

Digimar

**NEW - Quick Mode -
The revolutionary
way to simplify
measurement!**



The New Height Measuring Instrument
Digimar 817 CLM Quick Height

AHB Tooling & Machinery, Inc.
Complete Metalworking Solutions
Roseville Saginaw & Jackson, MI

ISO Certified
(800) 991-4225
www.ahbinc.com
customerservice@ahbinc.com

Mahr

EXACTLY

Digimar 817 CLM Quick Height

► | The new Height Measuring Instrument **Digimar 817 CLM** with the innovative Quick Mode. Highly accurate rapid measurements, a wide range of measuring and evaluation possibilities and excellent operator comfort.

The best solution for all measuring tasks

QUICK
MODE

Fast measurement per Hand

Easy to operate due to the „Quick Mode“, an innovative solution from Mahr (patent pending)



Ill. 1. Move the measuring carriage by hand in the direction of the object to be measured.



Ill. 2. The motor starts, the measurement procedure will automatically be performed.

Measurement using the keypad (speed keys) on the base



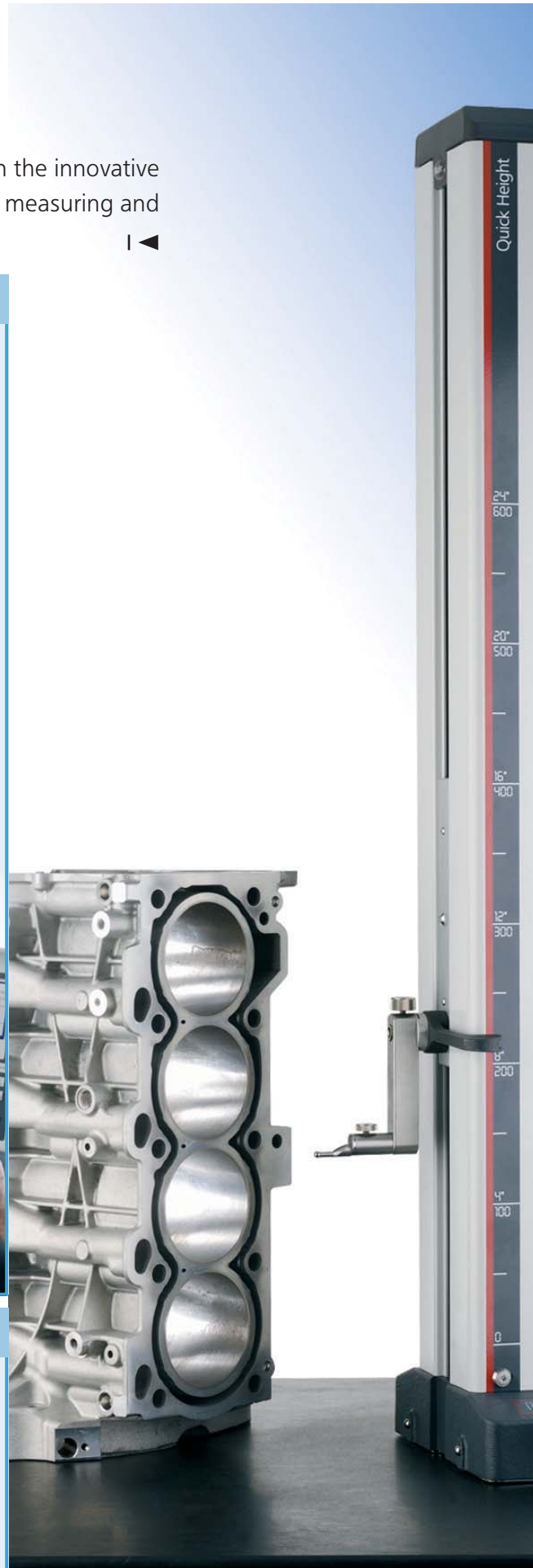
Ideal in conjunction with the air bearings for large work pieces.

By using the keys that are integrated into the base; the operator can comfortably move the measuring carriage into the desired position and start a measurement. This eases measurement particularly when measuring large workpieces as these do not have to be moved into position. The operator can keep both hands on the measuring instrument (one hand on the key for the air bearing and other on the high-speed keys) and measure the workpiece in one run.



