

## overview

- SmartReflect - Safe barrier principle without reflector
- qTeach - tamper-proof, simple teach-in with ferromagnetic tool
- Robust housing with stainless steel spacer sleeves



## Technical data

### general data

|                                     |                           |
|-------------------------------------|---------------------------|
| type                                | light barrier             |
| light source                        | pulsed red laser diode    |
| background position Sde             | 25 ... 180 mm             |
| scanning range Sa                   | 90% ... 85% Sde           |
| smallest object recognizable typ.   | 0,5 mm                    |
| alignment / soiled lens indicator   | flashing output indicator |
| power on indication                 | LED green                 |
| output indicator                    | LED yellow                |
| sensing distance adjustment         | qTeach                    |
| laser class                         | 1                         |
| distance to focus                   | 160 mm                    |
| wave length                         | 680 nm                    |
| suppression of reciprocal influence | yes                       |
| beam type                           | point                     |
| alignment optical axis              | < 1,5°                    |

### electrical data

|                                    |                  |
|------------------------------------|------------------|
| voltage supply range +Vs           | 10 ... 30 VDC    |
| current consumption max. (no load) | 20 mA (@ 10 VDC) |

### electrical data

|                             |                      |
|-----------------------------|----------------------|
| current consumption typ.    | 10 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                  |

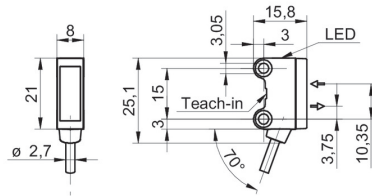
### mechanical data

|                       |                                 |
|-----------------------|---------------------------------|
| 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          |

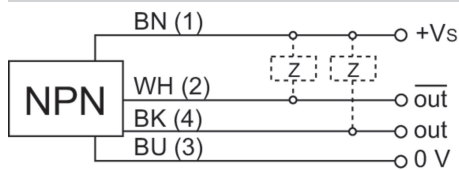
### ambient conditions

|                       |                |
|-----------------------|----------------|
| operating temperature | -20 ... +50 °C |
| protection class      | IP 67          |

## dimension drawing



## connection diagram



## laser warning

**CLASS 1 LASER  
PRODUCT**

IEC 60825-1/2014

Complies with 21 CFR 1040.10 and 1040.11  
except for deviations pursuant to laser  
notice No. 50, dated June 24, 2007

## beam characteristic (typically)

