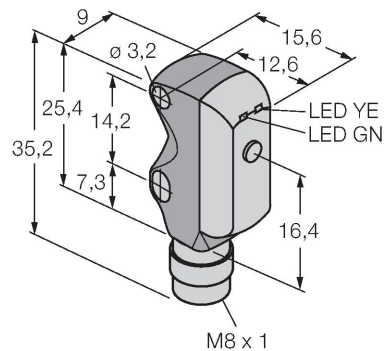


VS3RN5XLPQ

Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter

Miniature Sensor



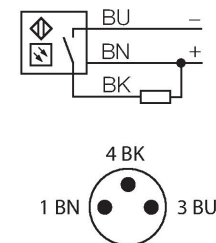
Technical data

Type	VS3RN5XLPQ
ID	3062622
Optical data	
Function	Retroreflective Sensor
Operating mode	Polarized (coaxial)
Reflector included in delivery	no
Light type	Red polarized
Wavelength	680 nm
Range	0...250 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	Rectangular, VS3
Dimensions	16.6 x 9 x 25.4 mm
Housing material	Plastic, Thermoplastic material

Features

- Male M8 × 1; 3-pin
- Coaxial optics, no blind zone
- Operating voltage: 10...30 VDC
- NPN switching output, dark operation

Wiring diagram



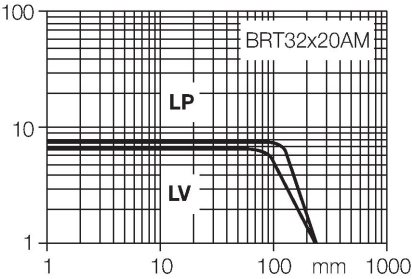
Functional principle

Retro-reflective sensors incorporate emitter and receiver in a single compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors incorporate some of the advantages of opposed mode sensors (good contrast and high excess gain). Further it is merely required to install and wire a single device. Devices with polarisation filter should be used for detection of shiny targets.

Excess gain curve
Excess gain in relation to the distance

Technical data

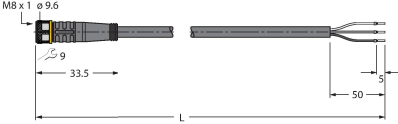
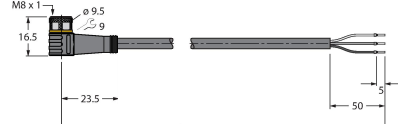
Lens	glass, Glass
Electrical connection	Cable with connector, M8 × 1, 0.15 m, PVC
Number of cores	3
Ambient temperature	-20...+55 °C
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green
Excess gain indication	LED
Tests/approvals	
Approvals	CE



Accessories

SMBVS3S	3062618	SMBVS3T	3062617
Montagewinkel, 300 Edelstahl, rechtwinklig, für Sensoren der Baureihe VS3		Montagewinkel, 300 Edelstahl, rechtwinklig, sehr hoch, für Sensoren der Baureihe VS3	

Accessories

Dimension drawing	Type	ID	
	PKG3M-2/TEL	6625058	Connection cable, female M8, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	PKW3M-2/TEL	6625064	Connection cable, female M8, angled, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com

Accessories

Dimension drawing	Type	ID	
	BRT-32X20AM	3058982	Rectangular reflector, reflection coefficient 1.2, material acrylic, ambient temperature -20 ... +60 °C, microprism geometry

