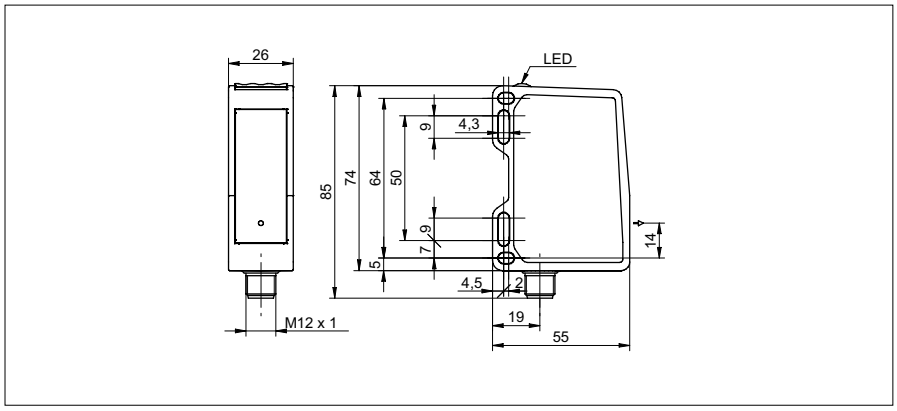
Edge sensors

OXE7.E15T-11148276

dimension drawing



general data

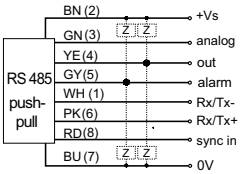
type	measuring mode: edges, center, width, gap
version	PosCon OXE7 - for very precise measurements
measuring range (width)	48 ... 72 mm
measuring range (distance)	100 ... 150 mm
measuring frequency	159 ... 625 Hz
resolution	20 µm
repeat accuracy	± 10 µm
smallest detectable object width	0,7 mm
smallest detectable gap	1,5 mm
smallest detectable step	0,7 mm
linearity error	± 50 ... ± 75 µm
temperature drift	< 0,03 % measured value/K
power on indication	LED green
output indicator	LED yellow / LED red
light source	pulsed red laser diode
wave length	656 nm
laser class	1
optical peak power max.	15 mW
adjustment	Touch Display, RS485

electrical data

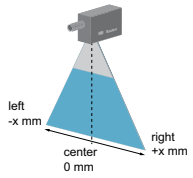
response time / release time	3 ... 12,4 ms
voltage supply range +Vs	15 ... 28 VDC
current consumption max. (no load)	150 mA
output circuit	analog and RS 485
output signal	4 ... 20 mA / 0 ... 10 VDC
switching output	push-pull
output function	Out 1 / Alarm
output current	< 100 mA
baud rate	115200, adjustable
reverse polarity protection	yes, Vs to GND
short circuit protection	yes

photo

connection diagram



alignment of the laser line



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mechanical data	
width / diameter	26 mm
height / length	74 mm
depth	55 mm
type	rectangular, front view
housing material	aluminum
front (optics)	glass
connection types	connector M12 8 pin
weight	130 g

ambient conditions	
ambient light immunity	< 35 kLux
operating temperature	-20 ... +50 °C
protection class	IP 67
storage temperature	-25 ... +75 °C
vibration (sinusoidal)	IEC 60068-2-6:2008 1.5 mm p-p at f = 10 - 57 Hz, 10 cycles per axis 10 g at f = 58 - 2000 Hz, 10 cycles per axis
shock (semi-sinusoidal)	IEC 60068-2-27:2009 50 g / 11 ms resp. 100 g / 6 ms, 10 jolts per axis and direction 100 g / 2 ms, 5000 jolts per axis and direction

laser warning

CLASS 1 LASER PRODUCT

IEC 60825-1/2014
Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to laser notice No. 50, dated June 24, 2007

- Conditions for the following characteristics:
- measuring frequency 1) 2)
- resolution 1) 3)
- repeat accuracy 1) 3)
- linearity error 1) 4)
- response time / release time 1) 2) 3)
- 1) Measurement with Baumer standardized measuring equipment and targets. Measuring on 90% reflectivity (white)
- 2) Depending on the size of the measuring field and OBJECT light/dark mode
- 3) Without filtering / no averaging
- 4) Measured symmetrically around the reference point with 50% of the measuring field