#### 35015 - 35016 Height measuring and marking devices

35016

Replacement marking-off needle, carbide-tipped.

#### 35015

#### Design

- With fine adjustment/magnifying glass

- Carbide-tipped marking-off needle
- Zero setting
- Reading 0.02 mm

				Scriber	Ca	rbide needle	
Marking height mm	Measuring rod	Base L x W mm	Weight approx. kg	35015		35016	
300	28 x 10	125 x 85	3.1		101		101
450	35 x 12	180 x 120	7.0		102		102
600	35 x 12	180 x 120	7.2		103		103



Measuring/ testing technolo
--------------------------------

35015

			Scriber	Cai	bide needle	
Measuring rod	Base L x W mm	Weight approx. kg	35015		35016	
28 x 10	125 x 85	3.1		101		
35 x 12	180 x 120	7.0		102		
35 x 12	180 x 120	7.2		103		

35023

Replacement scriber, carbide-tipped.

#### 35022 - 35023 Scriber

#### 35022 Design

- Vernier scale and scale, brushed chromium-plated

- With fine adjustment

- Accuracy according to factory standard



		Scriber	Ca	rbide needle	
Measuring range mm	Measuring rod	35022		35023	
0–300	15 x 10		101		101
0–500	16 x 12		102		102 📒

# 35017 - 35018

# **Precision scribers**



#### 35017 Design

- Error limits conforming to DIN 862

- Parallax-free reading
- Scales and vernier scale, brushed chromium-
- plated
- Guide rod, industrial chrome plated
- Locking screw
- Fine adjustment
- Supplied with straight scriber, carbide-tipped

# 35018

#### Design

- Error limits conforming to DIN 862
- Parallax-free reading
- Scales and vernier scale, brushed chromiumplated
- Guide rod, industrial chrome-plated
- Locking screw
- Precision callipers adjustment with toothed wheel and toothed rack
- Supplied with straight scriber, carbide-tipped

#### 35024

Replacement scriber, carbide tipped

- Design
- Straight, 75 mm



				Scriber with fine adjustment		Scriber with toothed rack	Carb	oide needle	
Measuring	Reading	Measuring	Base L x W x H	35017		35018		35024	
range mm	mm	rod 🛱 mm	mm						
300	0.02	30 x 12	145 x 90 x 44		301		301		101
600	0.02	31 x 12	189 x 118 x 44		302		302		101
1000	0.02	32 x 12	189 x 118 x 44		303		303		101

35.1

HIM

# Height measuring and marking devices

#### 35030 Digital height measuring and marking devices Digimar 814 SR (Mahr) Scope of delivery: - Scriber point Design - Auto on/off function - Battery (3 V, type CR 2032) - RESET function (resetting the display) - Operating instructions - PRESET function (measurement presetting) - In box - mm/inch switching - Reference lock/unlock function (keypad lock) Applications - DATA function (in connection with data connection For marking off and marking workpieces cable) and for measuring heights and distances. - ABS function (switching from relative to absolute measurement) Note: - High-contrast 12 mm high LCD display

- Easy-grip, secure base

#### - Hardened, lapped contact surface, lightweight and can be moved smoothly

- Slide and rail hardened, rust-free
- Hand wheel for positioning and measuring
- Fine adjustment
- Locking screw
- Interchangeable measuring and marking tip, carbide-tipped
- Adjustment speed 1.5 m/s (60 inch/s)
- Company standard
- MarConnect data output optional:
- USB, Opto RS232C, Digimatic
- Power supply: Battery, service life approx. 3 years

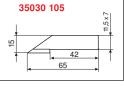
Connection cable, see art. no. 35200 404-406. Replacement batteries, see art. no. 39900 102.

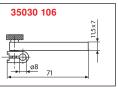
#### 35030 105

Scriber 814 SRs, carbide-tipped.

# Holder 27 Sp for

lever gauge probes.







Typ V

Typ W

35030 101-102

Measuring range mm	Reading mm	Measuring rod T mm	Base L x W mm	Overall height mm	Error limit µm	Weight approx. kg	35030	
350	0.01	35	180 x 62	580	40	7		101
600	0.01	35	180 x 62	835	50	8		102
Marking-off needle 814 SRs, carbide-tipped	-	-	-	-	-	-		105
Holder 27 Sp for lever gauge probes	-	-	-	-	-	-		106

#### 35040 - 35042 Digital height measuring and marking devices Тур К Typ J 35040 ATURI 35040 Design 35042 Design - With fine adjustment - Accuracy according to factory standard 35042 - Finely machined and inspected with high precision - Guide column made of special steel Design - Interchangeable cemented carbide marking-off - Fine adjustment with toothed rack needle and adjusting wheel with pinion - Cropped scriber holder for measuring from the 35024 base - Data output proximity, J, K, L Replacement scriber, carbide tipped - Supplied with 3 V lithium battery Design - Straight, 75 mm Functions: - Switching on/off - Resetting in any position - mm/inch switching - HOLD function (measurement determination) - PRESET +/- (measurement pre-setting) - Locking screw ATORN ATORA Applications Absolute, differential, comparison measurements, etc. can be performed quickly, cleanly and easily. Note: Connection cable, see art. no. 35200. Replacement batteries, see art. no. 39900 102.

