



HEIGHT GAUGES

TESA MICRO-HITE 350 / 600 / 900

The metrology-based reference for the workshop



Stand-alone design – Made to measure any size in the form of internal, external, height, depth, step and distance dimensions of geometric part features having either a flat, parallel or cylindrical surface.

Automatic capture of the culmination point on bores or shafts – Dynamic probing with memory functions «max.», «min.» plus «max.-min.»

The TESA IG-13 digital probe lets you also measure any deviation from perpendicularity, straightness and parallelism as well as runout errors with result output according to ISO 1101.

- State-of-the-art concept associated with a high-quality design is the fruit of years of experience in the manufacture of electronic height gauges.
- Ideal for dimensional inspection close to the manufacturing cell. No cumbersome cables to clutter up the working area.
- Fast, simple and reliable probing of the workpiece or holes, especially.
- 3 main gauges available with either a 365, 615 or 920 mm measuring span.
- Numerical display to 0,0005, 0,001, 0,01 and 0,1 mm, or equivalent inch units.
- Extremely accurate measuring of deviations from length, straightness and perpendicularity due to the automatic correction of the bias errors through CAA (Computer Aided Accuracy).
- Coefficient of linear expansion identical to steel ($11,5 \times 10^{-6} \text{ K}^{-1}$).



TESA MICRO-HITE 350 / 600 / 900 main gauges



Factory standard

Measuring span, application range and accuracy as stated on page N-14

Rugged nickel plated base with bottom face including 3 resting points finely lapped

Air cushion usable for easy move of the height gauge over the surface plate, if so.

Frontal, model 350 < 7 μm , model 600 < 9 μm , model 900 < 11 μm

Incremental glass scale with reference point, dividing period of 20 μm . Opto-electronic value capture (TESA patent).

$11,5 \times 10^{-6} \text{ K}^{-1}$

Probing head mounted on a ball-bearing and moved by means of both knurled hand wheel and crank. Head drive system can be locked. Fine adjust device can also be additionally mounted (available as an option). Automatic value capture with a constant measuring force. Visual and acoustic signal for acknowledgment

300 mm/s
12 in/s

$1,6 \pm 0,25 \text{ N}$
(at switch point for value capture)

RS 232,
opto-electronic

Continued next page

- POWER PANEL for value processing and output with interactive display to guide the operator.
- No manual calculation.
- 99 workpiece oriented measurement cycles, programmable. Each cycle includes a number of 64 features with related limits of size.
- Built-in printer for result output or possible use of an external printer unit to get a hard-copy in A4 format.
- RS 232 data output.
- Every height gauge comes with a SCS calibration certificate.



TESA MICRO-HITE – Efficient and Powerful
One-Dimensional Measurement

Rechargeable batteries, 6 V, 3.0 Ah or mains adapter

~ 12 hours for one battery pack;
~ 2 hours for the pump used to form the air cushion

10°C to 40°C

-10°C to 60°C

80% non-condensing

IP40 (IEC 60529)

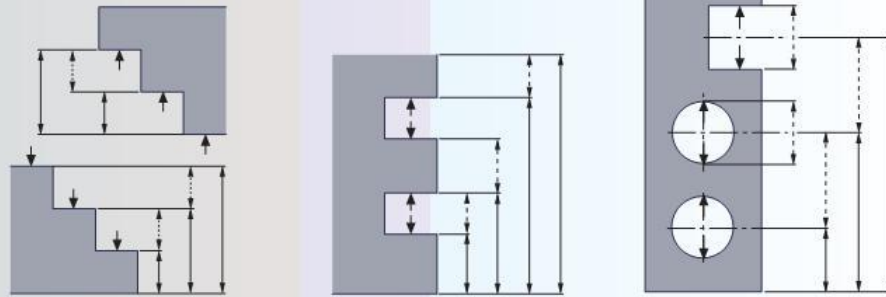
EN 61326-1, Class B (with disconnected charger)

Net weight (w/o panel nor battery pack)
Main gauges
350: 33 kg
600: 38 kg
900: 45 kg

