



## Short range distance sensors (displacement) OD Precision

OD5-85T20





Additional function:	Automatic sensitivity adjustment, Selectable measuring frequency (automatic/0.1 ms ... 3.2 ms), Anti interference mode, Glass thickness measurement, Manual sensitivity adjustment, Averaging settings 1 ... 4,096x
Note:	OD Precision sensor head can be used with AOD5-P/N1 or stand-alone via RS-422
Laser class:	2 (EN 60825-1) <sup>7)</sup>
Output time:	≤ 0.1 ms

<sup>1) 3)</sup> Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror; averaging set to: 4096 <sup>2)</sup> Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror; averaging set to: 4096; constant ambient conditions <sup>4)</sup> Time needed for automatic sensitivity adjustment is calculated as: sampling period x 20. At default setting 100 μs (10kHz) this is ≤ 2ms. <sup>5) 6)</sup> Default setting for OD5-350x100 and OD5-500x200 = 0.8 ms, 1.25 kHz likewise, all other types = 0.1 ms/10 kHz <sup>7)</sup> Wavelength: 655 nm, max. output: 1 mW

## Interfaces

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Data interface:	RS-422
Laser off input:	1 x laser-off

## Mechanics/electronics

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Electrical connection <sup>1)</sup> :	0.5 m cable with connector
Supply voltage $V_s$ <sup>2)</sup> :	DC 12 V ... 24 V
Warm-up time:	≤ 5 min
Indication:	LEDs, 4" color-display on optional controller unit
Weight <sup>3)</sup> :	250 g
Housing material:	Aluminum housing with glass lens

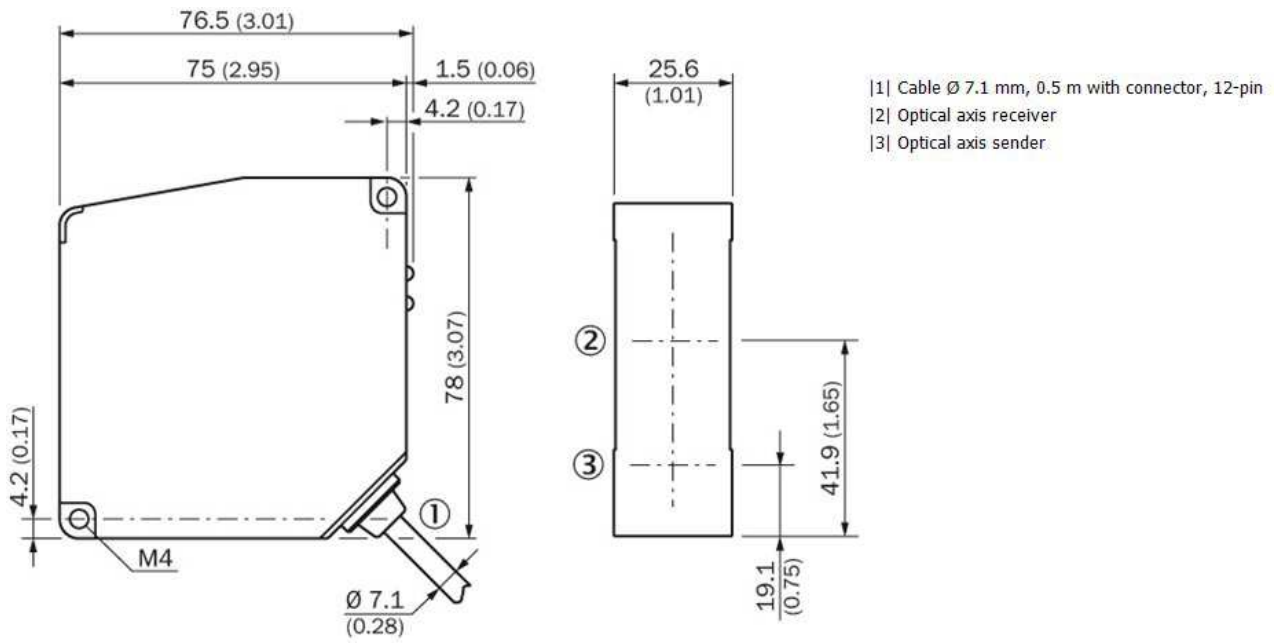
<sup>1)</sup> Extensible by cable to max. 50 m <sup>2)</sup> DC 12 V (-5 %) ... DC 24 V (+10 %) <sup>3)</sup> Inclusive 0.5 m cable

