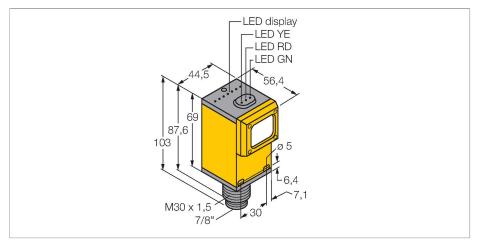
# Q45BW13RQ Photoelectric Sensor – Opposed Mode Sensor (Emitter/ Receiver)



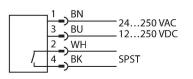
#### Technical data

Туре	Q45BW13RQ
ID no.	3054327
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	060000 mm
Electrical data	
Operating voltage	12250 VDC
Operating voltage	24250 VAC
Output function	NO contact, Relay output
Switching frequency	≤ 33 Hz
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 101.6 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Connectors, 7/8", PVC
Number of cores	4
Ambient temperature	-25+55 °C
Protection class	IP67
Special features	keep/defer
Power-on indication	LED, Green
Switching state	LED, Yellow

#### **Features**

- Male connector 7/8"
- ■Protection class IP67
- Sensitivity adjusted via potentiometer
- Operating voltage: 12...250 VDC or 24...
- Relay output, NO (SPST)
- Light or dark operation, adjusted via selector switch

## Wiring diagram

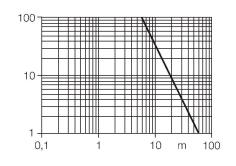




## Functional principle

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 extremly 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

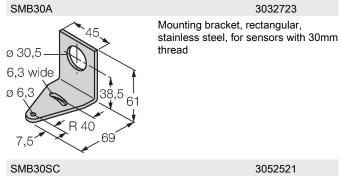




## Technical data

Error indication	LED, green
Excess gain indication	LED, red
Tests/approvals	
MTTF	67 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus, CSA

## Accessories





3011185 Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm



Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable