



DIMENSIONAL METROLOGY | PRECISION GAGES



NEW PRODUCTS 2015



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E X A C T L Y



NEW PRODUCTS 2015 - PRECISION GAGES **DIMENSIONAL METROLOGY FROM MAHR**



▶ | Mahr. New Products 2015

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Waterproof Calipers with Digital display	
<hr/>	
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Receiver	
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MarCal. The new Generation

WATERPROOF DIGITAL CALIPERS WITH THE REFERENCE-SYSTEM

Security due to the Reference-Lock function (key lock)

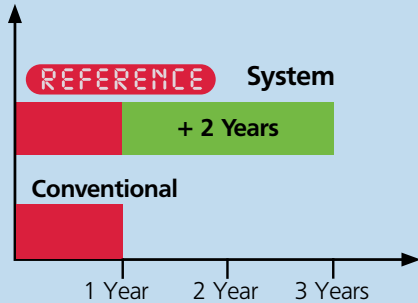
- Zero-position is secured
- Operating error is not possible

The digital caliper MarCal 16 EWR Reference is equipped with a LOCK function. With this key lock the zero position is secured and operating error is avoided.



Battery service life is 3 years

The new Reference system is extremely energy efficient as when the caliper is in standby mode; almost no power is required, thus **extending the life of the battery up to 3 years***.



* When Integrated Wireless is deactivated

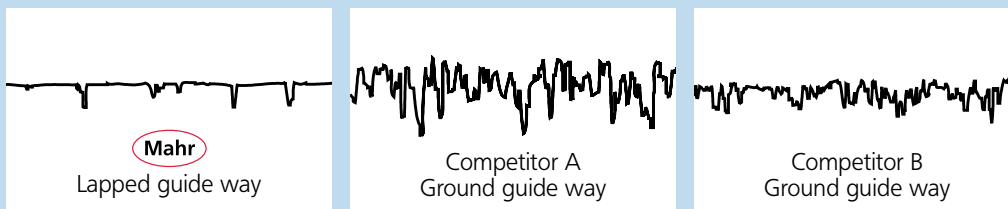


Superior quality of the guide ways

Only MarCal calipers have lapped guide way surfaces, these guarantee an even and sensitive run of the slide. Additionally, the service life of the caliper increases compared to a ground guide way due to the greater contact area on the guide way surface.



Surface of the guide way



Ergonomic Design

The handy non-slip thumb support of the MarCal 16 EWR ensures even in contaminated working conditions trouble-free handling and therefore reliable measuring results.



The high-contrast display with 11 mm high digits enables accurate, fatigue-free reading of the measurement results.

Excellent resistance against dust, coolant and lubricants



Due to the outstanding protection against dust and water the digital caliper MarCal 16 EWR Reference delivers precise and secure results even in the most difficult workshop conditions. The finished plastic components have an excellent outstanding chemical resistance.



Code Initials	IP	International Protection
First digit	6	Dust-tight
Second digit	7	Protection against temporary immersion in water

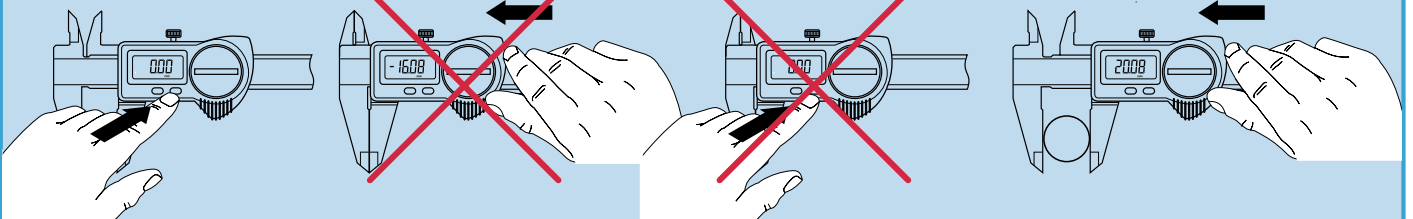
MarCal - The innovative Reference-System

Just set once to zero

All Mahr digital calipers with this logo **REFERENCE** are equipped with the innovative Reference-System. The zero position just has to be set once: after setting the zero position, the zero remains stored for all further measurements. Therefore, once the caliper is switched ON or the slide is moved the caliper is immediately ready for measurement. The need to reset to zero with a conventional caliper once the caliper is switched on has now become obsolete.

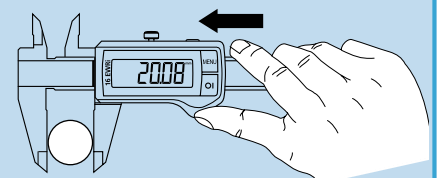
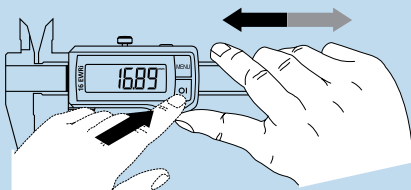
Conventional

- ① Switch ON
- ② Close the measuring jaws
- ③ Set to zero
- ④ Results of measurement



