Distance sensors

OM20-P0120.HH.AUN

Performance sensor

Article number: 11231076

Overview

- Automatic adjustment of exposure time for precise measurements on changing materials
- High immunity to ambient light for reliable measurements regardless of ambient conditions
- Point beam shape for a precise measurement

Picture similar

Technical data

General data	
Type	Distance measuring
Measuring distance Sd	16 … 120 mm
Measuring range Mr	104 mm
Adjustment	Teach-in: button / external
Power on indication	LED green
Output indicator	LED red
Repeat accuracy	8 … 100 µm
Linearity error	± 0,14 % Mr , 16 ... 70 mm ± 0,19 % Mr , 16 ... 120 mm
Beam type	Point
Temperature drift	0,04 % Sde/K
Light Source	
Light source	Pulsed red laser diode
Wave length	660 nm
Laser class	1
Maximum pulse power	2 mW
Pulse duration	0.001 ... 0.5 ms
Pulse period	0.2 ... 3.4 ms
Electrical data	
Response delay	0.4 ms
Measuring frequency	5000 Hz
Voltage supply range +Vs	12 … 28 VDC
Current consumption max. (no load)	100 mA

Electrical data	
Output circuit	Analog
Output signal	0 ... 10 VDC
Load resistance	> 100 kOhm
Short circuit protection	Yes
Reverse polarity protection	Yes, Vs to GND
Mechanical data	
Width / diameter	34,5 mm
Height / length	37 mm
Depth	13 mm
Type	Rectangular, front view
Housing material	Die-cast zinc
Front (optics)	Glass
Connection types	Connector M8 4 pin
Weight	41 g
Ambient conditions	
Ambient light immunity	< 100 kLux
Operating temperature	-10 … +50 °C
Protection class	IP 67
Storage temperature	-20 … +60 °C
Vibration (sinusoidal)	IEC 60068-2-6:2008 1 mm p-p at f = 10 - 55 Hz, duration 5 min per axis 30 min endurance at f = 55 Hz per axis
Shock (semi-sinusoidal)	IEC 60068-2-27:2009 30 g / 11 ms, 6 jolts per axis and direction

Remarks

- Measurement with Baumer standardized measuring equipment and targets (Measurement on 90% remission (white)).

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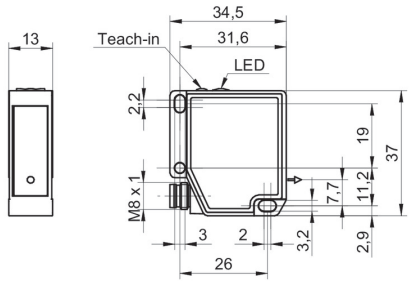
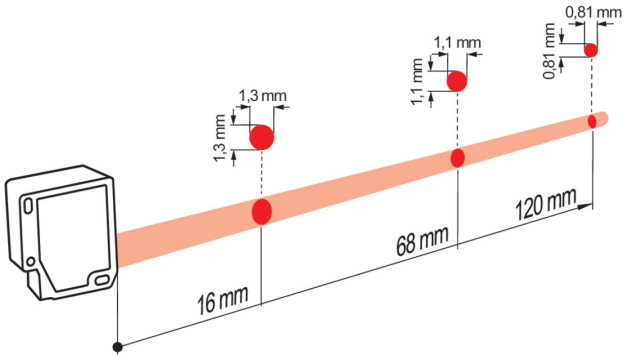
Dimension drawing



Beam characteristic (typically)

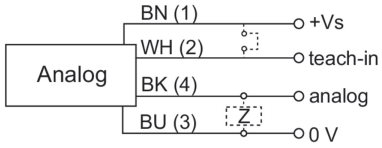


Laser warning

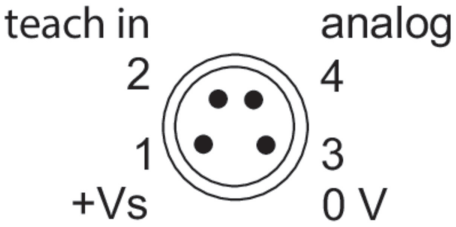
CLASS 1 LASER PRODUCT

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

Connection diagram



Pin assignment



2021-05-27 EN/20170206 Design and specifications subject to change without notice