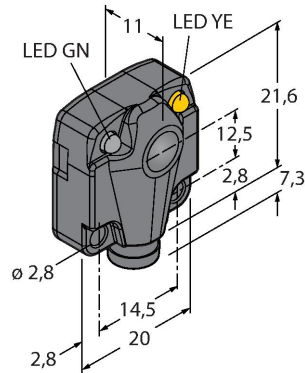


# Q10AP6RQ

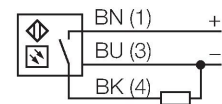
## Photoelectric Sensor – Opposed Mode Sensor (Receiver) Miniature Sensor



### Features

- Male connector, M8 × 1, 3-pin
- Protection class IP67
- Glass lens
- Operating voltage: 10...30 VDC
- PNP/NPN switching output, light operation

### Wiring diagram



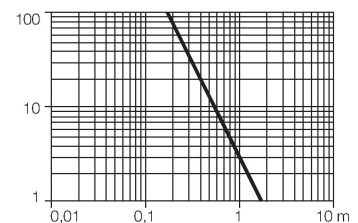
### Technical data

|                             |                                        |
|-----------------------------|----------------------------------------|
| Type                        | Q10AP6RQ                               |
| ID                          | 3044753                                |
| <b>Optical data</b>         |                                        |
| Function                    | Opposed mode sensor                    |
| Operating mode              | Receiver                               |
| Light type                  | IR                                     |
| Wavelength                  | 880 nm                                 |
| Range                       | 0...1800 mm                            |
| <b>Electrical data</b>      |                                        |
| Operating voltage           | 10...30 VDC                            |
| Residual ripple             | < 10 % U <sub>ss</sub>                 |
| No-load current             | ≤ 15 mA                                |
| Short-circuit protection    | yes / Cyclic                           |
| Reverse polarity protection | yes                                    |
| Output function             | NO contact, light operation, PNP       |
| Switching frequency         | 0.083 kHz                              |
| Readiness delay             | ≤ 100 ms                               |
| Response time typical       | < 8 ms                                 |
| Overcurrent release         | > 220 mA                               |
| <b>Mechanical data</b>      |                                        |
| Design                      | Rectangular, Q10                       |
| Dimensions                  | 28.9 x 20 x 10 mm                      |
| Housing material            | Plastic, Thermoplastic material, Black |
| Lens                        | glass, Glass                           |
| Electrical connection       | Connector, M8 × 1, PVC                 |
| Number of cores             | 3                                      |

### Functional principle

Opposed mode sensors consist of an emitter and a receiver. They are installed opposite to each other whereby the emitted light aims 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 objects. The excellent light/dark contrast and the very high excess gain are typical for this function mode and enable operation over large distances and under difficult conditions.

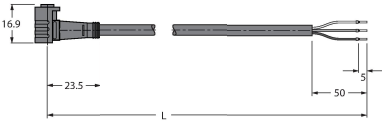
Excess gain curve  
Excess gain in relation to distance



Technical data

|                        |                      |
|------------------------|----------------------|
| Ambient temperature    | -40...+70 °C         |
| Protection class       | IP67                 |
| Power-on indication    | LED, Green           |
| Switching state        | LED, Yellow          |
| Error indication       | LED, green, Flashing |
| Excess gain indication | LED, green           |
| Alarm display          | LED yellow Flashing  |
| Tests/approvals        |                      |

Accessories

| Dimension drawing                                                                  | Type        | ID      |                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------|-------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | PKW3Z-2/TEL | 6627504 | Connection cable, Ø 8 mm female, angled, 3-pin, snap-on with pull-off protection, 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> |