

## TESATRONIC TWIN-T20

### Dual high-precision metrological display

The TWIN-T20 digital display allows two measured values to be displayed simultaneously, both on the production floor and in the test laboratory.

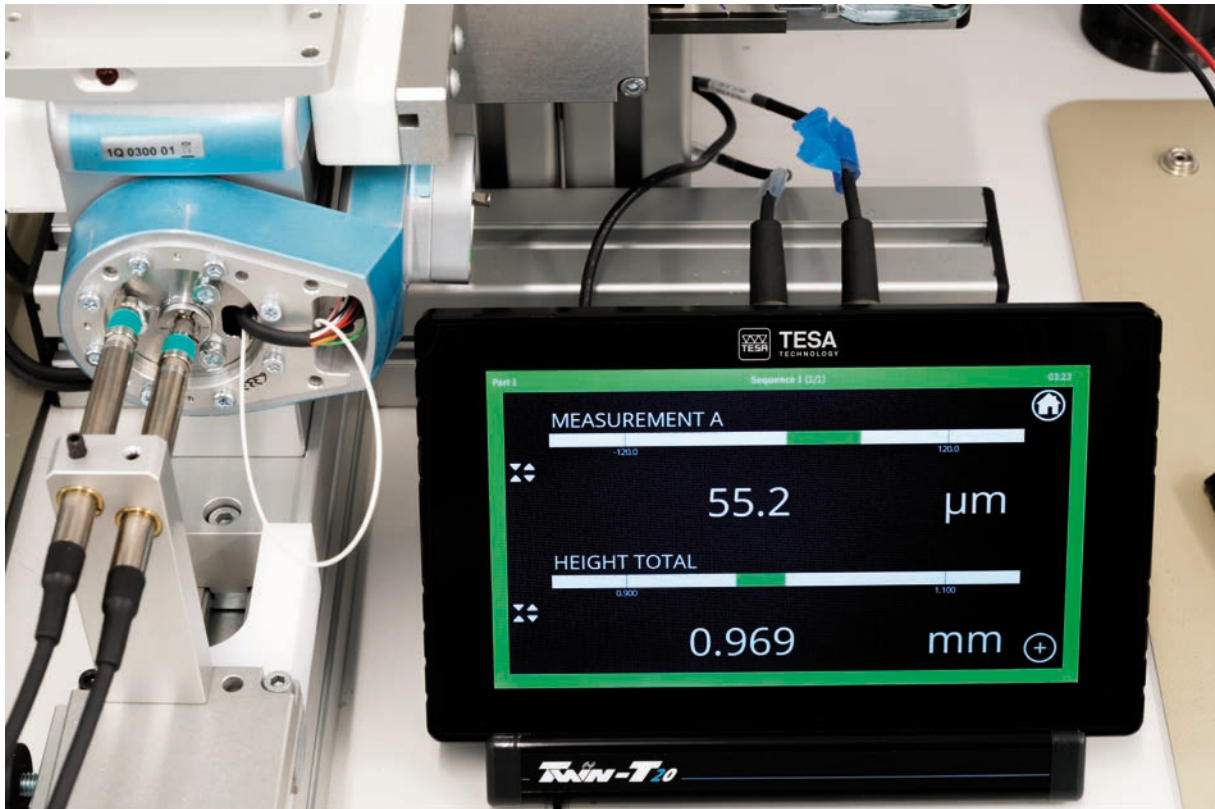
Multiple inputs allow you to connect TESA probes and a wide range of measuring devices via the integrated USB ports.

Intuitive navigation makes it easy to set measurement tolerances and choose the type of display to optimise reading for users.



#### Key features:

- Simultaneous display of 2 values
- Static or dynamic measurements
- Large 7" touch screen
- 4 integrated display styles
- Intuitive measurement setting
- Optimised sampling with 4300 acquisitions per second
- Equipped in the standard configuration for data collection and transfer

