

Overview

- SmartReflect - Safe barrier principle without reflector
- Reliable also on very dark and shiny objects
- Manipulation-proof, simple teach-in via qTeach
- Longest distances thanks to time of flight principle
- Laser performance for an accurate switching behavior
- Compact, miniaturized housing format



Picture similar



Technical data

General data

Type	Light barrier
Version	Time of Flight
Light source	Pulsed red laser diode
Sensing distance Tw	400 mm ... 1800 mm
Scanning range Sa	85% ... 80% Sde
Power on indication	LED green
Output indicator	LED yellow
Sensing distance adjustment	qTeach
Laser class	1
Distance to focus	700 mm
Wave length	680 nm
Suppression of reciprocal influence	Yes
Beam type	Point
Alignment optical axis	< 2°

Electrical data

Response time / release time	< 8 ms
Voltage supply range +Vs	12 ... 30 VDC
Current consumption max. (no load)	60 mA
Voltage drop Vd	< 2 VDC

Electrical data

Output function	Dark operate, complementary
Output circuit	NPN
Output current	< 50 mA, sum of all outputs
Short circuit protection	Yes
Reverse polarity protection	Yes

Mechanical data

Width / diameter	12.9 mm
Height / length	32.3 mm
Depth	23 mm
Type	Rectangular
Housing material	Plastic (ASA, PMMA)
Front (optics)	PMMA
Connection types	Connector M8 4 pin

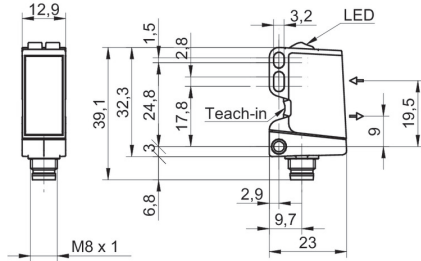
Ambient conditions

Protection class	IP 67
Operating temperature	-20 ... +50 °C
Storage temperature	-40 ... +70 °C
Vibration (sinusoidal)	IEC 60068-2-6:2008 10 g at f = 10 - 2000 Hz, duration 150 min per axis
Shock (semi-sinusoidal)	IEC 60068-2-27:2009 50 g / 11 ms, 10 impulses per axis and direction

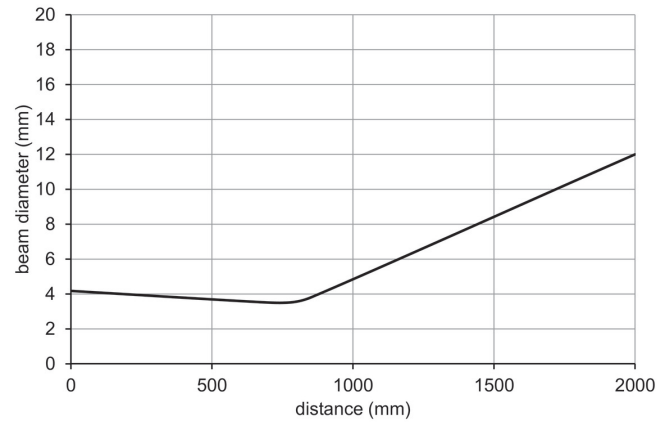
Remarks

- Measurement on 90% remission (white)

Dimension drawing



Beam characteristic (typically)



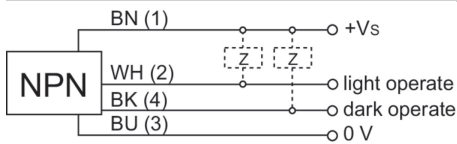
Laser warning

**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



Pin assignment

