

Technical Specifications

NIKON laser scanner LC60Dx

Probing error (MPE _p) ¹	9 µm (0.0004")
Ball bar length (MPE _E) ²	6+L/350(µm) (0.00024+L/350) (")
Multi-stylus test (MPE _{AL}) ³	9 µm (0.0004")
ISO Probing form error ⁴	20 µm (0.00079")
ISO Probing size error all ⁵	30 µm (0.00118")
ISO Probing dispersion value ⁶	36 µm (0.00141")
ISO Cone angle ⁷	125°
Stripe width	60 mm (2.36")
Scanning speed	75,000pts/s
Resolution	60µm (0.0024")
Stand-off distance	95 mm (3.74")
Field-of-View (FOV) width and height	60x60 mm (2.36x2.36")
Weight	390 g (0.86 lbs)
Interface on manual localizers	Ethernet
Laser safety	Class 2
Enhanced Scanner Performance	ESP3
Daylight filter	yes
Probe head compatibility	PH10M, PH10MQ, CW43, PHS

All accuracy specifications valid for a CMM with an accuracy of 2µm + L/350 or better using manufacturer supplied test sphere

¹Nikon Metrology test comparable to EN/ISO 10360-2 MPE_p using 1 sigma sphere fit.

²Nikon Metrology test comparable to EN/ISO 10360-2 MPE_E

³Nikon Metrology test comparable to EN/ISO 10360-5 MPE_{AL}

Accuracy specifications according ISO 10360-8:2013:

⁴P_{Form.Sph.1x25.Tr:ODS,MPE} : Maximum probing form error using 25 representative points in translatory scanning mode

⁵P_{Size.Sph.All.Tr:ODS,MPE} : Maximum probing size error All using all measured points in translatory scanning mode

⁶P_{Form.Sph.D95%.Tr:ODS,MpL} : Maximum probing dispersion value using 95% of the measured points in translatory scanning mode

⁷Cone angle : Region of sphere on which the measured points are selected

Technical Specifications

NIKON laser scanner L100

Probing error (MPE _p) ¹	6.5 µm
Ball bar length (MPE _E) ²	6 µm +L/350 mm
Multi-stylus test (MPE _{AL}) ³	6 µm
ISO Probing form error ⁴	15 µm
ISO Probing size error all ⁵	20 µm
ISO Probing dispersion value ⁶	26 µm
ISO Cone angle ⁷	125°
Scanning speed	200,000 points/sec
Resolution	Max. 42 µm
Max. Field-of-View width	110 mm
Field-of-View depth	60 mm
Stand-off distance	105 mm
Laser safety	Class 2
Enhanced Scanner Performance	ESP4
Daylight filter	Yes
Probe head compatibility	PH10M, PH10MQ, CW43, PHS

All accuracy specifications valid for a CMM with an accuracy of 2µm + L/350 or better using manufacturer supplied test sphere.

¹Nikon Metrology test comparable to EN/ISO 10360-2 MPEP using 1σ sphere fit.

²Nikon Metrology test comparable to EN/ISO 10360-2 MPEE

³Nikon Metrology test comparable to EN/ISO 10360-5 MPEAL

Accuracy specifications according ISO 10360-8:2013:

⁴P_{Form.Sph.1x25:Tr:ODS,MPE} : Maximum probing form error using 25 representative points in translatory scanning mode

⁵P_{Size.Sph.All:Tr:ODS,MPE} : Maximum probing size error All using all measured points in translatory scanning mode

⁶P_{Form.Sph.D95%:Tr:ODS,MPL} : Maximum probing dispersion value using 95% of the measured points in translatory scanning mode

⁷Cone angle : Region of sphere on which the measured points are selected

Technical Specifications

NIKON laser scanner XC65Dx

	XC65Dx	XC65Dx-LS
Probing error(MPE_p)¹	12 µm (0.00047")	15 µm (0.00060")
Ball bar length (MPE_E)²	4+L/350(µm) (0.00016+L/350) (")	4+L/350(µm) (0.00016+L/350) (")
Multi-stylus test (MPE_{al})³	9 µm (0.00035")	9 µm (0.00035")
ISO Probing form error⁴	25 µm (0.00098")	35 µm (0.00138")
ISO Probing size error all⁵	45 µm (0.00177")	80 µm (0.00315")
ISO Probing dispersion value⁶	48 µm (0.00189")	60 µm (0.00236")
ISO Cone angle⁷	115°	125°
Scanning speed	Cross Scanner mode: 3 x 25,000 pts/s Line scanner mode: 1 x 75,000 pts/s 75 lines/s	Cross Scanner mode: 3 x 25,000 pts/s Line scanner mode: 1 x 75,000 pts/s 75 lines/s
Width of view	3x65 mm (3x2.56")	3x65 mm (3x2.56")
Depth of view	3x65 mm (3x2.56")	3x65 mm (3x2.56")
Stand-off distance (approx.)	75 mm (2.95")	170 mm (6.69")
Dimensions	155x86x142 mm (6.1x3.4x5.6")	155x86x142 mm (6.1x3.4x5.6")
Weight (approx.)	440 g (0.97 lbs)	480 g (1.06 lbs)
Enhanced Scanner Performance	ESP3	ESP3
Laser safety	Class 2	Class 2
Probe head compatibility	PH10M, PH10MQ, CW43, PHS	PH10M, PH10MQ, CW43, PHS

All accuracy specifications valid for a CMM with an accuracy of 2µm + L/350 or better using manufacturer supplied test sphere

¹Nikon Metrology test comparable to EN/ISO 10360-2 MPE_p using 1 sigma sphere fit.

²Nikon Metrology test comparable to EN/ISO 10360-2 MPE_E

³Nikon Metrology test comparable to EN/ISO 10360-5 MPE_{AL}

Accuracy specifications according ISO 10360-8:2013:

⁴P_{Form.Sph.1x25.Tr:ODS,MPE} : Maximum probing form error using 25 representative points in translatory scanning mode

⁵P_{Size.Sph.All:Tr:ODS,MPE} : Maximum probing size error All using all measured points in translatory scanning mode

⁶P_{Form.Sph.D95%:Tr:ODS,MPL} : Maximum probing dispersion value using 95% of the measured points in translatory scanning mode

⁷Cone angle : Region of sphere on which the measured points are selected