			S	Scriber with fine adjustment		Scriber with toothed rack	Carbid	e needle	
Measuring	Base L x W x H	Reading	Measuring rod	35040		35042		35024	
range mm	mm	mm	mm						
300	145 x 90 x 44	0.01	30 x 12		101		101		101
600	189 x 118 x 44	0.01	31 x 12		102		102		101
1000	189 x 118 x 44	0.01	32 x 12		103		103		101

HW

35.2

= The specified prices are unit prices. Only sold in the specified packing Rodal Contraction units. Always specify number of units in order information.









#### Process-related measurement in parts production

#### SCS calibration certificate

Info

The TESA-HITE and MICRO-HITE production line includes a laboratory accredited by the Swiss Accreditation Service.

As a result, every vertical TESA length measuring device is supplied with a free SCS calibration certificate. Fully air-conditioned rooms (20 +/- 0.1 °C) and high-precision step gauges contribute to extremely low measurement uncertainty during calibration.

- In the first step, the measurement deviations of the manufactured measuring instrument are recorded. With help from CAA (computer aided accuracy), correction values are then calculated to reduce the systematic proportions of the measurement deviations.
- For automatic correction of the measurement values during the measurements, the individual correction values are stored in the memory of the respective measuring device
- The measurement results documented in the SCS calibration certificate are determined by means of final measurement series using another calibration device that is also equipped with a step gauge.

The calibration procedures applied and the SCS calibration certificate guarantee that each vertical TESA length measuring device can be traced back to national standards.



#### 35071

#### Digital height measuring devices TESA-HITE MAGNA 400/700

#### Design

- Magna µ measuring system, IP 55
- Modern control panel
- Fine adjustment system
- Suitable for workshops
- IP 65 control panel
- Context-based help
- Backlit colour screen
- Fast measurement
- Fast reversal point search with
- Quickcenter dynamic technology
- 4 different display settings
- Height, surface or reversal point measurements
- Hole, shank, shaft, web measurement
- Min, max, delta (parallelism) measurements
- Distance and centre point calculation
- mm/inch switching

Measuring range

mm 415

715

- Preset function

- TLC interface (cable or Bluetooth) - Data can be sent manually or automatically - Current position can be displayed continuously
- Large digital display 21 mm
- Operating keys with "click" feedback
- Short training time
- Free SCS certificate

#### Scope of delivery:

- Height measuring device incl. control panel
- Standard gauge slide holder
- Standard gauge slide with carbide ball  $\varnothing$  5 mm
- Reference piece
- Power supply and cable
- SCS certificate
- Declaration of conformity
- Quick start guide
- Operating instructions on USB stick

1	Technical data:	35071 101 (MAGNA 400)	35071 102 (MAGNA 700)	
	Measuring range:	415 mm	715 mm	
	Error limit:	≤ 8 µm	≤ 8 μm	
	Repeatability limit on a level surface (2δ):	≤ 3 μm	≤ 3 μm	
	Repeatability limit on an arc (2δ):	≤ 5 µm	≤ 5 μm	
	Limit value of the perpendicularity deviation:	-	-	
	Resolution:	0.001/0.005/0.01 mm	0.001/0.005/0.01 mm	
	Measuring force:	1.5 N +/- 0.5 N	1.5 N +/- 0.5 N	
	Air cushion:	No	No	0.1
	Fine adjustment:	Yes	Yes	
	Display:	LCD colour display	LCD colour display	
		121 x 92 mm backlit	121 x 92 mm backlit	
	Battery:	integrated, rechargeable	integrated, rechargeable	
		Li-ion 12.8 V/3.0 Ah	Li-ion 12.8 V/3.0 Ah	
	Autonomy:	60 h	60 h	
	Protection rating:	IP 55, control panel IP 65	IP 55, control panel IP 65	
	Weight:	15 kg	18 kg	

30071	
	101
	102

HIN.

