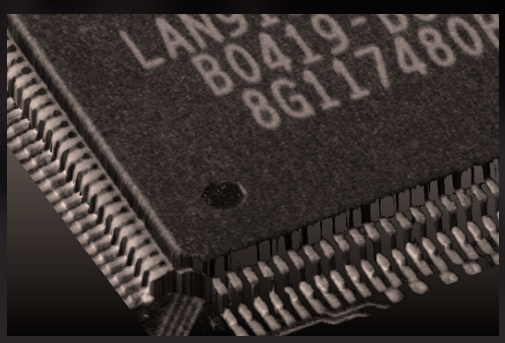
SmartRay CUTTING-EDGE 3D SENSORS FOR INSPECTION, GUIDANCE AND MEASUREMENT

ECCO 75



ECONOMIC & COMPACT
3D GOES HIGH DEFINITION

HIGHEST RESOLUTION
IDENTIFY SMALLER DEFECTS

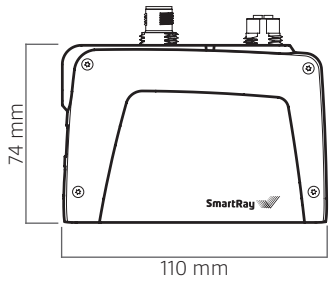
INCREASED REPEATABILITY
FOR RELIABLE INSPECTION & MEASUREMENT

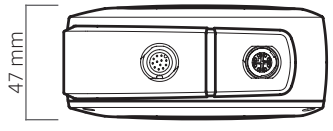
LARGER FIELD OF VIEW
SCAN BIGGER OBJECTS

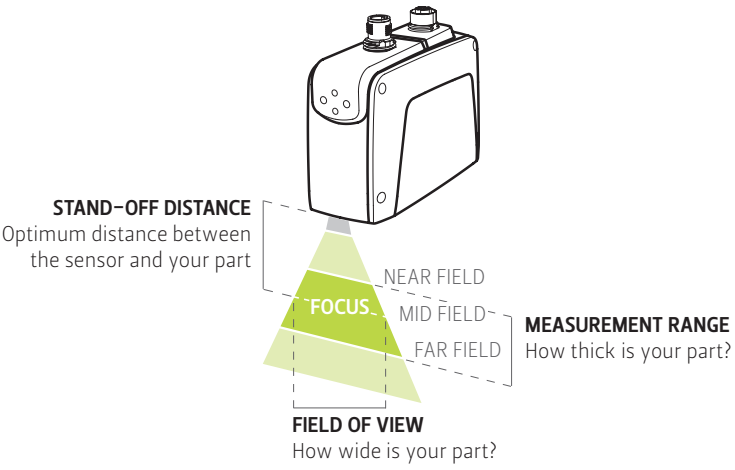
MODEL	ECCO 75.030	ECCO 75.100	ECCO 75.200
Typical field of view [1] near | **mid** | far	34 | **36** | 38 mm	72 | **98** | 124 mm	125 | **190** | 250 mm
Measurement range [1]	16 mm	100 mm	250 mm
Stand-off distance	60 mm	150 mm	325 mm
Typical vertical resolution (Z) [1]	1.4 – 1.8 µm	5 – 12 µm	12 – 50 µm
Typical lateral resolution (Y) [1]	18 – 20 µm	42 – 70 µm	66 – 138 µm
Z-Linearity [2,5]	0.01% (0.1 µm/mm)	0.008% (0.08 µm/mm)	0.01% (0.1 µm/mm)
Z-Repeatability [4,5]	0.8 µm	0.8 µm	2.5 µm
Weight	Approx. 480 g	Approx. 480 g	Approx. 480 g
Part number	3.002.121	3.002.120	3.002.124

Maximum points / 3D profile	1920
Typical scan rate [3]	Approx. from 150 Hz up to 4 kHz
Typical 3D point rate [3]	Approx. from 0.3 up to 7.6 million points/sec
Interface	Gigabit Ethernet (1 Gbit/sec)
Inputs	4 x Inputs, 5 – 24 VDC Quadrature Encoder (AB-Channel, RS-422 standard)
Outputs	2 x Outputs, 24 VDC (max. 20 mA)
Trigger	START Trigger support on Input 1-4 DATA Trigger support on Quadrature Encoder Input (Max. DATA trigger rate: 100 kHz) DATA Trigger support on Input 2, 3 (Max. DATA trigger rate: 10 kHz)
Input voltage | Power	24 VDC, ± 15% ripple | 7.5 W
Laser wavelength	660 nm
Laser class standard | optional	2M | -
Maximum ambient light	10,000 lx
EMC test	as per EN 61 000-6-2, EN 61 000-6-4
Vibration / Shock test	as per EN 60 068-2-6, -27, -29, -64
Electrical safety	as per EN 61 010-1-3
Protection class	III, as per EN 61 040-3
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

1 Typical values can vary up to 5% due to optical tolerances
2 Z-Linearity calculated as variation of "bias" (reference value vs. measured value) over the measurement range. The %slope of a best-fit line from a plot of bias over measurement range represents Z-Linearity
3 Scan rate & point rate are dependent on the configured field of view, measurement range and exposure time. The typical scan/point rate has been estimated with an exposure time of 1 µsec
4 Experimentally asessed by scanning a measurement target moving over a conveyor belt 50 times. Measurement perfomed by averaging height values within the Z-Map image. No post-processing filters applied
5 Measurements performed on a SmartRay standard artifact which is an aluminum flat surface painted matte white







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