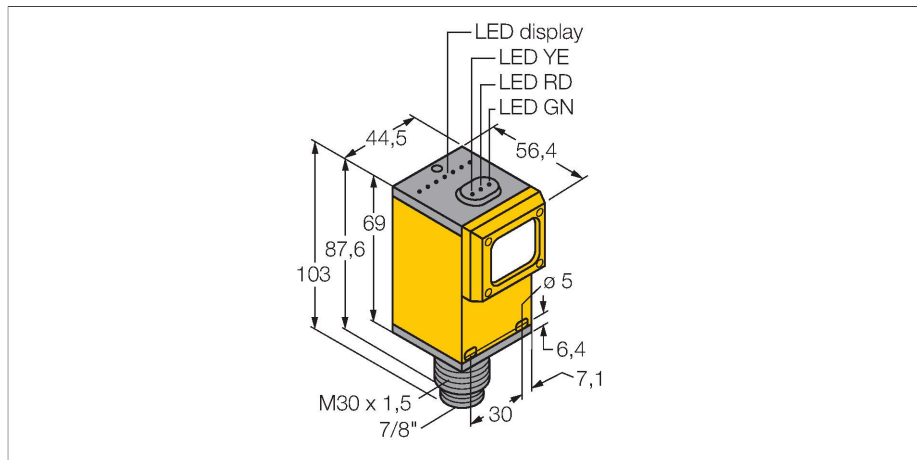


Q45BW13LVQ

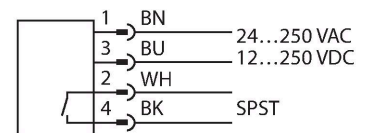
Photoelectric Sensor – Retroreflective Sensor



Features

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

Wiring diagram



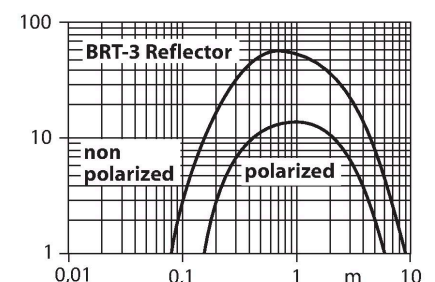
Technical data

| | |
|--------------------------------|---------------------------------|
| Type | Q45BW13LVQ |
| ID no. | 3054326 |
| Optical data | |
| Function | Retroreflective Sensor |
| Operating mode | Unpolarized |
| Reflector included in delivery | yes |
| Light type | Red |
| Wavelength | 680 nm |
| Range | 80...9000 mm |
| Electrical data | |
| Operating voltage | 12...250 VDC |
| Operating voltage | 24...250 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 |

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 |
| Tests/approvals | |
| MTTF | 67 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals | CE, cURus, CSA |

Accessories

SMB30A 3032723

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

SMB30FAM10 3011185

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

SMB30SC 3052521

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

Accessories

| Dimension drawing | Type | ID no. | |
|-------------------|-------|---------|---|
| | BRT-3 | 3016164 | Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20...+60 °C |