() = Items with prices in brackets partly available from stock ena/P

35.3

35071 101

TESP

NEW

# **Digital height measuring devices**

# 35074

testing technolo

# Digital height measuring devices TESA HITE 400/700

# 

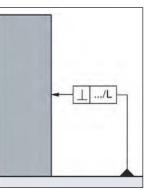
#### Design

- Opto µ measuring system, IP 55
- Modern control panel
- Fine adjustment system
- Suitable for workshops
- IP 65 control panel
- Context-based help
- Backlit colour screen
- Fast measurement
- Fast reversal point search with Quickcenter dynamic technology
- 4 different display settings
- Height, surface or reversal point measurements
- Hole, shank, shaft, web measurement
- Min, max, delta (parallelism) measurements
- Distance and middle point calculation
- mm/inch switching
- Preset function
- TLC interface (cable or Bluetooth)
- Data can be sent manually or automatically
- Current position can be displayed continuously
- Large digit size 21 mm
- Operating keys with "click" feedback
- Short training time
- Free SCS certificate

#### Scope of delivery:

- Height measuring device incl. control panel
- Standard gauge slide holder
- Standard gauge slide with carbide ball  $\varnothing$  5 mm
- Reference piece
- Power supply and cable
- SCS certificate
- Declaration of conformity
- Quick start guide
- Operating instructions on USB stick

#### Measuring perpendicularity





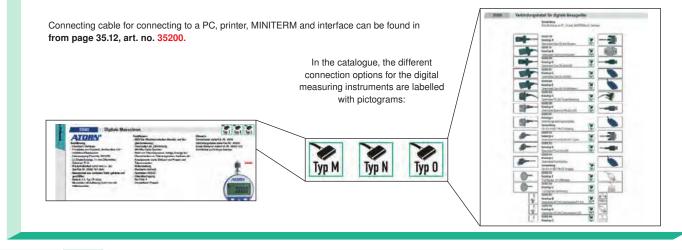
Technical data:	35074 101 (HITE 400)	35074 102 (HITE 700)		
Measuring range:	415 mm	715 mm		
Error limit:	(2.5+4 L) μm (L in m)	(2.5+4 L) μm (L in m)		
Repeatability limit on a level surface $(2\delta)$ :	≤ 2 μm	≤ 2 μm		
Repeatability limit on an arc (2δ):	≤ 3 μm	≤ 3 μm		
Limit value of the perpendicularity deviation:	9 μm	13 μm		
Resolution:	0.0001/0.001/0.01 mm	0.0001/0.001/0.01 mm		
Measuring force:	1.5 N +/- 0.5 N	1.5 N +/- 0.5 N		
Air cushion:	Yes	Yes		
Fine adjustment:	Yes	Yes		
Display:	LCD colour display 121 x 92 mm	LCD colour display 121 x 92 mm		
	backlit	backlit		
Battery:	integrated, rechargeable	integrated, rechargeable		
	Li-ion 12.8 V/3.0 Ah	Li-ion 12.8 V/3.0 Ah		
Autonomy:	60 h	60 h		
Protection rating:	IP 55, control panel IP 65	IP 55, control panel IP 65		
Weight:	24 kg	30 kg		
Measuring range			35074	

#### Measuring range

mm 415 715

Info

# Connecting cable for transmitting measurement values from digital measuring instruments



**H M** 

www.hhw.de Fax order hotline: 0800 0 915910

101

102

ena/P

#### Digital height measuring devices MICRO-HITE 350/600/900

# 

#### Design

- Manually adjustable, digital height measuring device
- Robust construction made of cast iron to ensure durability and long-term reliability of measurement results

#### **Control panel**

- Hybrid with colour touchscreen and keyboard
- Simplified keyboard for rapid familiarisation without complicated handling
- Adjustable control panel bracket for optimal reading of the screen at any time

#### Autonomy

- Rechargeable and replaceable battery

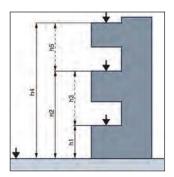
#### Measurement

- Integration of patented QUICKCENTER technology for fast and simple measurement of the reversal points
- Advanced functions for a multifunction device suitable for a wide range of different users
- Online contextual help, which prevents complicated use and poor results
- Clear results to reduce possible errors due to poor evaluation of the indicated results

#### SCS calibration certification

 An SCS certificate is provided free of charge so that any additional costs for recalibration immediately after purchase can be avoided

#### Measuring in one probe direction



Measuring in two

coordinate directions

35081 101 (HITE 350)

0.0001/0.001/0.01 mm

350 mm 0–520 mm (2+2 L) μm = (L in m)

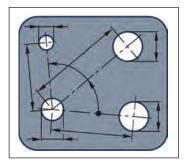
≤ 1 μm ≤ 1 μm 7 μm 1.6 N +/- 0.25 N

Х

8 h 33 kg

Measuring in two probe directions

Angle measurement in two dimensions

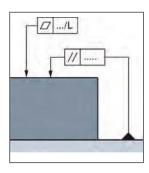


Technical data:
Measuring range:
Maximum application area:
Error limit:
Repeatability on a flat surface (2b):
Repeatability in holes (2δ):
Perpendicularity tolerance (frontal):
Constant contact force:
Air cushion:
Resolution:
Autonomy:
Weight with control panel:

