



Short range distance sensors (displacement)
OD Precision

OD5-25T01



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

- ¹⁾ Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256, for OD25-x: 4096 ²⁾ Measurement on 90 % remission (ceramic, white), for OD25-x measurement on mirror; averaging set to: 256, for OD25-x: 4096; constant ambient conditions ³⁾ Measurement on 90 % remission (ceramic, white), for OD5-25x measurement on mirror; averaging set to: 4096 ⁴⁾ Time needed for automatic sensitivity adjustment is calculated as: sampling period x 20. At default setting 100 μs (10kHz) this is ≤ 2ms. ^{5) 6)} Default setting for OD5-350x100 and OD5-500x200 = 0.8 ms, 1.25 kHz likewise, all other types = 0.1 ms/10 kHz
- ⁷⁾ Wavelength: 650 nm, max. output: 390 μW

Interfaces

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

Mechanics/electronics

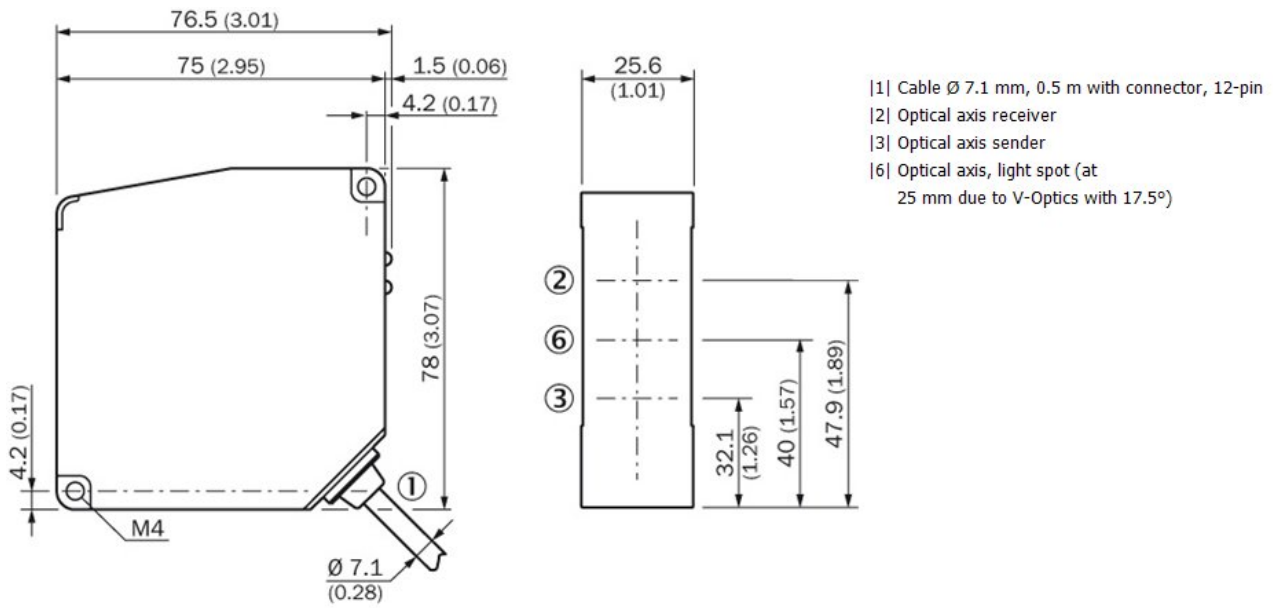
Connection type:	0.5 m cable with connector ¹⁾
Supply voltage V_s ²⁾ :	DC 12 V ... 24 V
Warm-up time:	≤ 5 min
Indication:	LEDs, 4" color-display on optional controller unit
Weight:	250 g ³⁾
Housing material:	Aluminum housing with glass lens

