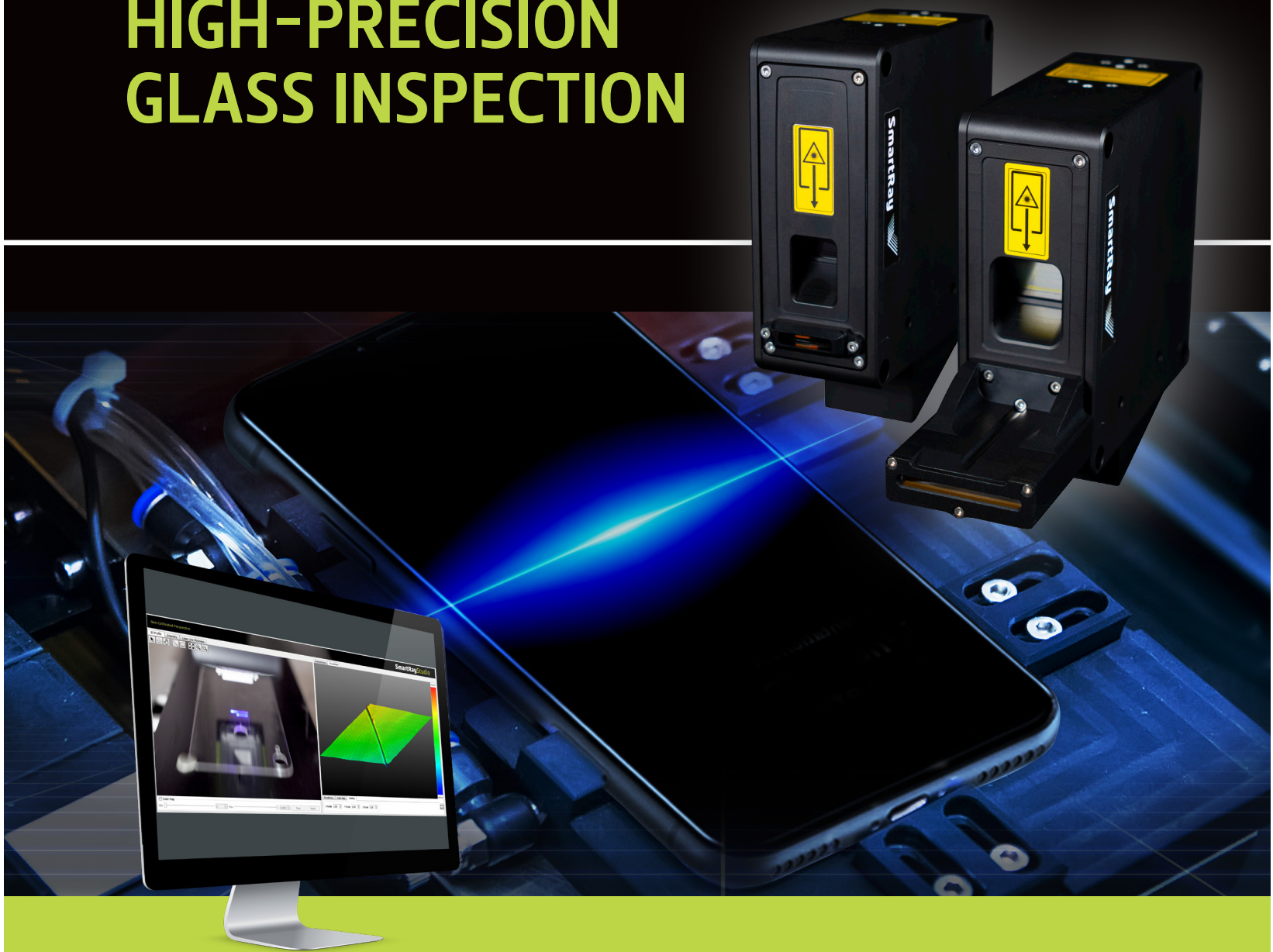


GROUND-BREAKING 3D SENSORS FOR **HIGH-PRECISION GLASS INSPECTION**

ECCO 95+

3D INSPECTION SENSOR



ECONOMIC & COMPACT 3D SCANNING FOR GLASS AND REFLECTIVE SURFACES

SUPERIOR 3D IMAGE QUALITY

OPTIMISED TECHNOLOGY FOR HIGH ACCURACY AND RELIABILITY

DESIGNED FOR FLAT GLASS SURFACES

MEASURES TOP AND BOTTOM LAYERS OF GLASS SHEET IN A SINGLE SCAN

FLEXIBLE SOFTWARE INTEGRATION

USE THIRD-PARTY VISION SOFTWARE OR YOUR OWN FRAMEWORK

SmartRay 

Certainty in metrology

KEY SPECIFICATIONS

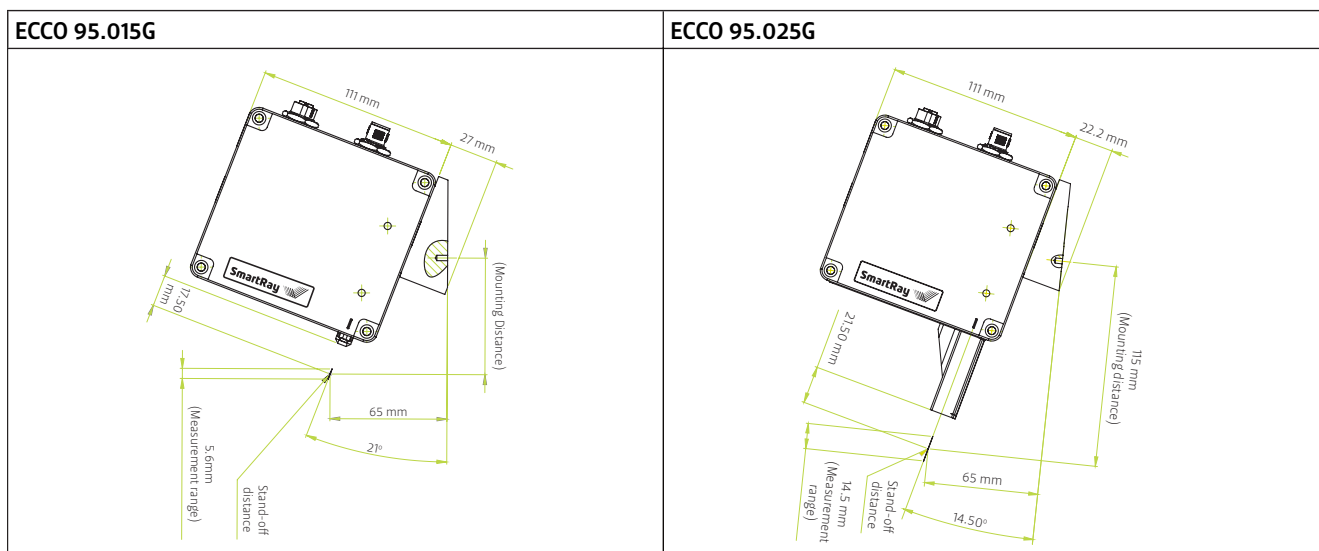
Model	ECCO 95.015G	ECCO 95.025G
Field of view (near mid far)	11 12 11 mm	25 28.5 25 mm
Typical measurement range ¹	5.6 mm	15 mm
Typical lateral resolution ¹	6.0-6.8 µm	13.0-14.5 µm
Typical vertical resolution ¹	0.42-0.54 µm	1.4-1.9 µm
Z-linearity	0.015%	0.024%
Z-repeatability	0.15 µm	0.4 µm
Stand-off distance	23.5 mm	64 mm
Mounting distance	65 mm	89 mm
Laser wavelength	450 nm (brilliant blue laser)	
Laser class (standard optional)	3R 2	
Maximum points/3D profile	1920	
Mounting	Specular mount Pitch angle of 21°	Specular mount Pitch angle of 14.5°
Weight	775 g	825 g
Part numbers	3.001.191 (class 2) 3.004.191 (class 3R)	3.001.193 (class 2) 3.004.193 (class 3R)
Typical scan rate ¹	Approx. from 1 kHz up to 10 kHz (with full FOV)	
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: 100 MHz) DATA Trigger support on Input 2	
Input voltage power	24 VDC, ± 15% 7.5 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.OXX Ethernet cable: 6.303.OXX	

¹ Typical values can vary up to 5% due to optical tolerances

² Experimentally assessed by scanning a fixed measurement target 4100 times successively within short time interval. No post-processing filters applied

³ Z-Linearity calculated as a variation of "bias" (reference value vs. measured value) over the measurement range

⁴ Measurements performed on a SmartRay standard artifact which is an aluminium flat matt surface painted matte white



FOR MORE INFORMATION PLEASE CONTACT US:

SmartRay GmbH Bürgermeister-Finsterwalder-Ring 12, 82515 Wolfratshausen, GERMANY
www.smartray.com | Email: info@smartray.com | Tel: +49 (0) 8171 9683 400

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