REFERENCE System

- ① Switch ON
- ② Results of measurement

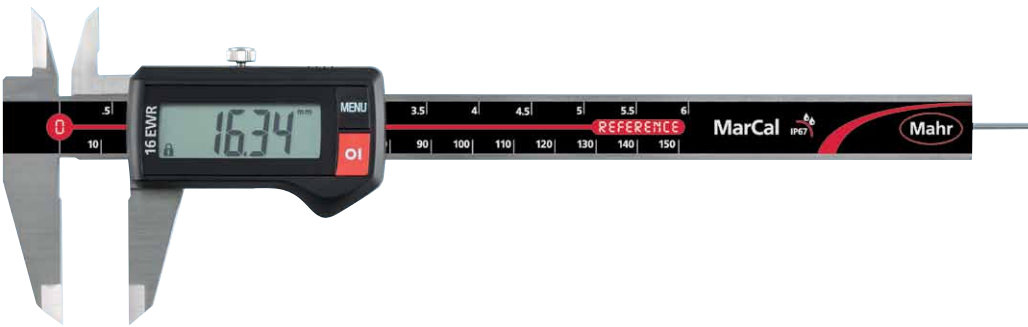


Press the ON key or move the slide

Digital Caliper MarCal 16 EWR



REFERENCE



Features

Functions:

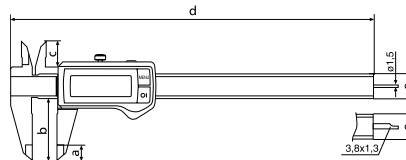
- ON/OFF
- AUTO-ON / OFF
- RESET (set display to zero)
- PRESET (for entering a numerical value)
- Reversal of counting direction mm/inch
- Reference-System
- LOCK-Funktion (key lock)

- High contrast analog display
- Locking screw above
- Lapped guide way
- Measuring blade for inside measurements
- Slide and beam made of hardened stainless steel
- Step measuring function
- Immediate measurements due to the Reference system
- Raised guide ways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide
- **Height of digits:** 11 mm
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

Technical Data

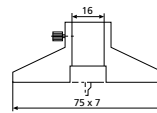
Order no	Measuring range	Resolution	Error limit	Standard	Depth Rod	Friction wheel
	mm	mm/inch	mm			
4103300	0 - 150	0.01 / 0,0005	0.03	DIN 862	round	
4103301	0 - 150	0.01 / 0,0005	0.03	DIN 862	round	•
4103302	0 - 150	0.01 / 0,0005	0.03	DIN 862	rectangular	
4103303	0 - 150	0.01 / 0,0005	0.03	DIN 862	rectangular	•

Order no	a	b	c	d	e
	mm	mm	mm	mm	mm
4103300	10	40	16	235	16
4103301	10	40	16	235	16
4103302	10	40	16	235	16
4103303	10	40	16	235	16



Accessories

Order no	Product description	Model
4102520	Battery 3 V, CR 2032	
4102020	Depth bridge (75 x 7 mm)	16 Em



16 Em

Compact Amplifier Millimar C1200

Features

Functions:

ON/OFF
 mm/inch
 Reversal of counting direction
 Measuring range switching
 TOL (enter tolerance limit values)
 PRESET (for entering a numerical value)
 Factor (adjustable)
 DATA (Data transmission)

- High resolution and high contrast color display
- The display can be continuously inclined for the ideal field of vision
- Simple to operate
- Can be operated with batteries or from the main power supply
- The C 1200 is fully portable when battery powered
- Compact housing
- Wall mounting is also possible
- **Scope of delivery:** Mains adaptor, instruction manual



Technical Data

Order no		5312010
Model		C1200
Display		TFT color display 11 cm (4.3"), 480 x 272 Pixel
Range of digital display		± 5000 μm
Range of analog display		± 5000 μm, ± 2000 μm, ± 1000 μm, ± 300 μm, ± 100 μm, ± 30 μm, ± 10 μm, ± 3 μm
Resolution		0,1 μm
Readings	μm	200 μm, 100 μm, 20 μm, 10 μm, 2 μm, 0,2 μm
Both probe inputs		1
Compatibility		Mahr
Measuring combination		+A, -A
Features		1
Limit frequency	Hz	30
Error limit digital display		0.3 % (min. 0.2 μm)
Error limit analog display		0.25 % of the full scale / 0.3% of the indicated value
Data interface:		Opto RS232C, USB, Digimatic, Wireless
Energy supply:		Mains adaptor, 230 V/115 V; 50/60 Hz, Battery operation
IP protection category:		IP 42

Order no	Depth	Height	Width
	mm	mm	mm
5312010	130	170	150

Accessories

Order no	Product description	Model
4346023	Data connection cable USB (2 m) incl. Software MarCom Std.	2000 usb
4346021	Data Connection Cable Digimatic (2 m)	2000 d
4346020	Data Connection Cable RS232C (2 m)	2000 r
4102232	Transmitter for e-Stick	2000 e
4102230	Receiver incl. Software MarCom Std.	e-Stick

Universal Measuring Probe Multimar 844 T

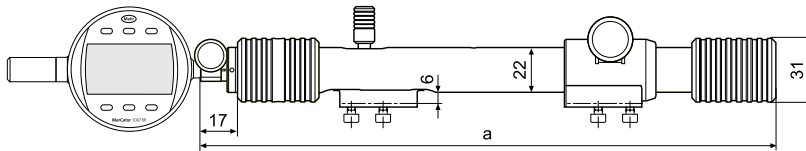


Application:

- External and internal dimensions
- External and internal threads
- Centering shoulders, narrow collars, recesses and grooves
- External and internal tapers, external and internal tooth profiles / gears and lots more