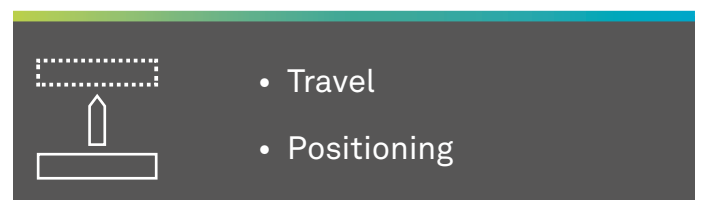
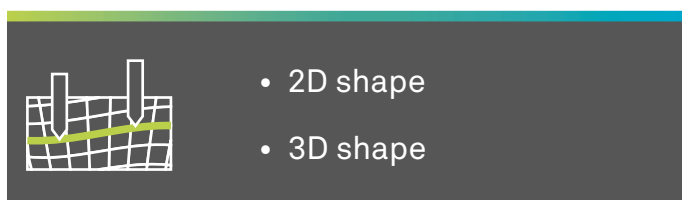
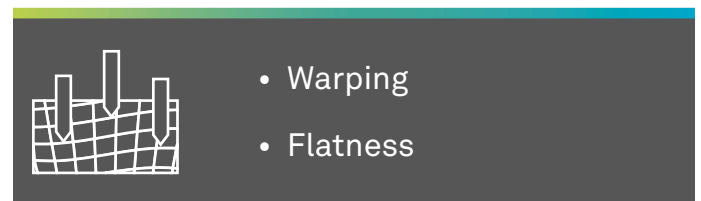
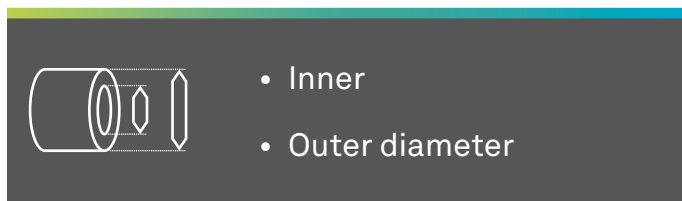
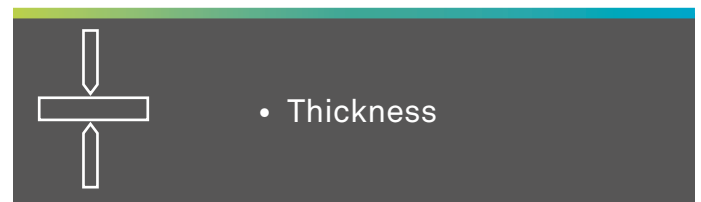
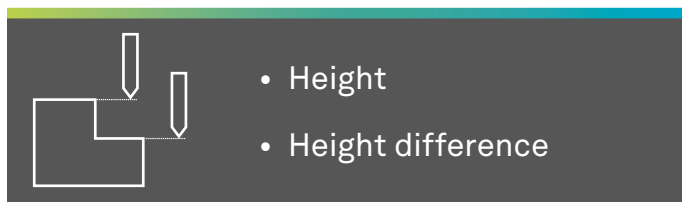


Fine-tuning of position during assembly operation.

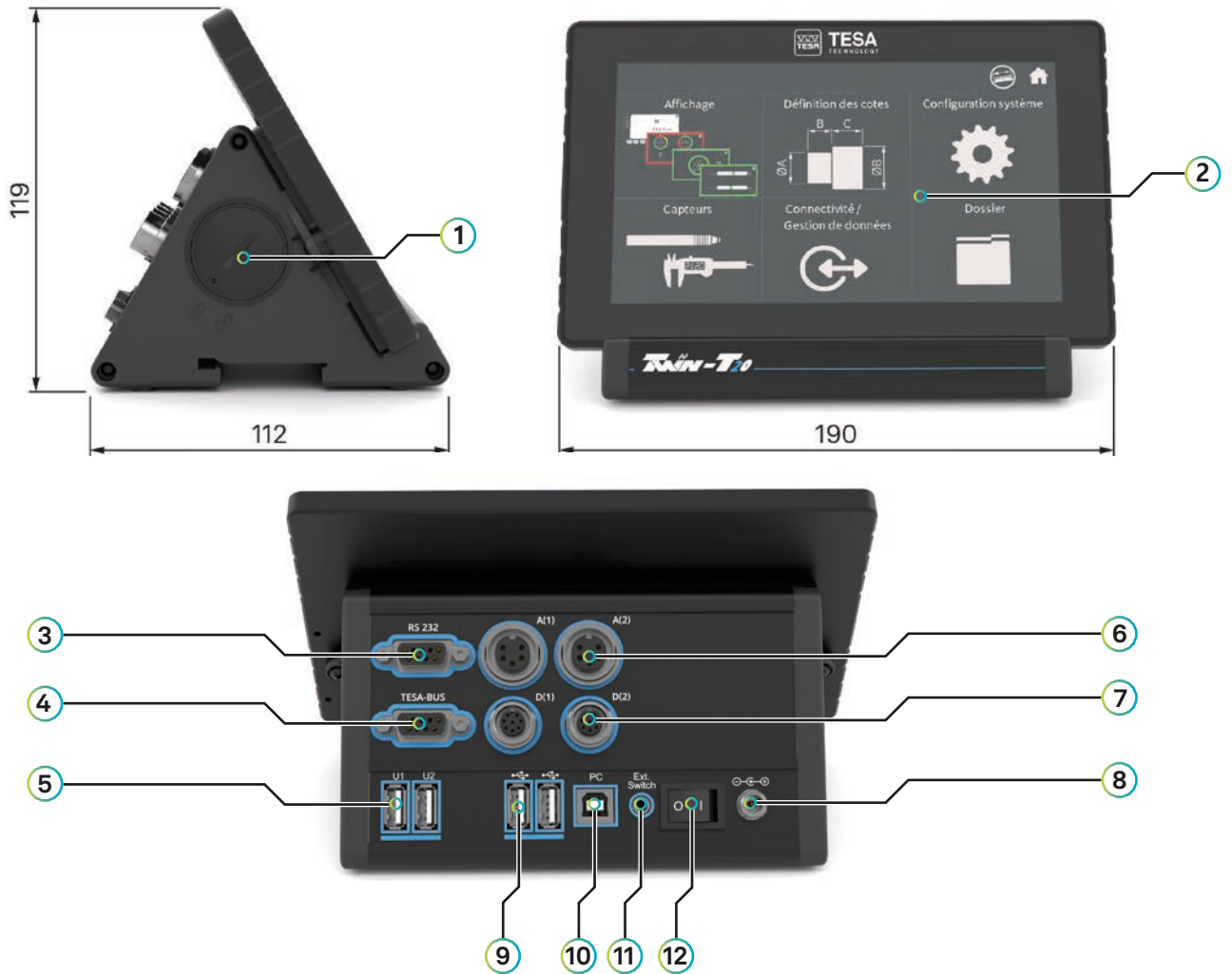
The TWIN-T20 display allows you to measure distance, diameter and to check shape or orientation tolerances (straightness, run-out, parallelism, perpendicularity, etc.)

