

## Overview

- SmartReflect - Safe barrier principle without reflector
- Long-term stable detection of transparent objects thanks to compensation of environmental influences
- Manipulation-proof, simple teach-in via qTeach or line teach
- IO-Link for extended parameterization options and additional diagnostic data
- Quick mounting by means of M3 threaded bushes made of stainless steel



Picture similar



## Technical data

General data		Electrical data	
Type	Light barrier	Output circuit	Push-pull
Version	Transparency object detection	Output current	50 mA
Background position Sde	15 ... 180 mm	Short circuit protection	Yes
Scanning range Sa	90% ... 85% Sde	Reverse polarity protection	Yes
Minimal signal attenuation	5 %	Communication interface	
Power on indication	LED green	Interface	IO-Link V1.1
Alignment / soiled lens indicator	Flashing output indicator	IO-Link port type	Class A
Output indicator	LED yellow	Baud rate	230,4 kBaud (COM 3)
Sensing distance adjustment	Teach-in and IO-Link	Cycle time	≥ 0.6 ms
Distance to focus	160 mm	Process data length	32 Bit
Suppression of reciprocal influence	Yes	Process data structure	Bit 0 = SSC1 (presence) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 16-31 = 16 Bit measurement
Beam type	Point	Adjustable parameters	Switching point Switching hysteresis Time filters LED status indicators Output logic Counter Operation mode Deactivate the sensor element Find Me function Teach-in mode Background tracking
Alignment optical axis	< 1,5°	Additional data	Signal attenuation Excess gain Operating cycles Device temperature
Light Source		Mechanical data	
Light source	Pulsed red laser diode	Width / diameter	8 mm
Laser class	1	Height / length	25.1 mm
Wave length	680 nm		
Electrical data			
Response time / release time	< 0.25 ms (High Speed Mode)		
Jitter	< 0.06 ms (High Speed Mode)		
Voltage supply range +Vs	10 ... 30 VDC		
Current consumption max. (no load)	20 mA (@ 10 VDC)		
Current consumption typ.	10 mA (@ 24 VDC)		
Voltage drop Vd	<2 VDC		
Output function	Light / dark operate		

### Technical data

#### Mechanical data

Depth	15.8 mm
Design	Rectangular
Mechanical mounting	Threaded sleeves M3 (stainless steel)
Housing material	Plastic (ASA, PMMA)
Front (optics)	PMMA

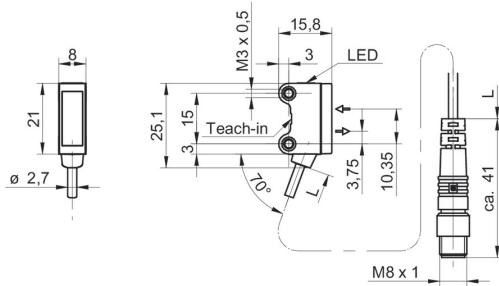
#### Mechanical data

Connection types	Flylead connector M8 4 pin, L=200 mm
Cable characteristics	PVC / PVC 4 x 0.08 mm <sup>2</sup>

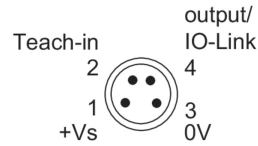
#### Ambient conditions

Protection class	IP 67
Operating temperature	-20 ... +50 °C

### Dimension drawing



### Pin assignment



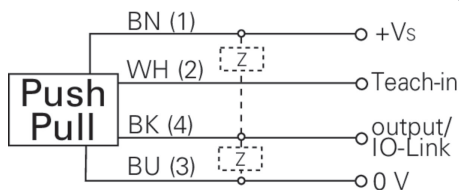
### Laser warning

**CLASS 1 LASER  
PRODUCT**

IEC 60825-1/2014

Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019

### Connection diagram



### Beam characteristic (typically)