Technical Data

Order no		4503001	4503002	4503003	4503004	4503005	4503006	4503007
Model		844 T						
Outer application range	mm	0 – 85	80 – 235	230 – 585	580 – 985	970 – 1470	1470 – 1970	1970 – 2470
Inner application range	mm	30 – 115	110 – 265	260 – 615	610 – 1015	1000 – 1500	1500 – 2000	2000 – 2500
Measuring force	N	5			10			
Distance of movable anvil	mm	12						
Dimensions a	mm	280	430	740	1140	1680	2180	2680
Product weight	kg	0.78	1.01	1.59	2.22	2.52	2.68	2.86



Accessories

Order no	Product description	Quantity unit	Model
4311000	Precision Dial Indicator, 0.01 mm, 10 mm		810 S
4333000	Millimess 5 μm, ±130 μm		1004
4332000	Millimess 0.01 mm, ±0.25 mm		1010
4337662	Digital Indicator, 0.0005 mm, 12.5 mm		1087 BR
4337664	Digital Indicator, 0.0005 mm, 12.5 mm		1087 Bri
4503030	Mounting attachments for outside dimensions	Pair	844 Tma
4503031	Mounting attachments for inside dimensions	Pair	844 Tmi
4503024	Measuring Arms, 25 mm	Pair	844 Te
4503025	Measuring Arms, 35 mm	Pair	844 Te
4503026	Measuring Arms, 70 mm	Pair	844 Te
4503027	Measuring Arms, 100 mm	Pair	844 Te
4503109	Depth stops for 844 Tma, 844 Tmi, 844 Te	Pair	844 Tw
4503012	Protection for indicator		844 Tsb
4503020	Case for accessories		844 Tzb
4450512	Stand für 844 T 30-115 mm		844 Tf



810 S



1004



1087 BR



1087 Bri



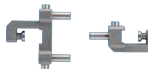
844 Te



844 Tmi



844 Tma



844 Tw

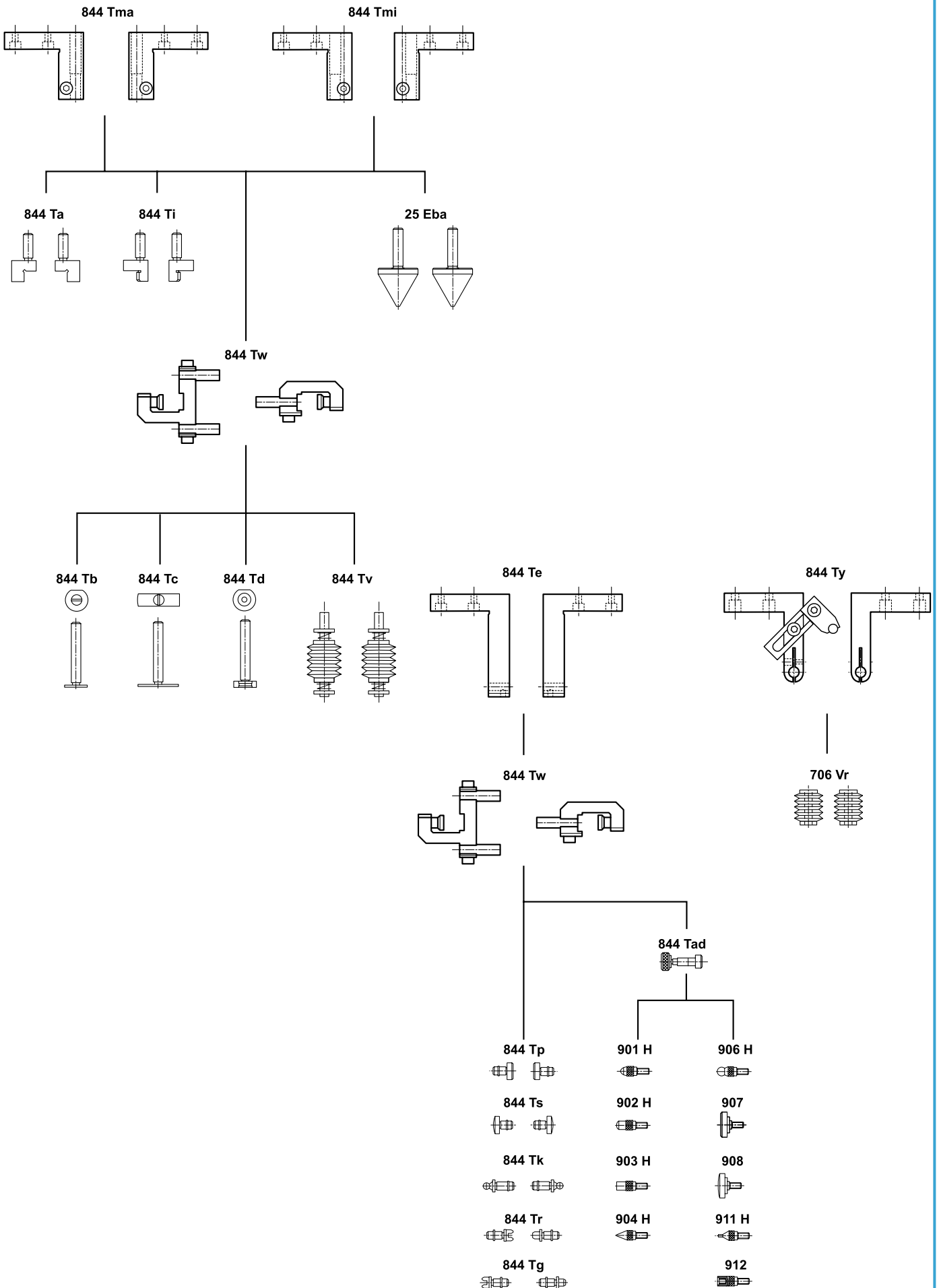


844 Tf

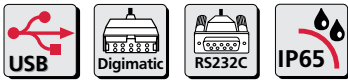
Features

- Extreme measuring sensitivity and accuracy due to the optimal stability and ease of movement of the moveable measuring arm holder
- Constant measuring force due to the built-in measuring force spring
- The direction of the measuring force can be changed for either external or internal dimensions
- Rugged, ground and hard chrome plated column
- The moveable measuring arm holder is mounted in a highly precision ball guide to eliminate both play and friction
- Lightweight construction of the basic body, made from carbon fiber reinforced plastic (CRP) tube, for measuring range 1000 - 1500 mm.
- The stationary measuring arm holder can be moved along the column for coarse adjustment
- **Scope of delivery:** Instruction manual, mounting and resting blocks, wooden case