#### Measuring range

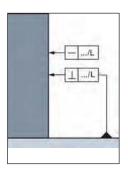
- mm 350
  - 600 900

#### Measuring parallelism and flatness



35081 102 (HITE 600)
600 mm
0–770 mm
(2+2 L) μm = (L in m)
≤1 μm
≤ 1 μm
9 µm
1.6 N +/- 0.25 N
Х
0.0001/0.001/0.01 mm
8 h
37 kg

# Measuring perpendicularity and straightness



35081 103 (HITE 900)
900 mm
0–1075 mm
(2+2 L) μm = (L in m)
≤ 1 μm
≤ 1 μm
11 μm
1.6 N +/- 0.25 N
х
0.0001/0.001/0.01 mm
8 h
45 kg

35081 ... 101 102

##**#** 



# Measuring/ testing technology

35.5

103

# Digital height measuring devices



testing techno.

## 35082 Digital height measuring devices MICRO-HITE plus M 350/600/900

# 

#### Design

- Motorised, digital height measuring device
- Robust construction made of cast iron to ensure durability and long-term reliability of measurement results

#### Control panel

- Hybrid with colour touchscreen and keyboard
   Simplified keyboard for rapid familiarisation without
- complicated handling - Adjustable control panel bracket for optimal reading of the screen at any time

#### Autonomy

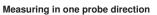
- Rechargeable and replaceable battery

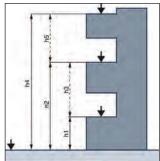
#### Measurement

- Integration of patented QUICKCENTER technology for fast and simple measurement of the reversal points
- Advanced functions for a multifunction device suitable for a wide range of different users
- Online contextual help, which prevents complicated use and poor results
- Clear results to reduce possible errors due to poor evaluation of the indicated results

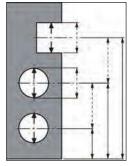
#### SCS calibration certification

 An SCS certificate is provided free of charge so that any additional costs for recalibration immediately after purchase can be avoided

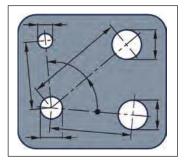




#### Measuring in two probe directions



Angle measurement in two dimensions



 Technical data:

 Measuring range:

 Maximum application area:

 Error limit:

 Repeatability on a flat surface (2\delta):

 Repeatability in holes (2\delta):

 Perpendicularity tolerance (frontal):

 Constant contact force:

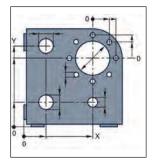
 Air cushion:

 Resolution:

 Autonomy:

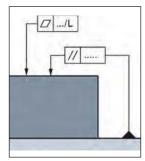
 Weight with control panel:

Measuring in two coordinate directions



35082 101 (HITE plus M 350)
350 mm
0–520 mm
(1.8+2 L) μm = (L in m)
≤ 0.5 μm
≤ 1 μm
7 μm
1.6 N +/- 0.25 N
х
0.0001/0.001/0.01 mm
8 h
33 kg

#### Measuring parallelism and flatness



35082 102 (HITE plus M 600)

(1.8+2 L) µm = (L in m)

0.0001/0.001/0.01 mm

600 mm

 $\leq 0.5 \, \mu m$ 

1.6 N +/- 0.25 N

≤ 1 µm

9 µm

8 h

37 ko

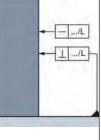
0–770 mm

Measuring perpendicularity

cro-Hit

35082 102

綴



#### **35082 103 (HITE plus M 900)** 900 mm 0–1075 mm (1.8+2 L) μm = (L in m) ≤ 0.5 μm ≤ 1 μm

ena/P

τι μπ
1.6 N +/- 0.25 N
х
0.0001/0.001/0.01 mm
8 h
45 kg

Measuring range	35082	
mm		
350		101
600		102
900		103

35.6

#### 35088

# 

# 35088 104

#### Probe insert holder Applications

Specially designed for lever gauge probes TESATAST.

#### 35088 105

#### Gauge slides set

Design

- Supplied in plastic case with:
- 1 gauge slide holder,
- probe rod for turned grooves, centring points, blind bores,etc., angled 8°, steel, hardened,
   probe rod for depth measurements, cylindrically
- offset, steel, hardened,
- **3 gauge slides** with steel ball, hardened, Ø 0.9 / 1.9 / 2.9 mm,
- **1 gauge slide** with spherical measuring surface,
   Ø 8 mm, steel, hardened,
- 2 extensions, length 20 mm, thread M 3 to M 3 and length 20 mm, thread M 3 to M 2.5.

