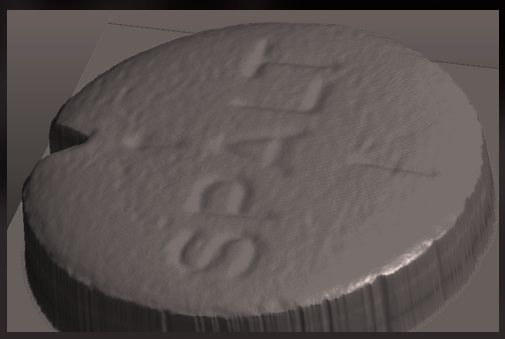
SmartRay CUTTING-EDGE 3D SENSORS FOR INSPECTION, GUIDANCE AND MEASUREMENT

ECCO55



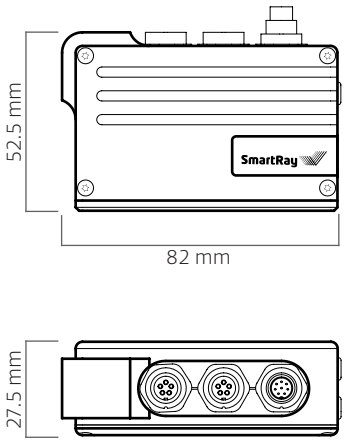
ECONOMIC & COMPACT
FOR HIGHER SPEED APPLICATIONS

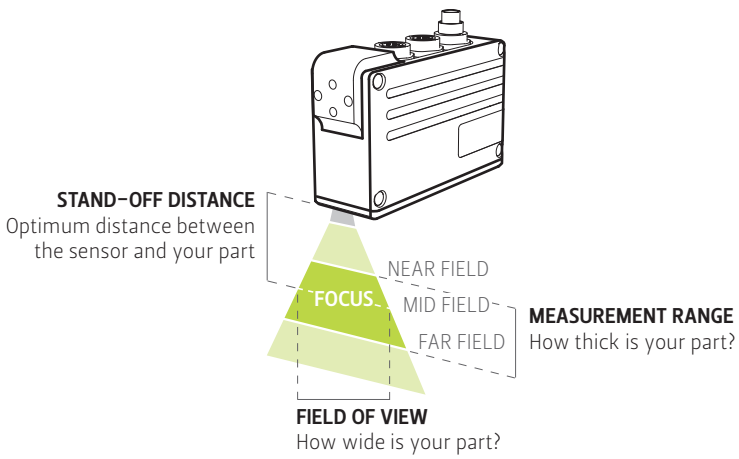
HIGH SCAN RATE FOR FAST PRODUCTION LINES
EXCEPTIONAL VALUE BEST PRICE/PERFORMANCE
SMALLEST LIGHTWEIGHT HOUSING EASY TO FIT ANYWHERE

MODEL	ECCO 55.020	ECCO 55.050	ECCO 55.100
Typical field of view [1] near | **mid** | far	22 | **24** | 26 mm	58 | **69** | 81 mm	88 | **118** | 148 mm
Measurement range [1]	20 mm	60 mm	100 mm
Stand-off distance	70 mm	150 mm	150 mm
Typical vertical resolution (Z) [1]	3.25 – 4.75 µm	13.5 – 27 µm	19 – 53.5 µm
Typical lateral resolution (Y) [1]	35 – 40 µm	85 – 115 µm	136 – 228 µm
Z-Linearity [2,5]	0.01% (0.1 µm/mm)	0.01% (0.1 µm/mm)	0.01% (0.1 µm/mm)
Z-Repeatability [4,5]	3.8 µm	1 µm	4.2 µm
Weight	Approx. 180 g	Approx. 180 g	Approx. 180 g
Part number	3.002.095	3.002.105	3.002.110

Maximum points / 3D profile	640
Typical scan rate [3]	Approx. from 400 Hz up to 6 kHz
Typical 3D point rate [3]	Approx. from 0.3 up to 3.9 million points/sec
Interface	Fast Ethernet (100 Mbit/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 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 | 4.5 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 cable: 6.310.0XX Ethernet cable: 6.302.0XX Encoder cable: 6.307.0XX

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 3 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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