

Overview

- Reliable also on very dark and shiny objects
- Manipulation-proof, simple teach-in via qTeach or line teach
- Longest distances thanks to time of flight principle
- Laser light source for an accurate switching behavior



Picture similar



Technical data

General data

Type	Background suppression
Version	Time of Flight
Light source	Pulsed red laser diode
Sensing distance Tw	150 ... 2500 mm
Sensing range Tb	100 ... 2625 mm
Repeat accuracy	≤ 1200 ... 4300 μm
Temperature drift	± 15 mm
Power on indication	LED green
Output indicator	LED yellow / LED red
Sensing distance adjustment	qTeach / external
Laser class	1
Distance to focus	1500 mm
Wave length	680 nm
Suppression of reciprocal influence	Yes
Beam type	Point
Alignment optical axis	< 1°

Electrical data

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

Electrical data

Voltage drop Vd	< 2 VDC
Output function	Light 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	18 mm
Height / length	45 mm
Depth	32 mm
Type	Rectangular
Housing material	Plastic (ASA, PMMA)
Front (optics)	PMMA
Connection types	Connector M12 5 pin

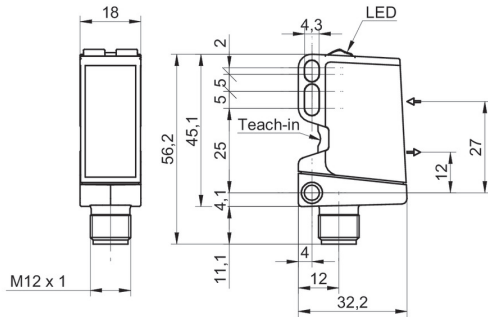
Ambient conditions

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

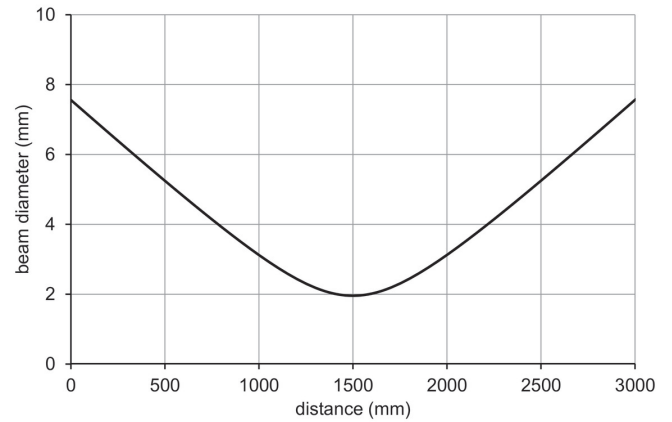
Remarks

- Measurement on 90% remission (white)

Dimension drawing



Beam characteristic (typically)



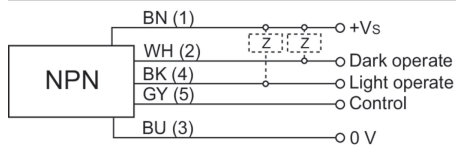
Laser warning

**CLASS 1 LASER
PRODUCT**

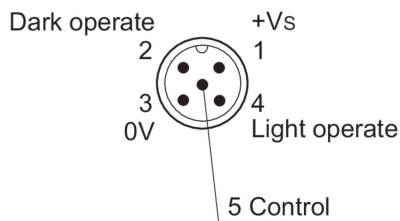
IEC 60825-1/2014

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

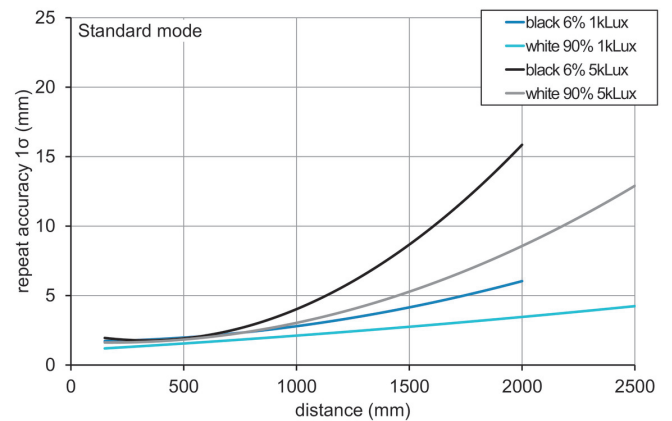
Connection diagram



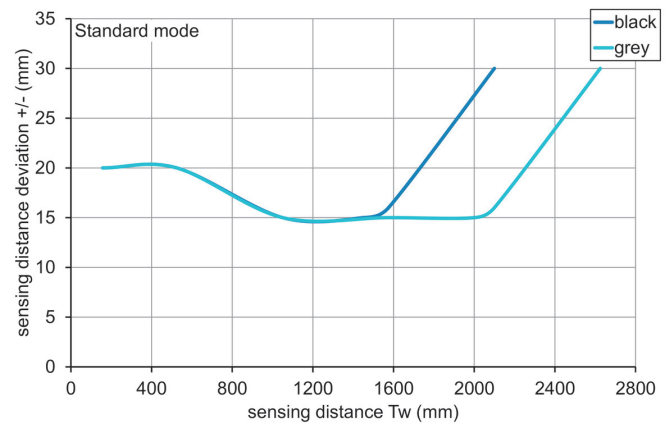
Pin assignment



Repeat accuracy



Sensing distance diagram



Hysteresis curve

