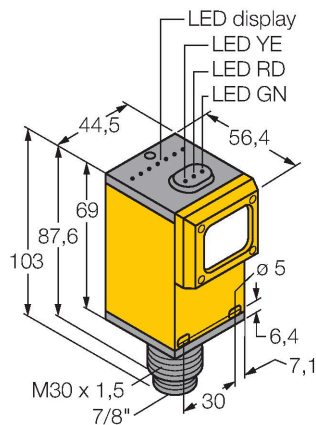


Q45VR3DXQ

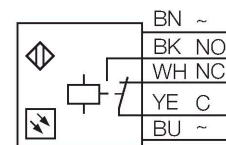
Photoelectric Sensor – Diffuse Mode Sensor



Features

- Male connector 7/8"
- Protection class IP67
- Sensitivity adjustment via potentiometer
- Light and dark operation
- Operating voltage 24...250 VAC/12...250 VDC

Wiring diagram



Technical data

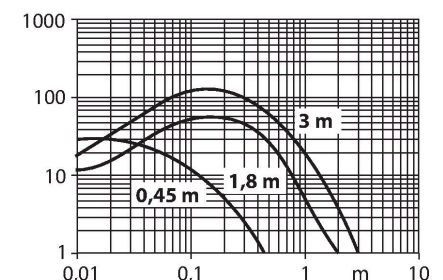
Type	Q45VR3DXQ
ID	3054310
Optical data	
Function	Proximity switch
Operating mode	Diffuse
Light type	IR
Wavelength	880 nm
Range	0...3000 mm
Electrical data	
Operating voltage	12...250 VDC
Operating voltage	24...250 VAC
DC rated operational current	≤ 5000 mA
Output function	Complementary contact, Relay output
Switching frequency	0.033 kHz
Switching frequency	≤ 33 Hz
Readiness delay	≤ 100 ms
Response time typical	< 15 ms
Max. DC switching capacity	1 W
Setting option	Potentiometer
Mechanical data	
Design	Rectangular, Q45
Dimensions	Ø 30 x 103 x 56.4 x 44.5 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Connector, 7/8", PVC
Number of cores	5
Ambient temperature	-40...+70 °C



Functional principle

Like retroreflective sensors, diffuse mode sensors also contain emitter and receiver circuitry in the same housing. However, diffuse mode sensors do not detect the interruption of the light beam but the reflection of the object. An object is detected if it reflects sufficient light back to the receiver. The switching distance of diffuse mode sensors thus largely depends on the object's reflectivity. This type of sensor is especially suited for detection of transparent objects (diffuse mode sensor with or without background suppression or convergent mode sensors).

Excess gain curve
Excess gain in relation to distance

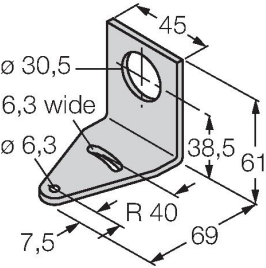


Technical data

Protection class	IP67
Special features	keep/defer
Power-on indication	LED, Green
Switching state	LED, Yellow
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

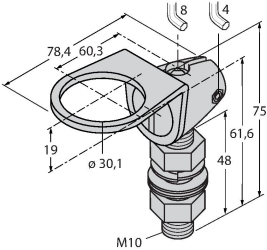
Accessories

SMB30A3032723



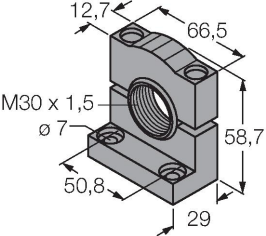
Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

SMB30FAM103011185



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

SMB30SC3052521



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