#### 35088 106

#### Measuring probe IG-13

Design

With opto-electronic measuring system and glass scale with incremental graduation. Comprising:

- 1 TESA measuring probe IG-13, measuring range
- 13 mm, resolution of the measuring signal 0.0005 mm, accuracy 1  $\mu$ m, measuring force 0.45 N at zero and 0.75 N on the stop.
- 1 mount for TESA measuring probe IG-13.

#### Applications

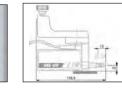
For measuring shape and positional deviations, particularly when recording perpendicularity and straightness deviations. Only possible in combination with Power Panel plus M control panels.

#### 35088 108

#### Large accessory kit, 20 pieces Design

Supplied in plastic case with:

#### 35088 106





- 1 gauge slide with cemented carbide ball, Ø 10 mm, gauge slides with barrel-shaped cemented carbide measuring surface for cyl. holes and for determining the position of metric female threads,
- 1 piece Ø 2.2 mm (for M 3 to M 16),
- **1 piece** Ø 4.5 mm (for M 6 to M 48),
- piece Ø 9.7 mm (for M 12 to M 150), gauge slides with cemented carbide disc, for grooves, turned grooves, centring shoulders, etc.,
- **1 piece** E = 1 mm /  $\emptyset$  4.5 mm,
- **1 piece** E = 2 mm / Ø 14 mm,
- **1 piece** E = 3 mm / Ø 19 mm,
- 1 gauge slide with small cyl. carbide measuring surface, Ø 2 mm,
- 1 probe insert holder for TESATAST probe inserts (thread M 1.4) and gauge slides M 2.5, probe inserts TESATAST, cemented
- carbide ball, thread M 1.4
- 1 piece Ø 1 mm,
- 1 piece Ø 2 mm, 1 piece Ø 3 mm,
- 1 piece
- 1 gauge slide with cyl. measuring surface (Ø 10 mm, length 12 mm) basic body made of stainless steel, hardened, measuring surface made of cemented carbide, gauge slide carrier for achieving greater measuring depth
- **1 piece** for measuring depths up to 110 mm (L = 75 mm),
- **1 piece** for measuring depths up to 185 mm (L = 150 mm),
- 1 gauge slide carrier to expand the application range,
- 1 gauge slide with probe rod, stainless steel, hardened, one flat and one ball-shaped measuring surface each made of cemented carbide, replaceable probe rod.

#### 35088 109 USB printer

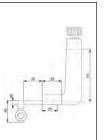
#### Applications

The optional printer can be connected to the control panel of the MICRO-HITE height measuring devices to receive and print data automatically.

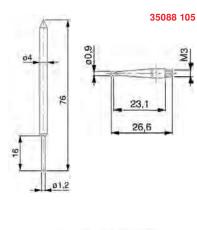
#### 35088 109

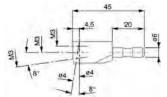


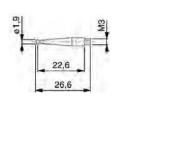
35088 104











	35088	
Probe insert holder		104
Gauge slides set		105
Measuring probe IG-13		106
Large accessory set 20 pieces		108
USB printer		109

**##** 35.7

ing technology

# Digital height measuring devices

# 35090

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# Mahr

- **Basic measuring functions**
- Probing at the bottom or top
- Bar width or groove distances incl. bar or groove centre
- Hole or shaft diameter
- incl. hole or shaft centre
- Reversal point holes (top or bottom)
- Reversal point shaft (top or bottom)
- Calculate distances or symmetry
- Dynamic measurement functions
- Measurement programme
- Measurement data processing

#### Control and display unit

- Easy-to-read graphic LCD display with backlight
- Clear function keys

- Language-neutral navigation using self-explanatory symbols
- Set an additionally zero point quickly
- Measured value storage of up to 99 values

#### Measuring system

Digital height measuring devices Digimar 816 CL

- Optical incremental measuring system with double reading head for outstanding precision and reliability
- Dynamic probe system for high repeatability
- Air bearing system for easy, jerk-free movement - Precise measuring head guide on stainless steel
- guide rails
- Simple measuring operations thanks to motorised measuring slides
- Integrated temperature sensor with temperature compensation
- Probe constant is maintained after switching off
   Integrated rechargeable battery with high
- operating time for battery-powered measurement

#### Scope of delivery:

- Height measuring device incl. operating and
- display element
- Carrier 817 h1
- Gauge slide K6/51
- Setting block 817 eb
- Charging unit
- Protective cover
- Calibration certificate - Operating instructions

