

# Precimar



**OPTIMAR 100**  
Tester for Dial Indicators,  
Dial Comparators,  
Dial Test Indicators and  
Probes



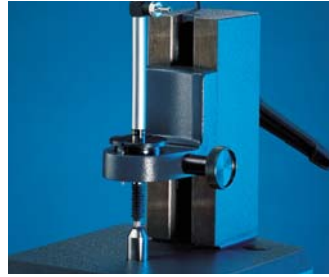
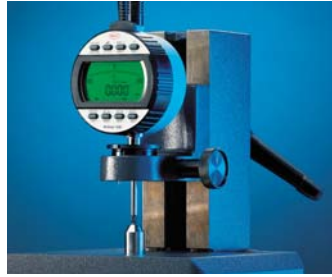
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**Mahr**

EXACTLY

► | The semi-automatic **OPTIMAR 100** for testing dial indicators, dial comparators, test indicators as well as incremental and inductive measuring probes (LVDTs). The tabletop design allows for easy operation and fast testing. It is motor-driven and has a high-resolution measuring system. The testing procedure is software-controlled. | ◀

## Optimar 100



The Optimar 100 was conceived as a desk-top model for operation in a sitting position. It is equipped with a motorized measuring anvil, prerequisite for automation of subprocesses or even of the complete measuring process. Dial gages, dial indicators, test indicators, internal diameter measuring instruments, digital indicators, inductive and incremental probes can be measured vertically and horizontally. The height of the testpiece holding device can be adjusted using a vertical guide in order to bring testpieces with

different measuring ranges as quickly as possible into the right position. Automatic pre-positioning of the measuring anvil during the measurement of analog test-pieces (dial gages, dial indicators, test indicators) largely reduces the operator's routine operations, thus enabling quick measurement. Inductive and incremental probes as well as dial gages are checked in a fully automatic process.

## Features

- Holder for testpieces with shaft diameter 8 mm, 28 mm, optional 3/8". Further diameters on request
- Horizontal operating possibility of the Optimar 100 (e.g. for checking internal diameter measuring instruments)
- Semi- and fully automatic inspection processes
- Electronic hand wheel for manual control of the measuring anvil's movement
- Self-adjusting sensitivity of the electronic hand wheel for adaption to the specific action or measuring task
- Ergonomically advantageous design of all operating elements
- Compliance with the Abbe principle for realizing highest accuracy
- Measuring system LIF 101 with computer-based error compensation
- Measuring uncertainty:  
 $MPE_{E1} = \pm [(0.2 + L/100)] \mu\text{m}$ , L in mm in vertical and horizontal position  
 at  $T = 20 \text{ }^\circ\text{C} \pm 0,5 \text{ }^\circ\text{C}$  ( $68 \text{ }^\circ\text{F} \pm 32.9 \text{ }^\circ\text{F}$ ),  
 allowed temperature gradient 0.1 K/h
- Allowed operating temperature 15 °C to 35 °C (59 °F to 95 °F)
- Coefficient of expansion  $\alpha$  of the scale group:  
 $\alpha = 8 \times 10^{-6} / \text{K}$
- High-precision guide of the measuring anvil thanks to select rotary stroke bearings
- Box-shaped and thus rigid machine cast
- Dimensions (L x W x H): 235 mm x 216 mm x 480 mm (9.25 in x 8.5 in x 18.9 in )

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