

# MAHRLIGHTS

**NEW !**

As starter set with wireless  
receiver and software  
**only €219,--**

**MarCal.** Digital Caliper 16 EWRi  
with integrated wireless interface

— 0 +

**Mahr**

EXACTLY

## MarCal. Digital Caliper 16 EWRI with Reference System, Protection Class IP67

### MarConnect Integrated Wireless - Wireless data transmission for the price of a data cable



With Integrated Wireless, you have a new Integrated Wireless data transmission system from Mahr for the price of a cable. Data acquisition with a Digital Caliper is now even simpler: simply transmit your measuring data without being tangled up between cables directly into Microsoft Office Excel® or via a keyboard code into any other Windows program or via a virtual interface box to your PC system.

When using Integrated Wireless your data will be transferred to the digital measuring instruments. This is confirmed with a message in the display of the measuring instrument to whether the sent data has been transferred correctly, and/or whether you are in the reception range of the i-Stick.

- **MarConnect Integrated Wireless.** With the Integrated Wireless receiver up to 8 wireless measuring instruments can be connected per i-Stick.



Introductory price

€ 196,--

Order no. 4103400





Introductory price

€ 196,--

Order no. 4103402

- Functions: ON/OFF, RESET (Set display to zero), mm/inch, Reference-Lock/Unlock, Auto-ON/OFF, Hold, DATA
- Integrated wireless interface
- Immediate measurement due to the **Reference system**
- Life of the battery up to **3 years** (0.5 year when the wireless sender is activated)
- High contrast Liquid Crystal Display with 11 mm high digits
- Slide and beam made of hardened stainless steel

**NEW:** MarCom 4.0 Software Professional includes a virtual Interface-Box for simple connection to a SPC software, see page 16.

	Measuring range		Resolution	Depth rod		Order no.	Introductory price Euro
	mm	(inch)					
<b>16 EWRI</b>	150	(6")	0,01 / .0005"	•		<b>4103400</b>	<b>196,--</b>
<b>16 EWRI</b>	150	(6")	0,01 / .0005"		•	<b>4103402</b>	<b>196,--</b>



	Order no.	Offer price
<b>i-Stick Wireless Receiver</b> incl. MarCom Standard Software 3.1	<b>4102220</b>	<b>65,--</b>

Accessories for Data Processing see Dimensional Metrology catalog, Chapter 11

## MarCal. Digital Caliper 16 EWRI Triple pack includes i-Stick and MarCom Software


**REFERENCE**




- Functions:  
ON/OFF, RESET (Set display to zero), mm/inch, Reference-Lock/Unlock, Auto-ON/OFF, Hold, DATA
- Integrated wireless interface
- Immediate measurement due to the **Reference system**
- Life of the battery up to **3 years** (0.5 year when the wireless sender is activated)
- High contrast Liquid Crystal Display with 11 mm high digits
- Slide and beam made of hardened stainless steel
- **i-Stick Wireless Receiver** includes MarCom Professional 4.0

Offer price  
**€ 588,--**  
Order no. 9105793



i-Stick Wireless Receiver

**NEW:** MarCom 4.0 Software Professional includes a virtual Interface-Box for simple connection to a SPC software, see page 16.

	Measuring range	Resolution	Depth rod	Order no.	Offer price Euro
	mm (inch)	mm / inch	 		
16 EWRI 3 pack + i-Stick + MarCom Prof. 4.0	150 (6")	0,01 / .0005"	● ●	9105793	588,--
16 EWRI 3 pack + i-Stick + MarCom Prof. 4.0	150 (6")	0,01 / .0005"	● ●	9105794	588,--

## MarCal. Digital Caliper 16 EWRI Starter set includes i-Stick and MarCom Software




**REFERENCE**


- Functions:  
ON/OFF, RESET (Set display to zero), mm/inch, Reference-Lock/Unlock, Auto-ON/OFF, Hold, DATA
- Integrated wireless interface
- Immediate measurement due to the **Reference system**
- Life of the battery up to **3 years**
- High contrast Liquid Crystal Display with 11 mm high digits
- Slide and beam made of hardened stainless steel
- **i-Stick Wireless Receiver** includes MarCom Standard 3.1

Offer price  
**€ 219,--**  
Order no. 9105795



i-Stick Wireless Receiver

	Measuring range	Resolution	Depth rod	Order no.	Offer price Euro
	mm (inch)	mm / inch	 		
16 EWRI Starter set + i-Stick + MarCom Std 3.1	150 (6")	0,01 / .0005"	● ●	9105795	219,--
16 EWRI Starter set + i-Stick + MarCom Std 3.1	150 (6")	0,01 / .0005"	● ●	9105796	219,--

## MarCal. Digital Caliper 16 EWR with Reference System, Protection Class IP67



REFERENCE








DIN  
862



Offer price  
from **€ 119,--**  
Order no. 4103060

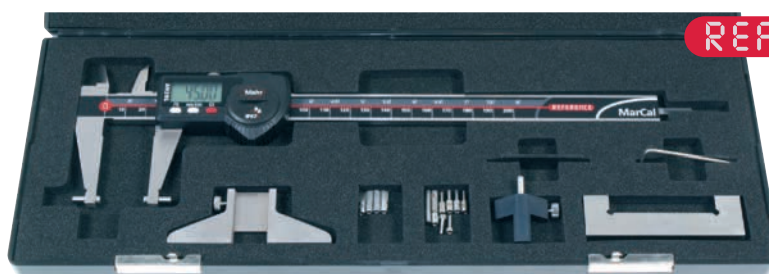
- Functions:  
ON/OFF, RESET (Set display to zero), mm/inch, Reference-Lock/Unlock, Auto-ON/OFF
- Immediate measurement due to the **Reference system**
- Excellent resistance against dust, coolants and lubricants, **protection class IP67**
- Life of the battery up to **3 years**
- High contrast Liquid Crystal Display with 8.5 mm high digits
- Lapped guide way

	Measuring range		Resolution	Depth rod		Data output	Order no.	Offer price Euro
	mm	(inch)	mm / inch			  		
16 EWR	150	(6")	0,01 / .0005"	•	•	—	4103060	119,--
16 EWR	150	(6")	0,01 / .0005"	•	•	—	4103062	119,--
16 EWR	200	(8")	0,01 / .0005"	•	•	•	4103068	185,--
16 EWR	300	(12")	0,01 / .0005"	•	•	•	4103070	242,--