Universal Measuring Probe Multimar 844 T



Digital Universal Caliper Multimar 25 EWR



REFERENCE



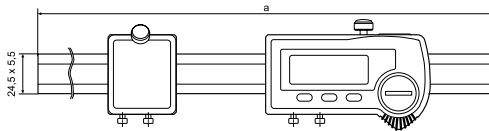
Application:

- For measuring:
- Outside and inside diameters
 - Centering shoulders
 - Narrow collars
 - External and internal tapers
 - Dovetails
 - Grooves
 - Distances between hole centers
 - For scribing of work pieces

Technical Data

Order no		4119000	4119001	4119002	4119003
Model		25 EWR			
Outer application range	mm	0 – 300	0 – 600	0 – 1000	0 – 1250
Resolution	mm/inch	0.01 / 0.0005			

Order no	a
	mm
4119000	480
4119001	790
4119002	1200
4119003	1450



Features

Functions:

- AUTO-ON / OFF
- DATA (Data transmission via connection cable)
- ON/OFF
- PRESET (for entering a numerical value)
- RESET (set display to zero)
- Reference-System
- mm/inch

- Interchangeable measuring arms
- Due to the patented mounting fixture of the measuring arms and of measuring attachments provided on both the upper and lower longitudinal face of the arm holders, the digital display is always in the operator's line of vision
- The application range can be easily extended by reversing the measuring arms
- Both measuring arms can be moved along the beam thus having a well balanced weight distribution even with small dimensions
- Slide and beam are made of hardened stainless steel
- **Data interface:** USB, Digimatic, Opto RS232C, Wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 65
- **Scope of delivery:** Battery, Instruction manual, mounting and resting blocks, wooden case

Accessories

Order no	Product description	Model
4102520	Battery 3 V, CR 2032	
4102915	Data Connection Cable Digimatic (2 m)	16 EWd
4102410	Data Connection Cable RS232C (2 m)	16 EXr
4102357	Data Connection Cable USB (2 m) incl. Software MarCom Std.	16 EXu
4102231	Transmitter for e-Stick	16 EWe
4102212	Software interface	MarCom Prof. 5.0
4503030	Mounting attachments for outside dimensions	844 Tma
4503031	Mounting attachments for inside dimensions	844 Tmi
4119010	Measuring pins for bore hole distances, dia. 2-20 mm	25 Eba
4119011	Measuring pins for bore hole distances, dia. 10-40 mm	25 Eba
4503024	Measuring Arms, 25 mm	844 Te
4503025	Measuring Arms, 35 mm	844 Te
4503026	Measuring Arms, 70 mm	844 Te
4503027	Measuring Arms, 100 mm	844 Te
4503109	Depth stops for 844 Tma, 844 Tmi, 844 Te	844 Tw
4503020	Case for accessories	844 Tzb



