

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



Technical data

general data

type	light barrier
version	transparency object detection
light source	pulsed red laser diode
background position Sde	15 ... 180 mm
scanning range Sa	90% ... 85% Sde
minimal signal attenuation	5 %
alignment / soiled lens indicator	flashing output indicator
power on indication	LED green
output indicator	LED yellow
sensing distance adjustment	Teach-in and IO-Link
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

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)

electrical data

current consumption typ.	10 mA (@ 24 VDC)
voltage drop Vd	< 2 VDC
output function	light / dark operate
output circuit	push-pull
output current	< 50 mA
short circuit protection	yes
reverse polarity protection	yes

communication interface

baud rate	230,4 kBaud (COM 3)
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
IO-Link port type	Class A
process data length	32 Bit
process data structure	Bit 0 = SSC1 (presence) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 16-31 = 16 Bit measurement

Technical data

communication interface

interface	IO-Link V1.1
additional data	signal attenuation excess gain operating cycles device temperature
cycle time	≥ 0,6 ms

mechanical data

width / diameter	8 mm
height / length	25,1 mm
depth	15,8 mm

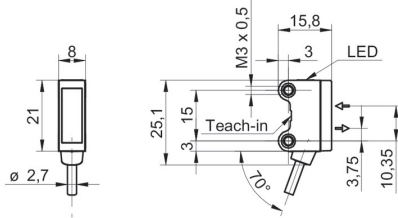
mechanical data

type	rectangular
mechanical mounting	threaded sleeves M3 (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 mm ²

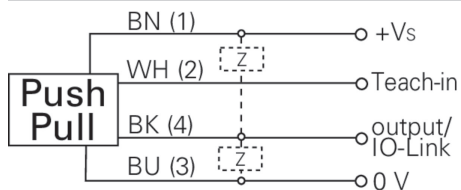
ambient conditions

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)

