

# Precimar



## Optimar 100 Universal Dial Indicator Testing Machine

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## Optimar 100

Universal dial indicator testing machine

### Description

The cost-effective testing station for semi- or fully automated testing of dial indicators, dial comparators, lever-type test indicators, 2-point inside measuring devices, and inductive and incremental probes.

Designed as a table-top unit, the **OPTIMAR 100** is user-friendly and ensures fast test runs. It features a motorized drive and is equipped with a high-resolution measuring system. The test run is software-controlled.

### Features

- For dial indicators, dial comparators, lever-type test indicators, 2-point inside measuring devices, digital dial indicators and inductive and incremental probes
- Automation of sub-processes (automated pre-positioning) using motorized measuring spindle drive
- Fully automated measuring run for digital devices
- **OPTIMAR 100** may be used horizontally (e.g. for measuring 2-point inside measuring devices)
- Testpiece mounting via vertical guide. Height can be adjusted quickly (adaptation of testpieces to different measuring ranges)
- Box-shaped and thus rigid machine casing
- For testpieces with a shaft diameter of 8 mm, 28 mm or 3/8"
- Electronic handwheel for manual control of the measuring spindle's movement. Self-adjusting sensitivity of the electronic handwheel for adaptation to the specific test specimen.
- Ergonomic design of all control elements
- Compliance with the Abbe comparator principle for maximum measuring accuracy
- LIF 101 measuring system with computer-aided error compensation. Testing of 2-point inside measuring devices without loss of accuracy
- Length measuring deviation in vertical and horizontal directions:  $MPE = (0.2 + L/250) \mu m^*$ , L in mm at  $T = 20 \text{ }^\circ\text{C} \pm 0.5 \text{ }^\circ\text{C}$ , permissible temperature gradient 0.1 K/h
- Mahr software "**Optimar**" or **QMSOFT**<sup>®</sup> / **QM-DIAL 32**

\* For serial nos. 2041/11 and higher

### Testing according to standards

- **Optimar 100** enables fast and easy testing of dial indicators, dial comparators as per DIN 879 and DIN EN ISO 463 respectively, and lever-type test indicators as per DIN 2270, as well as for selected testing devices also per BS, NF, JIS and ASME standards.



### Accessories

- Mount for lever-type test indicators
- Large selection of adapters for digital dial indicators and inductive and incremental probes
- Please ask for customized adapters if required
- Probe can be connected to Optimar via probe box
- Holder and software for testing 2-point inside measuring devices with a movable measuring bolt (testing as per VDI/VDE/DGQ 2618, sheet 13.2., 2005)
- Device for force sensor on request
- **OPTIMAR** recalibrated on site by Mahr Service Center (DAkkS / DKD accreditation as per 17025)
- Calibration set for calibration by the operator

### Technical Data

Optimar 100	Order No. 5320005
Range of measuring spindle	100 mm, 4 in (101.6 mm)
Measuring system	LIF 101 with correction of measured values
Digital increment	0.02 $\mu\text{m}$ (0.8 $\mu\text{in}$ )
Length measuring deviation (MPE)	$(0.2 + L/250) \mu\text{m}^*$ , (L in mm)
Positioning speed	Max. 2 mm/s (0.08 in/s)
Positioning	
Pre-positioning:	Automatic
Fine positioning:	Electronic knob
Supply voltage	Via plug-in power supply unit 110/230 V/9 V AC, 18 VA
Dimensions (L x W x H)	235 mm x 216 mm x 480 mm (9.3 in x 8.5 in x 18.9 in)

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