More Precision

reflectCONTROL Compact // Inspection system for reflecting surfaces
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 protection, 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
<table>
<thead>
<tr>
<th>Version</th>
<th>Model</th>
<th>Lateral resolution</th>
<th>Measuring field approx.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2D</td>
<td>RCC100-140</td>
<td>80 … 100µm</td>
<td>140 x 118mm</td>
</tr>
<tr>
<td></td>
<td>RCC100-105</td>
<td>65 … 75µm</td>
<td>105 x 88mm</td>
</tr>
<tr>
<td>2D - large measuring field</td>
<td>RCC110-265</td>
<td>80 … 100µm</td>
<td>265 x 110mm</td>
</tr>
<tr>
<td></td>
<td>RCC110-210</td>
<td>65 … 75µm</td>
<td>210 x 86mm</td>
</tr>
<tr>
<td>3D</td>
<td>RCC130-135</td>
<td>80 … 100µm</td>
<td>135 x 115mm</td>
</tr>
<tr>
<td></td>
<td>RCC130-105</td>
<td>65 … 75µm</td>
<td>105 x 87mm</td>
</tr>
</tbody>
</table>

**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: ±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