

SFS Series Spectral Confocal Displacement Sensor*6

SFS-D1506L Product Parameters



Reference Distance*1	5.75 mm
Measuring Range	± 0.75 mm
Measuring Angle*2	$\pm 14^{\circ}$
Spot Diameter*3	$\Phi 20 \mu\text{m}$
Repeatability*4	80 nm
Linearity Error*5	$< \pm 0.3 \mu\text{m}$
OD x Length	$\Phi 8 \times 70.2$ mm
Weight	23 g
Min. Measurable Thickness	10% of F.S.
Temp. Characteristic	$< 0.03\%$ F.S./deg C
Protection Rating	IP40

*1 Calculated based on the center position of the measuring range;

*2 Tested by tilting with a standard flat mirror at a 1 kHz sampling rate;

*3 Measured on a sharp glass edge and verified with a sub-micron motion stage, using a laser interferometer as the displacement reference. Spot diameter values correspond to the small spot, large spot and four-spot types;

*4 Measured with a standard silver-coated mirror at 1 kHz without averaging; RMS deviation of 10,000 consecutive samples;

*5 Calibrated and verified using a nano-level high-precision laser interferometer;

*6 Suffix definitions: N = near reference distance, F = far reference distance, S = small size, L = large size, H = high-temperature version (operating temperature: -10°C to 150°C). To improve the product experience, the identification ring color of this series (except C2000) has been upgraded to gold. The delivered product may differ between old and new ring colors; the actual product shall prevail. Performance and quality are not affected.

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SFS-D1506L Product Outline Drawing