Technical data:	35090 101	35090 102
Measuring range:	350 mm	600 mm
Application range from – to:	170 - 520 mm	170 - 770 mm
Error limit:	(2.8+3 L) μm (L in mm)	(2.8+3 L) μm (L in mm)
Repeatability limit, level (2δ):	2 μm	2 μm
Repeatability limit, hole (2δ):	3 μm	3 μm
Max. deviation from perpendicularity:	15 μm	20 μm
Resolution:	0.001 / 0.01 mm	0.001 / 0.01 mm
Measuring force (acoustic measuring signal):	1.0 N +/- 0.2 N	1.0 N +/- 0.2 N
Autonomy:	14 h	14 h
Rel. humidity, non-condensing:	65%	65%
Working temperature:	20°C	20°C
Operating temperature:	10–40°C	10-40°C

	Measuring range mm	Opto RS232C, USB	Weight kg	Cable length m	35090	
Height measuring device	350	Х	25	-		101
Height measuring device	600	Х	30	-		102
Data connection cable USB 2000 usb	-	-	-	2		105
Data connection cable RS232C 2000	r -	-	-	2		106



35090 101-102

H:M

ena/P

### Digital height measuring devices Digimar 817 CLM

#### (Mahr)

#### Basic measuring functions

35091

- Probing at the bottom or top
- Bar width or groove distances
- incl. bar or groove centre
- Hole or shaft diameter incl. hole or shaft centre
- Reversal point holes (top or bottom)Reversal point shaft (top or bottom)
- Calculate distances or symmetry
- Dynamic measurement functions
- Perpendicularity measurement
- Straightness measurement
- Measurement in 2D mode
- Measurement programme
- Statistical evaluation
- Measurement data processing

#### Control and display unit

- Large and clear function keys
- Easy-to-read graphic LCD display with backlight
- Operator guidance via self-explanatory icons
- Operator guidance in several languages
- Option of setting additional zero points on the workpiece
- Additional measuring instrument with Opto RS232 interface can be connected
- Future-proof thanks to update capability
- Automatic stand-by switching

- Adjustable auto-off function
- (without loss of measured values)

#### Measuring system

- Optical incremental measuring system with double reading head for outstanding precision and reliability
- Dynamic probe system for high repeatability
- Air bearing system for easy, jerk-free movementPrecise measuring head guide on stainless steel
- guide rails
- Simple measuring operations thanks to motorised measuring slides
- Probe constant is maintained after switching off
   Integrated rechargeable battery with high operating
- time for battery-powered measurement - Temperature compensation via integrated
- temperature sensor

#### Scope of delivery:

- Height measuring device incl. operating
- and display element
- Carrier 817 h1
- Gauge slide K6/51
- Setting block 817 eb
- Charging unit
- USB cable
- Protective cover
- Calibration certificate
- Operating instructions

#### - Measurement programme for series parts



Control panel with backlit graphic display



Technical data:	35091 101	35091 102	35091 103
Measuring range:	350 mm	600 mm	1000 mm
Application range from – to:	170–520 mm	170–770 mm	170–1170 mm
Error limit:	(1.8+6 L) μm (L in mm)	(1.8+6 L) μm (L in mm)	(1.8+6 L) μm (L in mm)
Repeatability limit, level (2δ):	0.5 μm	0.5 μm	0.5 μm
Repeatability limit, hole (2δ):	1 μm	1 μm	1 μm
Max. deviation from perpendicularity:	5 μm	6 μm	9 μm
Resolution:	0.0005 / 0.0001 / 0.005 / 0.001 / 0.01 mm	0.0005 / 0.0001 / 0.005 / 0.001 / 0.01 mm	0.0005 / 0.0001 / 0.005 / 0.001 / 0.01 mm
Measuring force (acoustic measuring signal)	: 1.0 N +/- 0.2 N	1.0 N +/- 0.2 N	1.0 N +/- 0.2 N
Autonomy:	16 h	16 h	16 h
Rel. humidity, non-condensing:	65%	65%	65%
Working temperature:	20°C	20°C	20°C
Operating temperature:	10–40°C	10–40°C	10–40°C

	Measuring range mm	RS232C	Weight kg	Cable length m	35091
Height measuring device	350	Х	25	-	101
Height measuring device	600	Х	30	-	102
Height measuring device	1000	Х	35	-	103
Adapter cable RS232-USB	-	-	-	1	107

35.9

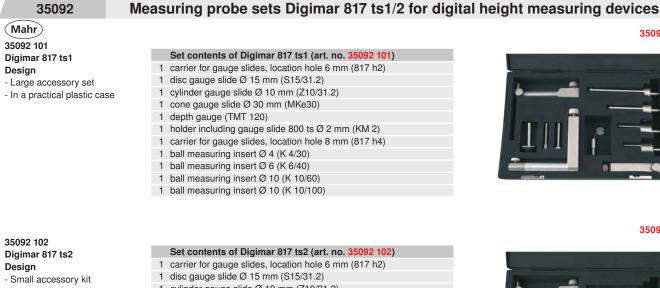
**| #:**]

Measuring/ esting technolog

35091 101-103



# Accessories for digital height measurement devices



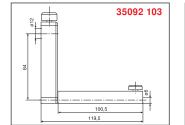
- In a practical plastic case

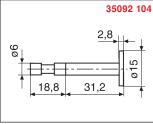
testing techno.