## Ambient data

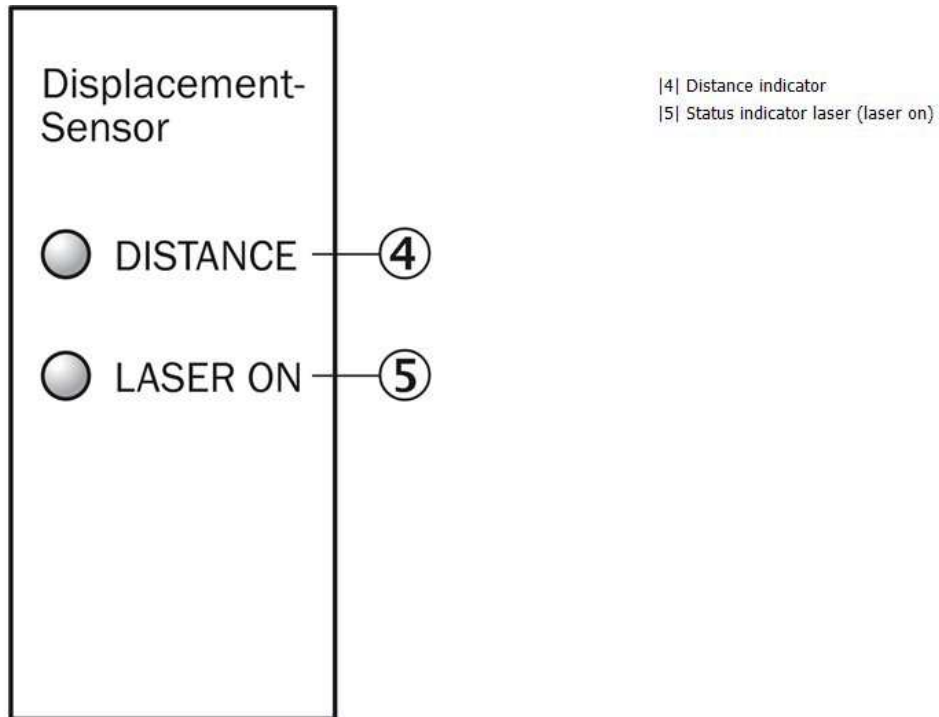
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Enclosure rating:	IP 67
Protection class:	III
Ambient temperature:	Operation: -10 ... +50 °C, Storage: -20 ... +60 °C
Temperature drift:	± 0.01 % FS/K (FS = Full Scale = Measuring range of sensor)
Vibration resistance:	10 Hz ... 55 Hz (amplitude 1.5 mm, x-, y-, z-axis 2 hours each)
Shock resistance:	50 G (x-, y-, z-axis 3 times each)
Relative humidity (not condensing):	35 % ... 85 %
Typ. ambient light safety:	Artificial light: ≤ 3,000 lx, Sunlight: ≤ 10,000 lx