844 Tma 844 Tmi

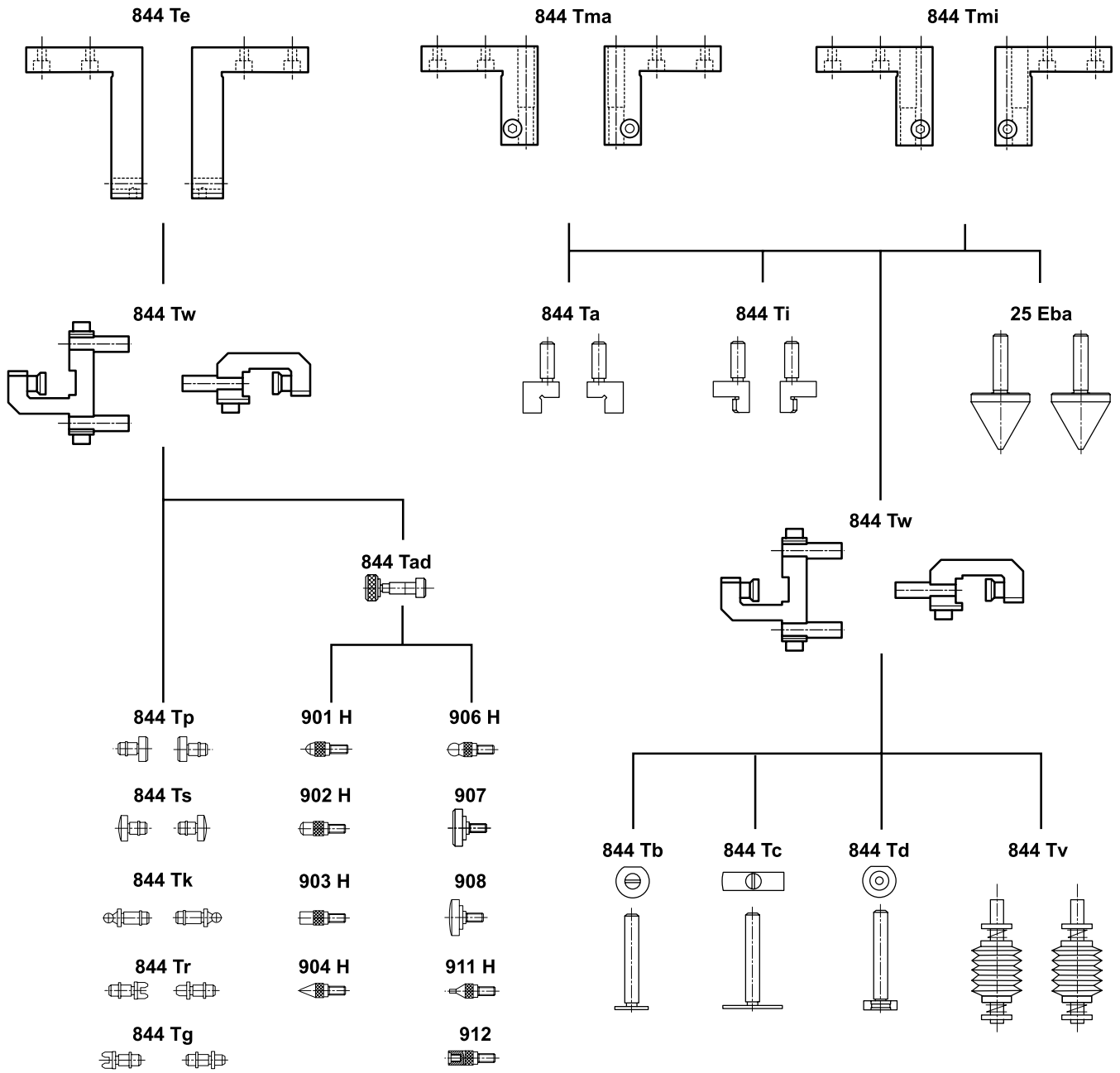


844 Tw 844 Te



25 Eba

Digital Universal Caliper Multimar 25 EWR








MarConnect MarCom Professional 5.0






▶ | 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. | ◀

Measuring Instruments

Wireless Transmission

Data Transmission via cable

Trigger a sending command:

-  - On the measuring instrument
-  - Using a remote control

Data Transmission

-  - Footswitch
-  - Keyboard
-  - Timer function

Universal Software MarCom Profession

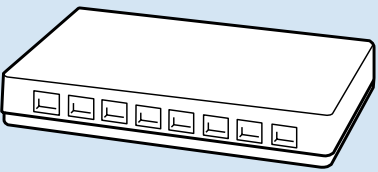
Interface on device: 4 x 8

Interface on device:
Data cable USB 128
i-Stick 4 x 8
e-Stick 4 x 8

Interface on device:
Data cable USB 128
i-Stick 4 x 8
e-Stick 4 x 8

Interface on device:
Data cable USB 128
i-Stick 4 x 8
e-Stick 4 x 8

- Interface al 5.0



Virtual Interface Box

	A	B	C
1	↓	↗	
2			
3			
4			
5			
6			

Intelligentes Excel-Interface



Keyboard Emulation

```

TXTTXTXT
TXTTXTXT
TXTTXTXT
TXTTXTXT
TXTTXTXT
TXTTXTXT
TXTTXTXT
TXTTXTXT
TXTTXTXT
TXTTXTXT
    
```

Text - File

Data Acquisition

SPC Software



The MarCom Professional 5.0 has integrated virtual interface boxes.

This enables a simple and user friendly connection of measuring instruments to an SPC program which use the MUX50 data format from manufacturers such as Babtec, Q-DAS and others.



BABTEC

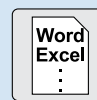
Q - D A S
STATISTICS DRIVEN SUCCESS

Microsoft Office Excel®



Irrespective of whether you are using existing Excel templates or those designed for your requirements, the MarCom cell controller is highly flexible.

Any Windows Software



Do you use an application which does not support the integration of a measuring instrument?

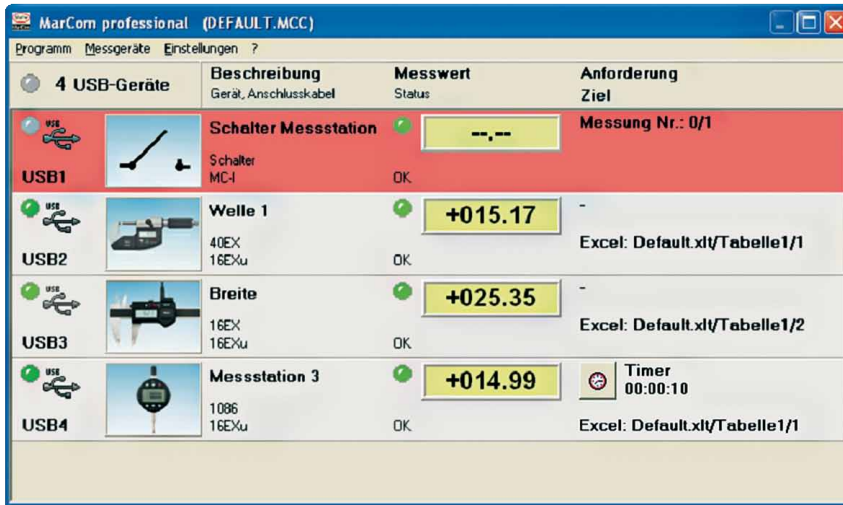
No Problem, with the MarCom keyboard emulation the measured values will be sent directly to the active cell of the program in use.

