

ConoPoint-3

Laser distance sensor

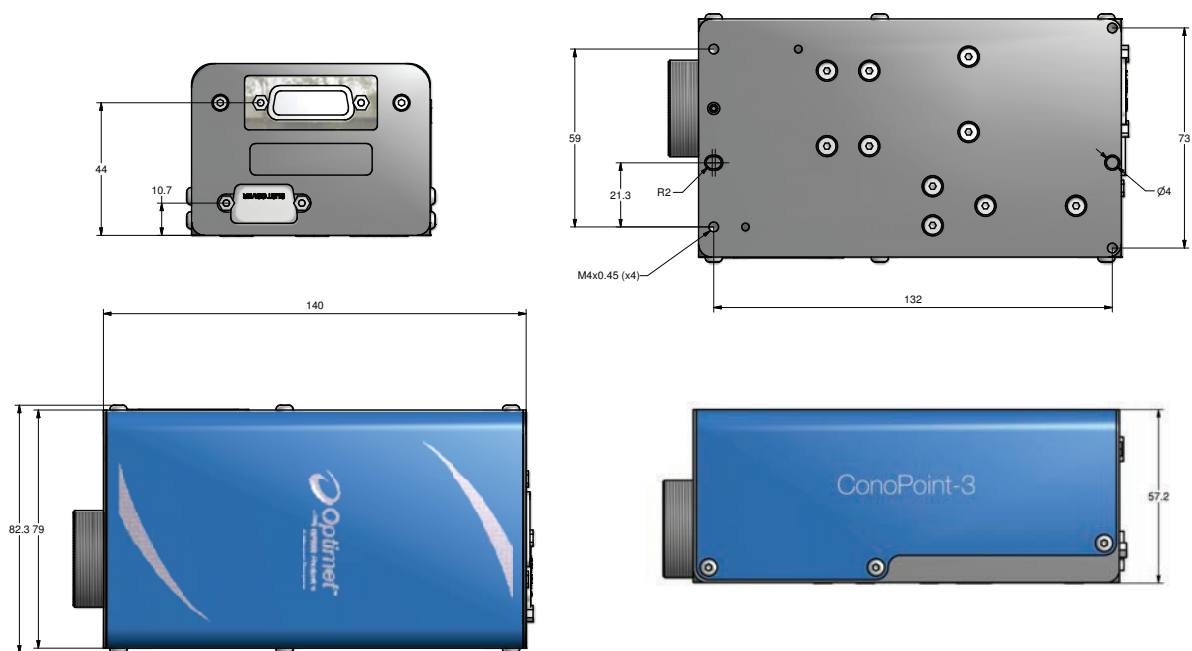
The ConoPoint-3 is a robust optical sensor for high precision measurements of distance, 2D profiles and 3D scanning. Based on conoscopic holography technology, the ConoPoint-3 is a collinear sensor with a wide range of object coverage using interchangeable objective lenses between 16-250 mm.

Thousands of ConoPoints are used in production in a large variety of industrial applications.



Features:

- Measurement of complex geometries, with angle coverage up to $\pm 85^\circ$
- Collinear technology for measuring blind holes
- In process inspection
- Interchangeable objective lenses from 16 to 250 mm



Technical Specification

Standard Lenses

Objective Lens type		16	25	25G	40	50	75	100	150	200	250
P/N		3Z83016	3Z83025	3Z81030	3Z83040	3Z81050	3Z81075	3Z81100	3Z82006	3Z82007	3Z82008
Measurement Range	mm	0.6	1.8	1.8	4	8	18	35	70	125	180
Standoff	mm	9.5	14	18	43.5	44	70	95	145	200	250
Linearity	±%	0.33	0.17	0.17	0.1	0.08	0.06	0.04	0.05	0.06	0.06
Repeatability	μm	0.02	0.06	0.06	0.04	0.10	0.30	0.50	2.50	3	6
X laser Spot Ssize	μm	20	27	27	34	37	47	63	85	105	126
Angular Coverage	°	150	150	150	150	170	170	170	170	170	170

Special Lenses

		Extended		
Objective Lens type		50E	75E	125E
P/N		3Z83050E	3Z83075E	3Z83125E
Measurement Range	mm	8	18	45
Standoff	mm	85	145	240
Linearity	±%	0.08	0.06	0.064
Repeatability	μm	0.1	0.1	0.05
X laser Sspot Size	μm	63	85	126
Angular Coverage	°	170	170	170

Sensor General Specifications

Measurement Frequency	Hz	Up to 3,000
Dimensions (without lens)	mm	140x79x57
Weight	gr	700

Interface

Communication	Ethernet 10/100 /1000 UDP
Software Development Kit	C, C++, C#, Labview

Analog signal (Optional)

Boundary Ranging	±4.5 V ± 0.004 V
Analog Linearity	±0.1%

Light source

Type	Red Laser
Laser Safety Class	Class 2, IEC 60825-1:2007 complies with 31CFR 1040.10 and 1040.11 class II - FDA

Electrical specification

Power Supply Voltage	12 VDC±10% 65-265 VAC 50/60Hz
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Synchronization

Trigger Input	TTL/LVTTL	5/3.3V
Strobe Output	TTL	5V

Environmental resistance

Operational Temperature	°C	18 to 45
Temperature Stability	F.S./°C	±0.1%
Permissible Ambient Light	lx	Up to 15,000