

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	50 ... 550 mm
measuring range Mr	500 mm
adjustment	Teach-in: button / IO-Link
power on indication	LED green
output indicator	LED yellow
repeat accuracy	86 µm
linearity error	± 0,23 % Mr
beam type	point
temperature drift	0,08 % Sde/K

light source

light source	pulsed red laser diode
wave length	660 nm
laser class	2
laser maximum total power	2 mW
pulse duration	0.001 ... 3.2 ms
pulse period	0.2 ... 9.2 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	40,3 mm
height / length	49 mm
depth	13,6 mm
type	rectangular, front view
housing material	die-cast zinc
front (optics)	glass
connection types	connector M8 4 pin
weight	67 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

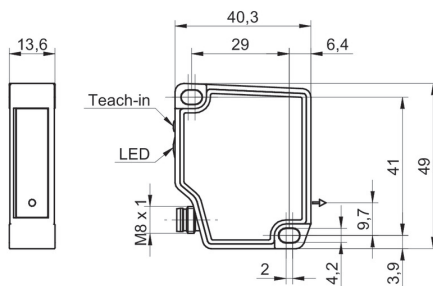
ambient conditions

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

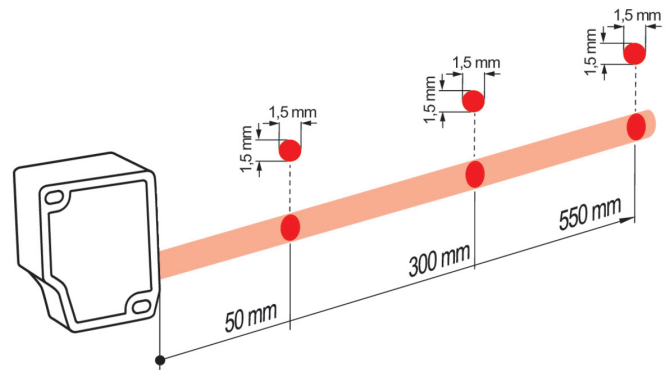
remarks

- 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).

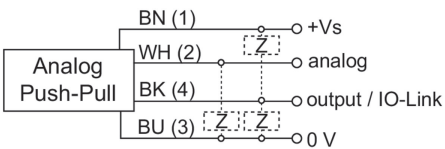
dimension drawing




beam characteristic (typically)



connection diagram



laser warning



LASER RADIATION
DO NOT STARE INTO BEAM
Wavelength: 640...670nm
IEC 60825-1, Ed. 3, 2014
CLASS 2 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

pin assignment