## Dimensional drawing



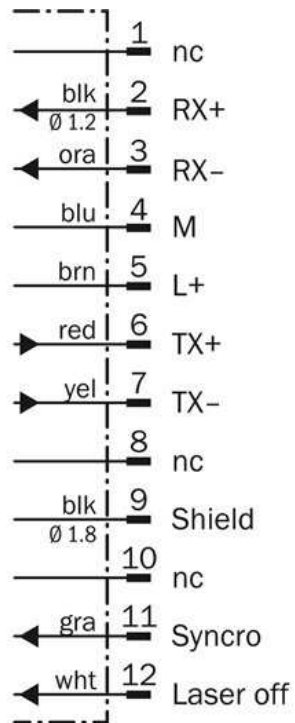
## Adjustment possible



## Connection type

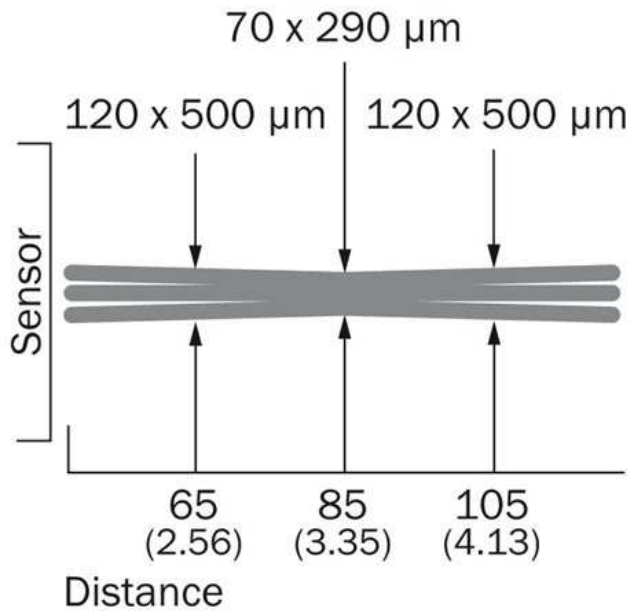


## Connection diagram



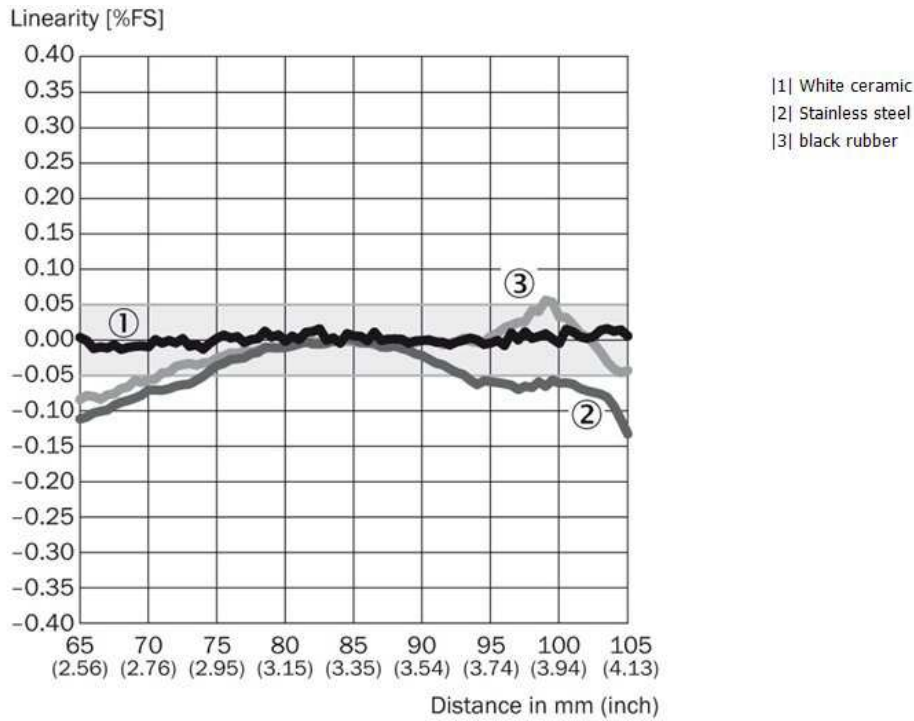
|1| not connected

## Light spot size



All dimensions in mm (inch)

## Linearity



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