



ECCO 65



ECONOMIC & COMPACT
BEST PRICE-PERFORMANCE 3D SENSOR

HIGH SCAN RATE
FOR FAST PRODUCTION LINES

EXCEPTIONAL VALUE
BEST PRICE-PERFORMANCE SENSOR

INCREASED REPEATABILITY
FOR RELIABLE INSPECTION & MEASUREMENT

MODEL

ECCO 65.020

ECCO 65.050

ECCO 65.100

Typical field of view (near mid far) mm	17 18 19	36 49 62	62 95 125
Typical measurement range mm	16	100	250
Stand-off distance mm	60	150	325
Typical vertical resolution μm	1.4-1.8	5-12	12-50
Typical lateral resolution μm	18-20	42-70	66-138
Z-linearity	0.01%	0.008%	0.01%
Z-repeatability μm	0.1	0.8	6
Laser wavelength nm	660	660	660
Weight Approx	480g	480g	480g
Part numbers			
Laser class 2	3.005.321	3.005.320	3.005.324
Laser class 3R	3.008.321	3.008.320	
Laser class 3B			3.007.324

Maximum points / 3D profile	960
Typical scan rate ³	from 150 Hz up to 5 kHz
Typical 3D point rate ³	from 0.3 up to 4.8 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 1-2 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, \pm 15% ripple 7.5 W
Laser wavelength	660 nm
Laser class standard optional	3R 3B 2
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.OXX Ethernet cable: 6.303.OXX

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. 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 μs , min-max MR and full FOV. The typical scan rate can be further boosted by windowing the FOV

4 Experimentally assessed by scanning a measurement target moving over a conveyor belt 50 times. Measurement performed 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

