















## TESA-HITE Magna 400 and 700

Conceived using well-proven TESA technology, both the TESA-HITE magna 400 and 700 models are equipped with the TESA patented magna  $\mu$  measuring system and can be used in the harshest workshop conditions, especially where the gauges are exposed to splashing liquids of any kind and the penetration of dust particles. Their unique characteristics means that the gauges offer the most favourable price/performance ratio found in the market and constitute an essential tool in the workshop. Robust and reliable, their futuristic design guarantees maximum strength when used near production machines. Each height gauge is provided with a rechargeable battery and can be used to measure height or step dimensions as well as diameters, centre to centre distance of bores or grooves, the size of grooves and much more.

- Wide application range, two sizes available with measuring span to 415 mm/ 16 in or 715 mm/28 in, respectively.
- Electronics totally protected against oil and water splashing or dust particles (IP65).
- Control panel with numerical display to 0,001 / 0,005/0,01 mm or 0,0001/0.0002/ 0.001 in.
- Dynamic probing of the workpiece with a constant measuring force.
- Easiness, high reliability when checking bores or shafts using TESA's unique device for automatic detection of the culmination point – patented.
- Acoustic signal to acknowledge value capture, also conveniently programmable.
- Ability to measure parallelism errors.
- TESA's magnetic system, guaranteeing correct operating even in harsh workshop conditions – patented.
- Large LC display, also with symbols for the measuring functions.
- Zero-setting anywhere within the measuring range.
- PRESET function for entering any given value.
- Metric/inch conversion.
- RS 232 data output.
- SCS calibration certificate provided with each height gauge.

-  Factory standard
-  83 x 49 mm LC display, 7-decade plus minus sign. Also with graphical symbols for all active functions.
-  0,001 / 0,005 / 0,01 mm or 0,0001 / 0.0002 / 0.001 in
-  12 mm
-  Magnetic scale
-  Metric/Inch conversion
-  Nickel plated gauge base (chemical coating)
-  1,5  $\pm$  0,5 N (at switch point)
-  500 mm/s 20 in/s
-  Measuring span, application range and precision: see relevant table on page N-5.
-  Probing head mounted on a ball-bearing, hand wheel for head displacement, fine setting. Head drive carriage can be locked.
-  RS232
-  Rechargeable batteries, 6V
-  ~ 60 h



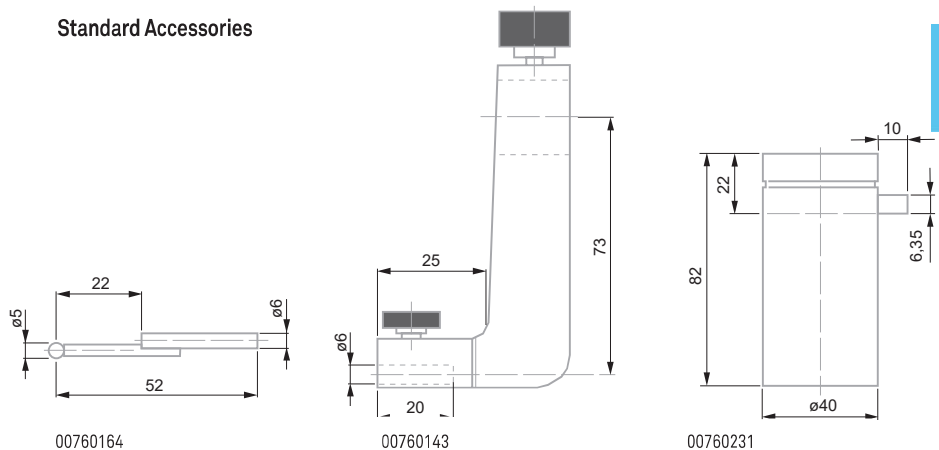
- $(12 \pm 1,5) \times 10^{-2} K^{-1}$
- 10°C to 40°C
- 10°C to 60°C
- 100 %
- IP55 or IP65 for both electronics and measuring system (IEC 60529)
- EN 61326, Class B (with disconnected charger)
- See table
- Shipping packaging
- Identification number
- Declaration of conformity
- SCS calibration certificate

