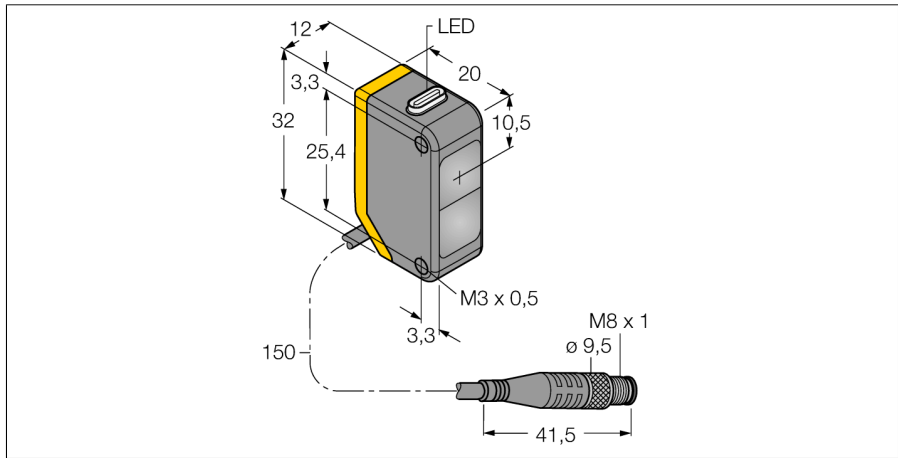
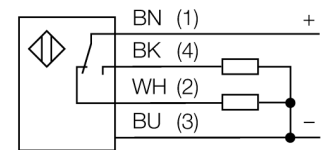


**Photoelectric sensor
opposed mode sensor (emitter/receiver)
Q20PRQ**



- Cable with male end, PVC, M8 x 1, 4-pin, 150 mm
- Protection class IP67
- LED all-round visible
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

Wiring diagram

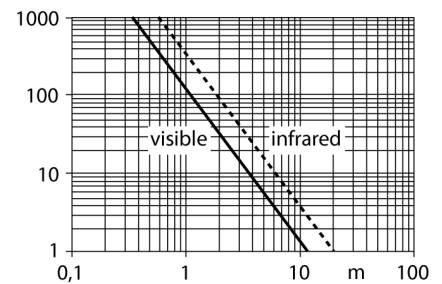


| | |
|--------------------------------|-----------------------------------|
| Type code | Q20PRQ |
| Ident no. | 3078223 |
| Operating mode | opposed mode sensor (receiver) |
| Range | 0...12000 mm |
| Ambient temperature | -20...+60 °C |
| Operating voltage | 10...30VDC |
| Residual ripple | < 10 % U _s |
| DC rated operational current | ≤ 100 mA |
| No-load current I ₀ | ≤ 18 mA |
| Reverse polarity protection | yes |
| Output function | changover contact, PNP |
| Switching frequency | ≤ 600 Hz |
| Readiness delay | ≤ 100 ms |
| Design | rectangular, Q20 |
| Dimensions | 20 x 12 x 32 mm |
| Housing material | plastic, ABS |
| Lens | plastic, acrylic |
| Connection | cable with connector, PVC, M8 x 1 |
| Cable length | 0.15 m |
| Protection class | IP67 |
| Power-on indication | LED green |
| Switching state | LED yellow |
| Error indication | LED green flashing |
| Excess gain indication | LED yellow flashing |

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

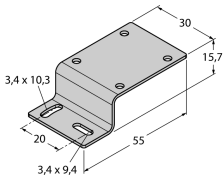
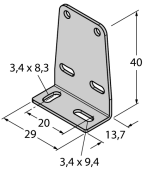
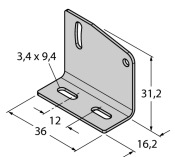
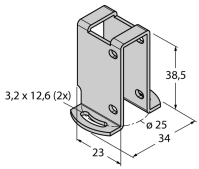


**Photoelectric sensor
opposed mode sensor (emitter/receiver)
Q20PRQ**

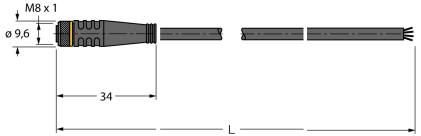
TURCK

Industrial
Automation

Accessories

| Type code | Ident no. | Description | Dimension drawing |
|-----------|-----------|--|---|
| SMBQ20H | 3079041 | Mounting bracket, stainless steel, horizontally mounted, for Q20 |  |
| SMBQ20L | 3079040 | Mounting bracket, stainless steel, rectangular, for Q20 |  |
| SMBQ20LV | 3079042 | Mounting bracket, stainless steel, rectangular, for Q20 |  |
| SMBQ20U | 3079043 | Protective housing, stainless steel, for Q20 |  |

Wiring accessories

| Type code | Ident no. | Description | Dimension drawing |
|-------------|-----------|---|---|
| PKG4M-2/TEL | 6625061 | Connection cable, female M8, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com |  |

**Photoelectric sensor
opposed mode sensor (emitter/receiver)
Q20PRQ**

TURCK

Industrial
Automation

Wiring accessories

| Type code | Ident no. | Description | Dimension drawing |
|-------------|-----------|---|-------------------|
| PKW4M-2/TEL | 6625067 | Connection cable, female M8, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com | |
| PKG4S-2/TEL | 6627370 | Connection cable, female Ø 8 mm, straight, 4-pin, snap-on type, cable length: 2 m; sheath material: PVC, sheath color: black, cULus approved, RoHS conform, protection class IP67 | |
| PKW4S-2/TEL | 6627373 | Connection cable, female Ø 8 mm, straight, 4-pin, snap-on type, cable length: 2 m; sheath material: PVC, sheath color: black, cULus approved, RoHS conform, protection class IP67 | |