Flexible data transmission



MarCom is extremely flexible and enables freely configurable measuring cycle; regardless of whether you are sending data using a foot switch, on the measuring instrument, a Timer function or a Keyboard.

Software-Interface MarConnect MarCom Std. 5.0 / MarCom Prof. 5.0



Technical Data

Order no	4102211	4102212	4102213
Model	MarCom Standard. 5.0	MarCom Professional 5.0	MarCom Update 5.0
Number of connected wireless receivers i-Stick	1		4
Number of connectable measuring instruments with Integrated Wireless	1		32
Number of connected wireless receivers e-Stick	1		4
Number of connectable Sender modules for the e-Stick	1		32
Number of connected wireless receivers FM		1	
Number of connectable Sender modules for the wireless receivers FM	1		100
Number of devices to be connected with a USB interface	1		128
Number of USB foot switches that can be connected	1		128
Number of devices to be connected with a RS232C interface	1		2
Number of virtual Interface boxes (8 inputs)			4
Languages	German, English, French, Italian, Spanish, Dutch, Russian, Polish, Portugese, Czech, Chinese		

Features

- Directly transfer measured values into Microsoft Excel (from Version 97), into SPC-Software using virtual interface box (MUX50 format) (Professional) a text file or key code
- Measured values from each device can be sent to a different column, table or folder in Excel
- USB hub is also suitable as a measuring instrument interface
- Clear portrayal of selected measuring devices with the aid of icons
- Freely definable / configurable measurement cycles
- Data transmission via Data-button on meas. devices or on the data cable; via a PC, timer, keyboard, a foot switch connected to a USB interface or via remote control
- **Scope of delivery:** Driver, instruction manual

Software-Interface MarConnect MarCom Std. 5.0 / MarCom Prof. 5.0

Accessories

Order no	Product description	Model	For measuring instrument
4102220	Receiver incl. Software MarCom Std.	i-Stick	MarCal 16 EWri / 30 EWri MarCator 1086 Ri / 1087 Ri / 1087 Bri
4102230	Receiver incl. Software MarCom Std.	e-Stick	Sendemodule 16 EWe, 2000 e, RS232 e, 1082 e
4102305	Receiver incl. Software MarCom Std.	FM 2	Sendemodule 16 Exf, 1082 f, 2000f, 817 f, RS232 f
4102231	Transmitter for e-Stick	16 EWe	MarCal 16 ER, 16 EWR, 16 EWW, 30 EWR, 30 EWN Digimar 814 SR Micromar 40 EWR, 40 EWS, 40 EWW, 44 EWR, 46 EWR MarCator 1075 R, 1086 R, 1087 R, 1087 BR MarSurf PS1
4102306	Transmitter for FM 2	16 Exf	MarCal 16 ER, 16 EWR, 16 EWW, 30 EWR, 30 EWN Digimar 814 SR Micromar 40 EWR, 40 EWS, 40 EWW, 44 EWR, 46 EWR MarCator 1075 R, 1086 R, 1087 R, 1087 BR
4102357	Data Connection Cable USB (2 m) incl. Software MarCom Std.	16 EXu	MarCal 16 ER, 16 EWR, 18 EWR, 30 EWR, 30 EWN Digimar 814 SR Micromar 40 ER, 40 EWR, 40 EWW, 40 EWS, 44 EWR, 46 EWR MarCator 1075 R, 1086 R, 1086 Ri, 1087 R, 1087 Ri, 1087 BR, 1087 Bri MarSurf PS1, M300, M300C
4102410	Data Connection Cable RS232C (2 m)	16 EXr	MarCal 16 ER, 16 EWR, 18 EWR, 30 EWR, 30 EWN Digimar 814 SR Micromar 40 ER, 40 EWR, 40 EWW, 40 EWS, 44 EWR, 46 EWR MarCator 1075 R, 1086 R, 1086 Ri, 1087 R, 1087 Ri, 1087 BR, 1087 Bri MarSurf PS1, M300, M300C
4102232	Transmitter for e-Stick	2000 e	Digimar 816 CL MarCator 1088 / 1088W Millimes 2000, 2001, 2100, µMaxum II Millimar C1200
4102309	Transmitter for FM 2	2000 f	Digimar 816 CL, Millimar C 1200 MarCator 1088 / 1088W Millimes 2000, 2001, 2100, µMaxum II
4346023	Adaptor Cable RS232-USB (1 m) incl. Software MarCom Std.	2000 usb	Digimar 816 CL, Millimar C1200 MarCator 1088, 1088 W Millimes 2000, 2001, 2100, µMaxum II
4346020	Data Connection Cable RS232C (2 m)	2000 r	Digimar 816 CL, Millimar C1200 MarCator 1088, 1088 W Millimes 2000, 2001, 2100, µMaxum II
7024634	Data Connection Cable RS232C (3 m)		Digimar 817 CLM Millimar C1208, C1216, 1240, C1245, S1840, S1841, X1715, X1745
4102233	Sendemodul für e-Stick	RS232 e	Millimar C1208, C1216, C1245, S1840, Digimar 817 CLM
4102331	Adaptor Cable RS232-USB (1 m) incl. Software MarCom Std.		Millimar C1208, C1216, 1240, C1245, S1840, S1841, X1715, X1745 (in Verbindung mit Kabel 7024634)
4102310	Sendemodul für FM 2	817 f	Digimar 817 CLM
4102333	Adaptor Cable RS232-USB (1 m) incl. Software MarCom Std.	817 usb	Digimar 817 CLM (in Verbindung mit Kabel 7024634)
4102311	Transmitter for FM 2	RS232 f	Millimar C1208, C1216, C1245, S1840
4102235	Transmitter for e-Stick	1082 e	Digimar M814 N/G Multimar 25 ES MarTool 106 ES
4102307	Transmitter for FM 2	1082 f	Digimar M814 N/G Multimar 25 ES MarTool 106 ES
4102510	Data Connection Cable RS232C (2 m)	16 ESv	Digimar 814 G, 814 N Multimar 25 ES MarTool 106 ES
4102330	Adaptor Cable RS232-USB (1 m) incl. Software MarCom Std.	Opto usb	Digimar M814 (in Verbindung mit Kabel 4102510) Multimar 25 ES (in Verbindung mit Kabel 4102510) MarTool 106 ES (in Verbindung mit Kabel 4102510)
4305121	Data Connection Cable USB (2 m) incl. Software MarCom Std.	800 EWu	MarCal 31 EW MarTest 800 EW, 800 EWL
4305122	Data Connection Cable RS232C (2 m)	800 EWr	MarCal 31 EW MarTest 800 EW, 800 EWL
4495079	Data Connection Cable USB (1,5 m) incl. Software MarCom Std.	838 usb	Marameter 838 EI, 838 EA
4102553	USB-Hub 7-fold industrial model	USB-Hub	
4102782	Data Connection Cable USB (0.1 m)	MC-I	Foot switch 16 ESf
4102058	Foot Switch to trigger data transmission	16 ESf	
4102221	Remote control for MarCom	MC-R	



