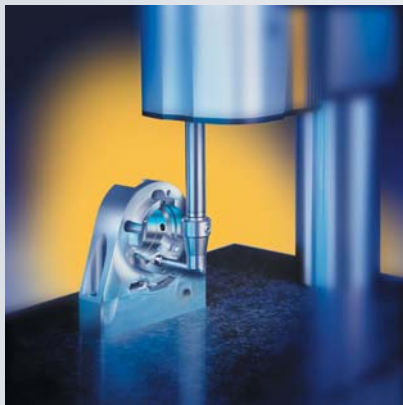


TESA- μ HITE Height Gauge

The solution for the most varied metrology applications



Factory standard

100 mm/4 in

0 to 160 mm
0 to 6.3 in

0,001 mm and
0,0001 mm or
0,0001 in and
0,00001 in

Max. perm.
error G: see
table page M-21

Repeatability
limit r: see
table page M-21

Support

Granite measuring table; dull-chrome plated steel column, hardened and ground.

200x300x50 mm measuring table (L x D x H)
50 x 300 mm dia. column.

Finish lapped

Accuracy grade 00 according to DIN 876, Part 1

TESA- μ HITE value sensor

Incremental glass scale with opto-electronic value capture.
Grating period: 20 μ m

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

Electro-motorised gauge head displacement; can also be moved manually.

0,001 mm or 0,0001 in numerical interval = 10 mm/s; 0,0001 mm or 0,00001 in = 5 mm/s, fast displacement = 30 mm/s

6 mm dia. x 10 mm long clamp for the meas. insert

0,63 \pm 0,1 N or 1 \pm 0,1 N, switchable.

Electromotorised activation.

Via control panel

Compact design with measuring stand included – Sensor equipped with a system for coaxial measuring according to the Abbe principle or using an offset probe relative to the gauge axis.

Measures internal, external, height, depth, step and distance dimensions on geometric elements having either a flat, parallel or cylindrical surface – Automatic detection of the culminating point on bores or shafts – Dynamic probing with memory functions «max.», «min.» and «max.-min.».

The whole system provides the best solution for measuring straightness, flatness and parallelism or inspecting axial and radial runouts depending on the chosen tool configuration.

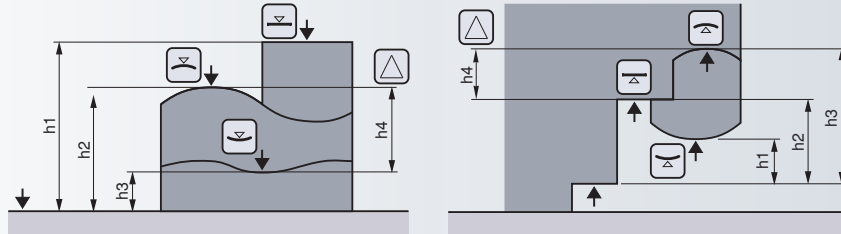
- Ideal for workpiece inspection close to the production area.
- 100 mm measuring span.
- 0,001 mm and 0,0001 mm or 0.0001 in and 0.00001 in scales intervals.
- Max. perm. error as low as 2 μ m (or 1 μ m when checking coaxiality).
- Integrated temperature sensor so that the coefficient of linear expansion of each gauge unit matches that of steel ($11,5 \times 10^{-6} \text{ K}^{-1}$).
- Motorised measuring head for fast probing at each point.
- Automatic value capture, controlled over the stability of the measuring force, but also all measured values.
- Constant measuring force through the motor-driven actuator. Switchable.
- No manual calculation needed.
- RS 232 data output with direct connection to TESA PRINTER SPC.
- Memory capacity for 99 single values.