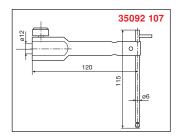
- 1 cylinder gauge slide Ø 10 mm (Z10/31.2)
- 1 cone gauge slide Ø 30 mm (MKe30)
- 1 depth gauge (TMT 120)
- 1 holder including gauge slide 800 ts Ø 2 mm (KM 2)

	Set	
Туре	35092	
Digimar 817 ts1		101
Digimar 817 ts2		102



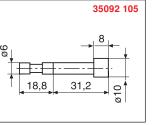


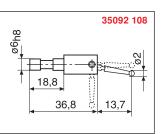


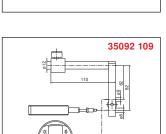


Individual 35092

Support for gauge slides 817 h2	103
Disc gauge slide Ø 15 mm S15/31.2	104
Cylinder gauge slide Ø 10 mm Z10/31.2	105
Cone gauge slide MKe 30	106







.. . . .

ena/P

25,2

38,2

18,8

Individual	
35092	
Depth gauge TMT 120	107
Holder incl. gauge slide 800 ts Ø 2.0 mm KM 2	108
Carrier for perpendicularity measurement 817 h3	109
Measuring probe P1514 H	110

35092 102

35092 106

200 V 030

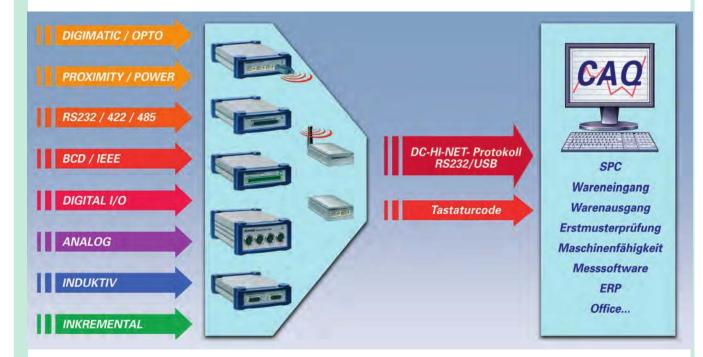
| HEN

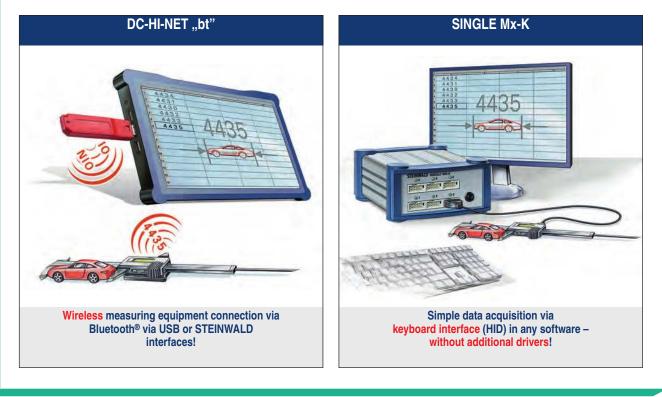


- Interfaces for 2000 different measuring instruments
- Compatible with over 50 CAQ/ERP/MES systems
- Wireless measuring equipment connection
- Dynamic measurement data processing
- Multi-point measurement

Info

- Measurement value transfer in Office applications
- PC connection via RS232, USB and keyboard (HID)







**| #:**]

35.11

Measuring/ testing technology

#### 35200 Connecting cable for digital measuring instruments

35200 100

Applications For connecting to PC, printer, MINITERM and interface.

