

overview

- Extended functional reserve capacities for maximum reliability
- Object detection through smallest holes and gaps without blind area thanks to single-lens optics
- Parallel laser beam for uniform detection over the measuring range
- Manipulation-proof, simple teach-in via qTeach or line teach
- IO-Link for extended parameterization options and additional diagnostic data
- Robust housing with stainless steel spacer sleeves



Technical data

general data

type	retro-reflective sensor
version	single lens optics
light source	pulsed red laser diode
actual range Sb	0,8 m
nominal range Sn	1,2 m
smallest object recognizable typ.	3 mm at 500 mm
polarization filter	yes
alignment / soiled lens indicator	flashing output indicator
output indicator	LED yellow
power on indication	LED green
sensitivity adjustment	Teach-in and IO-Link
laser class	1
distance to focus	parallel beam
wave length	680 nm
suppression of reciprocal influence	yes
alignment optical axis	< 1,5°

electrical data

response time / release time	< 0,05 ms (High Speed Mode)
jitter	< 0,02 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 time filters LED status indicators output logic counter operation mode deactivate the sensor element Find Me function Teach-in mode
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
interface	IO-Link V1.1

Technical data

communication interface

additional data	signal strength 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
type	rectangular

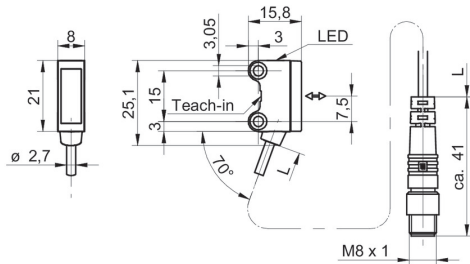
mechanical data

mechanical mounting	sleeve smooth (stainless steel)
housing material	plastic (ASA, PMMA)
front (optics)	PMMA
connection types	flylead connector M8 4 pin, L=200 mm
cable characteristics	PVC / PVC 4 x 0,08 mm ²

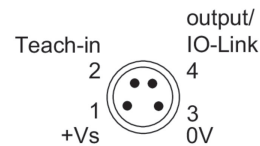
ambient conditions

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

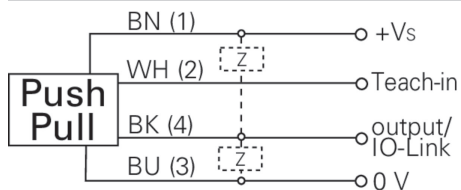
dimension drawing



pin assignment



connection diagram

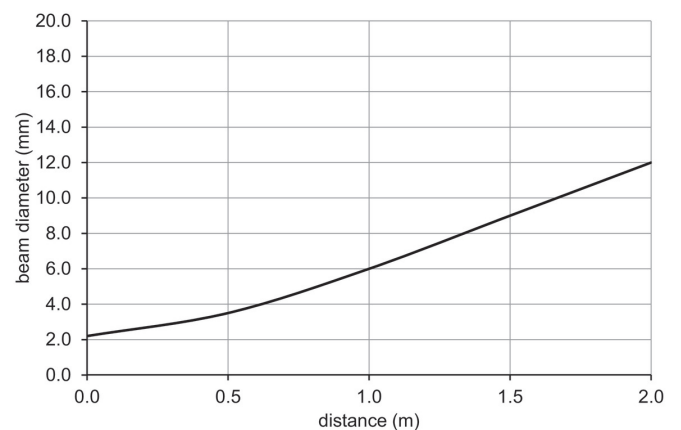


laser warning

**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)



excess gain curve