i-Stick



e-Stick



FM 2



2000 f



Receiver MarConnect i-Stick



Technical Data

Order no	4102220
Number of channels	3
Number of connectable measuring instruments with Integrated Wireless	8 per Stick
Frequency band	2400 MHz
Radio range	up to 6 m
Model	i-Stick
For measuring instrument	MarCal 16 EWRI / 30 EWRI MarCator 1086 Ri / 1087 Ri / 1087 BRI

Accessories

Order no	Product description	Model
4102212	Software interface	MarCom Professional 5.0
4103400	Digital Caliper, 0.01 mm, 0 – 150 mm	16 EWRI
4103401	Digital Caliper, 0.01 mm, 0 – 150 mm	16 EWRI
4103402	Digital Caliper, 0.01 mm, 0 – 150 mm	16 EWRI
4103403	Digital Caliper, 0.01 mm, 0 – 150 mm	16 EWRI
4103404	Digital Caliper, 0.01 mm, 0 – 200 mm	16 EWRI
4103405	Digital Caliper, 0.01 mm, 0 – 200 mm	16 EWRI
4103406	Digital Caliper, 0.01 mm, 0 – 300 mm	16 EWRI
4103407	Digital Caliper, 0.01 mm, 0 – 300 mm	16 EWRI
4126755	Digital Depth Gage, 0.01 mm, 0 – 150 mm	30 EWRI
4126756	Digital Depth Gage, 0.01 mm, 0 – 300 mm	30 EWRI
4126757	Digital Depth Gage, 0.01 mm, 0 – 500 mm	30 EWRI
4337624	Digital Indicator, 0.0005 mm, 12.5 mm	1086 Ri
4337625	Digital Indicator, 0.0005 mm, 25 mm	1086 Ri
4337626	Digital Indicator, 0.0005 mm, 50 mm	1086 Ri
4337627	Digital Indicator, 0.0005 mm, 100 mm	1086 Ri
4337628	Digital Indicator, 0.0005 mm, 25 mm	1086 Ri
4337134	Digital Indicator, 0.01 mm, 12.5 mm	1086 Ri
4337135	Digital Indicator, 0.01 mm, 25 mm	1086 Ri
4337136	Digital Indicator, 0.01 mm, 50 mm	1086 Ri
4337137	Digital Indicator, 0.01 mm, 100 mm	1086 Ri
4337142	Digital Indicator, 0.0005 mm, 12.5 mm	1086 WRi
4337143	Digital Indicator, 0.0005 mm, 25 mm	1086 WRi
4337147	Digital Indicator, 0.01 mm, 12.5 mm	1086 WRi
4337148	Digital Indicator, 0.01 mm, 25 mm	1086 WRi
4337663	Digital Indicator, 0.0005 mm, 12.5 mm	1087 Ri
4337665	Digital Indicator, 0.0005 mm, 25 mm	1087 Ri
4337664	Digital Indicator, 0.0005 mm, 12.5 mm	1087 BRI



16 EWRI



30 EWRI



1086 Ri



1087 BRI



1087 Ri



1086 Ri

Features

- **Measurement without the nuisance of additional modules:** Unlike conventional wireless solutions, which have a large external transmitter with separate battery, the transmitter in Integrated Wireless is fully integrated.
- **Highly mobile:** Integrated Wireless gives you much more mobility. There is no cable to get in the way, either at the measuring station or when measuring on or at the machine or at large workpieces
- **Easy data transfer:** With Integrated Wireless you can transfer your measured values to the PC simply using the iStick. As with a data cable, the measured values are accepted via the MarCom software directly into MS Excel® or via a keyboard code into any Windows application
- **Reliable transfer:** With Integrated Wireless you can be sure that your data will arrive safely. Measuring instruments with Integrated Wireless display messages to confirm whether the transmitted data has been correctly transferred or whether you are within receiving range of the iStick receiver
- **Long battery life:** The integrated wireless interface makes the measuring instrument exceptionally energy-efficient. And unlike conventional wireless systems, no additional battery is required
- **Affordable:** With Integrated Wireless you can connect up to 8 measuring instruments per iStick receiver. Expensive interface boxes are no longer necessary. With even one connected measuring instrument you get a wireless connection for the price of a cable
- **Scope of delivery:** Software MarCom Standard, Driver

