QS18VP6LVQ1
– Retroreflective Sensor

Technical data

Type	QS18VP6LVQ1
ID no.	3078506
Optical data	
Function	Retroreflective Sensor
Operating mode	Unpolarized
Reflector included in delivery	no
Light type	Red
Wavelength	630 nm
Range	0…6500 mm
Operating voltage	10…30 VDC
Switching frequency	≤ 800 Hz
Readiness delay	≤ 100 ms
Response time typical	< 0.6 ms
Setting option	Potentiometer
Design	Rectangular with thread
Dimensions	Ø 18 mm
Housing material	Plastic, ABS
Lens	Acrylic
Electrical connection	Cable with connector, M8 × 1, 0.15 m, PVC
Number of cores	4
Ambient temperature	-20…+70 °C
Protection class	IP67
Excess gain indication	LED
Tests/approvals	

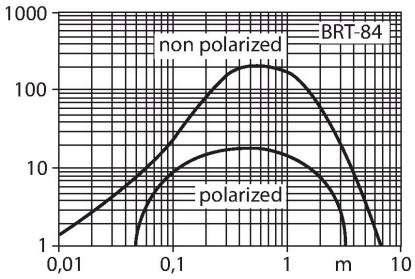
Features

- LED all-round visible
- Sensitivity adjusted via potentiometer

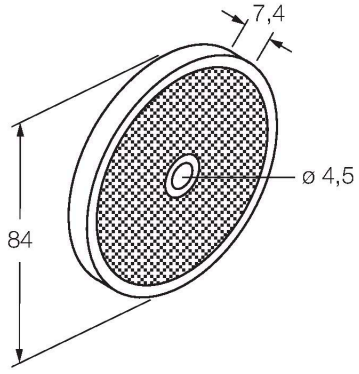
Functional principle

Retroreflective sensors have emitter and receiver circuitry incorporated in the same housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. A target is detected when it interrupts this beam. Retroreflective sensors feature some of the advantages of opposed mode sensors, such as good contrast and high excess gain. Furthermore, only one device has to be installed and wired. Devices without polarizing filter have a smaller sensing range and are more susceptible to disturbances caused by shiny objects.

Excess gain curve
Excess gain in relation to the distance (unpolarized)



Accessories

Dimension drawing	Type	ID no.	
	BRT-84	3058979	Round reflector, reflection coefficient 1.4, material acrylic, ambient temperature -20 … +60 °C