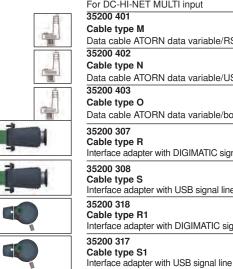












35200 100	
Cable type A	
Data cable Opto RS 232 simplex	Тур А
35200 101	[
Cable type B	
Data cable Opto RS 232/duplex	Тур В
35200 303	
Cable type C	
Data cable Opto RS 232/USB	Typ C
35200 201	[
Cable type D	
Data cable Opto RS 232/Box	Typ D
Applications	
For DC-HI-NET MULTI input	
35200 204	г
Cable type G	
Data cable RS 232 duplex/feed	Typ G
35200 309	
Cable type H	
Data cable feed RS 232/USB	Тур Н
35200 311	
Cable type I	Г
Date cable feed/box	
Applications	
For DC-HI-NET MULTI input	Typ I
35200 312	
Cable type J	
Data cable proximity/RS 232 duplex	Typ J
35200 313	<u></u>
Cable type K	
Data cable proximity/USB	Тур К
35200 314	
Cable type L	Г
Data cable proximity/box	
Applications	
For DC-HI-NET MULTI input	Typ L
35200 401	
Cable type M	
Data cable ATORN data variable/RS 232	Тур М
35200 402	<u></u>
Cable type N	
Data cable ATORN data variable/USB	Typ N
35200 403	
Cable type O	
Data cable ATORN data variable/box DIGIM/	Тур О
35200 307	
Cable type R	Typ R
Interface adapter with DIGIMATIC signal line	——————————————————————————————————————
35200 308	
Cable type S	Typ S
Interface adapter with USB signal line	
35200 318 Coble time B1	
Cable type R1 Interface adapter with DIGIMATIC signal line	Typ R1
·	
35200 317	
Cable type S1 Interface adapter with USB signal line	Typ S1













311 312 313

314

401 402

Cable type	Cable length m	35200	Cable type	Cable length m	35200
Α	2	100	I	2	
В	2	101	J	3	
С	2	303	К	3	
D	2	201	L	2	
G	2	204	М	2	
Н	2	309	N	2	

Cable type	Cable length m	35200	
0	2		403
R	2		307
S	2		308
R1	2		318 NEW
S1	2		317 NEW

eng/P

35.12

H W

35200	Connecting ca	able for digital measuring instr	ruments (Mahr)
Mahr		35200 410	35200 404
35200 404		i-Stick wireless receiver	
Cable type V		Design	
Applications		- 3-channels	Тур V
For connecting the meas	suring instrument to an	- 8 emitter modules per stick	
interface box or a PC. Da	ata transmission in MarCom	- 2400 MHz frequency band	
or via virtual COM interfa	ace to other applications.	- Incl. MarCom Standard software 3.1	
35200 405 + 407		35200 411	
Cable type W + F		Cable type Z	
Applications		Applications	
For connecting Digimation evaluation devices.	c-compatible interfaces and	Adapter cable USB for foot switch 16 ESf.	10
		35200 412	
35200 406		Foot switch 16 ESf	
Cable type X		Applications	35200 406
Applications		For measurement value transfer.	
For connecting the meas	suring instrument to a PC.		Тур Х

Data transmission in MarCom or via virtual COM interface to other applications. Scope of delivery:

- USB cable, drivers, MarCom Standard software

	Cable type	Cable length m	35200			Cable type	Cable length m	35200	
Adapter cable RS232C 16 EXr	V	2.0		404	Adapter cable USB	Z	0.1		411
Adapter cable Digimatic 16 EW	W k	2.0		405	Foot switch 16 ESf	-	-		412
Adapter cable USB 16 EXu	Х	2.0		406	USB hub, 7-way	-	-		413
Adapter cable Digimatic 2000 d	F	2.0		407	Adapter cable USB duplex DK-	<b>J1</b> P	2.0		415
Wireless receiver i-Stick	-	-		410	Adapter cable Digimatic duplex	<b>DK-D1</b> Q	2.0		416



# 35200 315

Cable type T

- TLC connector with USB cable

35200

#### 35200 316

Cable type U - TLC Digimatic connection

# 35200 501

Wireless transmitter TLC-BLE

#### 35200 502

Wireless receiver

Comprising: - USB dongle receiver and 2 m extension cable

#### Applications

A USB dongle can be used with 8 measuring instruments. Reception can be optimised using the 2 m extension cable, e.g. if the computer is under or

#### behind the workbench/work surface.

#### 35200 504

#### Adapter cable Opto-RS232/TLC

#### Design

- With reclosable fastener for attaching to the transmitting unit
- Without Bluetooth® transmitter

#### Applications

All devices with Opto-RS232 or TLC output can be easily upgraded to Bluetooth® technology.



35200 413 USB hub 7-way industrial version





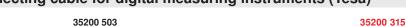
35200 316

35200 405+407

Typ F

Typ W

	Z	0.1	411
	-	-	412
	-	-	413
11	Р	2.0	415
DIC D4	0	0.0	





	Cable type Cabl	e length	35200			Cable type Ca	ble length	35200	
		m					m		
Adapter cable TLC/USB	Т	2.0		315	USB dongle receiver	-	-		502 NEW
Adapter cable TLC/Digimatic	U	2.0		316	TLC-BLE starter kit	-	-		503 NEW
TLC-BLE transmitter	-	-		501 NEW	Adapter cable Opto RS 232/TLC	-	2.0		504 NEW



# **TESA** data viewer

- Instruments are detected and connected automatically

- Compatible with most **TESA** instruments
- Bar graph display with
- adjustable tolerance - 8 languages available



Free software for managing data,

recorded with TESA measuring instruments.

Free download at tesatechnology.com

35.13

HIN