

SFS Series Chromatic Confocal Displacement Sensor*6

SFS-D700150 Specifications



Reference Distance ^{*1}	150 mm
Measuring Range	± 35 mm
Measuring Angle ^{*2}	± 5.5°
Spot Diameter ^{*3}	Φ 43 μm
Repeatability ^{*4}	1550 nm
Linearity Error ^{*5}	< ± 2 μm
O.D. x Length	Φ 50*120.5 mm
Weight	207 g
Min. Measurable Thickness	5% off F. S.
Temperature Characteristic	< 0.03% F. S. / °C
Protection Rating	IP40

*1 Calculated at the center of the measuring range.

*2 Tilt test using a standard plane mirror at a 1 kHz sampling rate.

*3 Spot diameter verified by measuring a sharp glass edge on a sub-micron positioning stage, using a laser interferometer as the displacement reference. Values correspond to the small spot / large spot / four-point spot diameters.

*4 RMS deviation of 10,000 consecutive readings from a standard silver-coated mirror at 1 kHz with no averaging.

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

*6 Suffixes: N = near reference distance; F = far reference distance; S = compact; L = large; H = high-temperature version (operating temperature: -10°C to 150°C). The identification ring of this series (except C2000) has been upgraded to gold. Products received may have either the old or new ring. Appearance is subject to the actual product; performance and quality are unaffected.

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SFS-D700150 Outline Drawing