## MarCal. Universal Digital Caliper Set 16 EWW with Reference System, Protection Class IP67

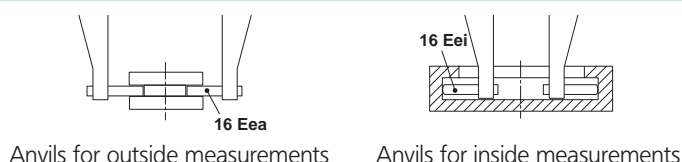


Offer price  
**€ 399,--**  
Order no. 4118807



REFERENCE

- Functions:  
ON/OFF, RESET (Set display to zero), mm/inch, PRESET (for entering a numerical value), Reference-Lock/Unlock, DATA (Data transmission via connection cable), Auto-ON/OFF
- Immediate measurement due to the **Reference system**
- Excellent resistance against dust, coolants and lubricants, **protection class IP67**
- **MarConnect** data output, choose alternatively: USB, OPTO RS232C or Digimatic
- Life of the battery up to **3 years**
- High contrast Liquid Crystal Display with 8.5 mm high digits
- Lapped guide way
- Includes 3 pairs of Anvils, Measuring Force Device, Setting Gage, Depth Measuring Bridge



Anvils for outside measurements

Anvils for inside measurements

	Measuring range*		Resolution	Order no.	Offer price Euro
	mm	(inch)	mm / inch		
16 EWW	200	(8")	0,01 / .0005"	4118807	399,--

\* in conjunction with accessories the measuring range may change

## MarCal. Digital Caliper 16 ER with Reference System



REFERENCE



Offer price  
from **€ 79,--**  
Order no. 4103002

- Functions:  
ON/OFF, RESET (Set display to zero), mm/inch, Reference-Lock/Unlock, Auto-ON/OFF
- Immediate measurement due to the **Reference system**
- **MarConnect** data output, choose alternatively: USB, OPTO RS232C or Digimatic
- Life of the battery up to **3 years**
- High contrast Liquid Crystal Display with 8.5 mm high digits
- Slide and beam made of hardened stainless steel

	Measuring range		Resolution	Depth rod		Order no.	Offer price Euro
	mm	(inch)					
<b>16 ER</b>	150	(6")	0,01 / .0005"	•		<b>4103002</b>	<b>79,--</b>
<b>16 ER</b>	150	(6")	0,01 / .0005"		•	<b>4103003</b>	<b>79,--</b>
<b>16 ER</b>	200	(8")	0,01 / .0005"		•	<b>4103004</b>	<b>140,--</b>
<b>16 ER</b>	300	(12")	0,01 / .0005"			<b>4103005</b>	<b>183,--</b>

## MarCal. Digital Caliper 16 ER in a triple pack



REFERENCE



Offer price  
**€ 229,--**  
Order no. 9105604

- Functions:  
ON/OFF, RESET (Set display to zero), mm/inch, Reference-Lock/Unlock, Auto-ON/OFF
- Immediate measurement due to the **Reference system**
- **MarConnect** data output, choose alternatively: USB, OPTO RS232C or Digimatic
- Life of the battery up to **3 years**
- High contrast Liquid Crystal Display with 8.5 mm high digits
- Slide and beam made of hardened stainless steel



	Measuring range		Resolution	Depth rod		Order no.	Offer price Euro
	mm	(inch)					
<b>16 ER Triple pack</b>	150	(6")	0,01 / .0005"	•		<b>9105604</b>	<b>229,--</b>
<b>16 ER Triple pack</b>	150	(6")	0,01 / .0005"		•	<b>9105605</b>	<b>229,--</b>



## MarCal. Digital Caliper 18 EWR with Reference System, Protection Class IP65

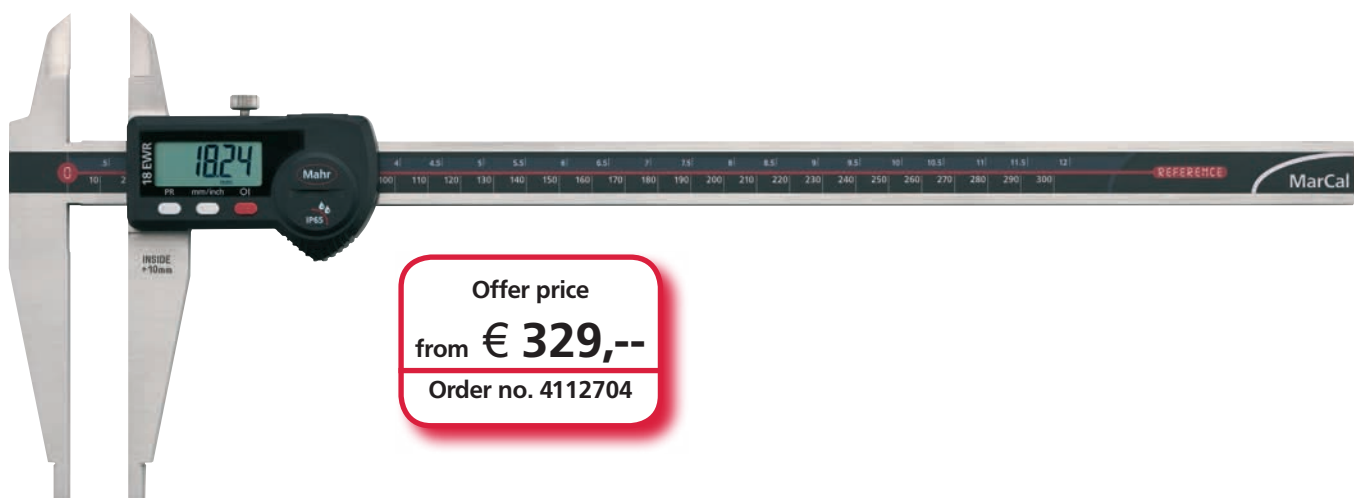


REFERENCE

- Functions:  
ON/OFF, RESET (Set display to zero), mm/inch, Reference-Lock/Unlock, PRESET, DATA (Data transmission via connection cable), Auto-ON/OFF
- Immediate measurement due to the **Reference system**
- Excellent resistance against dust, coolants and lubricants, **protection class IP65**
- **MarConnect** data output, choose alternatively: USB, OPTO RS232C or Digimatic
- Life of the battery up to **3 years**
- High contrast Liquid Crystal Display with 8.5 mm high digits
- Rounded measuring blades for inside measurement



	Measuring range		Resolution	Order no.	Offer price Euro
	mm	(inch)			
18 EWR	300	(12")	0,01 / .0005"	4112705	302,--
18 EWR	500	(20")	0,01 / .0005"	4112713	555,--



