MICRO-EPSILON
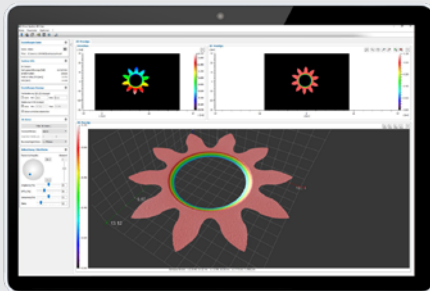
More Precision

designed for advanced

AUTOMATION

surfaceCONTROL 3D 3500
Precise 3D snapshot sensors
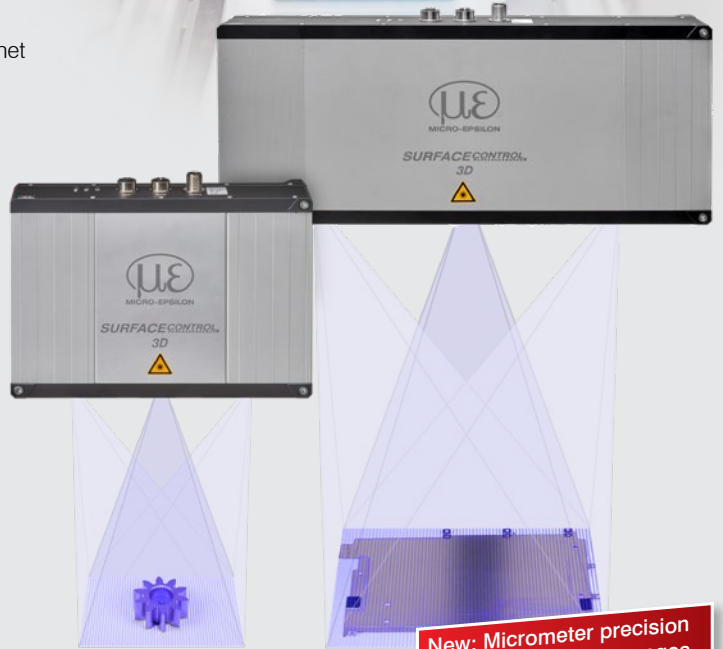
Precise inline inspection of geometry, shapes and surfaces

- 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
- Easy integration in all common 3D image processing packets

z-axis precision <0.4 μm

GiGE VISION

C/C++

Microsoft .NET

3DInspect

Parameter setting and evaluation of Micro-Epsilon 3D sensors are performed via the 3DInspect software.

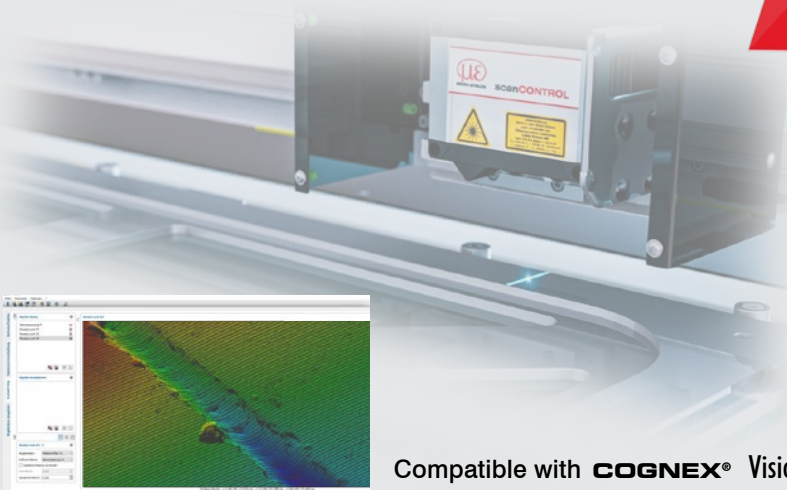**New: Micrometer precision for large measuring ranges**

