



LK-503

Sensor Head, Small Spot, Laser Class 2

**[Discontinued model]**

This model has been discontinued.

Recommended Replaceable Products

- Ultra High-Speed/High-Accuracy Laser Displacement Sensor LK-G5000 series

To contact us:

1-888-539-3623

SPECIFICATIONS

Model		LK-503
Type		Sensor head Long-distance ^{*1} Sensor head
Measurement mode		High-precision mode, Long-range mode
Reference distance		350 mm 13.78" (High-precision mode), 500 mm 19.69" (Long-range mode)
Measuring range		±100 mm ±3.94" (High-precision mode), ±250 mm ±9.84" (Long-range mode)
Light source	Type	Visible red semiconductor laser
	Wavelength	690 nm
	Output	0.95 mW
	Laser Class	FDA (CDRH) 21CFR Part 1040.10 IEC 60825-1
Spot diameter (at standard distance)		Approx. 0.7 mm 0.03" (High-precision mode), Approx. 0.3 mm 0.01" (Long-range mode)
Linearity		±0.1% of F.S. ^{*2}
Repeatability		10 μm (high-precision mode), 50 μm (long mode)
Analog output	Voltage output	±10 V (10 μm 0.000394"/mV) ^{*3} (High-precision mode), ±5 V (50 μm 0.001969"/mV) ^{*3} (Long-range mode)
	Impedance	100 Ω
	Current output	4 to 20 mA (Applicable load: 350 Ωmax.)
Alarm output		NPN: 100 mA max. (40 V max.) (N.C.), Residual voltage: 1 V max.
Sampling cycle		1024 μs
Other functions		Auto-zero, analog output holding when an alarm occurs, gain switching, response switching, span and shift adjustment of mirror surface measurement mode, changing the sampling cycle
Temperature characteristics		0.02% of F.S./°C
Rating	Power voltage	24 VDC ±10%, Ripple: 10% (P to P) or less
	Maximum current consumption	400 mA max.
Environmental resistance	Enclosure rating	IP67
	Operating ambient luminance	Incandescent or fluorescent lamp: 10000 lux max.
	Operating temperature range	0 to 50°C 32 to 122°F (No condensation)
	Operating ambient humidity	35 to 85% RH (No condensation)
	Vibration	10 to 55 Hz, double amplitude 1.5 mm 0.06"; two hours in each direction of X, Y, and Z
Material		Aluminum die-cast
Weight		Approx 700 g (including cable)

^{*1} The LK-503 can both be used in High-precision mode or Long-range mode.^{*2} Linearity was obtained using KEYENCE's standard target (Zirconia block gauge: LK-031/036, LK-081/086, LK-011, White ceramic block gauge: LK-503).^{*3} When measurement is impossible, 12 V (31.2 mA) is output.

Dimensions

