

# More Precision



## confocalDT IFS2405-6 Confocal chromatic sensor for highest precision

- Large distance from the measurement object
- High resolution
- Ideal for measurements from a safe distance to the target



Model	IFS2405-6	
Measuring range	6 mm	
Start of measuring range	approx.	63 mm
Resolution <sup>1)</sup>	18 nm	
Linearity	Displacement and distance	$\leq \pm 1.5 \mu\text{m}$
	Thickness measurement	$\leq \pm 3 \mu\text{m}$
Light spot diameter	$< 31 \mu\text{m}$	
Max. tilt <sup>2)</sup>	$\pm 10^\circ$	
Numerical aperture (NA)	0.22	
Connection	pluggable sensor cable via FC socket, standard length 3 m; extension up to 50 m bending radius: static 30 mm; dynamic 40 mm	
Temperature range	Storage	$-20 \dots +70 \text{ }^\circ\text{C}$
	Operation	$+5 \dots +70 \text{ }^\circ\text{C}$
Shock (DIN-EN 60068-2-27)	15 g, 6 ms	
Vibration (DIN-EN 60068-2-6)	2 g / 10 Hz ... 500 Hz	
Protection class (DIN-EN 60529)	IP65, front operated	
Compatibility	compatible with all confocal controllers	
Weight	approx. 217 g (bend protection included)	

All data at constant ambient temperature ( $25 \pm 2 \text{ }^\circ\text{C}$ ) against optical flat; specifications can change when measuring different materials.

<sup>1)</sup> Average from 512 values at 1kHz, near to the midrange onto optical flat

<sup>2)</sup> Decreasing accuracy towards limit values and on reflecting surfaces