This display is thus the perfect tool for dimensional inspection, adjustment or assembly of mechanical parts guaranteeing accuracy with a quick and instinctive user display.

Examples of possible measurements using the TWIN-T20 display:



## Product description



No.	Description
1	TLC cap
2	7" touch screen
3	RS 232 serial port Sub-D 9S
4	TESA-BUS port Sub-D 9S
5	2 x USB-A host for measuring instruments
6	2 x DIN45322 connectors for TESA HB probes
7	2 x M12 connectors for TESA digital probes
8	Power supply connector 15-24 V
9	2 x USB-A host for peripherals (USB footswitch, keyboard, memory stick, QR code reader)
10	1 x USB-B device (HID keyboard output + firmware update)
11	Jack Ø 2.5 port for footswitch
12	ON/OFF switch



The spring blades installed in the display profile allow the unit to be mounted on a 35 x 7,5 mm DIN mounting rail

## Specifications

### TESATRONIC TWIN-T20

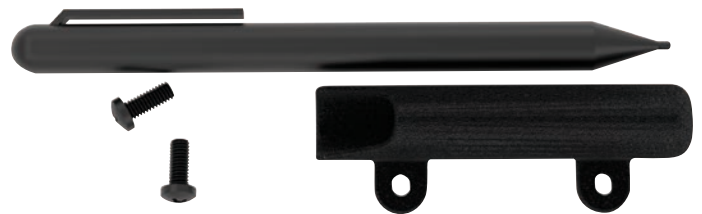
Order number	04430014
Description	TESA dual display for inductive probes
Number of inductive probe inputs	2
Number of digital probe inputs	2
Number of USB measuring device inputs	2
Resolution	0,1µm / 0.00001 in
Static measurement	Yes
Dynamic measurement	Min, Max, Max-Min, Median, (Max-Min)/2, Mean
Sampling frequency	4300/s
Integrated functions	<ul style="list-style-type: none"><li>- Measurement tolerance</li><li>- 8 classifications</li><li>- Calibration</li><li>- OK/NOK/ADJUST display</li><li>- Data transfer (via RS232, TLC or HID keyboard device)</li><li>- Setting lock</li><li>- Footswitch/button programming</li><li>- Storage of 2 measurement programs</li></ul>
Display types	<ul style="list-style-type: none"><li>- Bar graph</li><li>- Rotating indicators</li><li>- Dial indicators</li><li>- Galvanometer type</li></ul>
Standard working conditions	20 °C +/- 1 °C, humidity: 40 < HR < 65 %, no condensation
Limit working conditions	10 °C < T° < 40 °C, humidity < 80 %, no condensation
Storage conditions	-10 °C < T° < 60 °C, humidity < 80 %, no condensation
Indication error (at 20 °C, HR = 50 %, based on fictive probes)	± (0,2 % of the measured value + 0,3 µm)
Zero drift (at 20 °C and 50 % HR)	Max 0,15 µm/°C
IP level	IP65 for front side, IP20 others
Input voltage	100 to 240 V / 50-60 Hz, 0,6 A
Power consumption	4,2 W without device
Compatible standards	CE, UKCA
Weight	1,2 kg
Delivery contents	<ul style="list-style-type: none"><li>- TWIN-T20</li><li>- Power supply</li><li>- Power cable</li><li>- 4 x power cable connectors EU, UK, USA, CH</li><li>- Auto-test report</li><li>- Calibration certificate</li><li>- Quick start manual</li><li>- 2 x packaging foams</li></ul>

## Optional accessories

Item no.	Description
04460016	Power supply + power cable + 4 x power cable connectors EU, UK, USA, CH
04460013	Stylus set + holder for TWIN-T20
04460017	TWIN-T20 screen
04460019	TWIN-T20 mounting base
04768000	Manual footswitch, jack, 1.8 m
04768001	Footswitch, jack, 1.8 m
04761071	Footswitch, USB, 2 m
04760181	TLC-USB PC cable 2 m
04760184	TLC-BLE <i>Bluetooth</i> ® transmitter
04761062	Opto-RS232 cable to USB, 2 m



