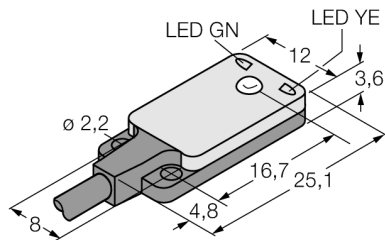


Photoelectric Sensor

Opposed Mode Sensor (Receiver)

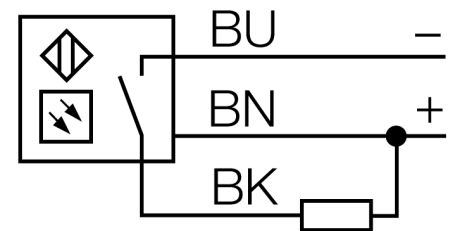
Miniature Sensor

VS2RN5R W/30



- Cable, 2 m, 3-wire
- Operating voltage: 10...30 VDC
- Ultra flat design
- NPN switching output, dark operation

Wiring Diagram

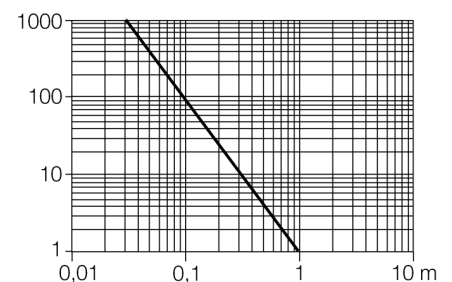


Functional principle

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 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



Type	VS2RN5R W/30
ID	3069553
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Wavelength	940 nm
Range	0...3000 mm
Electrical data	
Operating voltage U_n	10...30 VDC
Residual ripple	< 10 % U_n
DC rated operating current I_n	≤ 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, 9 m, PVC
Number of cores	3
Core cross-section	0.34 mm ²
Ambient temperature	-20...+55 °C
Protection class	IP67
Power-on indication	
LED, Green	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing

Tests/approvals

Approvals

CE

Accessories

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