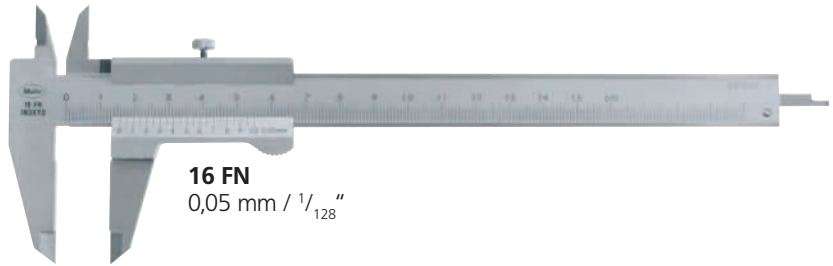
	Measuring range		Resolution	Order no.	Offer price Euro
	mm	(inch)			
18 EWR	300	(12")	0,01 / .0005"	4112704	329,--
18 EWR	500	(20")	0,01 / .0005"	4112712	627,--

## MarCal. Calipers 16 FN / 16 GN with scale reading



Offer price  
**€20,50**

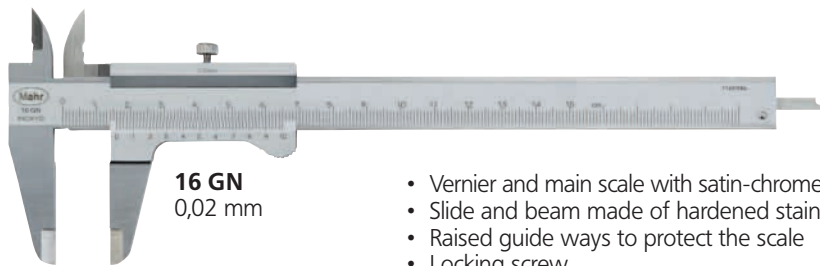
Order no. 4100420



**16 FN**  
0,05 mm /  $\frac{1}{128}$  "

Offer price  
**€25,50**

Order no. 4100650



**16 GN**  
0,02 mm

- Vernier and main scale with satin-chrome finish for glare-free reading
- Slide and beam made of hardened stainless steel
- Raised guide ways to protect the scale
- Locking screw

	Measuring range		Readings		Error limit G	Order no.	Offer price
	mm	(inch)	upper inch	lower mm	mm		Euro
<b>16 FN</b>	150	(6")	1/128"	0,05	0,05	<b>4100420</b>	<b>20,50</b>
<b>16 GN</b>	150			0,02	0,04	<b>4100650</b>	<b>25,50</b>

## Micromar. Micrometer 40 A

DIN  
863-1



Offer price  
**€36,50**

Order no. 4134000

- Hard lacquered steel frame
- Spindle and anvil made of hardened steel, carbide tipped
- Scales with satin-chrome finish
- Heat insulators
- Rapid drive with integrated ratchet
- Locking device

	Measuring range	Readings	Spindle thread pitch	Order no.	Offer price
	mm	mm	mm		Euro
<b>40 A</b>	0 - 25	0,01	0,5	<b>4134000</b>	<b>36,50</b>

**Micromar.** Micrometer with integrated Dial Comparator 40 FDIN  
863-1

Offer price

**€ 612,--**

Order no. 4150000

- Chrome plated steel frame with heat insulators
- Maximum stability
- Retraction of the movable anvil and carbide-tipped measuring faces ensures maximum wear resistance
- Measuring spindle made of stainless steel, hardened throughout and ground, lockable
- Constant measuring force

	Measuring range mm	Retraction mm	Measuring faces Flatness µm	Parallelism µm	Order no.	Offer price Euro
40 F	0 - 25	1	≤0,2	≤1	4150000	612,--
40 F	25 - 50	1	≤0,2	≤1	4150001	732,--

**Micromar.** Digital Micrometer 40 ER / Digital Micrometer 40 EWR**REFERENCE****ABS**

IP40

- Functions:  
RESET (Zero setting the display for Relative measurement),  
ABS (Switching from Relative to Absolute measurement), mm/inch,  
PRESET (enter a numerical value)
- Immediate measurement due to the **Reference system**
- High contrast Liquid Crystal Display with 8.5 mm high digits
- Hard lacquered steel frame, heat insulated
- Measuring spindle and anvil are carbide tipped

Offer price

**€ 119,--**

Order no. 4151601






IP65

Offer price

**€ 149,--**

Order no. 4151721

	Measuring range mm	Resolution mm / inch	Data output   	Protection class IP	Order no.	Offer price Euro
40 ER	0 - 25	0,001 / .00005"	—	40	4151601	119,--
40 EWR	0 - 25	0,001 / .00005"	—	65	4151721	149,--
40 EWR	0 - 25	0,001 / .00005"	●	65	4151705	185,--



## Micromar. Digital Micrometer Set 40 EWR

DIN  
863-4




- Supplied with:  
custom fitted plastic case,  
setting standards 25 mm,  
50 mm and 100 mm

Offer price

€ 985,--

Order no. 4151709



	Application range		Resolution	Data output	Order no.	Offer price
	mm	(inch)	mm / inch	  		Euro
40 EWR	0 - 100	0 - 4"	0,001 / .00005"	●	4151709	985,--

## Micromar. Self-Centering Inside Micrometer Sets 44 AS

DIN  
863-4

Offer price

€ 1.389,--

Order no. 4190352



- Supplied with:  
Case and ring gage includes a  
traceable test certificate

	Measuring range		Number of Micrometers	Ring gages	Order no.	Offer price
	mm		mm	∅ mm		Euro
44 AS	6	- 12	3	6 / 12	4190350	795,--
44 AS	12	- 20	3	12 / 20	4190351	610,--
44 AS	20	- 50	4	20 / 50	4190352	1.389,--
44 AS	50	- 100	4	50 / 100	4190353	1.645,--

## Millimess. Mechanical Dial Comparator 1003 - Triple pack



- Shockproof movement
- Maximum sensitivity and accuracy are ensured by the jewelled movement in conjunction with the precision gears and pinions
- Lockable fine adjustment screw
- Easy to read scale

Offer price

€ 435,--

Order no. 9105612



	Measuring range mm	Readings	Order no.	Offer price Euro
Millimess 1003 - Triple pack	± 50 µm	1 µm	9105612	435,--

