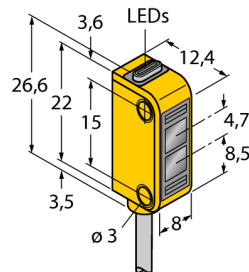


**Photoelectric sensor
retroreflective sensor
miniature sensor
Q12AB6LV**



- Cable, PVC, 2 m
- Protection class IP67
- LED all-round visible
- Indication of insufficient excess gain
- Operating voltage: 10...30 VDC
- Switching output, bipolar, light operation

Wiring diagram

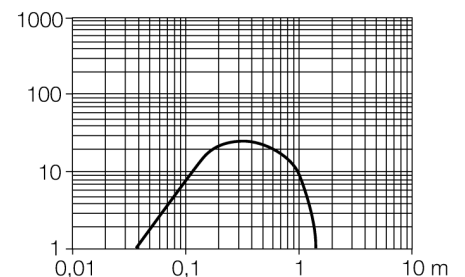


Functional principle

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



| | |
|--------------------------------|---|
| Type code | Q12AB6LV |
| Ident no. | 3072122 |
| Operating mode | retro-reflective sensor |
| Light type | red |
| Wavelength | 640 nm |
| Range | 40...1500 mm |
| Ambient temperature | -20...+55 °C |
| Operating voltage | 10...30VDC |
| Residual ripple | < 10 % U _{ss} |
| DC rated operational current | ≤ 50 mA |
| No-load current I ₀ | ≤ 20 mA |
| Short-circuit protection | yes |
| Reverse polarity protection | yes |
| Output function | NO, light operation, PNP/NPN |
| Switching frequency | ≤ 700 Hz |
| Readiness delay | ≤ 120 ms |
| Design | rectangular, Q12 |
| Dimensions | 12.4 x 8 x 26.6 mm |
| Housing material | plastic, Elastomere, yellow |
| Lens | plastic, polycarbonate |
| Connection | cable, PVC |
| Cable length | 2 m |
| Cable cross section | 4 x 0.34 mm ² |
| Protection class | IP67 |
| MTTF | 135 years acc. to SN 29500 (Ed. 99) 40 °C |
| Power-on indication | LED green |
| Switching state | LED yellow |
| Error indication | LED green |
| Excess gain indication | LED yellow flashing |

**Photoelectric sensor
retroreflective sensor
miniature sensor
Q12AB6LV**

Accessories

| Type code | Ident no. | Description | Dimension drawing |
|-----------|-----------|--|-------------------|
| SMBQ12A | 3074341 | Mounting bracket; material VA 1.4401, for photoelectric sensor, Q12 series | |
| SMBQ12T | 3073722 | Mounting bracket; material VA 1.4401, for photoelectric sensor, Q12 series | |

Function accessories

| Type code | Ident no. | Description | Dimension drawing |
|------------|-----------|---|-------------------|
| BRT-60X40C | 3044997 | Rectangular reflector, reflection coefficient 1.48, material: acrylic, ambient temperature -20...+60 °C | |