

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
- Adjustable filters for particularly stable measurement results



Picture similar



Technical data

General data

| | |
|-----------------------|--|
| Type | Distance measuring |
| Measuring distance Sd | 16 ... 120 mm |
| Measuring range Mr | 104 mm |
| Adjustment | Teach-in: button / IO-Link |
| Power on indication | LED green |
| Output indicator | LED yellow |
| Repeat accuracy | 1 ... 13 µm |
| Linearity error | ± 0,1 % Mr , 16 ... 70 mm ± 0,16 % 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 |
| Output circuit | Analog and digital |
| Output signal | 4 ... 20 mA / 2 ... 10 mA |
| Load resistance | < (+Vs - 9 V) / 0.02 A |
| Output current | < 100 mA |
| Short circuit protection | Yes |
| Reverse polarity protection | Yes, Vs to GND |

Communication interface

| | |
|------------------------|--|
| IO-Link | Yes |
| Interface | IO-Link V1.1 |
| Baud rate | 230,4 kBaud (COM 3) |
| Cycle time | ≥ 1 ms |
| Process data length | 48 Bit |
| Process data structure | Smart Sensor Profile - DMS PDI48.INT32_INT8 Bit 0 = SSC1 (distance) Bit 2 = quality Bit 3 = alarm Bit 8-15 = scale factor Bit 16-47 = 32 Bit measurement |
| IO-Link port type | Class A |

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 |

Technical data

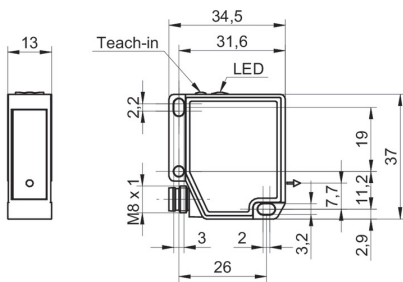
Ambient conditions

Shock (semi-sinusoidal) IEC 60068-2-27:2009
30 g / 11 ms, 6 jolts per axis and direction

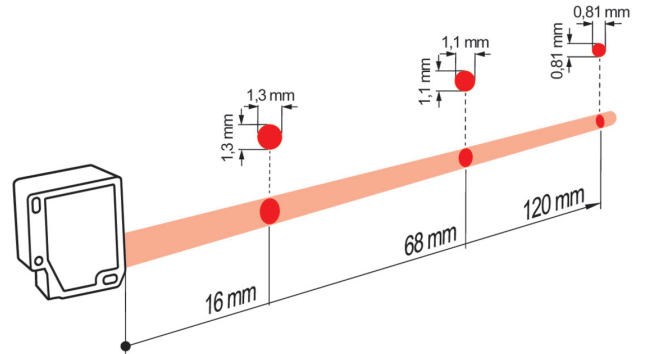
Remarks

- Measurement with Baumer standardized measuring equipment and targets (Measurement on 90% remission (white)). Values of Resolution, linearity error and repeat accuracy apply to a measurement with filter setting (Median: 9, Average: 128).

Dimension drawing



Beam characteristic (typically)



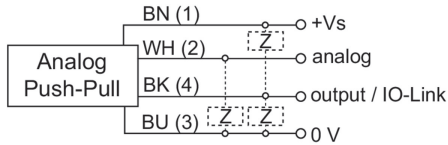
Laser warning

**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