04460016



04460013



04460017



04460019



04768000



04768001



04761071



04760181



04760184

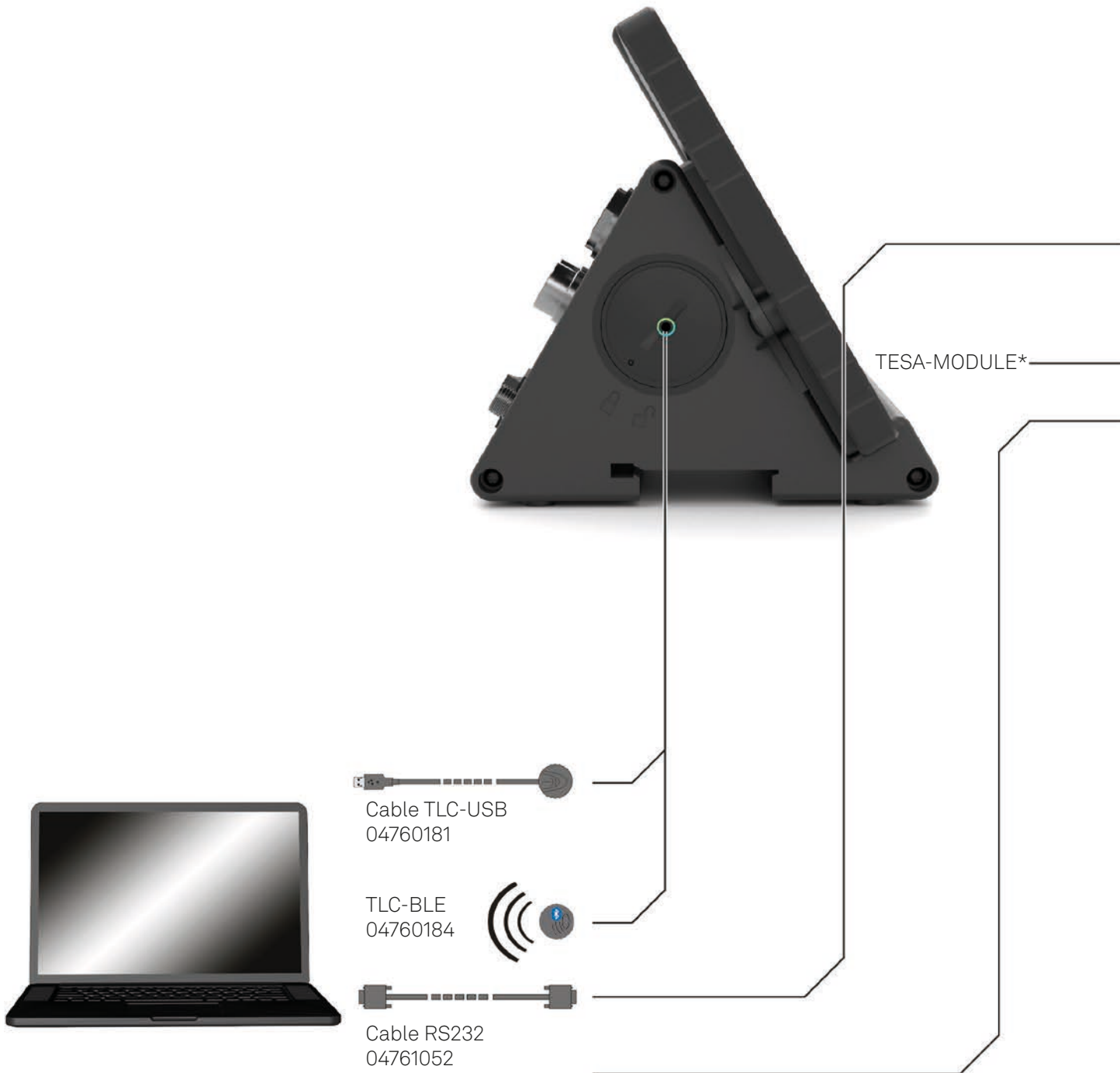


04761062

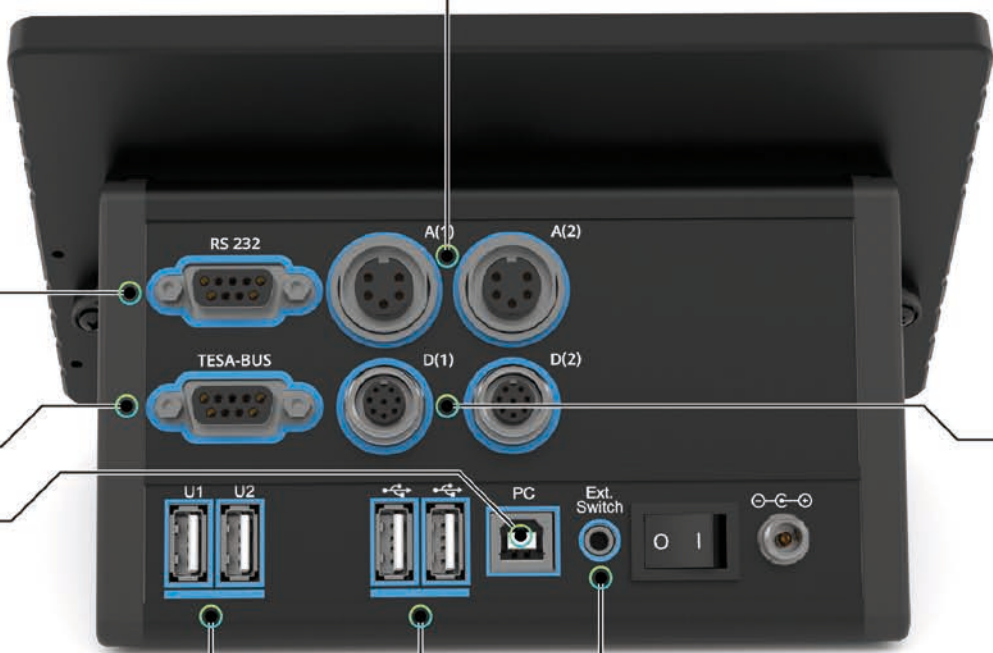
## Connectivity

TESA device connectivity is essential to ensure the connection of as many measuring devices as possible in order to easily collect, analyse and store data thus ensuring perfect traceability.

The TWIN-T20 display is thus equipped with numerous ports in the standard configuration, allowing multiple measuring instruments to be connected to collect data or send data to a PC via a wide range of connections.