TESA-μHITE Capabilities

Measurement without change of the probe direction

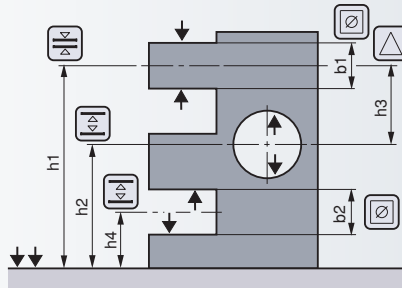
Probe constant excluded



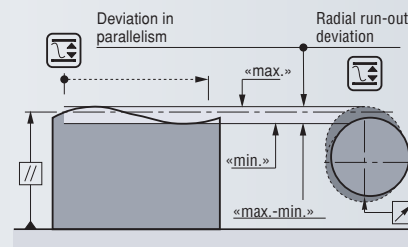
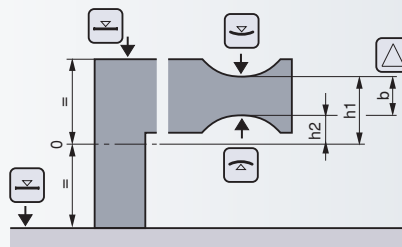
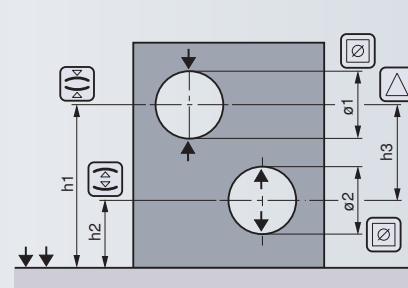
Measurement with change of the probe direction

Probe constant included

– without storage of the culmination point



– with storage of the culmination point



Control Panel

67 x 33 mm LC display.
Alphanumerical display: 3-line display 7segment/digit plus symbols.
Display for measured values: 7-decade display plus minus sign.
Auxiliary display 1 or 2: 7 or 4 digits.

10 x 4,9 mm (value display), 7,5 x 3,7 or 5 x 2,5 mm (auxiliary display 1 or 2),

Metric/Inch Conversion

Keyboard with 20 softkeys

PRESET function for entering any given value.
Acoustic signal.
7 languages available for report headings

RS 232, opto-electronic and bidirectional

Mains adapter 110 to 240 Vac / 50 to 60 Hz / 6,6 Vdc / 750 mA (order N° 04761054)

Additional Data

5°C to 40°C

-10°C to 60°C

80% non-condensing

See drawings

16,2 kg net (support N° 00760203).
2,6 kg net (TESA-μHITE N° 00730050).
1,45 kg net (control panel N° 00760204 with cable N° 00760191)

IP50 (IEC 60529)