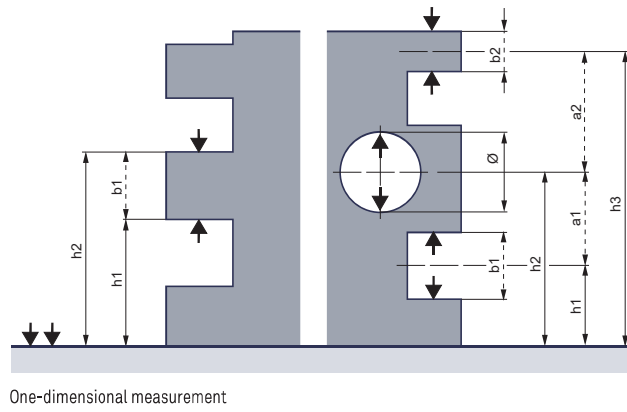
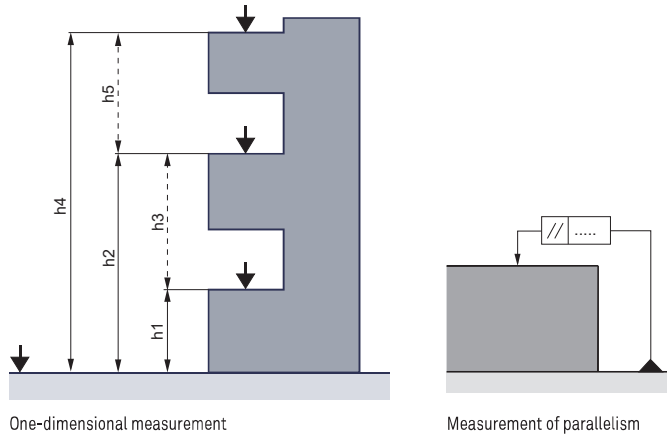
No	=		
		mm	in
00730047	Height gauge TESA-HITE magna 400	415	16
00730059	Height gauge TESA-HITE magna 700	715	28
<b>CONSISTING OF:</b>		<b>400</b>	<b>700</b>
00760143	Standard probe insert holder	●	●
00760157	Rechargeable battery, 6V	●	●
00760164	Standard probe insert with 5mm dia. tungsten carbide ball tip	●	●
00760231	Master piece for establishing the probe constant, nominal dimension 6,350 mm / 0.250 in	●	●
04761054	Mains adapter 100 ÷ 200 VAC / 50 ÷ 60 Hz	●	●
04761055	Cable EU for mains adapter	●	●
04761056	Cable US for mains adapter	●	●
<b>OPTIONAL ACCESSORIES:</b>			
04761052	Extension cable, Sub-D 9p/f to 9p/m, 2 m		
04761063	Sub-D 9p/m to USB cable, 2 m		

**Technical Data**

Models	TESA-HITE magna		
	400	700	
mm in	415	715	
	16	28	
With standard accessory mm in	0 ÷ 570 0 ÷ 22	0 ÷ 870 0 ÷ 34	
	With probe insert holder No. 00760057 mm in	0 ÷ 625 0 ÷ 24	0 ÷ 925 0 ÷ 36
With probe insert holder No. S07001622 mm in	0 ÷ 795 0 ÷ 31	0 ÷ 1095 0 ÷ 43	
With standard accessory µm in	< 8 < 0.0003	< 8 < 0.0003	
	With standard accessory	On flat surfaces: $2\sigma < 3\mu\text{m} / < 0.00015\text{ in}$ Into bores: $2\sigma < 5\mu\text{m} / < 0.00020\text{ in}$	
	kg	15	18

**Standard Accessories**







**N** Factory standard



83 x 49 mm LC display, 7-decade plus minus sign. Also with graphical symbols for all active functions.



0,0001 / 0,001 / 0,01 mm or 0,00001 / 0,0001 / 0,001 in



12 mm



Incremental glass scale, opto-electronic



mm/in conversion



Frontal, model 400 <math>< 9 \mu\text{m}</math>, model 700 <math>< 13 \mu\text{m}</math>



Nickel plated gauge base (chemical coating) with bottom face including 3 resting points, finely lapped.