## Digimar. Height Measuring and Scribing Instrument 814 SR

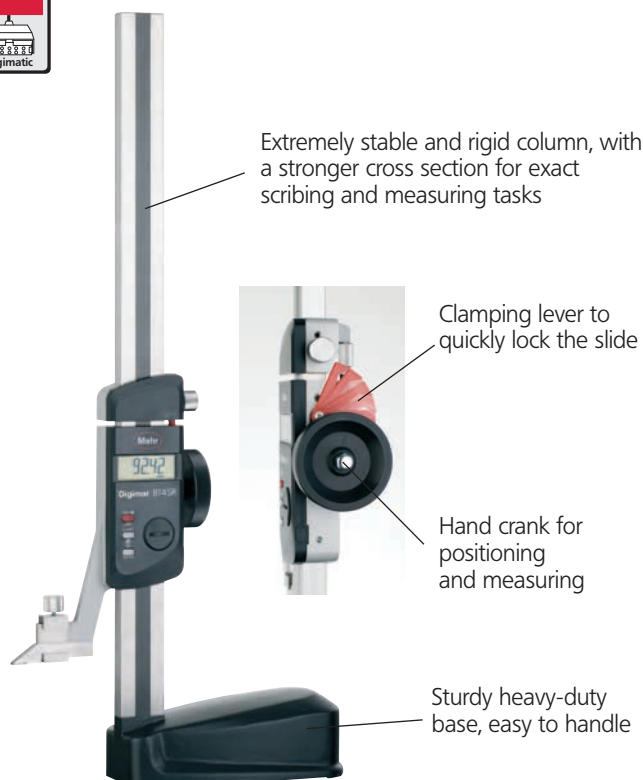


REFERENCE

Offer price

€ 425,--

Order no. 4426100



- Functions: RESET (Zero setting the display for Relative measurement), ABS (Switching from Relative to Absolute measurement), mm/ inch, Reference-Lock/Unlock, PRESET (enter a numerical value)
- Immediate measurement due to the **Reference system**
- **MarConnect** data output, choose alternatively: USB, OPTO RS232C or Digimatic
- High contrast Liquid Crystal Display with 12 mm high digits
- Life of the battery up to **3 years**
- Hardened and lapped contact surface which produce both a smooth and even movement

	Measuring range		Resolution	Order no.	Offer price Euro
	mm	(inch)	mm/inch		
814 SR	350	(14")	0,01 / .0005"	4426100	425,--
814 SR	600	(24")	0,01 / .0005"	4426101	745,--

## MarTest. Test Indicators 800



- Sealed, water proof dial face
- Anti magnetic
- Movement bearings are jewelled

Offer price

**€ 59,--**

Order no. 4305200

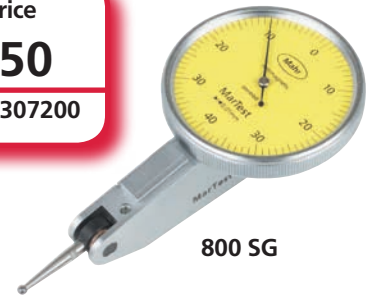


800 S

Offer price

**€ 70,50**

Order no. 4307200



800 SG

Offer price

**€ 91,50**

Order no. 4308200

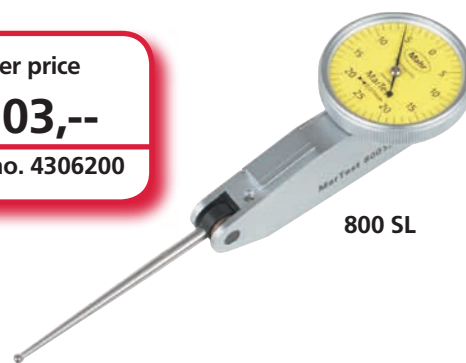


800 SGM

Offer price

**€ 103,--**

Order no. 4306200



800 SL

	Measuring range	Readings	Dial diameter	Length of styli	Order no.	Offer price Euro
	mm	mm	mm	mm		
800 S	± 0,4	0,01	27,5	14,5	4305200	59,--
800 SG	± 0,4	0,01	38	14,5	4307200	70,50
800 SGM	± 0,1	0,002	38	14,5	4308200	91,50
800 SL	± 0,25	0,01	27,5	41,24	4306200	103,--

## MarCator. Precision Dial Indicator 810 A

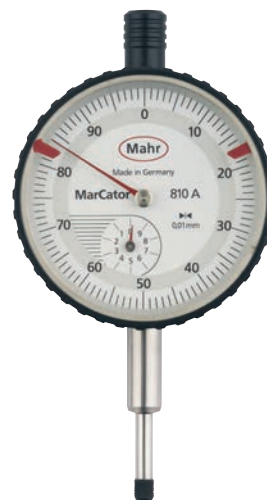
- High precision gears and pinions
- Colored adjustable tolerance markers for optimum contrast
- Chrome plated metal housing
- Lifter protection cap with dust protection function
- Delivered in plastic case

DIN 878

Offer price

**€ 29,50**

Order no. 4311050



	Range	Readings	Dial diameter	Order no.	Offer price Euro
	mm	mm	mm		
810 A	10	0,01	50	4311050	29,50

## MarCator. Digital Indicators 1075 R



REFERENCE

Offer price

€ 108,--

Order no. 4336010



**1075 R**  
12,5 mm  
0,01 / .0005"

- Functions:  
ON/OFF, RESET (Set display to zero), mm/inch, Reversal of counting direction, PRESET (for entering a numerical value), DATA (in data transmission with a data connection cable), LOCK-Function: Individual buttons can be locked, Auto-OFF (selectable)
- Immediate measurement due to the **Reference system**
- High contrast Liquid Crystal Display with 12 mm high digits
- Life of the battery up to **3 years** (2000 operating hours per year)
- **MarConnect** data output, choose alternatively: USB, OPTO RS232C or Digimatic

Offer price

€ 219,--

Order no. 4336030



**1075 R**  
12,5 mm  
0,001 / .00005"

### Reference System - Just set once to zero

REFERENCE

The new Digital Indicators 1075 R are equipped with the innovative Reference-System. The zero position only has to be set one time: once it is set, the zero remains stored for all further measurements. Therefore, when the indicator is switched ON or the measuring spindle is moved the indicator is immediately ready for measurement; thus the need to reset as with a conventional indicator is now obsolete.

	Measuring range		Resolution		Order no.	Offer price Euro
	mm	(inch)	mm	/ inch		
<b>1075 R</b>	12,5	(.5")	0,01	/ .0005"	<b>4336010</b>	<b>108,--</b>
<b>1075 R</b>	12,5	(.5")	0,005	/ .0001"	<b>4336020</b>	<b>149,--</b>
<b>1075 R</b>	12,5	(.5")	0,001	/ .00005"	<b>4336030</b>	<b>219,--</b>

