

Digimar 816 CL

► | The new Height Measuring Instrument **Digimar 816 CL**.

You want to obtain highly accurate measurement results without any complicated procedures? With the Digimar 816 CL you have the perfect partner for simple and accurate measurements both in the workshop or on the production line, just as you expect from Mahr! I ◀

User-friendly operation. . .

. . . due to the

- Clearly displayed measured values
- Self-explanatory operator guidance



The operating and display unit has a background illuminated display.

Precise measuring results. . .

. . . on the production line

- Robust design
- Measuring results independent of the user
- Reliable results even outside of the inspection room



Probe contact with the motorized measuring carriage.

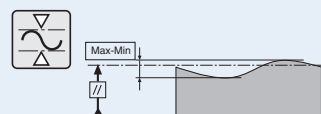


- Temperature compensation with an integrated temperature sensor

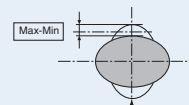
Versatile

The Height Measuring Instrument Digimar 816 CL offers numerous practical measuring and evaluation functions:

- Convenient standard measuring functions
- Dynamic measuring functions



Parallel deviation



Roundness deviation

- Wide range of options for data evaluation



The measuring program. . .

. . . is essential for repetitive part measurement



- Repetitive measuring procedures can easily be automated
- Simply create a measuring program with the Teach-In-mode
- Complex procedures can be started by just pressing one key

Height Measuring Instrument Digimar 816 CL



Features

Measuring system

- Excellent accuracy and reliability due to the optical incremental measurement system with the double reader head
- Dynamic probing system enabling high repeatability
- Air bearings system for light and smooth movement
- Precise measuring head on stainless steel guideways
- Motorized measuring carriage simplifies measurement runs
- Temperature compensation with an integrated temperature sensor
- Probe constant remains after the instrument is switched off
- Integrated rechargeable battery with a long operating time for mains independent measurement

Operating and display unit

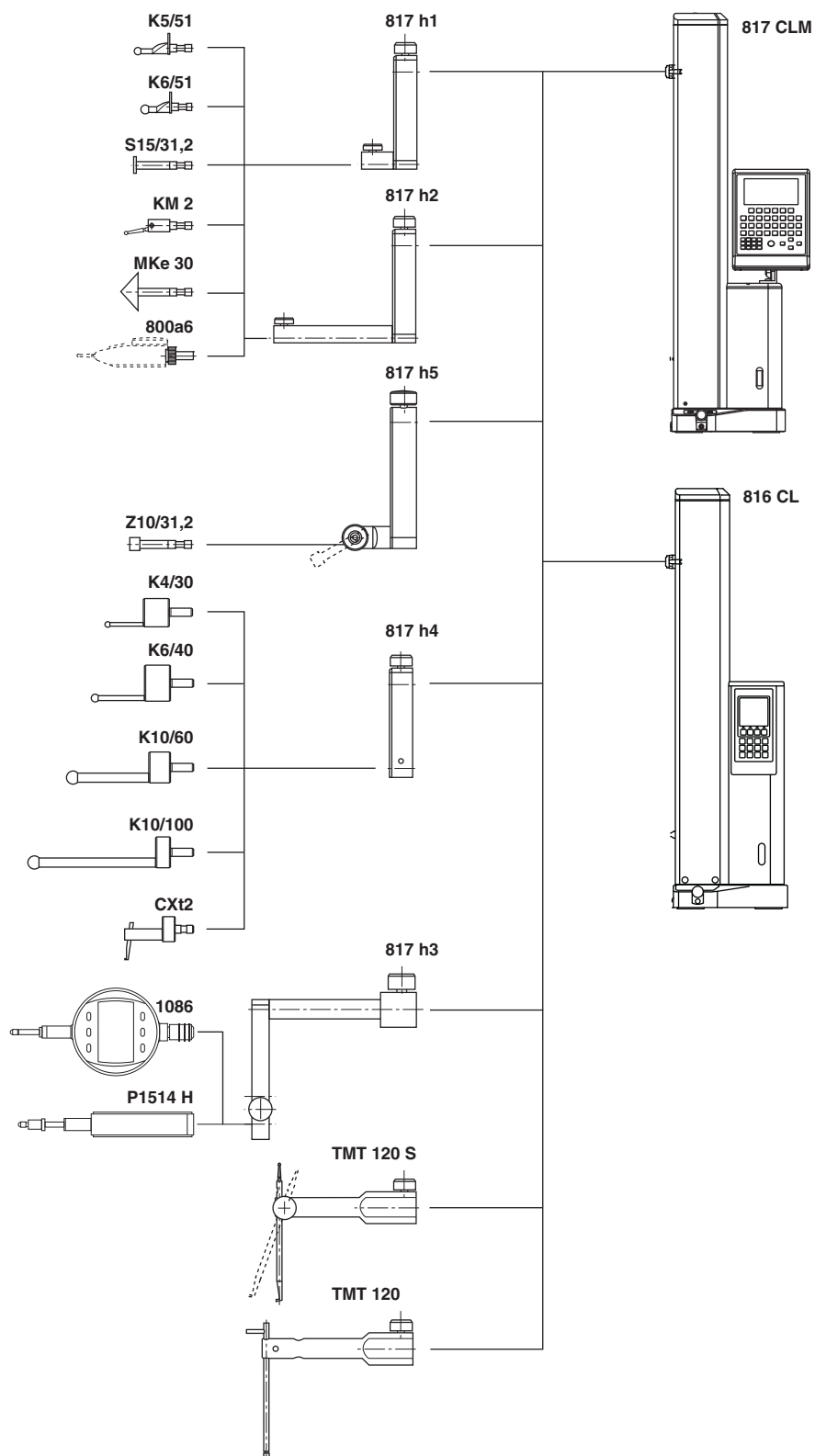
- Easy to read background lit graphic LCD-Display
- Large and clearly defined function keys
- Operator guidance with self-explanatory icons / pictograms
- Possible to set additional zero points on a work piece
- Memory can store up to 99 measured values
- MarConnect data output, select either:
 - USB
 - OPTO RS232C
- Supplied with:
 - Height Measuring Instrument incl. operating and display unit,
 - Carrier 817h1,
 - Probe K6/51,
 - Setting block 817 eb,
 - Operating instructions,
 - Mains power adapter

