Baumer
Passion for Sensors

Diffuse sensors with background suppression

O200.GL-PV1T.72NV/F040

Diffuse sensors with background suppression - miniature

Article number: 11231102

Overview

- Outstanding reliability and unrivalled immunity against ambient light
- Focused laser beam for small objects or gaps
- qTeach - tamper-proof, simple teach-in with ferromagnetic tool
- Robust housing with stainless steel spacer sleeves

Picture similar

Technical data

General data	
Type	Background suppression
Sensing distance Tw	20 … 120 mm
Sensing range Tb	3 … 132 mm
Smallest object recognizable typ.	0.05 mm at 40 mm
Power on indication	LED green
Alignment / soiled lens indicator	Flashing output indicator
Output indicator	LED yellow
Sensing distance adjustment	qTeach
Distance to focus	40 mm
Suppression of reciprocal influence	Yes
Beam type	Point
Alignment optical axis	< 1,5°
Light Source	
Light source	Pulsed red laser diode
Laser class	1
Wave length	680 nm
Electrical data	
Response time / release time	≤ 0.5 ms
Jitter	≤ 0.12 ms

Electrical data	
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
Output circuit	PNP complementary
Output current	50 mA
Short circuit protection	Yes
Reverse polarity protection	Yes
Mechanical data	
Width / diameter	8 mm
Height / length	25.1 mm
Depth	15.8 mm
Design	Rectangular
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 mm²
Ambient conditions	
Protection class	IP 67
Operating temperature	-20 … +50 °C

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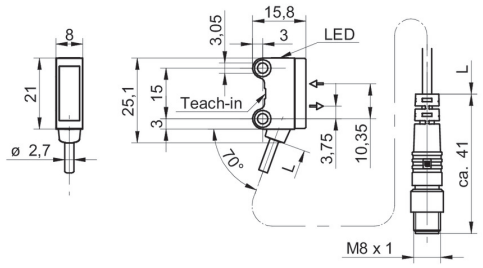
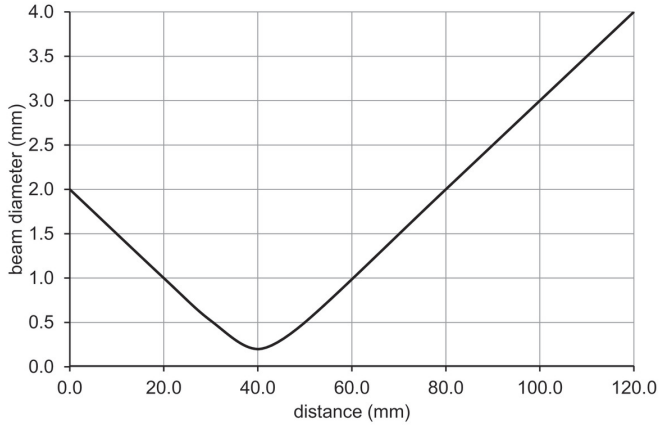
Dimension drawing



Beam characteristic (typically)

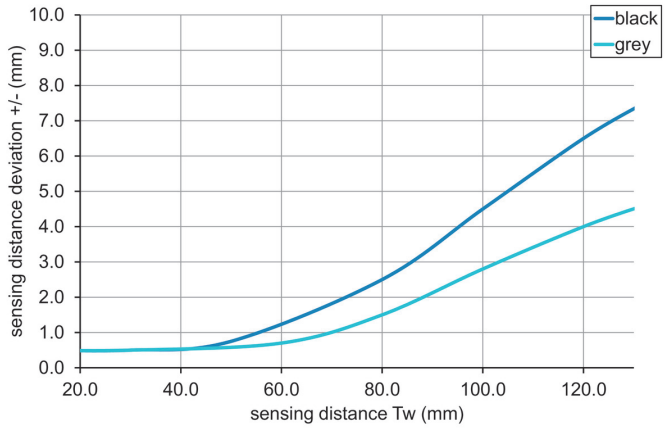


Laser warning

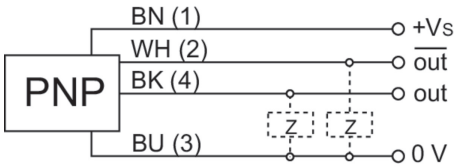
CLASS 1 LASER PRODUCT

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

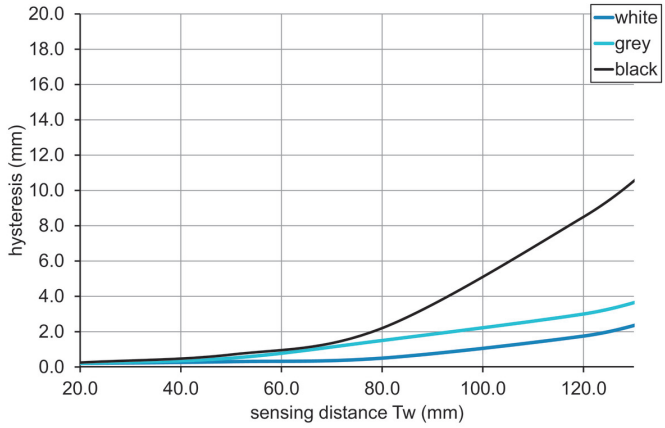
Sensing distance diagram



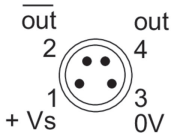
Connection diagram



Hysteresis curve



Pin assignment



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