## MarCator. Digital Indicators 1086 R / 1087 R

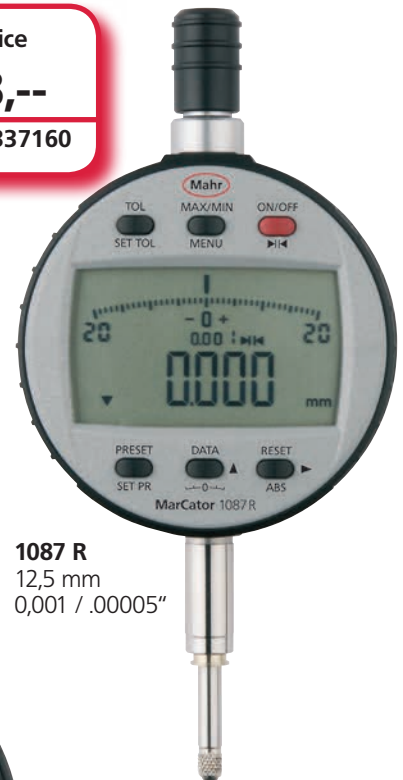
### MarCator 1086 R

- Functions:  
ON/OFF, RESET (Set display to zero), mm/inch, Reversal of the counting direction, PRESET (for entering a numerical value), TOL (Enter tolerance limit values), ABS (Display can be set to zero, without losing the reference to the Preset value), <0> (Tolerance GO / NO GO display mode), DATA (when connected with a data connection cable), Factor (adjustable)
- Immediate measurement due to the **Reference system**
- **MarConnect** data output, choose alternatively: USB, OPTO RS232C or Digimatic
- High contrast LCD with 11 mm high digits
- Life of the battery up to **3 years** (ca. 2000 working hrs/year)



REFERENCE

Offer price  
**€ 328,--**  
Order no. 4337160



**1087 R**  
12,5 mm  
0,001 / .00005"

Offer price  
**€ 265,--**  
Order no. 4337120



**1086 R**  
12,5 mm  
0,001 / .00005"

**1086 R**  
12,5 mm  
0,01 / .0005"



Offer price  
**€ 215,--**  
Order no. 4337130

	Measuring range		Resolution	Order no.	Offer price Euro
	mm	(inch)			
<b>1086 R</b>	12,5	(.5")	0,001 / .00005"	<b>4337120</b>	<b>265,--</b>
<b>1086 R</b>	12,5	(.5")	0,01 / .0005"	<b>4337130</b>	<b>215,--</b>
<b>1087 R</b>	12,5	(.5")	0.001 / .00005"	<b>4337160</b>	<b>328,--</b>
<b>1087 R</b>	25	(1")	0.001 / .00005"	<b>4337161</b>	<b>375,--</b>



## MarCator. Digital Indicators 1086 Ri



### REFERENCE

- Funktionen:  
ON/OFF, RESET (Set display to zero), mm/inch, Reversal of the counting direction, PRESET (for entering a numerical value), TOL (Enter tolerance limit values), ABS (Display can be set to zero, without losing the reference to the Preset value), <0> (Tolerance GO / NO GO display mode), DATA (when connected with a data connection cable), Factor (adjustable)
- Immediate measurement due to the **Reference system**
- Individual buttons can be locked - Lock Function
- High contrast LCD with 11 mm high digits
- Life of the battery up to **3 years** (0.5 year when the wireless sender is activated)
- Integrated wireless interface
- **MarConnect** data output, choose alternatively: USB, OPTO RS232C, Digimatic or Integrated Wireless



Offer price  
**€ 295,--**  
Order no. 4337134



Offer price  
**€ 342,--**  
Order no. 4337124

With integrated wireless interface



Offer price  
**€ 384,--**  
Order no. 4337125



Offer price  
**€ 367,--**  
Order no. 4337135

**NEW:** MarCom 4.0 Software Professional includes a virtual Interface-Box for simple connection to a SPC software, see page 16.

	Measuring range		Resolution		Order no.	Offer price
	mm	(inch)	mm	inch		
<b>1086 Ri</b>	12,5	(.5")	0,001	/ .00005"	<b>4337124</b>	<b>342,--</b>
<b>1086 Ri</b>	12,5	(.5")	0,01	/ .0005"	<b>4337134</b>	<b>295,--</b>
<b>1086 Ri</b>	25	(1")	0,001	/ .00005"	<b>4337125</b>	<b>384,--</b>
<b>1086 Ri</b>	25	(1")	0,01	/ .0005"	<b>4337135</b>	<b>367,--</b>

# MarCator. Digital Indicators 1087 Ri

Offer price

€ 395,--

Order no. 4337163

ABS

MAX  
MIN

IP42

TOL

USB

MarConnect  
RS232C

Digimatic

MarConnect  
-Wi  
integrated wireless

REFERENCE



- Funktionen:  
ON/OFF, RESET (Set display to zero), mm/inch, Reversal of the counting direction, PRESET (for entering a numerical value), Tolerance band max. 1,6 mm, MAX/MIN memory, ideal for searching the reversal point, TIR (MAX-MIN) ideal for testing concentricity and flatness, ABS (Display can be set to zero, without losing the reference to the Preset value), 0 (Set analog display to zero), DATA (when connected with a data connection cable), Factor (adjustable)
- Immediate measurement due to the **Reference system**
- Individual buttons can be locked - Lock Function
- High contrast LCD with 8,5 mm high digits
- Life of the battery up to **3 years** (0.5 year when the wireless sender is activated)
- Integrated wireless interface
- **MarConnect** data output, choose alternatively: USB, OPTO RS232C, Digimatic or Integrated Wireless

With integrated wireless interface

**NEW:** MarCom 4.0 Software Professional includes a virtual Interface-Box for simple connection to a SPC software, see page 16.

	Measuring range		Resolution		Order no.	Offer price
	mm	(inch)	mm	inch		
1087 Ri	12,5	(.5")	0,001	/ .0005"	4337163	395,--



	Order no.	Offer price
<b>i-Stick Wireless Receiver</b> incl. MarCom Standard Software 3.1	4102220	65,--

Accessories for Data Processing see Dimensional Metrology catalog, Chapter 11

## MarConnect MarCom Professional 4.0

► I Whether you are using the tried and tested MarConnect interface or the new wireless data transmission Integrated Wireless, the MarCom software enables you to transmit data quickly and easily from a measuring station to a PC.



### Inexpensive, . . .

. . . because no interface is required.

Data acquisition with MarCom Professional 4.0 now no longer requires an interface box; even so you do not lose the functionality of an interface box.



### Trouble free connection to measuring . . .

. . . instruments

With MarCom all Mahr measuring instruments with MarConnect interfaces (RS232, USB) or Integrated Wireless can be connected; simply extend the measuring workplace with USB Hubs.



### Flexible data transmission

Regardless of whether you are using a foot switch, directly on a measuring instrument, with a Timer function or with a PC keyboard: MarCom is extremely flexible and enables freely configurable measuring cycles.