\*Detailed information to come



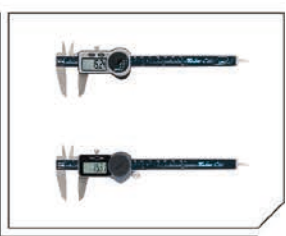
Digital probes\*

Manual footswitch, 04768000

Footswitch, jack 04768001

Footswitch, USB 04761071

Memory stick



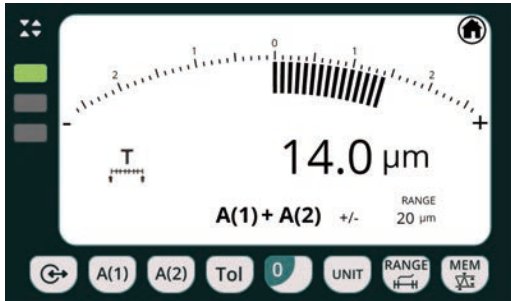
Cable TLC-USB 04760181



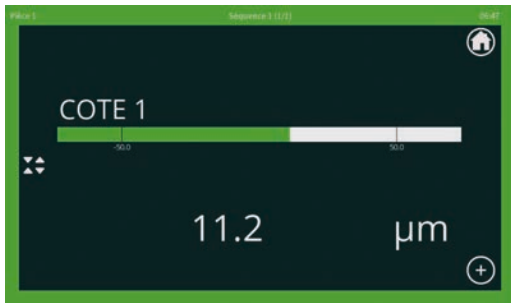
Cable OPTO RS232-USB 04761062

## User interface

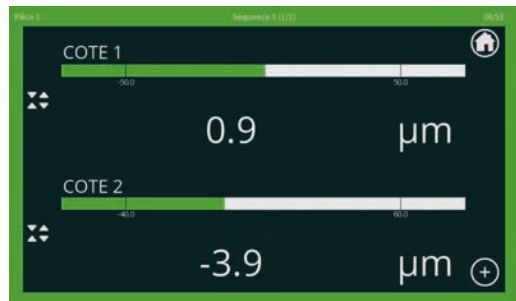
The TWIN-T20 metrological display allows you to choose your display type to optimise result readout with four different displays.



Galvanometer type display limited to one measurement:



