

#### overview

- Reliable intensity-based object detection
- qTeach - tamper-proof, simple teach-in with ferromagnetic tool
- Robust housing with stainless steel spacer sleeves



#### Technical data

##### general data

|                                     |                           |
|-------------------------------------|---------------------------|
| type                                | intensity difference      |
| light source                        | pulsed red LED            |
| sensing distance Tw                 | 20 ... 200 mm             |
| smallest object recognizable typ.   | 2 mm at 100 mm            |
| alignment / soiled lens indicator   | flashing output indicator |
| power on indication                 | LED green                 |
| output indicator                    | LED yellow                |
| sensing distance adjustment         | qTeach                    |
| wave length                         | 644 nm                    |
| suppression of reciprocal influence | yes                       |
| beam type                           | point                     |
| alignment optical axis              | < 1,5°                    |

##### electrical data

|                                    |                  |
|------------------------------------|------------------|
| response time / release time       | < 0,25 ms        |
| jitter                             | < 0,06 ms        |
| voltage supply range +Vs           | 10 ... 30 VDC    |
| current consumption max. (no load) | 40 mA (@ 10 VDC) |

##### electrical data

|                             |                      |
|-----------------------------|----------------------|
| current consumption typ.    | 16 mA (@ 24 VDC)     |
| voltage drop Vd             | < 2 VDC              |
| output function             | light / dark operate |
| output circuit              | NPN complementary    |
| output current              | < 50 mA              |
| short circuit protection    | yes                  |
| reverse polarity protection | yes                  |

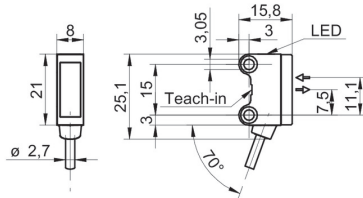
##### mechanical data

|                       |                                 |
|-----------------------|---------------------------------|
| width / diameter      | 8 mm                            |
| height / length       | 25,1 mm                         |
| depth                 | 15,8 mm                         |
| type                  | rectangular                     |
| mechanical mounting   | sleeve smooth (stainless steel) |
| housing material      | plastic (ASA, PMMA)             |
| front (optics)        | PMMA                            |
| connection types      | cable 4 pin, 2 m                |
| cable characteristics | PVC / PVC 4 x 0,08 mm²          |

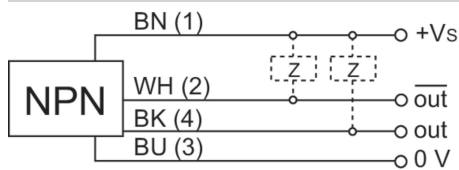
##### ambient conditions

|                       |                |
|-----------------------|----------------|
| operating temperature | -25 ... +50 °C |
| protection class      | IP 67          |

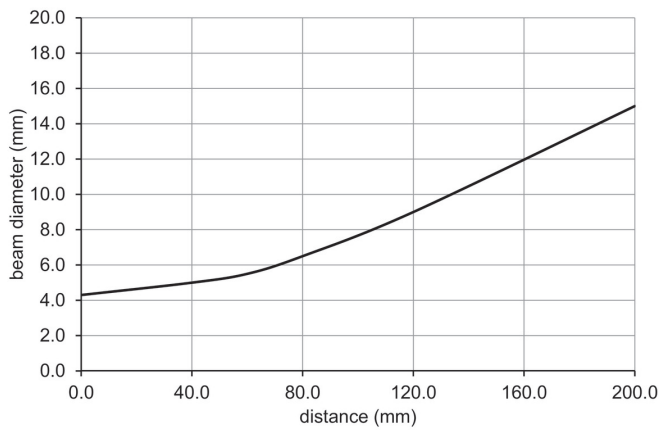
#### dimension drawing



#### connection diagram



#### beam characteristic (typically)



#### relative receiving signal

