

More Precision



confocalDT IFS2407-0,8

High-precision confocal chromatic sensor

- High resolution and small light spot
- Space-saving sensor design
- Precise performance even on curved surfaces
- Ideal for thickness measurement of thin coatings/layers



Model	IFS2407-0.8	
Measuring range	0.8 mm	
Start of measuring range	approx.	5.9 mm
Resolution	static ¹⁾	24 nm
	dynamic ²⁾	75 nm
Linearity ³⁾	Displacement and distance	< ±0.2 μm
	Thickness	< ±0.4 μm
Light spot diameter	6 μm	
Max. tilt angle ⁴⁾	±30°	
Numerical aperture (NA)	0.50	
Min. target thickness ⁵⁾	0.04 mm	
Connection	pluggable optical fiber via FC socket, standard length 3 m; extension up to 50 m; bending radius: static 30 mm; dynamic 40 mm	
Mounting	Clamping, mounting adapter (see accessories)	
Temperature range	Storage	-20 ... +70 °C
	Operation	+5 ... +70 °C
Shock (DIN EN 60068-2-27)	15 g / 6 ms in XY axis, 1000 shocks each	
Vibration (DIN EN 60068-2-6)	2 g / 20 ... 500 Hz in XY axis, 10 cycles each	
Protection class (DIN EN 60529)	IP65 (front)	
Material	Stainless steel housing, glass lenses	
Weight	approx. 40 g	

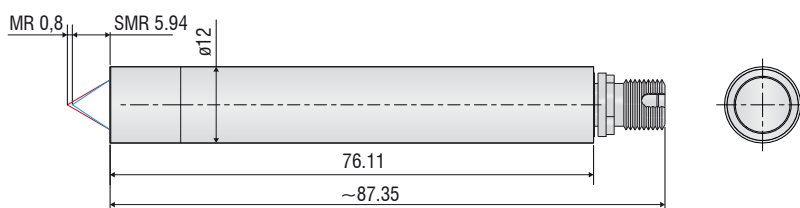
¹⁾ Average from 512 values at 1 kHz, near to the mid of the measuring range onto optical flat

²⁾ RMS noise relates to mid of measuring range (1 kHz)

³⁾ All data at constant ambient temperature (25 ± 1 °C) against optical flat; specifications can change when measuring different objects.

⁴⁾ Maximum sensor tilt angle that produces a usable signal on reflecting surfaces. The accuracy decreases when approaching the limit values.

⁵⁾ Glass sheet with refractive index n = 1.5 throughout the entire measuring range. In the mid of the measuring range, also thinner layers can be measured.



Dimensions in mm, not to scale