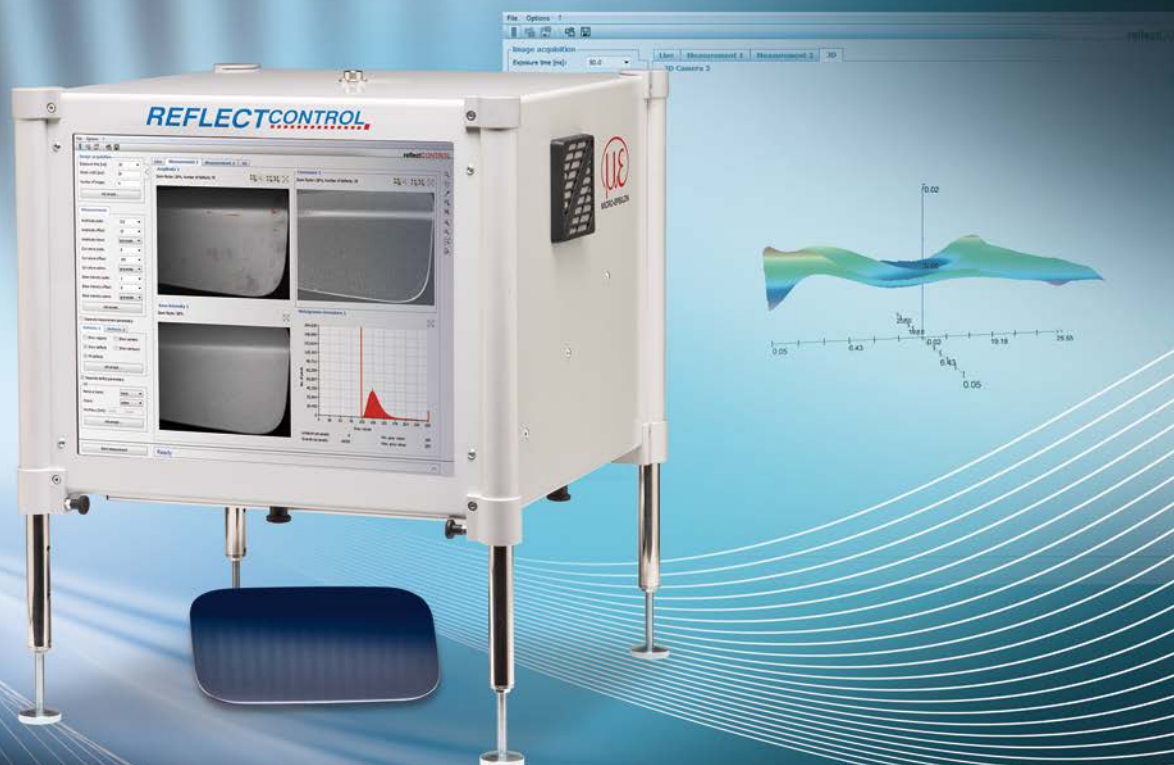




More Precision

reflectCONTROL Compact // Inspection system for reflecting surfaces



Inspection system for reflecting surfaces

reflectCONTROL Compact



- High speed, high resolution measurement on surfaces up to 265 x 110mm
- 2 versions for defect recognition or 3D reconstruction
- Proven technology for offline inspection and integration into processing lines
- Interfaces:
USB, VGA, Ethernet, Digital I/O

Surface inspection and defect recognition

In many areas, ever-increasing requirements are placed on the quality and the appearance of a surface. Particularly with reflecting surfaces, faultless production is expected. reflectCONTROL Compact is designed specifically for the inspection of shiny surfaces. The system projects a striped pattern onto the measurement object. Defects on the surface cause deviations from the striped pattern, which are recorded by cameras and evaluated by software. The fully integrated system is available in two versions that each provides different measuring fields. The 2D version is used for pure defect recognition on reflecting surfaces. The 3D version allows for an additional measurement of reflecting surfaces at sub-micrometer accuracies. This device is also used in individual operations (e.g. laboratories) as well as directly in production lines.

All-in-one

All components are integrated in a compact device. The housing includes a monitor for the striped pattern projection, as well as two cameras. In order to avoid interferences from ambient light, the measuring field can be darkened on all four sides. The legs are height-adjustable which enables to balance different component heights. This operation is performed via touch screen or mouse and keyboard, which can be connected via USB. reflectCONTROL Compact can be integrated into production lines. A digital I/O interface enables triggering and alarms. If the device is installed in a difficult-to-access place, an external operating monitor can be connected via VGA.

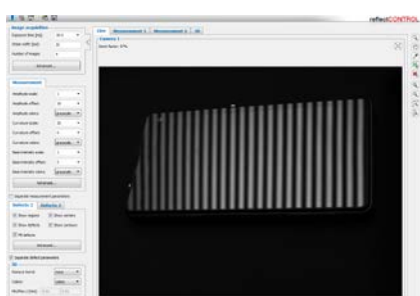
The pre-installed operating and evaluation software of the 2D version shows surface defects. The 3D version provides a point cloud. The data obtained can be treated in the image processing programs.

