

SFS Series Spectral Confocal Displacement Sensor*6

SFS-D606 Product Specifications



Reference Distance*1	6.5 mm
Measurement Range	± 0.3 mm
Measurement Angle*2	$\pm 32.5^\circ$
Spot Diameter*3	$\Phi 8/16 \mu\text{m}$
Repeatability*4	16 nm
Linearity Error*5	$< \pm 0.12 \mu\text{m}$
Outer Dia. x Length	$\Phi 20 \times 110$ mm
Weight	73 g
Min. Measurable Thickness	5% of F.S.
Temperature Characteristic	$< 0.03\%$ F.S./ $^\circ\text{C}$
Protection Rating	IP40

*1 Calculated at the center of the measuring range.

*2 Tested with a standard plane reflector tilted at a 1 kHz sampling rate.

*3 Measured on a sharp glass edge using a sub-micron positioning stage, with a laser interferometer as the displacement reference. Spot diameters correspond to small spot / large spot / four-spot modes.

*4 Measured on a standard silver-coated mirror; RMS deviation of 10,000 samples acquired continuously at 1 kHz without averaging.

*5 Calibrated and verified using a nanometer-level high-precision laser interferometer.

*6 Suffix definitions: N = near reference distance, F = far reference distance, S = compact size, L = large size, H = high-temperature version (operating temperature: -10°C to 150°C). To improve product experience, the color ring of this series (excluding C2000) has been upgraded to gold. The product color ring may vary between old and new versions; appearance is subject to the delivered product. Product performance and quality are not affected.

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SFS-D606 Outline Drawing