Highest accuracy and reliability

- Extremely accurate incremental measuring system with double reader head system, insensitive to the contamination of dirt
- Robust guide column, made from stainless steel
- Measuring head in precision ball bearings guide
- Temperature compensation with an integrated temperature sensor

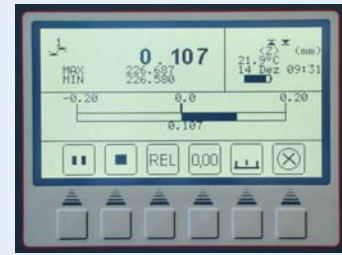


Digimar 817 CLM



Ergonomic operating and display unit

Choose either as 1D or 2D / Stat operating and display units



- Large, back-lit display
- Self-explanatory guided operation with icons



- The display unit can be positioned freely with the swivel arm

Easy to operate all measurement functions with the function keys due to the clearly defined symbols.

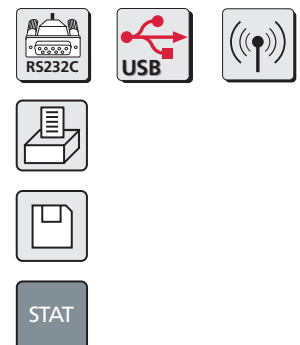
Universal measurement possibilities

- Wide range of measurement functions in 1D or 2D (optional)
- Dynamic measurement functions with the analog display
- Automatic perpendicularity and straightness measurements (in conjunction with accessories)
- Automated measuring procedures (measurement programs)
- Auto function for chain measurements and distance measurements



Extensive evaluation possibilities

- Transmit data to a PC via RS232 or USB (with an adapter) for example into MS Excel via the MarCom-Software
- Print measured values, statistics, etc. via a USB printer
- Save measured values in the integrated USB memory (will be recognized by a PC as an interchangeable disc drive)
- Broad range of statistical evaluations are available (optional)

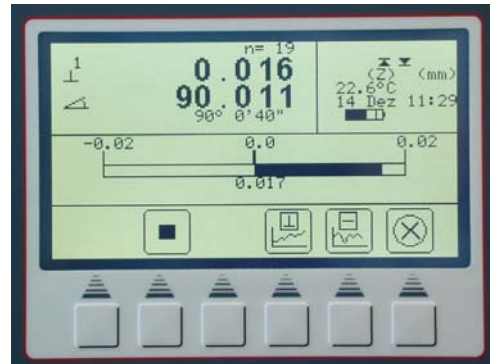
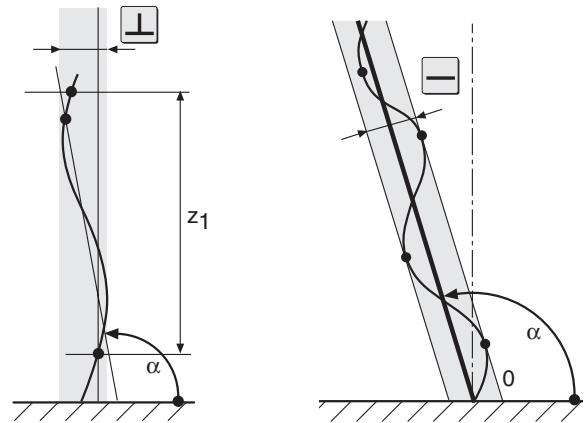


Height Measuring Instrument Digimar 817 CLM



Perpendicularity and Straightness Measurements

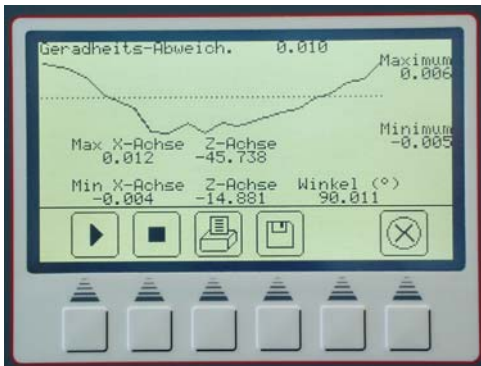
Only one measurement required to determine perpendicularity and straightness deviation.