EN 61326-1, Class B

Shipping packaging

Identification number

SCS calibration certificate

Declaration of conformity

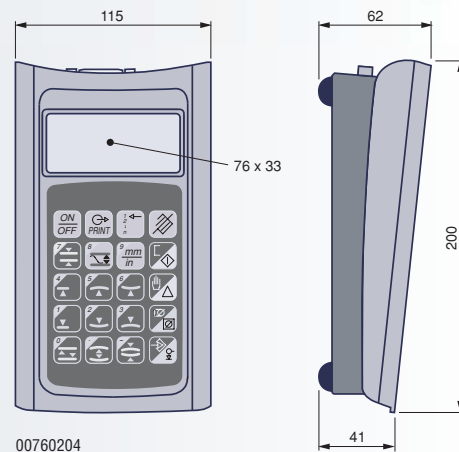
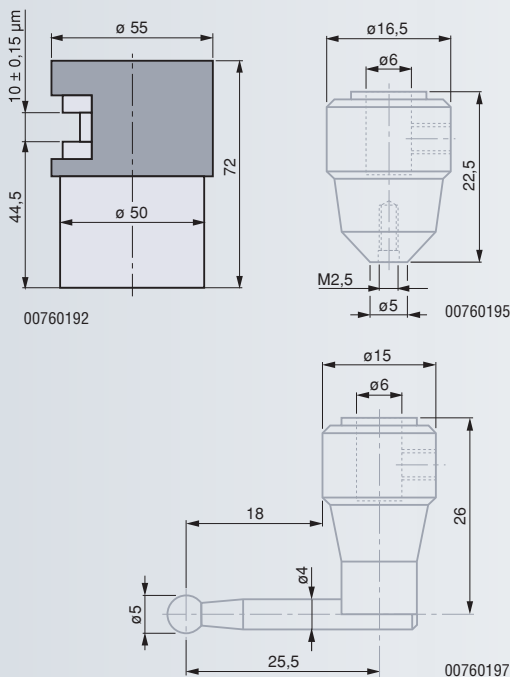
№	=	 mm in		
		00730049	TESA-μHITE height gauge	0 ÷ 160
<i>Provided with the following components:</i>				
00760203	1 TESA measuring support , granite measuring table, size 200 x 300 x 50 mm			
00730054	1 TESA-μHITE electronic length unit			
<i>Also included:</i>				
№	=	 mm mm in in		
		00730050	1 TESA-μHITE value sensor	100
00760204	1 Control panel. To be connected to TESA-μHITE.		0,001 0,0001	0.0001 0.00001
00760191	1 Connecting cable for TESA-μHITE to control panel			
00760195	1 Axial insert holder with M2,5 thread			
03510002	1 Insert with a 3 mm dia. tungsten carbide ball tip			
00760197	1 Insert with a 5 mm dia. tungsten carbide ball tip, offset			
00760192	1 Master piece for establishing probe constant, nominal dimension 10 mm/0.39370			
04761054	1 Mains adapter 110 to 240 Vac/50 to 60 Hz			
04761055	1 Cable EU for mains adapter			
04761056	1 Cable US for mains adapter			
038407	1 Suited plastic case			

For additional accessories, see page M-24.

Accuracy

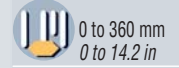
=	 μm in μm in				
	Insert position relative to the measuring bolt axis	coaxial	1,0	0.00005	0,5
	offset	2,0	0.0001	1,0	0.00004

Applicable with used standard accessory.

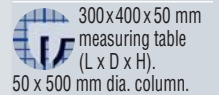


TESA-μHITE

Extended application range from 0 up to 360 mm



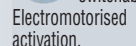
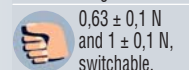
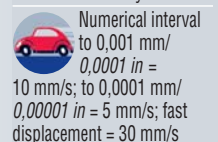
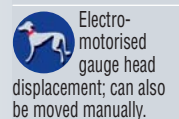
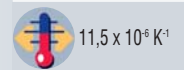
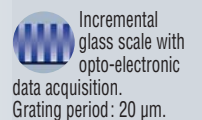
Support



2,6 kg net (TESA-μHite N° 00730050)
1,45 kg net (control panel N° 00760204 with cable N° 00760191)



TESA-μHITE value sensor



N°



mm 0 ÷ 360 in 0 ÷ 14.2

TESA-μHITE height gauge with extended application range

Provided with the following components (must be ordered under 2 positions)

- 007600163** 1 TESA measuring support, granite measuring table, size 300 x 400 x 50 mm, guiding column with a 50 x 500 mm diameter
- 00730054** 1 TESA-μHITE electronic length measuring unit

Also included:

N°



mm

mm

mm

in

in

00730050	1	TESA-μHITE value sensor	100		4	
00760204	1	Control panel. To be connected to TESA-μHITE.		0,001 0,0001		0.0001 0.00001
00760191	1	Connecting cable for TESA-μHITE to control panel				
00760195	1	Axial insert holder with M2,5 thread				
03510002	1	Insert with a 3 mm dia. tungsten carbide ball tip				
00760197	1	Insert with a 5 mm dia. tungsten carbide ball tip, offset				
00760192	1	Master piece for establishing probe constant, nominal dimension 10 mm/0.39370				
04761054	1	Mains adapter 110 to 240 Vac/50 to 60 Hz				
04761055	1	Cable EU for mains adapter				
04761056	1	Cable US for mains adapter				
038407	1	Suited plastic case				

Additional accessories, see page M-24.



