

Product information

Optical-tactile shaft measuring devices MarShaft SCOPE 350 plus

Product features

The **MarShaft SCOPE plus** series of instruments offers **universal, fully automatic optical shaft measuring systems** for the measurement of rotationally symmetrical workpieces up to a diameter of 120 mm and lengths of 350 or 750 mm. All devices always have a **high-precision roundness measuring axis (C)** as well as **vertical (Z)** and **horizontal (X) measuring axes**.

As a supplement to the CMOS matrix camera, which is always installed, a **tactile measuring unit** with an **inductive 2D probe** and **additional measuring axis (Y)** is optionally available to measure concentricity and axial runs, for example.

The measuring device has been calibrated to an optical measuring system, **which means that tactile and optical measuring tasks can be carried out in combination**. The MarWin measurement and evaluation software, which has proven itself over many years and is constantly updated, enables maximum flexibility with the simplest operation. The measurement sequences are **fully automatic and free of operator influences**. Zoom functions allow the measurement of the smallest details that are difficult or impossible to verify with conventional measurement methods.



Item no.: 5361507

Technical data

Positioning speed C-axis	0.2 - 60 1/min
Positioning speed X axis	0.5 - 100 mm/s
Positioning speed Z-axis	0.5 - 200 mm/s
Measured value resolution Length	0.01 - 0.0001 mm
Measured value resolution diameter	0.01 - 0.0001 mm
Table load max.	15 kg
Error limit Length	$MPE \leq (2.0 + l/125) \mu\text{m}; "l" \text{ in mm}$
Error limit diameter	$MPE \leq (1.0 + d/125) \mu\text{m}; "d" \text{ in mm}$
Angular resolution	0.01 - 0.0001 °
Reference temperature	20 °C
Workpiece length max.	350 mm
Workpiece diameter max.	120 mm
Sensors	optical(-tactile)
Optical system	Telecentric precision optics with a large field of view
Camera system	CMOS matrix camera
Probe system	Mahr 1320-2 (optional)
Special equipment	Tailstock
Measuring computer	19" industrial PC (incl. Microsoft Windows 10 IoT LTSC)
Operating temperature	40 °C to 10 °C
Storage and transport temperature	50 °C to -10 °C
Sound pressure level	< 70 dB(A)
Permissible humidity	max. 90 %; non-condensing
Mains voltage	100 – 240 V
Mains frequency	50/60 Hz
Power consumption max.	1000 W
Weight basic unit	120 kg
Transportation options	suitable for air freight
Scope of delivery	2 pieces 60° centering tips (2 – 44 mm)