### Measuring instruments

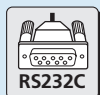
USB



Integrated Wireless



RS232



Measured value

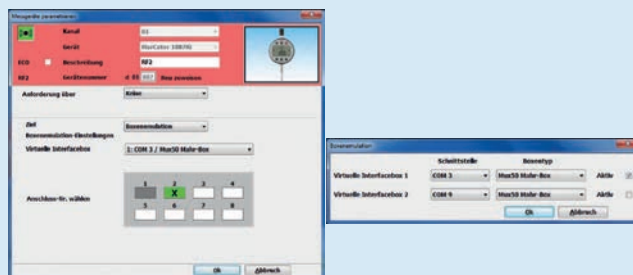
**NEW!**  
**Simple connection to SPC**  
**software**

MarCom 4.0

## Data acquisition

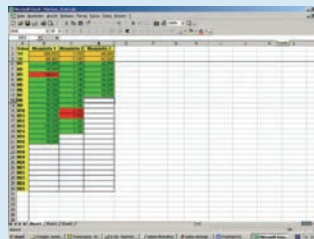
### Data acquisition via SPC software

Simply connect your Mahr measuring instruments with the box emulation (Mux-50 Format) from MarCom Professional 4.0. In your SPC software select a MUX 50 compatible interface box, once selected you can start to obtain the measured values from all the connected Mahr measuring instruments.



### Simple acquisition in Microsoft Office Excel®

Whether you use an existing Excel template or you wish to create a customized template, the cell controller from MarCom is highly flexible.



### Data acquisition with a keyboard code in

#### ... a windows application

Do you use an application which the connection of a measuring instrument does not allow? No problem! With the keyboard emulation from MarCom the measured values will be directly sent to the active cells in the programme.

	Order no.	Offer price
MarCom Software 4.0	4102552	179,--

## Digimar. Height Measuring Instrument Digimar 817 CLM Quick Height

**Digimar 817 CLM Quick Height.** 350 / 600 / 1000 mm : The Height Highly accurate rapid measurements, a wide range of measuring and

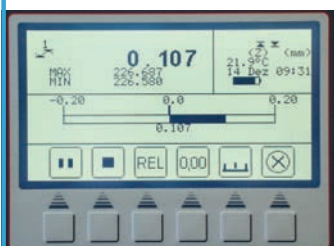
### Fast measurement ...



... per „Hand“ with „Quick-Mode“ (patented)

Offer price  
**€ 4.490,--**  
Order no. 4429010

### Display



Comfort to operate all measurement functions with the function keys



817 CLM - 0 - 350 mm

Measuring range	mm	0-350	0-600	0-1000
Application range	mm	520	770	1170
Resolution	mm	0,01 / 0,005 / 0,001 / 0,0005 / 0,0001		
Measuring error*	µm	1,8+L/600 (L in mm)		
Quick Mode		•	•	•
1-D		•	•	•
2-D		•	•	•
Motorized measuring carriage		•	•	•
Bore diameter		•	•	•
Max-Min		•	•	•
Tolerance monitoring		•	•	•
Perpendicularity / Straightness measurement		•	•	•
Angle calculation		•	•	•
Statistics		•	•	•
Measuring programs		40	40	40
Temperature compensation		•	•	•
Air bearings		•	•	•
Integrated USB memory		•	•	•
Data interface		RS232	RS232	RS232
USB printer interface		•	•	•
<b>Order no.</b>		<b>4429010</b>	<b>4429011</b>	<b>4429012</b>
<b>Offer price</b>	<b>Euro</b>	<b>4.490,--</b>	<b>4.990,--</b>	<b>8.390,--</b>

\* At 20°C in conjunction with a base plate in accordance to DIN 876/0 and a standard probe K6/51



Measuring Instrument **Digimar 817 CLM** with the innovative Quick Mode evaluation possibilities and excellent operator comfort.

Offer price  
**€ 4.990,--**  
Order no. 4429011



817 CLM - 0 - 600 mm

Offer price  
**€ 8.390,--**  
Order no. 4429012



817 CLM - 0 - 1000 mm

### Easy to operate ...

... all functions can be operated via the speed keys

*Operating and display unit with back-lit display*



### Perpendicularity ...

... and straightness measurements



### Measuring program ...

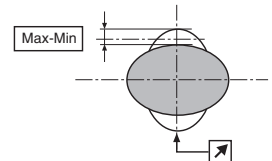
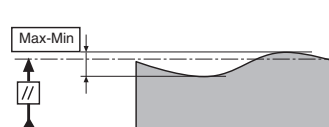
... for repetitive measurements / serial components



### Dynamic measuring functions



Determine MAX, MIN, MAX-MIN with just one measurement.



• Parallel deviation

• Roundness deviation

## Digimar. Height Measuring Instrument Digimar 816 CL

**Digimar 816 CL** 350 / 600 mm: The robust and user-friendly height on measuring instrument, perfect for accurate measurements on the production line.



Offer price  
**€ 3.690,--**  
Order no. 4429031



816 CL - 0 - 600 mm

Measuring range	mm	0-350	0-600
Application range	mm	520	770
Resolution	mm	0,01 / 0,001	
Measuring error*	µm	(2,8+L/300), L in mm	
1-D		●	●
Motorized measuring carriage		●	●
Bore diameter		●	●
Max-Min		●	●
Measuring program		1	1
Temperature compensation		●	●
Air bearings, 3-point air cushion		●	●
Data interface		Opto RS232 / USB	
Order no.		4429030	4429031
Offer price	Euro	3.190,--	3.690,--

\* At 20°C in conjunction with a base plate in accordance with DIN 876/0 and a standard probe K6/51

### Features



Easy to operate all functions can be operated via the speed keys

*Operating and display unit with an background illuminated graphic display*



The motorized measuring carriage minimizes the influence caused by the operator



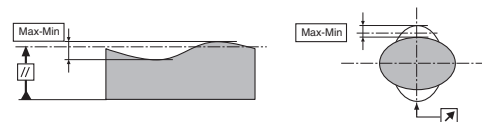
Measuring program for serial parts



Temperature compensation for precise results even outside of the inspection room



Determine MAX, MIN, MAX-MIN with just one measurement



• Parallel deviation

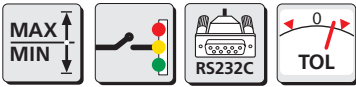
• Roundness deviation



Extensive possibilities of evaluation

Transmit data to a PC via USB, RS232 or wireless for example into Microsoft Office Excel® via the MarCom-Software.

## Millimar. Compact Column Amplifier S 1840



Offer price  
**€ 1.129,--**  
Order no. 5318400

- In conjunction with inductive probes (e. g. Mahr P2004)
- 2 inputs for inductive probes (compatible with probes from Mahr, Tesa)
- Dynamic measurements: Max, Min, Max-Min, Max+Min, mean
- Programmable via the integrated keypad or with the RS232C interface in conjunction with the MS-Windows configuration software
- Display range  $\pm 10 \dots \pm 10000 \mu\text{m}$

### Features S 1840

- Easy to read 3 color analog display

Measuring range  
Inductive Probe

### Interfaces

Computer, printer  
- Control outputs  
- Control inputs  
Compatibility

Order no.