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scanCONTROL 3000
Laser profile sensors for high speed 2D/3D scans

Precise laser scanners with increased performance

- Precise laser line scanners for 3D point clouds
- Red laser & patented Blue Laser Technology
- 33% more measurement points for detailed laser scans
- Increased SMART evaluation speed by up to 60%
- High speed profile evaluation up to 10 kHz directly in the sensor

New: large measuring ranges up to 600 x 600 mm

Compatible with **COGNEX® VisionPro**

induSENSOR Inductive sensors (LVDT)

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	1 to 630 mm
Resolution	from 1.5 μm
Measuring rate	up to 300 Hz

induSENSOR MSC7x0x

Single- and multi-channel controller for industrial measurement tasks

PROFINET®

EtherNet/IP

EtherCAT®

NEW

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	50 to 50,000 mm
Output type	Analog & digital

wireSENSOR K-Series

Robust draw-wire sensors for precise measurements up to 8 m

NEW

CANopen®

optoCONTROL 2700
High-performance micrometer for the highest demands

High-performance LED micrometer for the precise measurement of diameter, gap, edge and segment

- High precision and sampling rate
- Angle measurement and active tilt angle correction of the measuring object
- High ambient light resistance of up to 5000 lux in direct light
- Six presets for common measurement tasks
- Black and white image for easy alignment with the measuring object
- Robust aluminum housing (IP67)

Measuring range	40 mm
Sampling rate	15 kHz
Digital resolution	10 nm
Exposure time	8.5 μs

EtherCAT **EtherNet/IP** **PROFINET**

NEW

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

Accuracy	$\Delta E \geq 0.3$
Measuring rate	max. 30 kHz

NEW

colorSENSOR CFO250
High-performance controller for precise & fast color measurement

colorSENSOR CFS
Robust fiber optic sensors 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

Measuring range	0.05 to 10 mm
Resolution	from 0.03 nm
Measuring rate	up to 20 kHz

capaNCDT 6228
Capacitive sensors for high temperature applications up to 800 °C

NEW

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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

Measuring range	0.4 to 80 mm
Resolution	from 0.02 μm
Measuring rate	up to 20 kHz

eddyNCDT 3070
High precision controller for measuring ranges <1 mm

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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

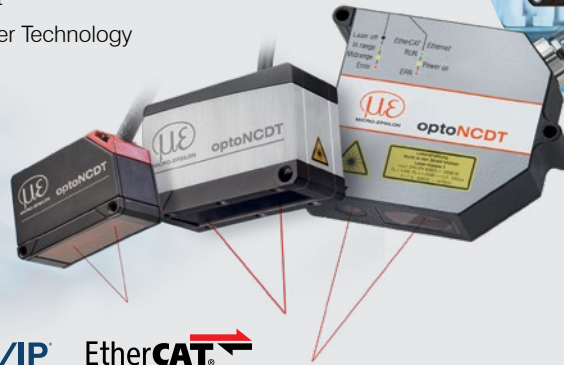|	
Measuring range	2 to 25 mm
Resolution	from 0.04 μm
Measuring rate	up to 5 kHz

NEW

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

optoNCDT 1x20

Compact laser sensors for precise & dynamic measurements

Measuring range	2 to 1000 mm
Resolution	from 0.5 μm
Measuring rate	up to 49 kHz

PROFINET® EtherNet/IP EtherCAT.

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

NEW

confocalDT 241x

The next generation of confocal sensors for series integration

Measuring range	0.1 to 30 mm
Resolution	from 3 nm
Measuring rate	up to 30 kHz

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

Resolution <30 pm

Measuring range	2.1 mm (absolute)
Resolution	< 30 pm
Measuring rate	up to 6 kHz

NEW IMS5420-TH for non-contact thickness measurement of wafers

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

MICRO-EPSILON MESSTECHNIK GmbH & Co. KG · 94496 Ortenburg / Germany
info@micro-epsilon.com · www.micro-epsilon.com