Technical Data

Measuring range	mm/ <i>inch</i>	350 / 14"	600 / 24"
Range of application	mm/ <i>inch</i>	540 / 21.26"	770 / 30.31"
Resolution	mm (<i>inch</i>)	0.01 / 0.001 (.0001" / .00005")	
Measuring error*	μm	(2.8+L/300), L in mm	
Repeatability	μm	2 (plane) 3 (bore)	
Perpendicularity error (mech.)	μm	frontal ≤15	frontal ≤20
Operating time of rechargeable battery	h	up to 14	
Measuring force	N	1.0 ± 0.2	
Permissible relative air humidity	%	65 (non condensed)	
Working temperature	°C / °F	20 ±1 / 68 ±33.8	
Operating temperature	°C / °F	10 ... 40 / 50 ... 104	
3-point air cushion, height	μm	ca. 9	
Measuring system		incremental scale with optical reading	
Total height	mm/ <i>inch</i>	741 / 29.17"	985 / 38.78"
Base area (L x W)	mm/ <i>inch</i>	240 x 250 / 9.45" x 9.84"	
Weight	kg/ <i>lbs</i>	25 / 55.15	30 / 66.14
Order no.		4429030	4429031

* 20°C with surface base plate according to DIN 876/0 and standard probe K6/51

Overview of carriers and probes for Digimar 817 CLM / 816 CL



Height Measuring Instruments Digimar 817 CLM / 816 CL

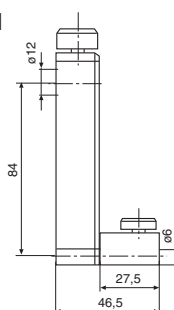
Accessories

Carrier for probes with mount dia. 6 mm

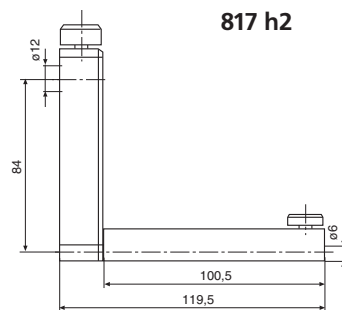
Catalog no.	Description	Shaft length mm	Order no.
817 h1	Carrier for a probe	27,5	4429154*
817 h2	Carrier for a probe	100	4429219
817 h5	Carrier with a joint for a probe	35	4429454

* Supplied with standard accessories

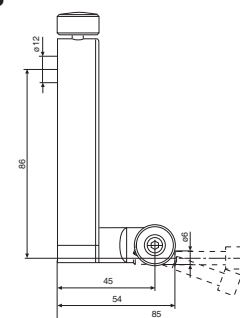
817 h1



817 h2



817 h5



rotatable

Probes with mount dia. 6 mm

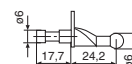
Catalog no.	Description	Order no.
K5/51	Spherical probe	4429158
K6/51	Spherical probe	4429254*
S15/31,2	Disc probe	4429226
Z10/31,2	Cylindrical probe	4429227
MKe 30	Taper probe	4429228
KM 2	Probe M2 incl. styli 800 ts, dia. 2 mm	4429256
800 a6	Mounting shaft 800 a6 for MarTest	4301865