Factory standard

100 mm/4 in

0 to 160 mm/
0 to 6.3 in

0,001 mm/
0,0001 mm
0.0001 in
0.00001 in

Max. perm. error G: see table page M-21

Repeatability limit r: see table page M-21

Support

Granite measuring table; dull-chrome plated steel column, hardened and ground.

200x300x50 mm measuring table (L x D x H). 50 x 300 mm dia. column.

Finish lapped

16,2 kg net (support N° 00760203)
2,6 kg net (TESA-µHite N° 00730050)

Accuracy grade 00 according to DIN 876, Part 1

TESA-µHITE value sensor

Incremental glass scale with opto-electronic data acquisition. Grating period: 20 µm.

11,5 x 10⁻⁶ K⁻¹

Electro-motorised gauge head displacement; can also be moved manually.

0,001 mm/0,0001 in = 10 mm/s; to 0,0001 mm/0,00001 in = 5 mm/s; fast displacement = 30 mm/s

6 mm dia. x 10 mm long attachment for the measuring insert

0,63 ± 0,1 N and 1 ± 0,1 N, switchable. Electromotorised activation.

Via control panel

TESA-µHITE

Strong, user-friendly with Power Panel plus M

Capable to operate using all TESA POWER PANEL plus M measuring functions, those for perpendicularity measurement excepted (for more details, see both pages M-15 and M-17).



TESA-µHITE height gauge, plus M version

mm 0 ÷ 160 in 0 ÷ 6.3

Provided with the following components (must be ordered under 3 positions):

- 00760203** 1 TESA measuring support, granite table, 200 x 300 x 50 mm (large-size support No. S07600163 can alternately also be used)
- 00760221** 1 POWER PANEL plus M Related features listed on page M-17 (can alternately also be used with host printer No. 00760220)
- S07010288** 1 TESA-µHITE electronic length measuring unit, without control panel

Also included:



mm

mm 100 in 4

- 00730050** 1 TESA-µHITE value sensor
- 00760191** 1 Connecting cable for TESA-µHITE to control panel
- 00760195** 1 Axial insert holder for measuring inserts with a M2,5 thread
- 03510002** 1 Insert with a 3 mm dia. tungsten carbide ball tip
- 00760197** 1 Insert with a 5 mm dia. tungsten carbide ball tip, offset
- 00760192** 1 Master piece for establishing probe constant, nominal dimension 10 mm/0.39370
- 04761054** 1 Mains adapter 110 to 240 Vac/50 to 60 Hz
- 04761055** 1 Cable EU for mains adapter
- 04761056** 1 Cable US for mains adapter
- 038407** 1 Suited plastic case

