CUTTING EDGE 3D SENSORS FOR **INSPECTION, GUIDANCE AND MEASUREMENT**

ECCO 95+

3D INSPECTION SENSOR

ECONOMIC & COMPACT HIGH SPEED 3D SCANNING, ULTRA HIGH RESOLUTION

SUPERIOR 3D IMAGE QUALITY
BEST REPEATABILITY UNDER CHALLENGING CONDITIONS

REDUCED POWER CONSUMPTION
LOWER OPERATING TEMPERATURE FOR BETTER METROLOGY PERFORMANCE

INDUSTRIAL COMPACT HOUSING
BETTER STABILITY AND FLEXIBILITY FOR MACHINE AND ROBOT INTEGRATION

SmartRay

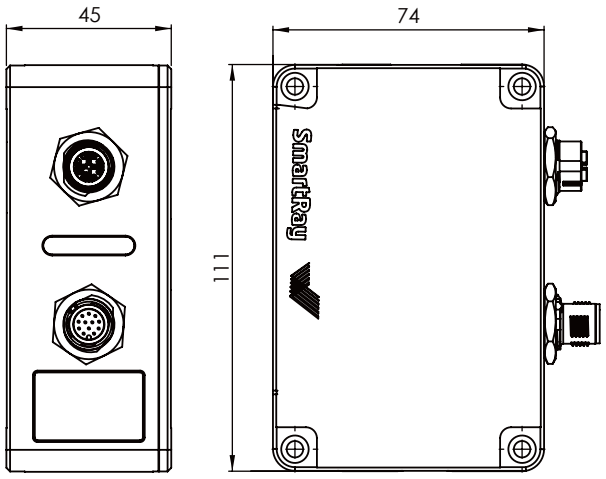
Certainty in metrology

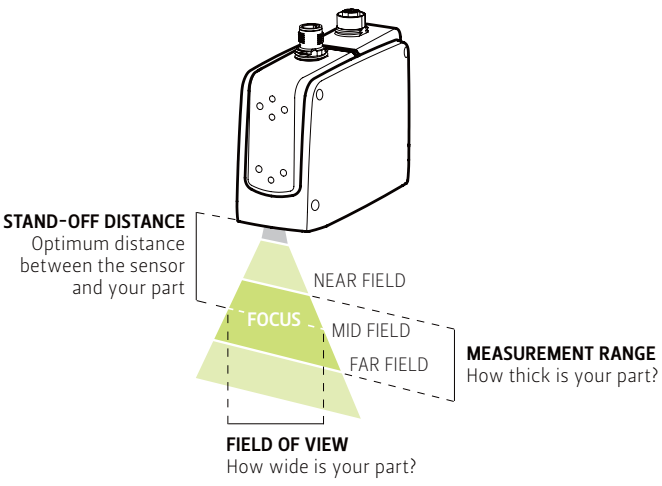
KEY SPECIFICATIONS

Model	ECCO 95.010+	ECCO 95.020+	ECCO 95.040+	ECCO 95.100+	ECCO 95.200+
Field of view (near | **mid** | far)	10.5 | **11** | 11.5 mm	22 | **25** | 28 mm	34 | **36** | 38 mm	72 | **98** | 124 mm	125 | **190** | 280 mm
Typical measurement range	5 mm	16 mm	16 mm	100 mm	300 mm (-125 mm, +175 mm)
Stand-off distance	25 mm	63 mm	55 mm	145 mm	320 mm
Typical vertical resolution	0.37-0.45 µm	1.1-1.6 µm	1.4-1.8 µm	5-12 µm	12-50 µm
Typical lateral resolution	5.8-6.8 µm	11.5-14.5 µm	18-20 µm	42-70 µm	66-138 µm
Z-linearity	0.015%	0.005%	0.006%	0.002%	0.015%
Z-repeatability	0.1 µm	0.2 µm	0.4 µm	2 µm	3.3 µm
Mounting distance	49 mm	89 mm	79 mm	174 mm	349 mm
Laser wavelength	450 nm (brilliant blue laser)				660 nm (red laser)
Laser class (standard|optional)	2|3R				
Maximum points / 3D profile	1920				
Weight	<550 g				
Typical scan rate [1]	Approx. from 1 kHz up to 10 kHz				
Typical 3D point rate [1]	Approx. from 0.7 up to 15 million points/sec				
Interface	Gigabit Ethernet (1 Gbit/sec)				
Inputs	2x Inputs (5 – 24 VDC) Quadrature Encoder (AB-Channel, RS-422 standard)				
Outputs	2 x Outputs, 24 VDC (max. 20 mA)				
Trigger	The following triggers are supported: START Trigger support on Input 1 – 2 DATA Trigger support on Quadrature Encoder Input (Max. DATA trigger rate: 1 MHz) DATA Trigger support on Input 2 (Max. DATA trigger rate: 10 kHz)				
Input voltage | Power	24 VDC, ± 15% | 8.5 W				
Maximum ambient light	10,000 lx				
EMC test	as per EN 61 000-6-2, EN 61 000-6-4, EN 61326-1:2013-07				
Electrical safety	as per EN 61 010-1-3				
Protection class	III, as per EN 61 040-3				
Laser safety Inputs	24 VDC | 0V				
Enclosure rating	IP65				
Air humidity	Maximum 90%, non-condensing				
Temperature operation | storage	0 - 40° C | -20 - 70° C				
Compatible accessories	Power-I/O-Encoder cable: 6.320.0XX Ethernet cable: 6.303.0XX				

Note: Typical values may vary up to ±5% due to optical and production tolerances

1 Scan rate & point rate are dependent on the configured field of view, measurement range and exposure time. A ‚scan' by definition considers maximum points/3D profile i.e. full FOV. The typical scan/point rate range has been estimated considering an exposure time of 1 µsec, min-max MR and full FOV. The typical scan rate can be further boosted by windowing the FOV





FOR MORE INFORMATION PLEASE CONTACT US:

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