* Supplied with standard accessories

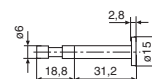
K 5/51



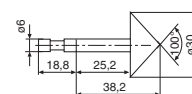
K 6/51



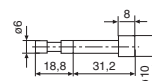
S 15/31,2



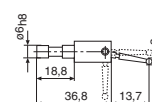
MKe 30



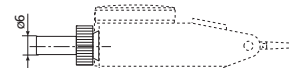
Z 10/31,2



KM 2



800 a6



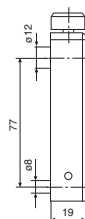
Height Measuring Instruments Digimar 817 CLM / 816 CL

Accessories

Carrier for probes with mount dia. 8 mm

Catalog no.	Description	Order no.
817 h4	Carrier for probes	4429220

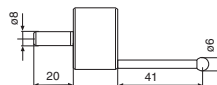
817 h4



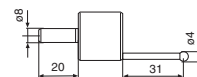
Probes with mount dia. 8 mm

Catalog no.	Ball dia. D mm	Order no.
K4/30	4	7023813
K6/40	6	7023816
K10/60	10	7023810
K10/100	10	7023615

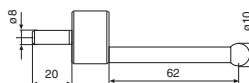
K 6/40



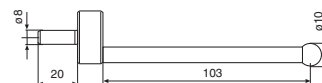
K 4/30



K 10/60



K 10/100

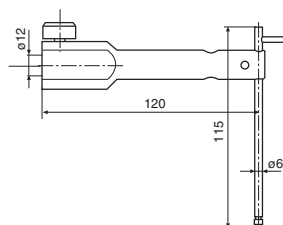


Universal probe CXt2 see page 2-14

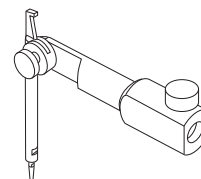
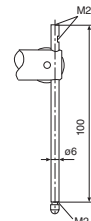
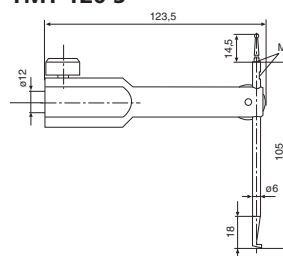
Depth probes

Catalog no.	Description	Order no.
TMT 120	Depth probe incl. carrier	4429221
TMT 120 S	2 depth probes incl. carrier (rotatable)	4429421

TMT 120



TMT 120 S



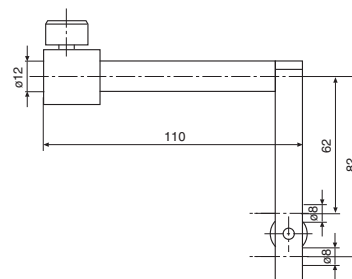
Height Measuring Instruments Digimar 817 CLM / 816 CL

Accessories for checking perpendicularity

Carrier for probes

Catalog no.	Description	Order no.
817 h3	Carrier for transducers	4429206

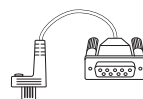
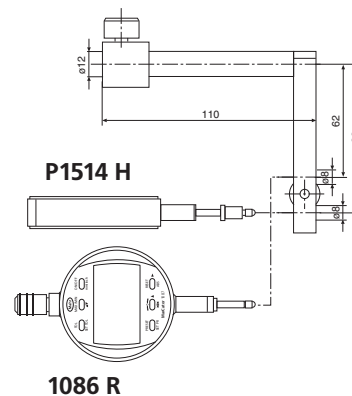
817 h3



Transducers for checking perpendicularity

Catalog no.	Description	Order no.
P1514 H	Incremental probe, 12 mm incl. cable	4426810*
1086 R	Digital indicator, 12.5 mm Resolution 0,001 / .00005"	4337120
16 EXr	Data cable for digital indicator 1086 R	4102410*

817 h3



16 EXr

P1514 H

1086 R

* Only for Digimar 817 CLM

Accessories

Setting blocks

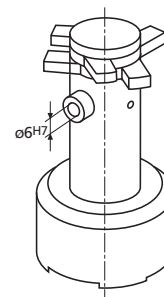
Catalog no.	Description	Order no.
817 eb	Setting block	4419168*
EB I	Setting block for a taper probe, includes a calibration certificate	7023827