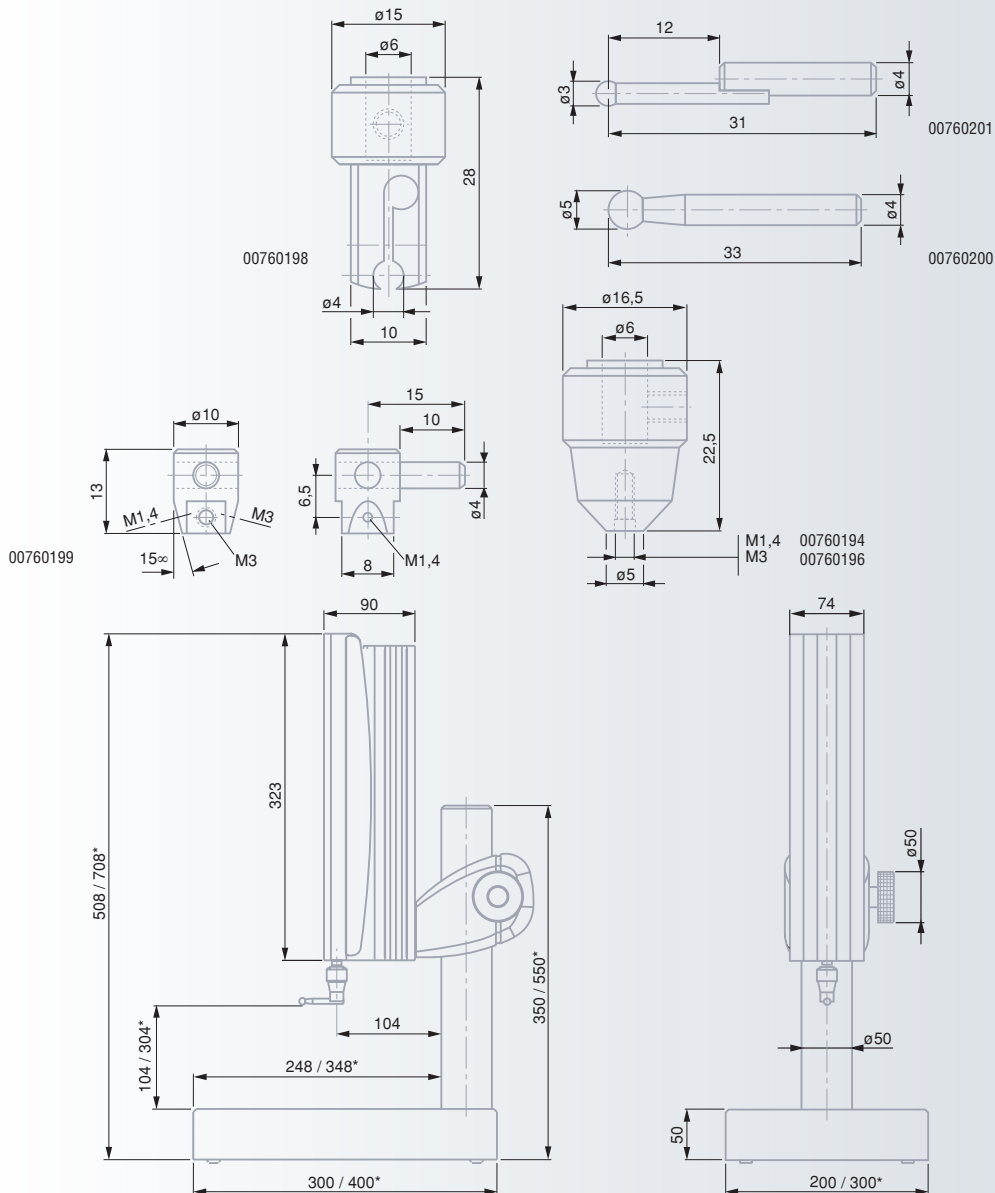
For additional accessories, see page M-24.
For measuring applications, see page M-15.



Optional Accessories



00760186	Set of special measuring inserts (see page M-27).
00760194	Axial probe holder for measuring inserts with a M1,4 thread.
00760196	Axial probe holder for measuring inserts with a M3 thread
00760198	Radial probe holder with a 4 mm dia. mounting bore.
00760199	Universal insert holder with a 4 mm dia. fixing shank (used together with radial probe holder No. 00760198). M1,4 and M2,5 threads (2 x 2) for the measuring inserts.
00760200	Measuring Insert with a 5 mm dia. tungsten carbide ball tip. Also with 4 mm dia. fixing shank for use with radial probe holder No. 00760198.
00760201	Measuring Insert with a 5 mm dia. tungsten carbide ball tip. Also with 4 mm dia. fixing shank for use with radial probe holder No. 00760198.
00760193	Practice piece
04768001	Foot switch for triggering data transfer or letting a measuring function be repeated.
00760207	Swivel support for control panel
00760202	Spare batteries for control panel N° 00760204, 6 Vdc/1,2 Ah. For TESA PRINTER SPC, connecting cables and the like, see section N.



* With measuring support No. S07600163