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

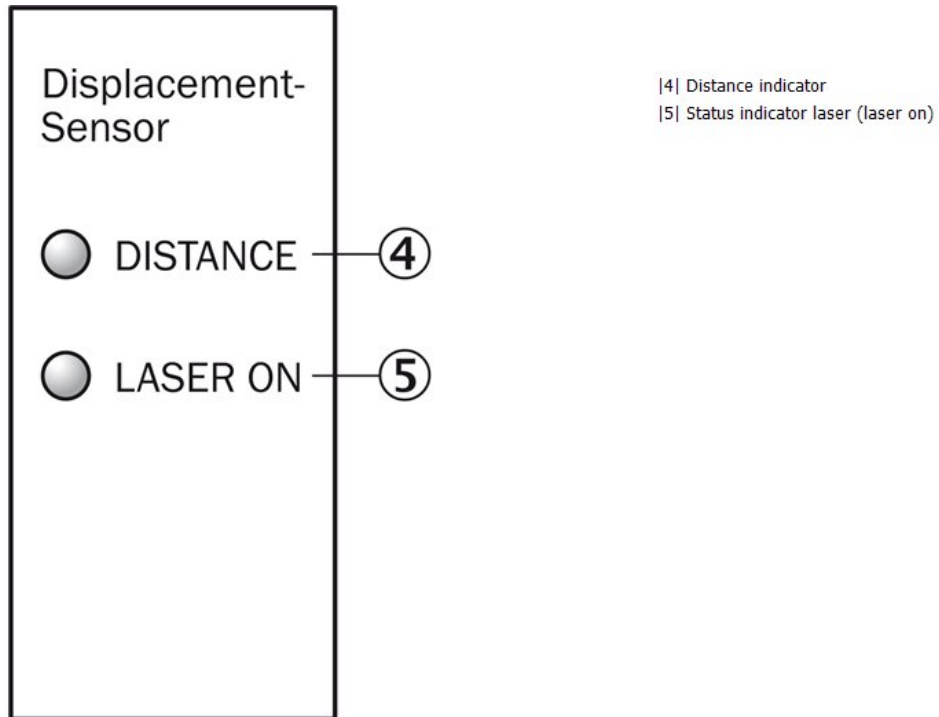
Ambient data

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)
Typ. ambient light safety:	Artificial light: ≤ 3,000 lx Sunlight: ≤ 10,000 lx
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 %

Dimensional drawing



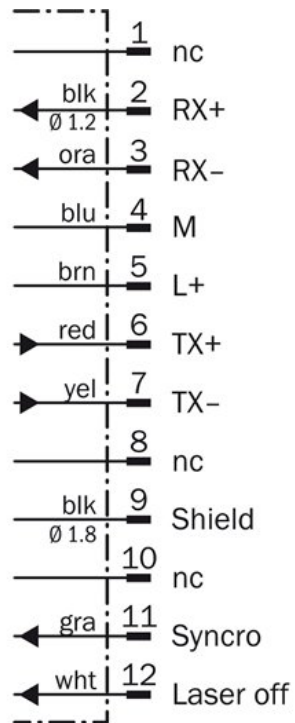
Adjustment possible



Connection type

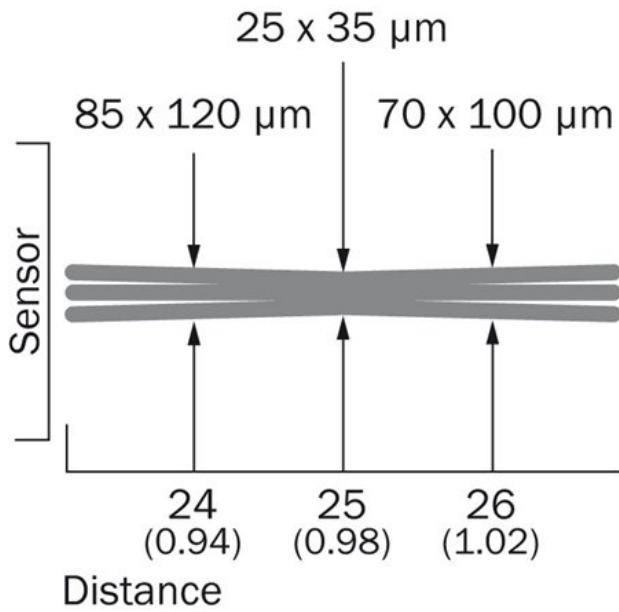


Connection diagram



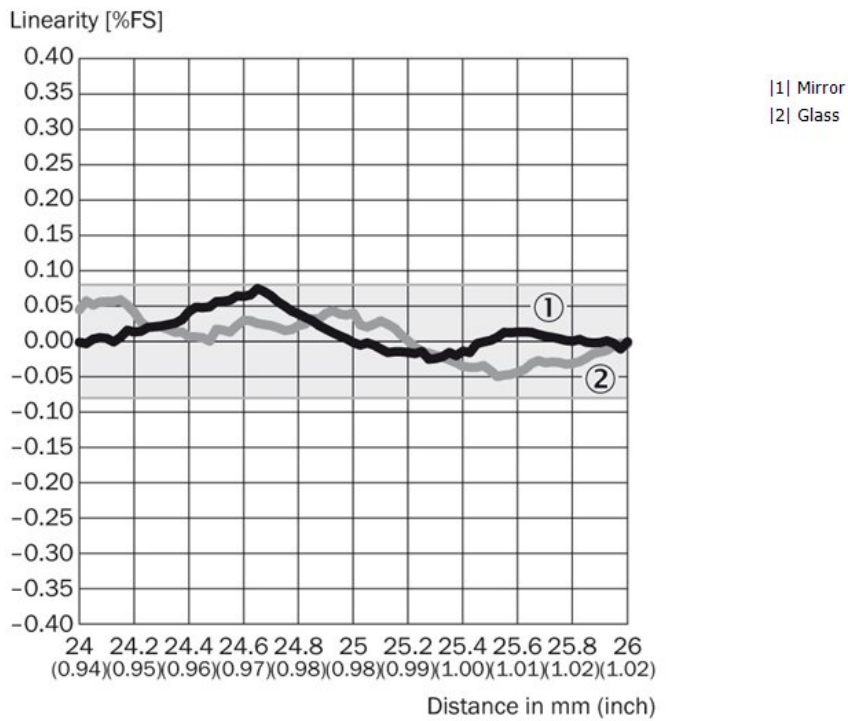
[1] not connected

Light spot size



All dimensions in mm (inch)

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