



# Portable Display for Inductive Probe





UNIQUE FEATURES:

- UNEQUIVOCAL READING
- EXCEPTIONAL OPERATING AUTONOMY
- MAX, MIN, MAX-MIN, TOL FUNCTIONS
- DETAILED SEGMENTATION OF THE SCALE
- AUTO-CALIBRATION





## COMPACT AND HEAVY-DUTY INSTRUMENT DESIGNED FOR THE SHOP-FLOOR

TWIN-T10 autonomy offers great operating comfort in shop-floor: no daily recharge of the battery or no worry about the remaining autonomy.

TWIN-T10 has been carefully designed for best efficiency with unequivocal reading and for ease of operation. The size of the keys along with its clear tactile feedback prevents operating errors.

The high-quality elastomer overmoulding with a softtouch finish makes the instrument wear-resistant and comfortable to hold. Maximal protection against dust and particles in production and assembly environment is ensured thanks to its IP63 rating.



Run-out measurement with GT-31 lever probe



Squareness verification against a squareness reference marble

The large high-contrast display and the shape of the analogue scale have been specifically designed to visualize easily slight variations in form or to detect turnaround point.

TWIN-T10 is particularly suitable for straightness, run-out, form or geometry evaluation during fine adjustment, alignment or fitting of mechanical parts.

Application examples:

- Squareness adjustment of the Z-axis of a machine
- Alignement of guide rail to the marble bench
- Centering of a part on machine-tool
- Measurement of parallelism and perpendicularity



Measurement mode with MAX-MIN

### Special analogue scale

TWIN-T10 has been designed to provide effortless reading thanks to the detailed segmentation and the numbering across the scale. The 200 segments available along with its hemispherical shape enable a sensitive visualization during geometrical measurement such as straightness, run-out or parallelism.

#### Zoom mode

The zoom mode positions the measured value in the middle of the analogue scale and amplifies the value of the scale division by 5-fold. Therefore subsequent light variations around this value become obvious, which is very convenient for mechanical fine adjustment applications.

#### **Remote control**

With TLC-USB cable connected, TWIN-T10 can be operated remotely from a computer. Bidirectional communication allows data to be sent from the instrument to the computer or to send ASCII commands from the computer to the TWIN-T10. A foot switch can also be connected to the jack connector of TWIN-T10.

#### **Exceptional autonomy**

The very low-energy consumption of the TWIN-T10 enables an exceptional operational autonomy of up to 400 hours. The instrument automatically turns off after 10 minutes when not in use.



- 1 Analogue display
- 2 Probe and external command connectors
- 3 TLC connector for data transfer
- 4 Battery level
- 5 Send data
- 6 Metric or imperial unit
- Auto range mode of the display scale
  External or internal measurement
- 8 External or internal measurement 9 «MAX» «MIN» «MAX - MIN» memory
- 9 «MAX», «MIN», «MAX MIN» memory10 Measure with tolerance
- 11 Locked keypad
- 12 Calibration (CAL + 🕏) or auto-calibration (CAL)



Overall Dimensions

340 - 400 h

IP63

TOL

TOL

MIN, MAX, MAX-MIN

Zeroing

## **TECHNICAL DATA**

|   | TESA TWIN-T10 portable display  |   |  |  |  |
|---|---|---|--|--|--|
| Order number                                      | 04430013  |   |  |  |  |
| Function  | Display for TESA Inductive Probe  |   |  |  |  |
| Number of probe entry                             | 1   |   |  |  |  |
| Display scales                                    | ±5, ±2 mm<br>± 500, ±200 μm<br>± 50, ±20 μm<br>± 5 μm<br>Auto Range                                 | ± 250 ± 100 in/1000<br>± 25 ± 10 in/1000<br>± 2.5 ± 1.0 in/1000<br>± 0.25 in/1000<br>Auto Range |  |  |  |
| Resolution  | 1 0,1 µm  | · ·   |  |  |  |
| Functions   | Zeroing (Offset)<br>+A, -A<br>MAX, MIN or MAX-MIN memorization value<br>Measurement with tolerances |   |  |  |  |
| Unit  | Metric (mm, µm) or inch (in/1000)   |   |  |  |  |
| Autonomy  | 340 – 400 hours   |   |  |  |  |
| IP rating   | IP63  |   |  |  |  |
| Deviation span of<br>indication *                 | ≤ 1% of the measuring scale   |   |  |  |  |
| Drift of zero point on the full measuring range * | ≤±0,005%/°C   |   |  |  |  |
| Response time                                     | ≤ 100 ms  |   |  |  |  |
| Frequency limit                                   | 10 Hz (relative to the input signal)  |   |  |  |  |
| Oscillator frequency                              | 13 kHz  |   |  |  |  |
| Digital output                                    | RS232 through TLC connector   |   |  |  |  |
| Data format                                       | 7 bits ASCII code   |   |  |  |  |
| Power supply                                      | 4x AA LR6 batteries   |   |  |  |  |
| Assigned operating T°C                            | + 20 °C ± 1   |   |  |  |  |
| Operating T°C range                               | +10 to +40 °C   |   |  |  |  |
| Storage T°C range                                 | -10 to +60 °C   |   |  |  |  |
| EMC compatibility                                 | according to 2004/108/EC<br>according to EN 61326-1 annex A   |   |  |  |  |
| Others:<br>RoHS 2<br>REACH<br>WEEE                | according to 2011/65/EU<br>according to EC 1907/2006<br>according to 2002/96/EC                     |   |  |  |  |
| Dimensions  | 170 x 100 x 38 mm   |   |  |  |  |
| Weight  | 410 g / 500 g   |   |  |  |  |
| Delivery contents                                 | TWIN-T10, user manual, 4x AA batteries  |   |  |  |  |
|   |   |   |  |  |  |

TESF

\* at 20°C, RH  $\leq$  50%

## **OPTIONAL ACCESSORIES**

TESA

| 03210802  | GT 31 lever probe   |   |
|-----------|---|---|
| 04768000  | Hand switch 1,8 m   |   |
| 04768001  | Foot switch 1,8 m   |   |
| 04760181  | TLC-USB data cable 2 m  |   |
| 04760182  | TLC-DIGIMATIC data cable 2 m  |   |
| 04760180  | TLC-TWIN wireless transceiver   | G |
| 05030012  | TWIN-STATION receiver<br>Connection to PC via a USB port<br>Powered through USB port<br>USB cable included  |   |
| 04981001  | DATA-DIRECT Software<br>Software for data acquisition, data export as .csv-files<br>With USB dongle   |   |
| 04981002  | STAT-EXPRESS Software<br>Software for creating measuring protocols, real-time control charts X-R, statistics,<br>measuring reports<br>With USB dongle | 7 |
| 01460008  | Back support with centered lug  |   |
| 01460009  | Back support with off-centered lug  |   |
| S41078751 | ±1000 µm dummy probe for calibration  |   |
| S41078752 | ±1900 µm dummy probe for calibration  |   |
|           |   |   |





JSB cable



Foot switch



DATA-DIRECT software





±1900 µm dummy probe

6.3 Centered lug back support

6.3

Off-centered lug back support



TWIN-T10 with hand switch

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TWIN-T10 with back support