- Display shows the deviation of an angle (in degrees) and the deviation in mm (metric)
- The bar graph display shows the actual value, thus improving visualization

Comprehensive evaluation possibilities

- Display on the screen



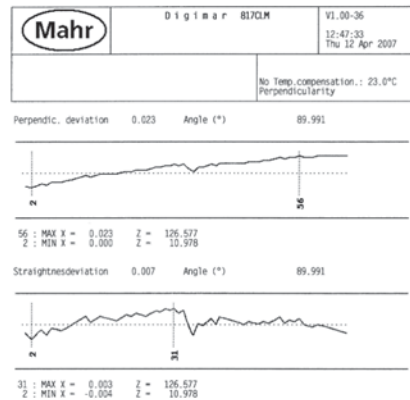
- Save the data in the USB memory



Mahr_817CLM (F:)



- Print data via a USB printer

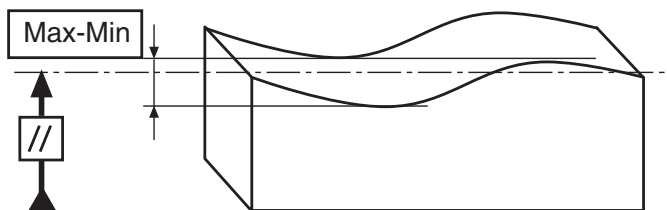


Height Measuring Instrument Digimar 817 CLM

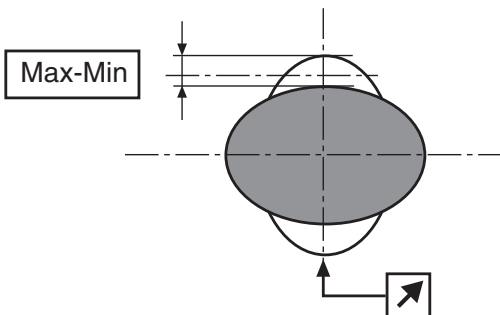


Dynamic measuring functions

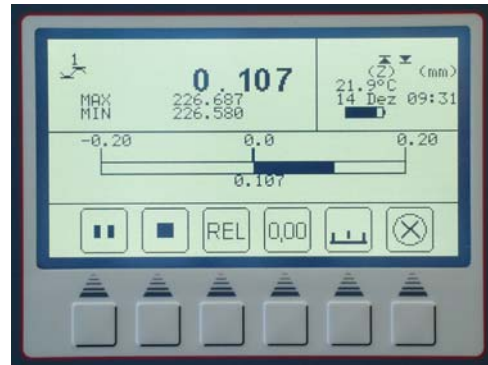
Only one measurement required to determine
Maximum, Minimum and Maximum-Minimum.



- Parallel deviation



- Roundness deviation



- MAX, MIN and MAX-MIN are displayed simultaneously
- The bar graph display shows the actual value, thus improving visualization

PROG

Measuring program for repetitive measurements / serial components

Use the Teach-in mode to quickly devise a measuring program. Simply measure a work piece once; save this measurement and the measuring program is already created. The motorized carriage will travel automatically to the measuring position, the measuring function will start automatically. This greatly reduces the inspection time for a mini series consisting of only a few test pieces.

- Measuring programs in 1D and 2D
- Create measuring programs with the Teach-In-mode
- Simple programming and storage of up to 40 measuring programs, further measuring programs can be stored on a PC
- Tolerance monitoring during a measuring program
- Create production and inspection schedules
- Connection of additional hand measuring instruments with an Opto-RS232-interface is also available



Height Measuring Instrument Digimar 817 CLM



Measure in the 2D mode*

The most important 2D measurement functions can be conducted by pressing just one key.



- Determine an index circle



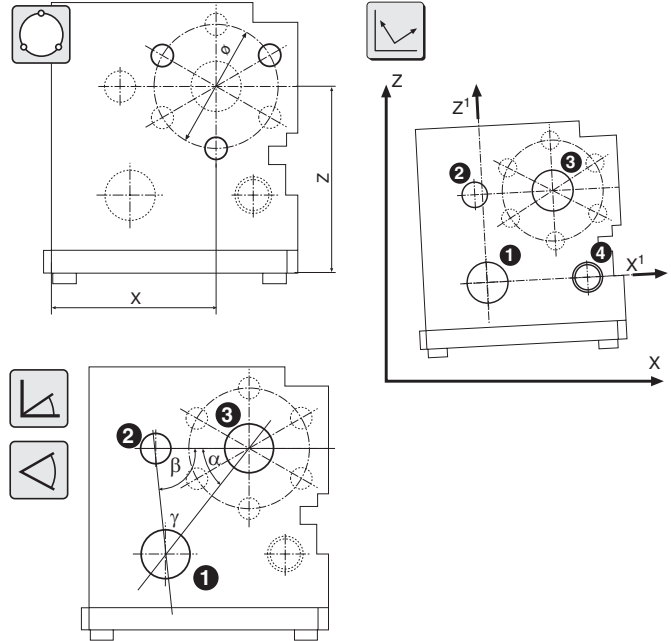
- Determine the distance and angle 2 elements



