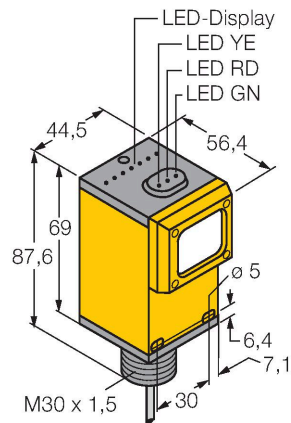


Q45BW22LP W/30

Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter



Technical data

Type	Q45BW22LP W/30
ID no.	3038480
Optical data	
Function	Retroreflective Sensor
Operating mode	Polarized
Reflector included in delivery	yes
Light type	Red polarized
Wavelength	680 nm
Range	150...6000 mm
Electrical data	
Operating voltage	90...250 VAC
No-load current	≤ 50 mA
Output function	NO contact, Relay output
Readiness delay	≤ 100 ms
Response time typical	< 2 ms
Setting option	Potentiometer
Mechanical data	
Design	Rectangular, Q45
Dimensions	Ø 30 x 56.4 x 44.5 x 87.6 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Cable, 9 m, PVC
Number of cores	3
Core cross-section	0.34 mm ²
Ambient temperature	-40...+70 °C
Protection class	IP67

Features

- Cable, PVC, 2 m
- Protection class IP67
- Sensitivity adjusted via potentiometer
- Operating voltage: 90...250 VAC
- Relay output, NO (SPST)
- Light or dark operation, adjusted via selector switch

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. A smaller sensing range and susceptibility of devices without polarisation filter can be of disadvantage when shiny objects have to be detected.

Excess gain curve
Excess gain in relation to the distance