Bar graph type display, 1 measurement



Bar graph type display, 2 measurements



Dial indicator type display, 1 measurement



Dial indicator type display, 2 measurements



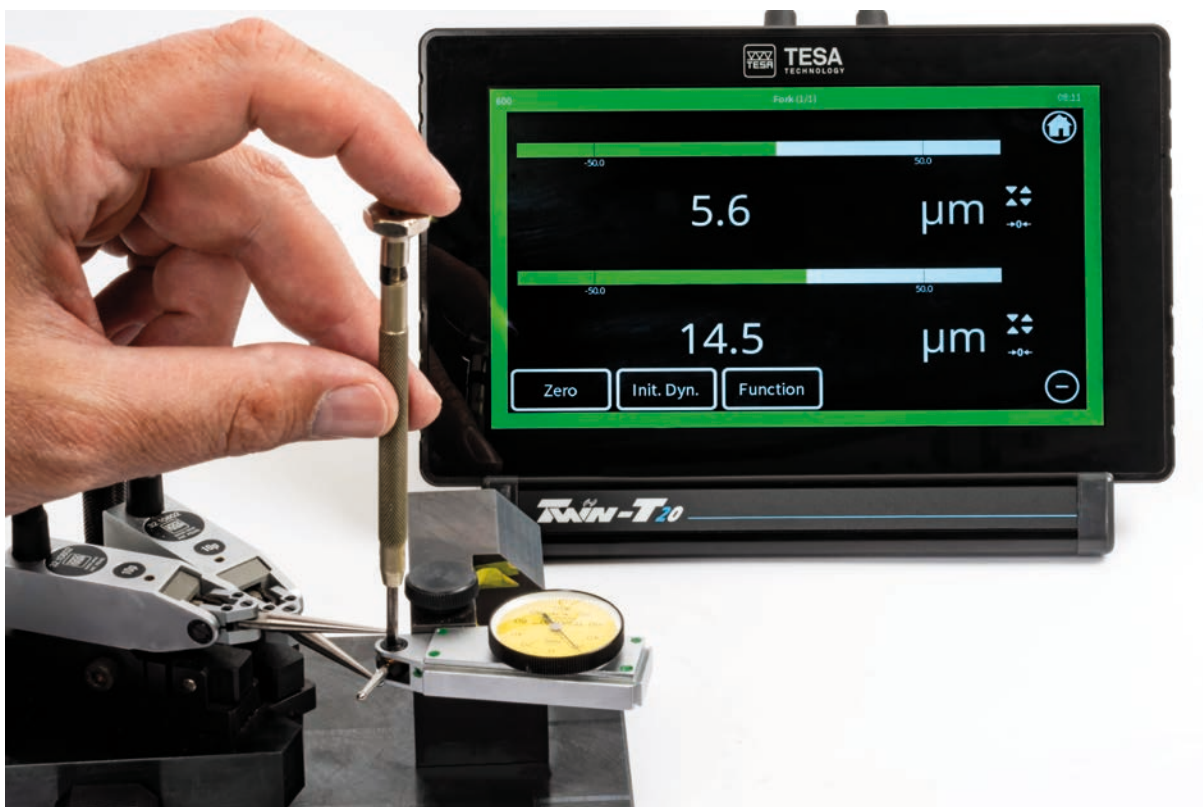
Rotating indicator type display, 1 measurement



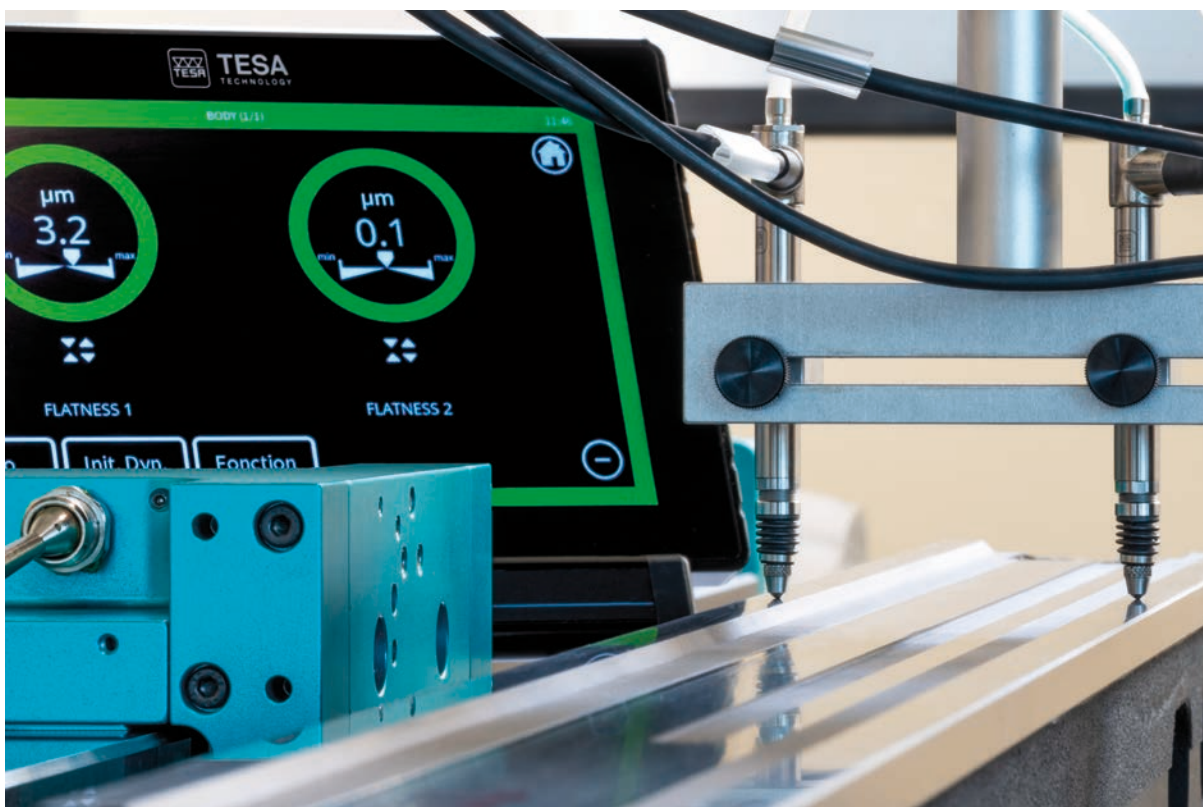
Rotating indicator type display, 2 measurements

1 Note: This type of display allows direct display of the difference between the measured measurement and the centre of tolerance.





