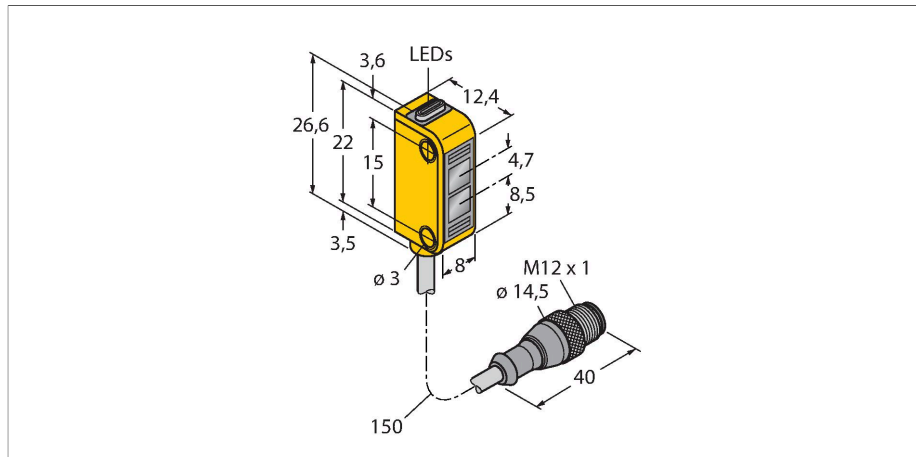


# Q126EQ5

## Photoelectric Sensor – Opposed Mode Sensor (Emitter) Miniature Sensor



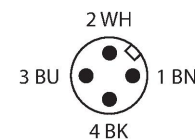
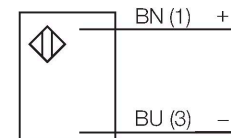
### Technical data

|                             |                                            |
|-----------------------------|--------------------------------------------|
| Type                        | Q126EQ5                                    |
| ID                          | 3074138                                    |
| <b>Optical data</b>         |                                            |
| Function                    | Opposed mode sensor                        |
| Operating mode              | Emitter                                    |
| Light type                  | Red                                        |
| Wavelength                  | 640 nm                                     |
| Range                       | 0...2000 mm                                |
| <b>Electrical data</b>      |                                            |
| Operating voltage           | 10...30 VDC                                |
| Residual ripple             | < 10 % U <sub>ss</sub>                     |
| Short-circuit protection    | yes                                        |
| Reverse polarity protection | yes                                        |
| Readiness delay             | ≤ 120 ms                                   |
| Response time typical       | < 1.3 ms                                   |
| <b>Mechanical data</b>      |                                            |
| Design                      | Rectangular, Q12                           |
| Dimensions                  | 12.4 x 8 x 26.6 mm                         |
| Housing material            | Plastic, Thermoplastic material, Yellow    |
| Lens                        | plastic, Polycarbonate                     |
| Electrical connection       | Cable with connector, M12 × 1, 0.15 m, PVC |
| Number of cores             | 4                                          |
| Core cross-section          | 0.34 mm <sup>2</sup>                       |
| Ambient temperature         | -20...+55 °C                               |
| Protection class            | IP67                                       |

### Features

- Cable, PVC, 150 mm, with M12 × 1 male end, 4-pin
- Protection class IP67
- LED all-round visible
- Operating voltage: 10...30 VDC

### Wiring diagram



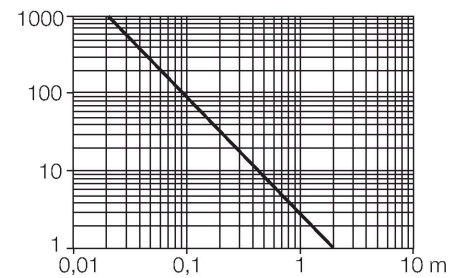
### Functional principle

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 extremely high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions.

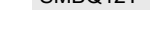
Excess gain curve  
Excess gain in relation to the distance

## Technical data

|                        |                                           |
|------------------------|-------------------------------------------|
| Power-on indication    | LED, Green                                |
| Excess gain indication | LED, yellow                               |
| Tests/approvals        |                                           |
| MTTF                   | 145 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals              | CE, cURus                                 |



## Accessories

|                                                                                                                                                                                                          |                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>SMBQ12A</b></p> <p>3074341</p>  <p>Mounting bracket; material VA 1.4401, for photoelectric sensor, Q12 series</p> | <p><b>SMBQ12T</b></p> <p>3073722</p>  <p>Mounting bracket; material VA 1.4401, for photoelectric sensor, Q12 series</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Accessories

| Dimension drawing | Type          | ID      |                                                                                                                                                                                                                  |
|-------------------|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | RKC4.4T-2/TEL | 6625013 | Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |
|                   | WKC4.4T-2/TEL | 6625025 | Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>   |