1,5 ± 0,5 N (at switch point)



500 mm/s 20 in/s



Air-cushion for easy displacement over the surface plate. Measuring span, application range and precision: see table on page N-8.



Probing head mounted on a ball-bearing, hand wheel for head displacement, fine setting. Head drive carriage can be locked.



RS232



Rechargeable batteries, 6V



≈ 60 h

## TESA-HITE 400 / 700

By their robustness and reliability, the TESA-HITE 400 and 700 provided with its optoelectronic incremental rule (TESA patented) measurement system are ideally suited for applications in the workshop.

Their battery power gives them full autonomy.

Each version allows, among other things, the entry height dimensions or staged, the diameter, the distance between two grooves or two holes and groove width.

- Integrated air-bearing for easy displacement across the granite plate.
- Electronics totally protected against oil and water splashing, dust particles (IP65).
- Control panel with numerical display to 0,0001 / 0,001 / 0,01 mm or 0.00001 / 0.0001 / 0.001 in.
- Dynamic probing of the workpiece with a constant measuring force.
- Easiness, high reliability when checking bores or shafts using TESA's unique device for automatic detection of the culmination point – patented.
- Acoustic signal to acknowledge value capture, also conveniently programmable.
- Ability to measure any deviation in parallelism.
- Possible use of a digital sensor for determining perpendicularity errors with stated angle of the linear regression line.
- Patented TESA's opto-electronic system. Long-lasting stability of the glass scale for unbroken high accuracy.
- Large LC display with symbols for the measuring functions.
- Zero-setting anywhere within the measuring range.
- PRESET function for entering any given value.
- Metric/inch conversion.
- RS 232 data output.
- SCS calibration certificate provided with each height gauge.



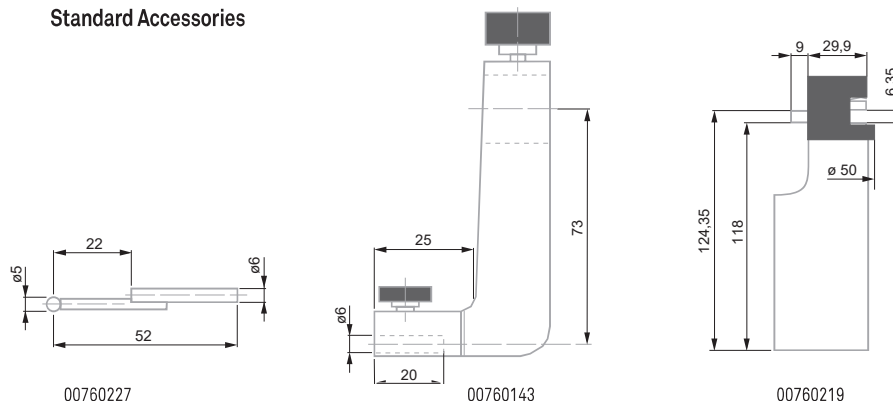
				mm	in
00730043	TESA-HITE 400			415	16
00730044	TESA-HITE 700			715	28
<b>CONSISTING OF:</b>		<b>400</b>	<b>700</b>		
00760143	Standard probe insert holder	●	●		
00760157	Rechargeable battery, 6V	●	●		
00760219	Master piece for establishin the probe constant, nominal dimension to 6,350 mm / 0.250 in	●	●		
00760226	Electric pump for creating the air-cushion beneath the gauge base, already mounted	●	●		
00760227	Standard probe insert with shank and 5 mm dia. ball tip in tungsten carbide	●	●		
04761054	Mains adapter 100 ÷ 200 VAC / 50 ÷ 60 Hz	●	●		
04761055	Cable EU for mains adapter	●	●		
04761056	Cable US for mains adapter	●	●		
<b>OPTIONAL ACCESSORIES:</b>					
04761052	Extension cable, Sub-D 9p/f to 9p/m, 2 m				
04761063	Sub-D 9p/m to USB cable, 2 m				
04760070	RS port, used to connect a digital sensor for perpendicularity measurement				