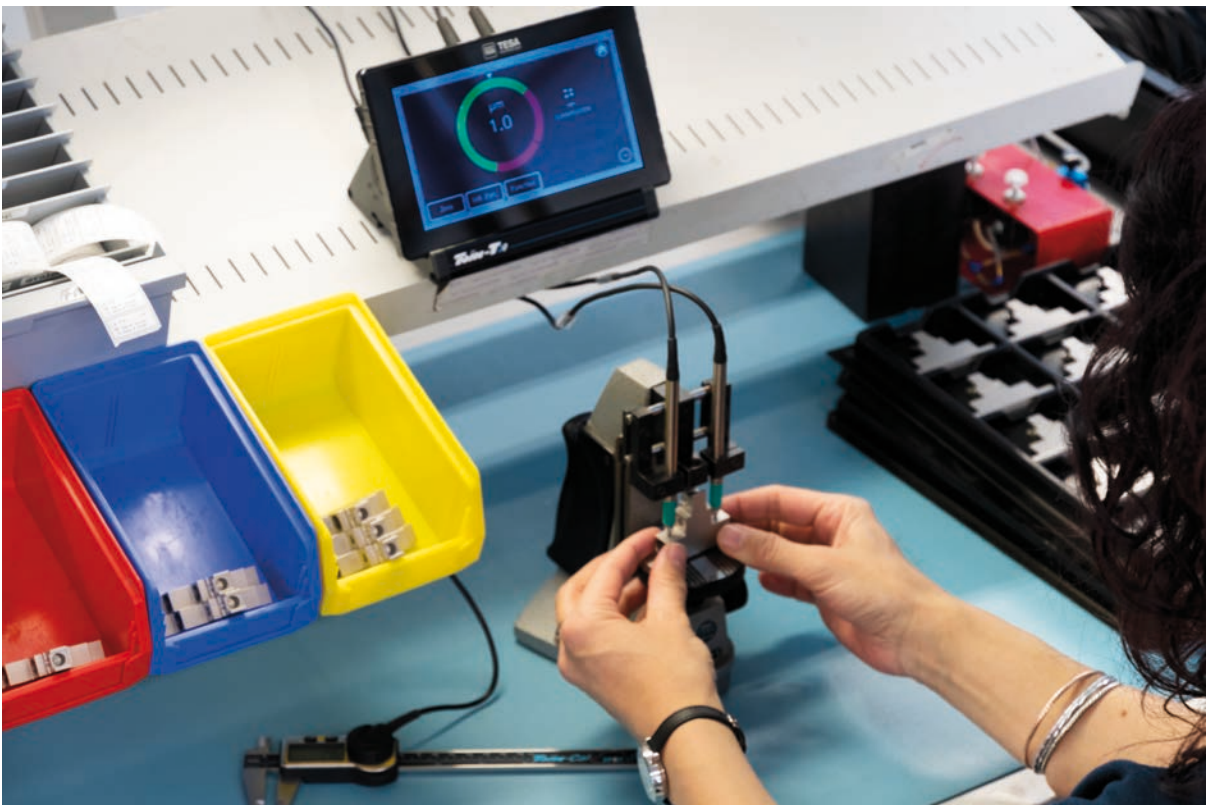
Position control during assembly operation