Free test measurements

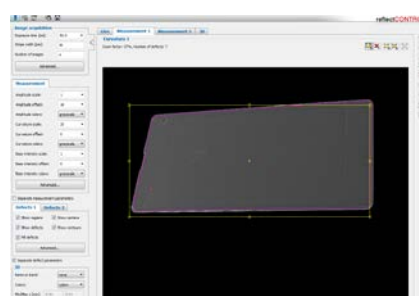
In order to objectively appraise your measurement task, Micro-Epsilon offers non-binding inspections of your boundary samples. Please feel free to contact us!

Application examples:

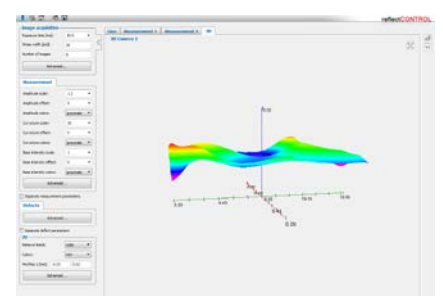
- Inspection of touchscreens for smartphones and tablets
- Defect detection on car attachments and interior components
- Measurement of telescope mirrors and lenses



Phase image



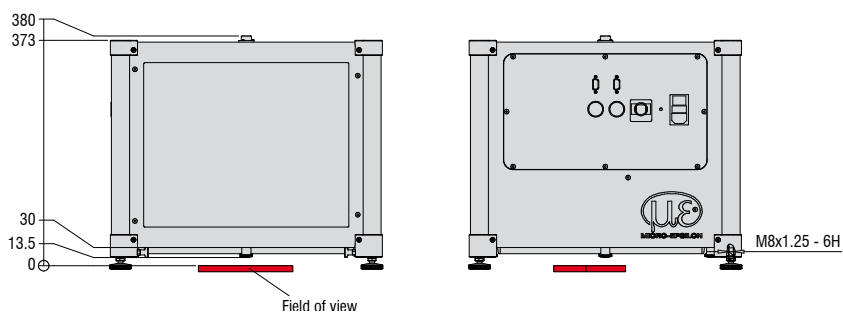
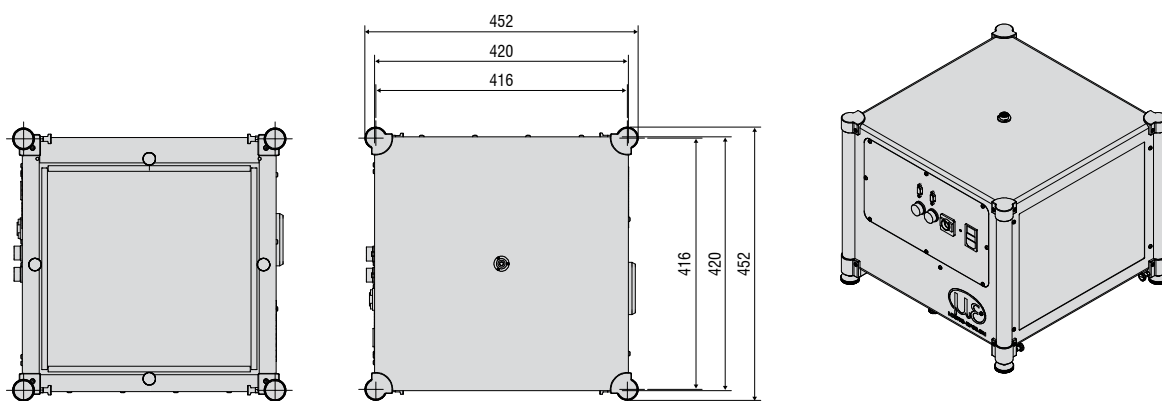
Defect detection



3D reconstruction of the surface

Version	Model		
2D	RCC100-140	RCC100-105	
	Lateral resolution	80 ... 100 μ m	65 ... 75 μ m
	Measuring field approx.	140 x 118mm	105 x 88mm
2D - large measuring field	RCC110-265	RCC110-210	
	Lateral resolution	80 ... 100 μ m	65 ... 75 μ m
	Measuring field approx.	265 x 110mm	210 x 86mm
3D	RCC130-135	RCC130-105	
	Lateral resolution	80 ... 100 μ m	65 ... 75 μ m
	Resolution Height	10nm	10nm
	Measuring field approx.	135 x 115mm	105 x 87mm

Characteristics	
Zero position of the measurement object	30mm under the housing bottom edge
Weight	< 20kg
Supply voltage	100 – 230V, 50/60Hz
Interfaces	USB, VGA, Ethernet, Digital I/O
Environment	
Operating temperature	+5 ... +40°C
Storage temperature	-10 ... +60°C
Temperature fluctuations during operation without calibration	\pm 2.5°C
Relative air humidity	10 ... 80% in declared temperature without condensation



High performance sensors made by Micro-Epsilon



Sensors and systems for displacement and position



Sensors and measurement devices for non-contact temperature measurement



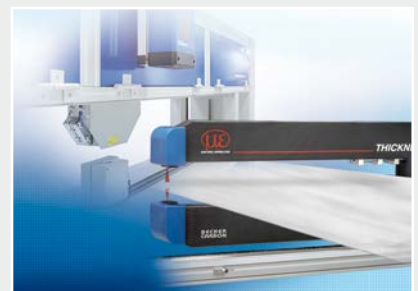
2D/3D profile sensors (laser scanner)



Optical micrometers, fibre optic sensors and fibre optics



Colour recognition sensors, LED analyzers and colour online spectrometer



Measurement and inspection systems



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