Offer price

Euro

\* excludes base

### S 1840 M

4000 ( $\pm 2000$ )  $\mu\text{m}$ , resolution 0,1  $\mu\text{m}$

400 ( $\pm 200$ )  $\mu\text{m}$ , resolution 0,01  $\mu\text{m}$

RS232, 9 pin interface (PC-compatible assignment)

3 Opto-coupler-outputs, 24V, 100mA

3 Opto-coupler-inputs, 24V, 10mA

### Mahr

5318400\*

1.129,--

	Order no.	Offer price Euro
Base S 1840	5330901	96,--

## Millimar. Inductive Probes P2004 / P1300



Offer price  
**€ 195,--**  
Order no. 4400180

- High quality Mu-metal of the probe housing ensures perfect shielding against magnetic and electric fields
- With rotary stroke bearings
- The cable outlet can be easily converted from axial to radial by mounting a slip-on cap (only available with P2004)



P2004



P1300

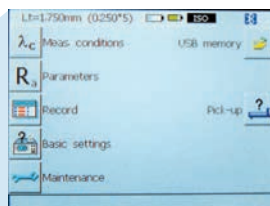
Offer price  
**€ 190,--**  
Order no. 5323010

### Probe type

Measuring range  
Travel of measuring spindle  
Repeatability  
Measuring force  
Spindle lift  
Contact point  
Mounting shank  
Length of cable  
Cable outlet  
Protection class acc. to  
DIN VDE 0470 Part 1 / EN 60529  
Compatibility  
Order no.  
Offer price

	P2004 M	P2004 T	P1300 MA	P1300 TA
Measuring range		$\pm 2,0 \text{ mm}$		
Travel of measuring spindle		4 mm		
Repeatability		0,1 $\mu\text{m}$		
Measuring force		0,75 N		
Spindle lift		—		
Contact point		carbide ball		
Mounting shank		8h6 mm		
Length of cable		2,5 m		
Cable outlet		axial / radial		
Protection class acc. to DIN VDE 0470 Part 1 / EN 60529		IP64		
Compatibility	Mahr	Tesa	Mahr	Tesa
Order no.	5323010	5323011	4400180	4400190
Offer price	Euro 190,--	190,--	195,--	195,--

## MarSurf. Mobile Roughness Measurement M 300 Set



Offer price  
**€ 3.480,--**  
Order no. 6910401



RD 18

### The set consists of:

- Evaluation unit M 300
- Drive unit RD 18 with integrated roughness standard
- Standard pick-up PHT 6-350/2 $\mu$ m (conforming to standards)
- Height adjustment accessory, pick-up protection, 2 x USB cables, carrying case, etc.

### Special features

- Cable-free connection with Bluetooth
- Automatic selection of filter and traversing length conforming to standards
- Integrated thermal graphics printer of high print quality
- Data transfer of results and profiles via USB-interface to your PC
- Dynamic calibration function
- Evaluation of the common parameters as per ISO /JIS as well as characteristic curves, parameter lists (i. e. material ratio)
- Integrated memory for the results and measurements
- Tolerance monitoring in display and measuring record
- Printing of R-profile (ISO/ASME/JIS), P-profile (MOTIF), material ratio curve, measuring record
- 15 languages

- Units of measurement ( $\mu$ m/ $\mu$ inch) and standards (ISO/JIS/ASME/MOTIF) are selectable
- Number of sampling lengths selectable from 1 to 5
- Locking and/or password protection for instrument settings
- Plug-in power pack with three mains plugs, for input voltages from 90 V to 264 V
- Output of date and/or time of the measurements

	Order no.	Offer price Euro
M300 Set	6910401	3.480,--



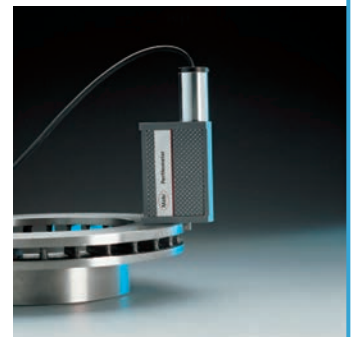


**MarSurf.** Mobile Roughness Measurement M 300 C Set

Offer price  
**€ 3.480,--**  
 Order no. 6910431

**M 300 C****RD 18 C + Handheld Vee block (detachable)**

Upside down measurement



Measurement on an end face vee

**The set consists of:**

- Evaluation unit M 300 C
- Drive unit RD 18 C
- Standard pick-up PHT 6-350/2µm (conforming to standards)
- Oberflächennormal PRN 10 mit Mahr-Kalibrierschein
- Height adjustment accessory, pick-up protection, 1 x USB cable (for connection to a PC), carrying case, etc.

**Special features**

- Automatic selection of filter and traversing length conforming to standards
- Integrated thermal graphics printer of high print quality
- Data transfer of results and profiles via USB-interface to your PC
- Dynamic calibration function
- Evaluation of the common parameters as per ISO /JIS as well as characteristic curves, parameter lists (i. e. material ratio)
- Integrated memory for the results and measurements
- Tolerance monitoring in display and measuring record
- Printing of R-profile (ISO/ASME/JIS), P-profile (MOTIF), material ratio curve, measuring record
- 15 languages
- Units of measurement (µm/µinch) and standards (ISO/JIS/ASME/MOTIF) are selectable

- Number of sampling lengths selectable from 1 to 5
- Locking and/or password protection for instrument settings
- Plug-in power pack with three mains plugs, for input voltages from 90 V to 264 V
- Output of date and/or time of the measurements

	Order no.	Offer price Euro
<b>M300 C Set</b>	<b>6910431</b>	<b>3.480,--</b>

**Note:** An additional separate drive unit MarSurf RD 18 C2 for transverse tracing for M 300 C is also available!



## MarSurf. Mobile Roughness Measurement Device MarSurf PS1 incl. PS1 Explorer Software



Offer price  
**€ 1.900,--**

Order no. 9104342

### The set consists of:

- Drive unit with traversing lengths up to 17,5 mm
- Skidded probe with measuring range 350  $\mu\text{m}$ , 2  $\mu\text{m}/90^\circ$  diamond stylus tip, measuring force 0,7 mN
- Height adjustment accessory, USB cable, carrying case, charger / mains adapter and much much more
- Multilingual PS1-Explorer PC Software - document results and saving profiles on a PC

### Special features

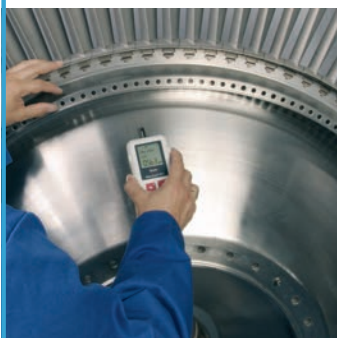
- Roughness standard integrated into casing
- Automatic cutoff selection (patented) so that even non-specialists are ensured correct measuring results.
- Dynamic calibration function with automatic value correction adjustment
- Calculation of 31 parameters
- Large display
- Individual and short sampling lengths can be selected
- Phase-correct profile filter (Gaussian filter) as per DIN EN ISO 11562, special filter as per DIN EN ISO 13565-1, Is-Filter as per DIN EN ISO 3274 (can be disabled)
- $\mu\text{m}$  /  $\mu\text{inch}$  switchable
- 15 languages can be selected
- USB interface is detected without a driver (such as a memory stick). Internal memory enables maximum 15 profiles or max. 20,000 results to be saved.