Simultaneous flatness measurement in two axes

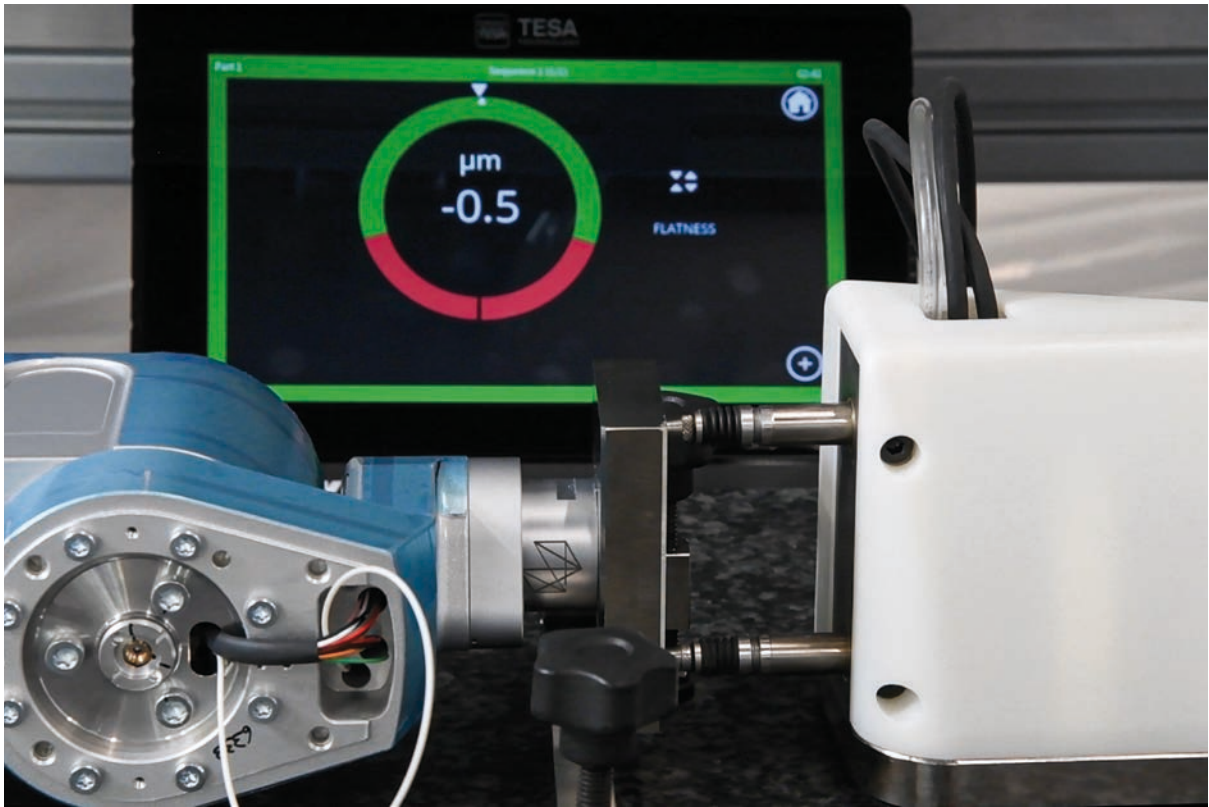


Concentricity measurement before assembly of cylindrical parts



Parts classification: the operator organises the parts in the container of the same colour as the screen outline.

## Applications



Parallelism control during a precision assembly phase

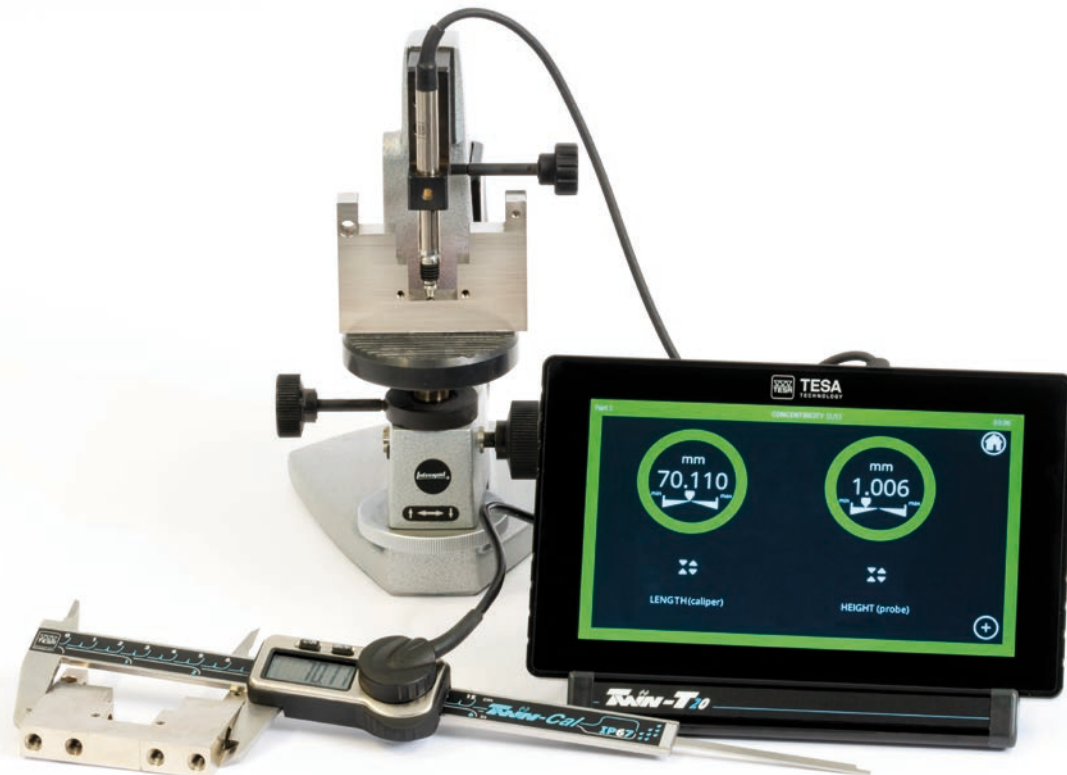


Data storage on memory stick

## Applications



Measurement of two run-outs in the same control operation



Control of 2 functional measurements, one with a TESA inductive probe and the other with a calliper connected to the display.

### About Hexagon and TESA

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

TESA Technology, part of Hexagon's Manufacturing Intelligence division, is a leading innovator and manufacturer of precision measuring instruments, long-established in Switzerland. Learn more at [tesatechnology.com](https://www.tesatechnology.com).

Hexagon's Manufacturing Intelligence division provides solutions that utilize data from design and engineering, production and metrology to make manufacturing smarter.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at [hexagon.com](https://www.hexagon.com) and follow us @HexagonAB.