

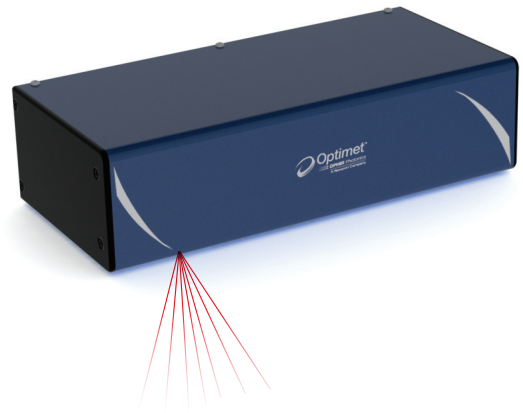
# ConoLine-100 **NEW**

## Non-contact laser line distance sensor

The ConoLine-100 is a non-contact optical line sensor for distance and 3D measurements based on the unique Conoscopic Holography technology.

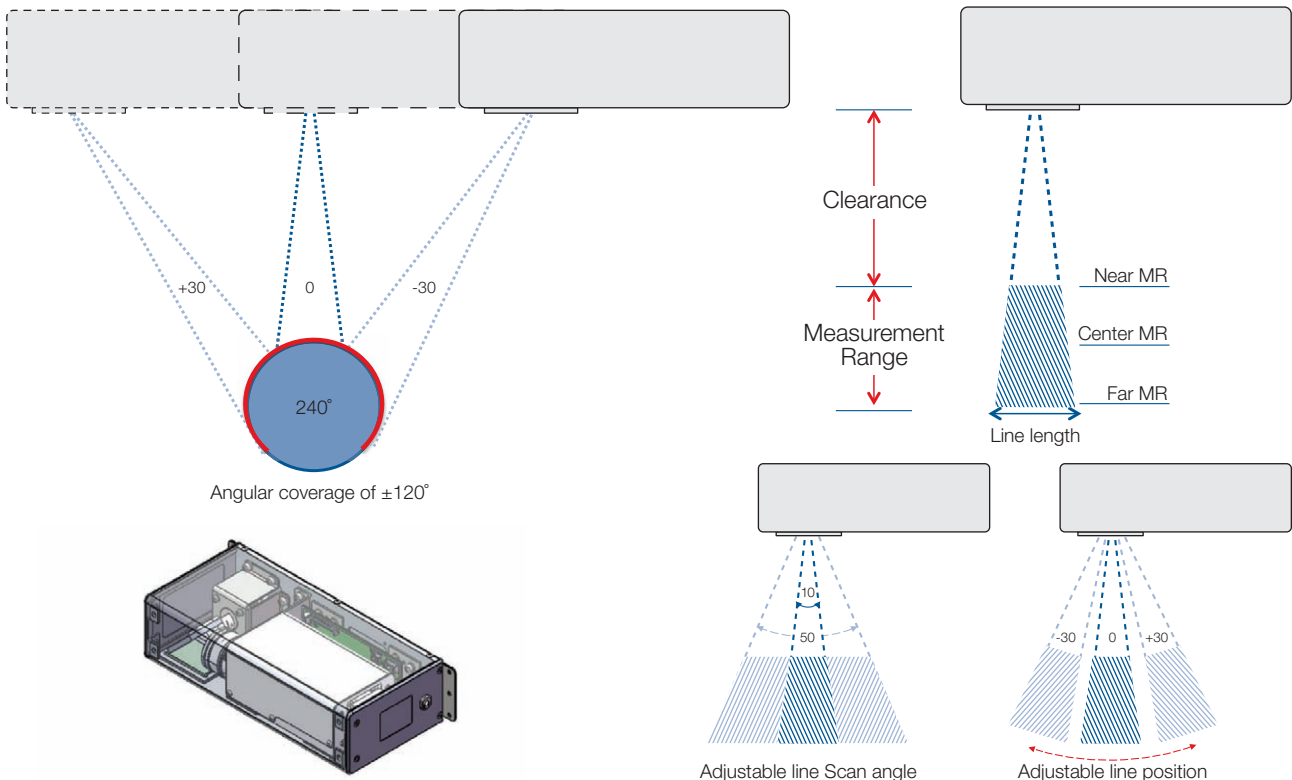
The ConoLine-100 contains the new ConoPoint-20 sensor which has a measuring rate of up to 20,000 points per second, and a rotating mirror generating up to 100 lines per second.

The ConoLine-100 offers an adjustable line length of up to 18mm and down to micron precision. Controlling the mirror's position enables an angular coverage of  $\pm 120^\circ$  allowing a clear view of undercuts, steep grooves and side walls.



### Features:

- Adjustable line length allowing various lateral resolutions and scanning speed with up to 100 lines/second
- Adjustable line angle allowing scans of undercuts, steep grooves and side walls
- Angular coverage of  $240^\circ$
- Measuring rate of up to 20,000 Hz
- Supports external and internal trigger operation mode
- Communication to PC is accomplished via standard Ethernet physical interface UDP protocol
- Easy software integration with only a single DLL file without additional drivers or setup
- Operating multiple sensors using standard Ethernet switch/HUB
- Analog output (optional)
- Auto-exposure mode enabling measurement of high and low reflective surfaces in real time without changing laser power



# Technical Specification\*

Objective Lens type	85E
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## Vertical Axis Z

Measurement range	mm	30
Clearance	mm	50
Linearity	±%	0.05
Repeatability	µm	0.4
Angular coverage (X)	°	170

## Line specifications

Line length @ Near range	mm	13.0
Line length @ Center range	mm	15.5
Line length @ Far range	mm	18.0
Line resolution (Near-Far)	mm	0.07-0.09
Line width (X direction) @ center range	µm	47
Adjustable line position	°	0, ±10, ±20, ±30
Adjustable line scan angle	°	10,20,30,40,50
Angular coverage (Y)	°	240

## Sensor General Specifications

Measurement frequency	Hz	Up to 20,000
Lines / sec		100
Dimensions	mm	260X110X65
Weight	gr	2100

## Analog signal (Optional)

Boundary ranging	±4.5 V ± 0.004 V
Analog linearity	±0.1%

## Interface

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

## Light source

Type	Red Laser
Laser safety class	Class 3R, IEC60825-1:2007 complies with 21CFR and 1040.11 class IIIa - FDA

## Electrical specification

Power supply voltage	24 VDC±10% 65-265 VAC 50/60Hz
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## Synchronization

Trigger input	VTTL	5
Strobe output	VTTL	5

## Environmental resistance

Operational temperature	°C	18 to 45
Temperature stability	F.S./°C	0.03%
Permissible ambient light	lx	Up to 15,000

\*Preliminary spec