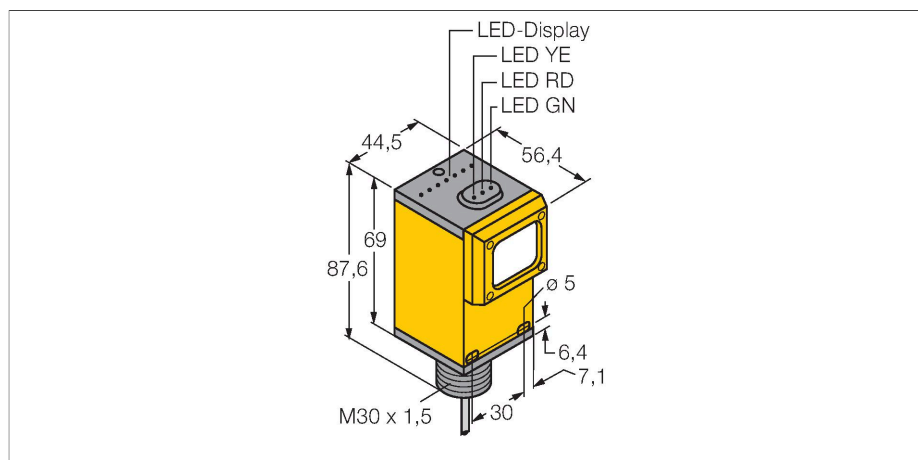


# Q45BW22LV

## Photoelectric Sensor – Retroreflective Sensor



### Technical data

Type	Q45BW22LV
ID	3036841
<b>Optical data</b>	
Function	Retroreflective Sensor
Operating mode	Unpolarized
Reflector included in delivery	yes
Light type	Red
Wavelength	680 nm
Range	80...9000 mm
<b>Electrical data</b>	
Operating voltage	90...250 VAC
No-load current	$\leq 50$ mA
Output function	NO contact, Relay output
Readiness delay	$\leq 100$ ms
Response time typical	$< 2$ ms
Setting option	Potentiometer
<b>Mechanical data</b>	
Design	Rectangular, Q45
Dimensions	$\varnothing 30 \times 56.4 \times 44.5 \times 87.6$ mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC
Number of cores	3
Core cross-section	$0.34$ mm <sup>2</sup>
Ambient temperature	-40...+70 °C
Protection class	IP67
Special features	keep/defer

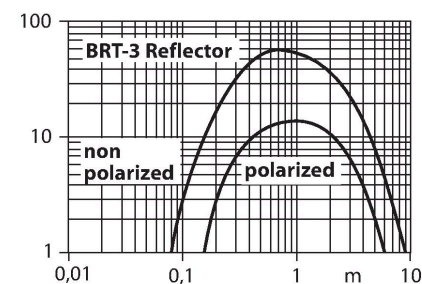
### Features

- 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



## Technical data

Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green
Excess gain indication	LED, red
<b>Tests/approvals</b>	
MTTF	67 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus, CSA

## Accessories

<p><b>SMB30A</b></p>	<p><b>3032723</b></p> <p>Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread</p>	<p><b>SMB30FAM10</b></p>	<p><b>3011185</b></p> <p>Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm</p>
<p><b>SMB30SC</b></p>	<p><b>3052521</b></p> <p>Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable</p>		

## Accessories

Dimension drawing	Type	ID	
	BRT-3	3016164	Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20...+60 °C