* Supplied with standard accessories

817 eb



EB I



Height Measuring Instruments Digimar 817 CLM / 816 CL

Accessory sets for probes

Probe set 817 ts1 consists of: 4429019

	Carrying case for accessories	4429020
817 h2	Carrier for probes	4429219
S15/31,2	Disc probe	4429226
Z10/31,2	Cylindrical probe	4429227
MKe 30	Taper probe	4429228
TMT 120	Depth probe incl. carrier	4429221
KM 2	Probe for MarTest styli M2	4429256
817 h4	Carrier for probes	4429220
K4/30	Spherical probe	7023813
K6/40	Spherical probe	7023816
K10/60	Spherical probe	7023810
K10/100	Spherical probe	7023615



817 ts1

Probe set 817 ts2 consists of: 4429018

	Carrying case for accessories	4429020
817 h2	Carrier for probes	4429219
S15/31,2	Disc probe	4429226
Z10/31,2	Cylindrical probe	4429227
MKe 30	Taper probe	4429228
TMT 120	Depth probe incl. carrier	4429221
KM 2	Probe for MarTest styli M2	4429256



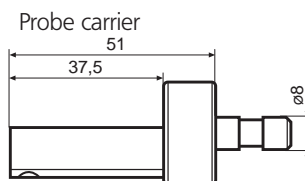
817 ts2

Universal probe set CXt2 consists of: 7034000

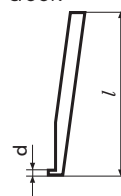
Case	3015925
Probe carrier	3015917

	Dimension	Shaft length	
Measuring crook	d = 0.5 mm	l = 78 mm	3015918
Probe pin /tip:	dia. d = 1.2 mm	l = 75 mm	3015919
		ls = 15.5 mm	

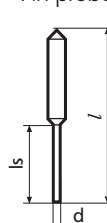
Taper probe	dia. d = 0–7.5 mm	l = 24 mm	3015920
Spherical probe	TC dia. dk = 3 mm	l = 24 mm	3022000
Spherical probe	TC dia. dk = 2 mm	l = 24 mm	3022001
Spherical probe	TC dia. dk = 1 mm	l = 24 mm	3022002
Extension M3 – M3	d = 4 mm	l = 20 mm	3015921
Extension M3 – M2.5	d = 4 mm	l = 20 mm	3015888



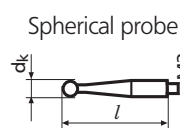
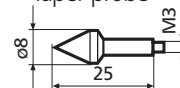
Measuring crook



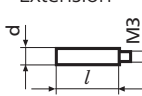
Pin probe



Taper probe



Extension



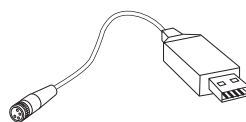
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Accessories for data transmission for 816 CL

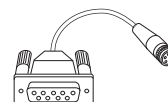
Data connection cable

		Order no.
Data connection cable incl. MarCom Standard, USB (2 m)	2000 usb	4346023
Data connection cable Opto RS232C (2 m), with SUB-D jack 9-pin	2000 r	4346020

Accessories for Data Processing see Chapter 11



4346023



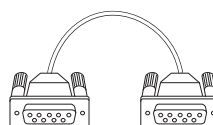
4346020

Accessories for data transmission for 817 CLM

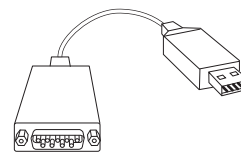
Data connection cable

	Order no.
Data cable 817 CLM to MSP 2 / PC	7024634
Adapter cable RS232-USB for Digimar 817 CLM incl. MarCom Standard	4102333

Accessories for Data Processing see Chapter 11



7024634



4102333

Statistics printer MSP 2 for 816 CL and 817 CLM

- Can be connected via a RS232C interface
- Two-line display for a simple dialog mode
- 3 types of print protocols: statistics, statistics with a histogram and sample charts
- Retrieve at any time from the memory a list of measured values
- Individual values can be selected and deleted as required.
- Alternative power sources include: mains adapter (100 - 240 V), batteries or NIMH-accumulator, type AA
- Languages can be selected, German, English and French
- Supplied with:
Mains adapter, paper rolls



Order no.

MSP2 Statistics printer

4102040

Printer for 817 CLM

HP Ink jet printer

- Standard connectivity: USB - compatible with USB 2.0 specifications
- Compatible operating systems: Microsoft® Windows® 98 SE, Me, 2000, XP, 7
- Standard printer languages HP PCL 3



Similar to illustration

Order no.

HP Ink jet printer

4429015