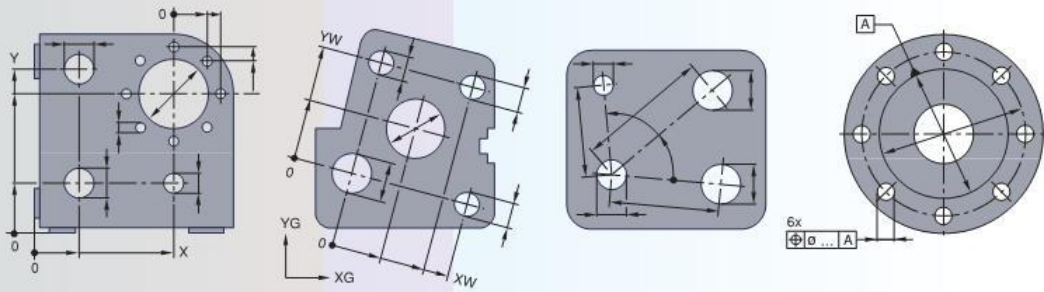
Shipping packaging

Identification number

SCS calibration certificate

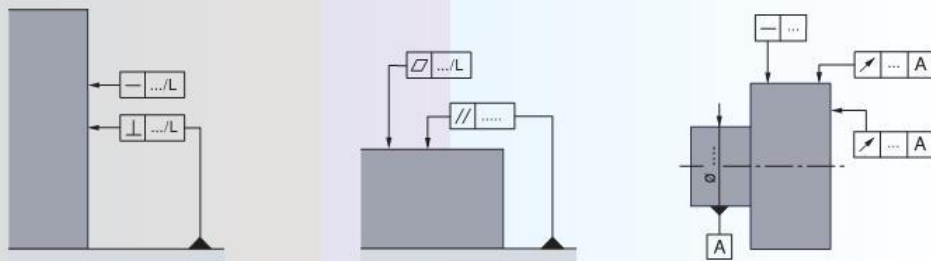


Two-Dimensional Measurement



Programme functions for the detection of form and position errors

with use of a TESA IG-13 digital probe



TESA IG-13





HEIGHT GAUGES

TESA MICRO-HITE 350 / 600 / 900 Height Gauge Sets

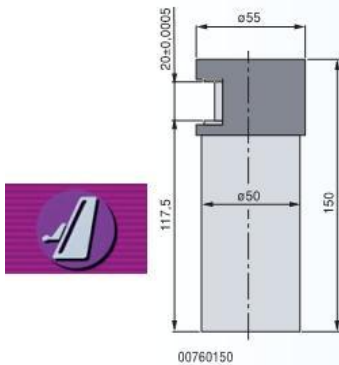
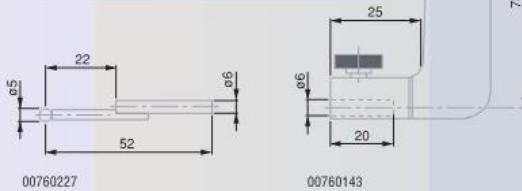


№	Symbol	Model	Quantity
00730033	TESA MICRO-HITE height gauge set	350	
00730034	TESA MICRO-HITE height gauge set	600	
00730035	TESA MICRO-HITE height gauge set	900	
<i>Each gauge set includes the following components, control panel excluded:</i>			
00730021	1 TESA MICRO-HITE 350 main gauge	●	
00730022	1 TESA MICRO-HITE 600 main gauge	●	
00730023	1 TESA MICRO-HITE 900 main gauge		●
00760143	1 Standard probe insert holder	●	●
00760227	1 Standard probe insert with shank and 5 mm dia. ball tip in tungsten carbide	●	●
00760150	1 Master piece for establishing the probe constant, nominal dimension 20,0000 mm/0.78740 in	●	●
00760142	1 Electric pump for creating the air-cushion beneath the gauge base, already mounted	●	●
00760141	1 Battery pack	●	●
04761054	1 Mains adapter, 100 to 240 Vac/50 to 60 Hz	●	●
04761055	1 Cable EU for mains adapter	●	●
00760151	1 Dust cover for TESA MICRO-HITE 350	●	
00760152	1 Dust cover for TESA MICRO-HITE 600		●
00760153	1 Dust cover for TESA MICRO-HITE 900		●

Optional Accessories for TESA MICRO-HITE 350 / 600 / 900

00760144	Add-on fine adjust device for extra fine movement of the measuring head, complete
00760157	Spare battery pack No. 00760141
04761056	Cable US for mains adapter
04761023	RS 232 connecting for PC and TESA PRINTER SPC

For additional accessories, see pages N-20 and N-27.



Technical Data

Models	350	600	900
mm	365	615	920
in	14	24	36
With standard accessory	mm 0 ÷ 520 in 0 ÷ 20	mm 0 ÷ 770 in 0 ÷ 30	mm 0 ÷ 1075 in 0 ÷ 42
With probe insert holder No. 00760057	mm 0 ÷ 575 in 0 ÷ 22	mm 0 ÷ 825 in 0 ÷ 32	mm 0 ÷ 1130 in 0 ÷ 44
With probe insert holder No. S07001622	mm 0 ÷ 745 in 0 ÷ 29	mm 0 ÷ 995 in 0 ÷ 39	mm 0 ÷ 1300 in 0 ÷ 51
With standard accessory	(2 + 3 • L) µm (0.0001 + 0.000003 • L) in		(L in m) (L in in)
With standard accessory	2δ = ≤ 1 µm / ≤ 0.00005 in		
Frontal, mechanical	µm 7 in 0.00028	µm 9 in 0.00035	µm 11 in 0.00043
Frontal and lateral using TESA IG-13	µm 6 in 0.00024	µm 8 in 0.00031	µm 10 in 0.00039

HEIGHT GAUGES



POWER PANEL



Dual LC display, 128 x 63 mm in size.

- Upper display field for length values (7-segment/sign). Also with symbols for the functions.
- Lower full dot display field for perpendicularity and straightness along with symbols for all operator-controlled function keys.

7-decade display plus minus sign for the measured values.



12,7 x 6,4 mm main display, 6,3 x 4,2 mm auxiliary display.



See opposite



Metric/Inch conversion



Floating zero



PRESET function for entering a given value.

Continuous displaying.

Manual or automatic triggering of data transfer.

Output of predefined inspection reports with headings in 5 languages plus A4 format using an external printer unit.



Via TESA MICRO-HITE



IP40 (IEC 60529)



Control Panel for TESA MICRO-HITE 350 / 600 / 900



00760163



TESA POWER PANEL

Includes a dedicated programme for measuring in 1 and 2 coordinate directions with geometric combination of the measured values. Lets you measure perpendicularity, straightness and squareness. Provides 99 workpiece oriented measurement cycles including 64 features with related limits of size, programmable. Memory capacity for 2500 measured values. Statistical data processing (SPC). Result output via the built-in matrix printer or in A4 format using an external printer unit.



0,0005 / 0,001 / 0,01 / 0,1 mm
0,00002 / 0,0001 / 0,001 / 0,01 / 0,1 in

Accessory for TESA POWER PANEL

04765008 Thermal paper roll, 57 mm wide