Additional accessories are also available such as evaluation software, range of probes, adapter for transverse tracing, end face vee-block, measuring stand mount, etc.

	Order no.	Offer price Euro
PS 1 incl. PS1-Explorer Software	9104342	1.900,--

## On-site surface roughness measurement . . .

. . . measuring during the production process



## Universal use on processing machinery . . .

. . . or for incoming goods inspection



## MarVision. Stereo-Zoom Microscope SM 150 / SM 151 / SM 160



SM 150

Offer price  
**€ 730,--**

Order no. 4245001

- High quality optics for light intensive and sharp three dimensional images
- Continuously variable magnification due to the adjustable zoom lens
- Focusing with an ergonomic hand wheel, mounted either side, ideal for either a left or right handed operator
- Prism head tilted to 45° and rotatable through 360°; with the dioptic adjustment
- Integrated incident and transmitted illumination, continuously variable (only with SM 150 / SM 151)
- Includes packaging



SM 160

Offer price  
**€ 1.020,--**

Order no. 4245003

## MarVision. SM 151 + CamSet

Offer price  
**€ 1.500,--**

Order no. 9104848



	Order no.	Offer price Euro
<b>SM 151 inkl. CamSet</b>	<b>9104848</b>	<b>1.500,--</b>

Accessories for Microscopes see Dimensional Metrology catalog, Chapter 18

		SM 150	SM 160	SM 151+CamSet*
Magnification			variable 7x - 45x	
Field of view	mm		28 - 5	
Observation tube angle			45°	
Optical tube		Binocular	Binocular	Trinocular
Camera connector				●
Working distance	mm		105	
Max. height of test piece	mm	75	—	75
Illumination		Incident light 12V / 15W, Transmitted light 12V / 10W, variable	—	Incident light 12V / 15W, Transmitted light 12V / 10W, variable
Base dimensions	mm	260 x 200	230 x 230	260 x 200
Order no.		<b>4245001</b>	<b>4245003</b>	<b>9104848</b>
Offer price	Euro	<b>730,--</b>	<b>1.020,--</b>	<b>1.500,--</b>

\* Includes a digital camera and packaging

**MarVision.** Workshop Measuring Microscope MM 320 with image processing

Manual 2D-Measuring Microscope with zoom and automatic edge recognition for simple and precise measurements of bores, angles, and distances; also for the use on production line.

Offer price

**€ 19.000,--**

Order no. 9104349



**Measuring microscope MM 320 - Meas. range 200 x 100 mm**

Consists of:

- **M3-Software**
- **Touchscreen-PC**, with keyboard and mouse
- **Zoom lens** with magnification 0.7x - 4.5x (25x -160x on the display unit)
- **Telecentric LED back light** for more focused measurement of rotationally symmetric parts (Order no. 4247050)
- **Calibration standard** incl. calibration certificate (Order no. 4246901)

	Order no.	Offer price Euro
<b>MM 320</b>	<b>9104349</b>	<b>19.000,--</b>

Delivery terms: ex works, without packaging

**Ideal for measuring:**

- Electronic parts (e.g. printed circuit boards)
- 2D profile measurements on metal and plastic parts
- Small features on micro-mechanical parts
- Production control of turned parts

**Characteristics of the MM 320:**

- MM 320 with integrated digital camera
- Zoom lens, magnification 0.7x - 4.5x
- $MPE1 = 1.9 + (L/100) \mu m$
- $MPE2 = 2.9 + (L/100) \mu m$

**Measuring table**

- Measuring range 200 mm x 100 mm
- Max. height of test piece 150 mm
- Quick and fine adjustment
- Max. table load 20 kg

**Illumination**

- LED back light, dimmable
- LED ring light, segments each can be individually switched on/off or dimmed
- Laser pointer for positioning assistance

**Further measuring ranges:**

- 100 x 100 mm
- 250 x 170 mm
- 400 x 250 mm (Incl. Z-axis extensions)

**Options:**

- Also available with the QC 300 measuring computer
- Z-Axis can be extended up to 200 mm
- Measuring system for Z-Axis
- Wide range of accessories
- **DXF file integration**

**Characteristics of the M3-Software with Touchscreen-PC**

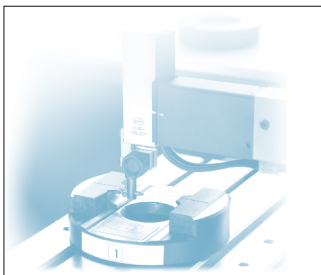
- 23" Touchscreen with keyboard and mouse
- Based on Windows 8; thus it is possible to install further software
- Operated via the Multi-Touch on the monitor or via mouse/keyboard
- Large video image
- Target / actual evaluation with tolerance data
- Protocol print out with company logo
- Represented graphically with dimensions
- Automatic edge detection even with low contrast parts



## ► | DIMENSIONAL METROLOGY



**Precision Gages**



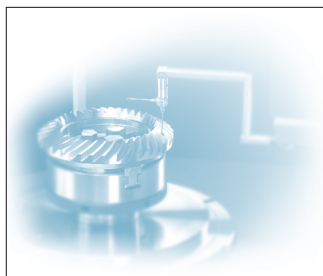
**Precimar.**  
Precision Length Metrology



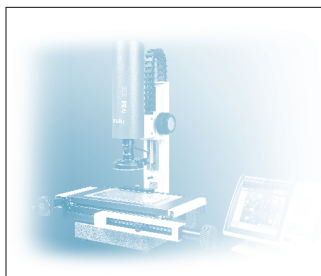
**MarSurf.**  
Surface Metrology



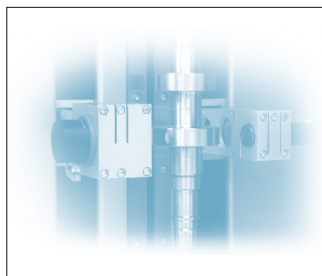
**MarForm.**  
Form Metrology



**MarGear.**  
Gear Metrology



**MarVision.**  
Optical Metrology



**MarShaft.**  
Shaft Metrology



**Services**

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