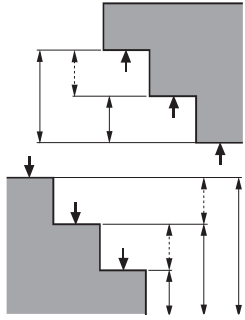
- $(12 \pm 1,5) \times 10^{-6} \text{ K}^{-1}$
- 10 °C to 40 °C
- 10 °C to 60 °C
- 80 %, non-condensing
- IP40, electronics to IP65 (IEC 60529)
- EN 61326, Class B (with disconnected charger)
- See table opposite
- Shipping packaging
- Identification number
- Declaration of conformity
- SCS calibration certificate

**Technical data**

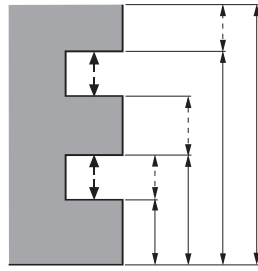
	Models		TESA-HITE 400	TESA-HITE 700
		mm	415	715
		in	16	28
	With standard accessory	mm	0 ÷ 570	0 ÷ 870
		in	0 ÷ 22	0 ÷ 34
	With probe insert holder No. 00760057	mm	0 ÷ 625	0 ÷ 925
		in	0 ÷ 24	0 ÷ 36
	With probe insert holder No. S07001622	mm	0 ÷ 795	0 ÷ 1095
		in	0 ÷ 31	0 ÷ 43
	With standard accessory	µm	(2,5 + 4 L) µm (L in m)	
		in	(0.0001 + 0.000004 L) in (L in in)	
	With standard accessory	On flat surfaces:		
		2 σ = < 2 µm / < 0.0001 in		
		Into bores:		
	2 σ = < 3 µm / < 0.00015 in			
	Frontal, mechanical	µm	9	13
		in	0.00035	0.0005
		kg	27	32

**Standard Accessories**

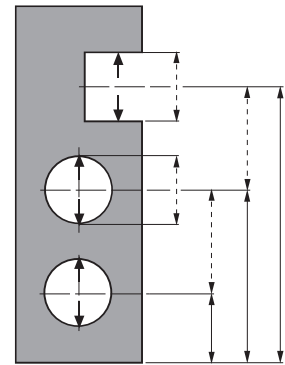




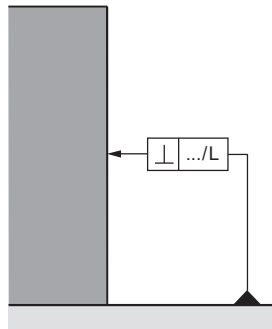
One-dimensional measurement



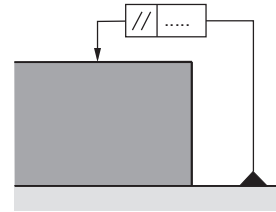
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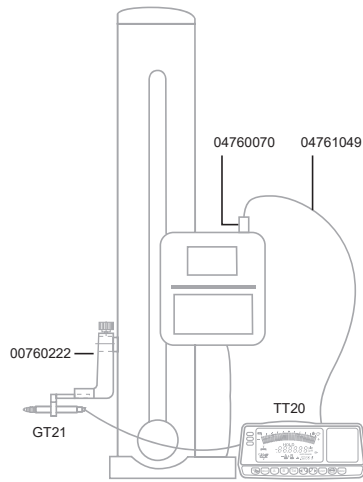
One-dimensional measurement



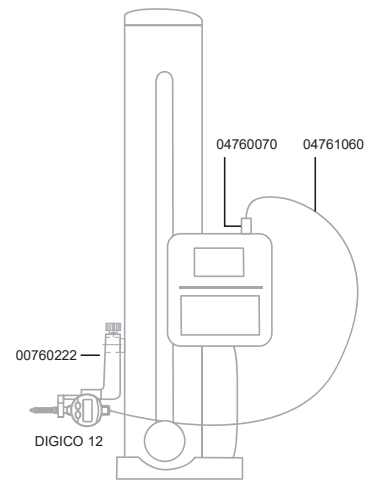
Perpendicularity measurement



Parallelism measurement



Configuration for perpendicularity measurement



Configuration for perpendicularity measurement

