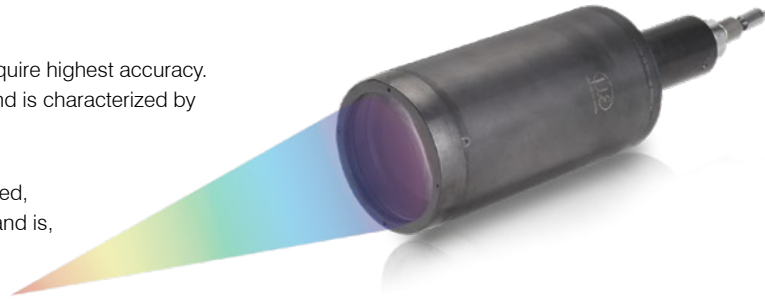


Precise confocal sensor with large working distance confocalDT IFS2405-28/VAC(001)

The IFS2405 confocal sensors are designed for measurement tasks which require highest accuracy. The IFS2405-28/VAC(001) is now also available as vacuum-suitable variant and is characterized by a large offset distance of 220 mm from the measuring object.

The sensor is used when a large distance from the measuring object is required, e.g. when measuring hot surfaces. The IFS2405 series offers high sensitivity and is, in addition to distance measurements, also used for one-sided thickness measurements of transparent film, layers and glass.



| Sensor model | IFS2405-28/VAC(001) | |
|---|---|--------|
| Measuring range | 28 mm | |
| Start of measuring range | approx. | 220 mm |
| Light spot diameter | 60 μm | |
| Linearity (displacement and distance measurement) | ±0.025 % FSO | |
| Linearity (thickness measurement) | 0.05% FSO | |
| Resolution ¹⁾ | Static | 130 nm |
| | Dynamic | 747 nm |
| Weight (without cable) | 0.75 kg | |
| Max. tilt angle ²⁾ | ± 5° | |
| Outer diameter | 62 mm | |
| Protection class | IP40 (vacuum compatible) | |
| Operating temperature | +5 ... +70 °C | |
| Storage temperature | -20 °C ... +70 °C | |
| Sensor cable (optical fiber) | Length: standard 3 m; extension up to 50 m; bending radius: static 30 mm; dynamic 40 mm | |
| Shock | 15 g / 6 ms in XY axis, 1000 shocks each | |
| Vibration | 2 g / 20 ... 500 Hz in XY axis, 10 cycles each | |

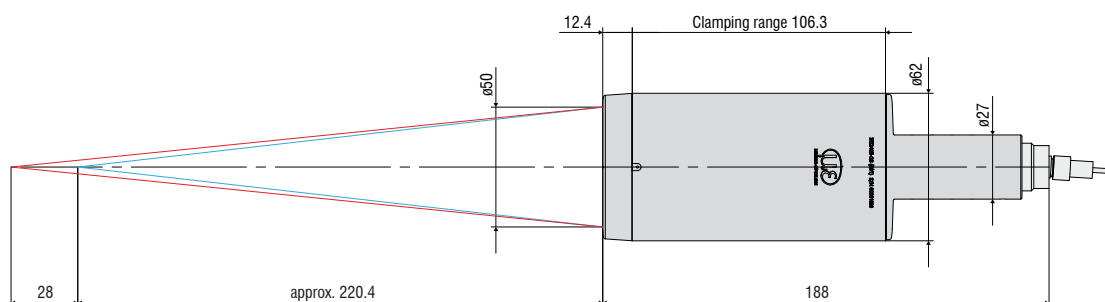
FSO = Full Scale Output

All data at constant ambient temperature (25 ± 2 °C) against optical flat; specifications can change when measuring different materials.

¹⁾ Average from 512 values at 1 kHz, in the mid of the measuring range onto optical flat

²⁾ Maximum measuring angle of the sensor that produces a usable signal on reflecting surfaces. The accuracy decreases when approaching the limit values.

Dimensions:



Dimensions in mm, not to scale