- Determine the distance and angle 3 elements



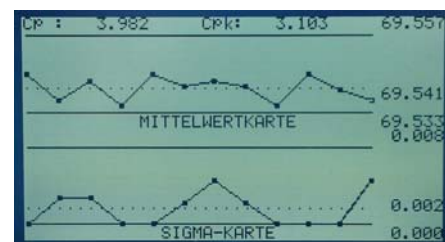
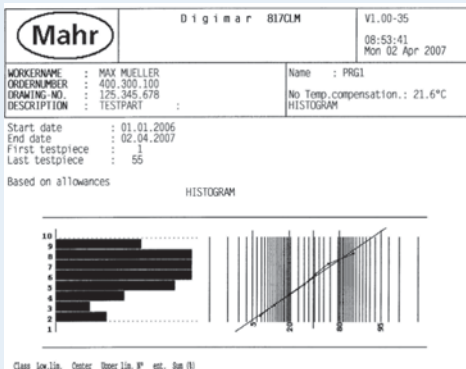
- Coordinate transformation



Statistical Evaluation*

The operating unit has extensive and selective possibilities for statistical evaluation.

- Statistical evaluation of individual features
- Histograms
- Process control charts
- Pareto diagrams
- Creation of production and inspection schedules
- Evaluation based on stored measurement data
- Histograms, process control charts and Pareto diagrams can be directly printed on a USB printer



* Only available with instruments that have a 2D / Stat. operating / display unit

Height Measuring Instrument Digimar 817 CLM



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
- Motorised measuring carriage simplifies measurement runs
- Probe constant remains after the instrument is switched off
- Integrated rechargeable battery with a long operating time span for mains independent measurement
- Temperature compensation with an integrated temperature sensor

Operating and display unit

- Large and clearly defined function keys
- Easy to read background lit graphic LCD-Display
- Operator guidance with self-explanatory icons / pictograms
- Operator prompts and menus are available in several different languages
- Possible to set additional zero points on a work piece
- RS232 and / or USB data output for further data processing
- Save measured data on the integrated USB memory
- USB interface to connect a compatible USB printer
- Additional measuring instruments with OptoRS232-interface can be connected
- Secure the future due to software update potential
- Automatic Stand-by switch mode
- Selectable Auto-off function, without loss of measured values

• Supplied with*:
Height Measuring Instrument incl. operating and display unit, carrier 817h1, probe K6/51, setting block 817 eb, operating instructions, mains power adapter, USB cable

* *Broad range of accessories for the 817 CLM can be found in our catalog*

Technical Data

Measuring range	mm / inch	350 / 14"	600 / 24"	1000 / 40"
Range of application	mm / inch	520 / 20.47"	770 / 30.31	1170 / 46.06
Resolution	mm	0,01 / 0,005 / 0,001 / 0,0005 / 0,0001		
	inch	0.001" / 0.0005" / 0.0001" / 0.00005" / 0.00001"		
Measuring error*	µm	(1,8+L/600), L in mm		
Repeatability	µm	0,5 (plane) 1 (bore)		
Perpendicularity error (elect. adjusted)	µm	frontal ≤5	frontal ≤6	frontal ≤10
Operating time of rechargeable battery	h	up to 16		
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 / inch	741 / 29.17"	985 / 38.78"	1392 / 54.80"
Base area (L x W)	mm / inch	240 x 250 / 9.45" x 9.84"		
Weight	kg / lbs	25 / 55.15	30 / 66.14	35 / 77.16
Order no. 1D		4429000	4429001	4429002
Order no. 2D / Stat		4429010	4429011	4429012

* *Surface base plate according to DIN 876/0 with standard accessories*

Highlights of the new 817 CLM Quick Height

- Revolutionary, simple and rapid measurement with the Quick Mode
- Extremely easy to operate
- Excellent measurement accuracy
- Versatile application for variable measurement tasks
- Wide range of statistical evaluations are possible
- Available in 3 sizes and 2 operating display units
- Renown quality from Mahr

Your Mahr-Partner:

WWW.MAHR.COM



EXACTLY