**surfaceCONTROL 3D 3500**
Precise 3D snapshot sensors

Precise inline inspection of geometry, shapes and surfaces
- Micrometer-accurate snapshots with large measuring fields
- Highest repeatability up to 0.4 µm
- Up to 2.2 million 3D points / second
- High compatibility via GenICam/GigE Vision and Industrial Ethernet
- Valid3D Technology for real 3D data in highest image quality

**reflectCONTROL**
Inline 3D inspection of shiny surfaces

- Complete inspection of reflecting and shiny surfaces
- Highest z-accuracy < 1 µm
- Fastest 3D inspection < 1 s
- High compatibility via different interfaces

**scanCONTROL**
Laser profile sensors for fast 3D scans

- Powerful laser scanner portfolio
  - Precise laser line scanners for 3D point clouds
  - Red laser & patented Blue Laser Technology
  - High resolution up to 2048 points/profile
  - Measuring rates up to 10,000 kHz
  - One sensor design for all measuring ranges

Parameter setting and evaluation of Micro-Epsilon 3D sensors are performed via the 3DInspect software.
**Inductive sensors in various measurement tasks & industries**
- Wear-free and maintenance-free displacement and position measurements
- Compact designs, ideal for integration into machinery
- Robust and industrial-grade sensor designs
- Ideal price/performance ratio for serial applications

### Measuring range

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>Resolution</th>
<th>Measuring rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 630 mm</td>
<td>from 1.5 µm</td>
<td>Up to 300 Hz</td>
</tr>
</tbody>
</table>

**wireSENSOR** Robust draw-wire sensors

**Draw-wire displacement sensors for industry, mobile machines and lifting technology**
- Large measuring ranges and high accuracy
- Long-life sensor with robust housing
- Compact design for flexible integration
- Ideal for OEM adaptions and serial applications

### Measuring range

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>Output type</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 to 50,000 mm</td>
<td>Analog &amp; digital</td>
</tr>
</tbody>
</table>

**wireSENSOR K-Series**
Robust draw-wire sensors for precise measurements up to 5 m
**optoNCDT ILR** Laser distance sensors

Non-contact distance and displacement measurements with high precision
- Precise measurement of displacement, distance & position on different surfaces
- Large gauging and measuring range for both indoor and outdoor use
- High repeatability
- Fast response time
- Compact design without external controllers
- Numerous interfaces

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>up to 3000 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>from 0.1 mm</td>
</tr>
</tbody>
</table>

**optoCONTROL** Optical precision micrometers

Compact laser micrometer with integrated controller
- Micrometer-precise detection of diameter, gap and edge
- Large measuring ranges up to 95 mm
- Variable distances up to 2 m
- Laser class 1M
- Configurable via web interface

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>up to 95 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>from 1 µm</td>
</tr>
<tr>
<td>Measuring rate</td>
<td>max. 100 kHz</td>
</tr>
</tbody>
</table>

**colorSENSOR** Precise color sensors

Compact True Color sensor for fast inline quality control
- High measurement accuracy for the detection of slightest color differences
- Precise and fast measurements even on poorly reflecting surfaces
- Intuitive operation and configuration
- Numerous sensors: standard, circular, reflex and transmission
- Ethernet and RS232 process interfaces

<table>
<thead>
<tr>
<th>Accuracy</th>
<th>ΔE ≥ 0.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring rate</td>
<td>max. 30 kHz</td>
</tr>
</tbody>
</table>

Robust fiber optic sensor for all surfaces
**capaNCDT** Capacitive sensors

**Capacitive measuring system for industrial applications**
- High precision measurement of displacement, distance, gap & position on electrically conductive objects
- Dust-proof and watertight aluminum die-cast housing (IP68)
- Industrial-grade sensor portfolio
- Robust and temperature-resistant sensor cable
- Voltage output / digital interface RS485
- Compact controller, compatible with all capaNCDT sensors
- Optimized for industrial series applications

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>0.05 to 10 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>from 0.03 µm</td>
</tr>
<tr>
<td>Measuring rate</td>
<td>Up to 20 kHz</td>
</tr>
</tbody>
</table>

**eddyNCDT** Inductive sensors based on eddy currents

**Powerful eddy current measuring system for harsh environments**
- Precise and high speed measurement of displacement, distance & position on any metal
- Robust design for demanding industrial environments
- Resistance to pressure, fluctuating temperatures, dirt, dust, oil & water
- Modern fieldbus connection and smart signal processing
- Optimized for industrial series applications

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>0.4 to 80 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>from 0.02 µm</td>
</tr>
<tr>
<td>Measuring rate</td>
<td>Up to 20 kHz</td>
</tr>
</tbody>
</table>

**thicknessGAUGE** Sensor system for inline thickness measurements

**Compact complete solution for precise inline thickness measurements**
- For many types of surfaces and materials due to different sensor technologies
- Traversing sensors on linear axis
- Fully automatic calibration
- 24 V supply for the entire system
- Powerful software package included
- Optimal price/performance ratio

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>2 to 25 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>from 0.04 µm</td>
</tr>
<tr>
<td>Measuring rate</td>
<td>Up to 5 kHz</td>
</tr>
</tbody>
</table>
**optoNCDT** Smart laser sensors

Powerful sensor portfolio for serial integration in automation and machine building

- Compact sensors with integrated controller
- Advanced Surface Compensation for fast adaption to changing surfaces
- Highest immunity to ambient light
- Red laser and patented Blue Laser Technology
- Analog and digital outputs

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>2 to 1000 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>from 0.5 µm</td>
</tr>
<tr>
<td>Measuring rate</td>
<td>Up to 6 kHz</td>
</tr>
</tbody>
</table>

**confocalDT** Confocal sensors with highest precision

High-resolution displacement & distance measurements on almost all surfaces

- Reliable thickness measurement of glass and transparent objects
- Extremely small measurement spot for the detection of smallest objects
- Ease of use via web browser
- Single- and two-channel controllers
- Wide range of sensors for numerous applications
- Cutting-edge technology: fastest controller, largest tilt angle & smallest light spot

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>0.1 to 30 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>from 3 nm</td>
</tr>
<tr>
<td>Measuring rate</td>
<td>Up to 70 kHz</td>
</tr>
</tbody>
</table>

**interferoMETER** Ultra-precise white light interferometers

Industrial distance & thickness measurements with subnanometer resolution

- Absolute distance measurement and multi-peak distance measurement
- Distance-independent thickness measurement & multi-layer thickness measurement
- Highest resolution and linearity
- Highest signal stability due to new evaluation algorithms and active temperature compensation
- Simple parameterization via web interface
- Industry optimized sensors with robust metal housing and flexible cables

<table>
<thead>
<tr>
<th>Measuring range</th>
<th>2.1 mm (absolute)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>&lt; 30 pm</td>
</tr>
<tr>
<td>Measuring rate</td>
<td>Up to 6 kHz</td>
</tr>
</tbody>
</table>

Contact us for more information, application examples and technical advice.