





## Flexible, optical shaft measuring systems for quality assurance of turned parts Opticline CS series

The devices from the new CS series are rigorously designed for production-related applications and are optimized to meet special requirements relating to the production and quality assurance of rotating parts.

The high-quality measuring instruments of the Opticline CS series offer an optimized price-performance ratio and ideally meet the demands of customers with medium tolerance requirements.

## Your advantages

- Robust design for use in production
- Easy, fast and flexible measurements
- User-independent results
- Mechanisms for device self-monitoring
- Automated measuring runs
- Easy to operate and program
- Statistics capable and conclusive reporting

## Economic quality control of turned parts Opticline CS series optical shaft measuring systems



Use in production environment for operator-controlled inspections Fast feedback of the measurement results into the production process Increase in productivity



## Technical data Opticline CS series

Opticline <sup>1)</sup>	CS155	CS305	CS308
Measuring capacity [mm] Diameter Length <sup>2)</sup>	50 150	50 300	80 300
Workpiece capacity Diameter [mm] Length <sup>2)</sup> [mm] Workpiece weight [N] <sup>3)</sup>	90 150 100	90 300 150	90 300 150
Resolution Diameter, length Rotation	≤0.2 $\mu m$ , high precision scales, CCD high speed camera 0.0018°		
Temperature compensation Measuring system Workpiece	included, multiple temperature probes with intelligent compensation system optional (manual only)		
Maximum permissible error <sup>4)</sup> MPE <sub>E1</sub> Diameter Length	(2.0+D[mm]/100) μm (5.0+L[mm]/100) μm		
Repeatability (4s, n=25) <sup>5)</sup> Diameter Length	0.5 μm 3.0 μm		
Speed Measuring Measuring rotation Positioning Positioning rotation Measuring cycle	automatically optimized: 10 – 80 mm/s 1 rps 200 mm/s 1 rps depending on type and quantity of test features, typical 330 s		
Dimensions [mm] Measuring system [WxDxH]	690 x 570 x 920	690 x 570 x 1070	690 x 570 x 1070
Weight (depending on setup) Measuring system [kg]	110	120	125
Clamping tool interfaces Morse taper headstock Morse taper tailstock Clamping stroke tailstock	MT2 MT2 manual, 20 mm		
Measurement computer Hardware Operating system	measurement and evaluation computer, external Windows 10 64Bit		
Power supply Connection Voltage Power frequency   consumption Fuse	AC – PH, N, PE 200 – 240/100 – 120V (127V on request) 50/60Hz   1.5kVA 16A		
Emission sound pressure level	≤70dB(A)		

Environmental conditions: not chemically aggressive, not explosive and not radioactive. Temperature range from +10° C to +40° C, max. relative humidity 85 % without condensation. Dust aerosol values according to TRGS 900.
Between tips from the standard scope of delivery. Length may be reduced depending on the clamping devices.
Workpiece positioning without knocks or strong lateral forces. Max. mass moment of inertia: (0.04 kg/m<sup>2</sup>. Improper workpiece positioning may damage the headstock or bearings.
MPE according to EN ISO 10360 / VDI/VDE 2617, verified with calibrated masters. Environmental conditions according to VDI/VDE 2627 at +18° C to +22° C, class 3 conditions (gradient 1 K/h, 2K/24h, 0.5 K/m). Mechanical ambient conditions according to EN ISO 10360 / VDI/VDE 2617, verified ass 3ML.
Typical range over 25 repeat measurements on ground workpieces. In accordance with VIM, International Dictionary of Metrology.



MACCHINE E STRUMENTI DI MISURA

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