Receiver MarConnect e-Stick

Features

- Retrofit to all Mahr hand measuring instruments that have a data interface
- Wireless data transmission from a measuring instrument to a PC
- Secure data transmission due to the acknowledgement dialog of the received data from the PC to the measuring instrument
- Optical confirmation of received data on the transmitter
- Compact transmitter without an external antenna
- Radio frequency is 2400 MHz*
- Bi-directional radio link (remote control from measuring instruments)
- **Scope of delivery:** Software MarCom Standard, Driver



Technical Data

Order no		4102230
Number of channels		3
Number of connectable transmitters for e-Stick		8 per Stick
Frequency band	MHz	2400
Funkdistanz		up to 6 m
Model		e-Stick
For measuring instrument		Transmission modules 16 EWe, 2000 e, RS232 e, 1082 e

Accessories

Order no	Product description	Model	For measuring instrument
4102212	Software interface	MarCom Professional 5.0	
4102231	Transmitter for e-Stick	16 EWe	MarCal 16 ER, 16 EWR, 16 EWV, 30 EWR, 30 EWN Digimar 814 SR Micromar 40 EWR, 40 EWS, 40 EWV, 44 EWR, 46 EWR MarCator 1075 R, 1086 R, 1087 R, 1087 BR MarSurf PS1
4102232	Transmitter for e-Stick	2000 e	Digimar 816 CL MarCator 1088 / 1088W Millimes 2000, 2001, 2100, µMaxµm II Millimar C1200
4102233	Transmitter for e-Stick	RS232 e	Millimar C1208, C1216, C1245, S1840 Digimar 817 CLM
4102235	Transmitter for e-Stick	1082 e	Digimar M814 N/G Multimar 25 ES MarTool 106 ES

Workshop measuring microscope MarVision MM 420



Application:

- Measurement and evaluation functions (points, lines, circles, angles, distances, intersecting straight lines, etc.) by automatic edge detection e. g. with precision punched and bent components, plastic parts as well as circuit boards.

Technical Data

Order no		4247600	4247601	4247602	4247603
Model		MM 420			
Measuring range X/Y	mm	100 / 100	200 / 100	250 / 170	400 / 250
Travel Z	mm	150 / (350 with extension option)			
Table size	mm	270 x 210	370 x 210	420 x 280	600 x 480
Maximum table load		20			
Measuring system		built-in incremental scale			
Measuring system - resolution		0.001			
Measuring system - E1 X/Y in μm		1.9 + (L/100)		1.9 + (L/100)	3.9 + (L/100)
Measuring system - E2 XY in μm		2.9 + (L/100)			4.9 + (L/100)
Working distance	mm	65			
max. object height	mm	80 / (280 with extension option)			300
Illumination		LED back and front illumination, adjustable			
Dimensions H x W x D	mm	700 x 480 x 430	700 x 650 x 550	700 x 700 x 600	800 x 1000 x 900

Features

Measuring microscope

- Integrated color camera
- Zoom lens, optionally motorized
- LED ring light: 1 ring and 4 segments, individually switchable and dimmable
- LED transmitted light: dimmable
- Solid granite base
- Sturdy steel XY table, precision-mounted
- Quick and fine adjustment of axes
- Optical incremental measuring system for outstanding accuracy and reliability
- Laser pointer for position finding

Evaluation and display unit with M3 software and touchscreen PC

- 23" touchscreen with keyboard and mouse
- The operating system is Windows 8 Pro, so further software can be installed
- Operation via the Multi-Touch screen or with a mouse/keyboard
- Large video screen
- Reference/actual evaluation with tolerances
- Record output with company logo
- Graphical display with dimensions
- Automatic edge detection, even on low-contrast parts
- Statistic (minimum, maximum, range, standard deviation, 6-sigma etc.)
- Sticking (sticking of several single pictures (rectangle sticking, open sticking).
- **Scope of delivery:** M3 software with touchscreen PC, standard stop bar 220 as, instruction manual, Calibration certificate

Workshop measuring microscope MarVision MM 420

Accessories

Order no	Product description	Model
4246114	Optional DXF file integration for M3 software	
4247028	Optional Navitar zoom 6.5:1, motorized	420 zmo
4247029	Optional Navitar zoom 6.5:1, motorized with coaxial LED incident light	420 zmk
4247027	Optional TV adaptor 0.67x (instead of 1.0x), subject to surcharge	420 tv0,67
4247050	Optional telecentric transmitted light for measuring rotationally symmetrical parts	200 ld
4245300	Optional coaxial LED incident light for zoom lens	420 kaz
4246050	Optional Z-axis with measuring system	420 zm
4246051	Optional Z-axis, extended by 200 mm	420 Zv
4246052	Optional Z-axis, extended by 200 mm, including measuring system	420 zvm
4246054	Optional measuring system with extended Z-axis (350 mm), large table	420 zvl
4247020	Ancillary lens 0.5x (for Navitar objective lens only)	420 v0,5
4247021	Ancillary lens 0.75x (for Navitar objective lens only)	420 v0,75
4247022	Ancillary lens 1.5x (for Navitar objective lens only)	420 v1,5
4247023	Ancillary lens 2.0x (for Navitar objective lens only)	420 v2
4246801	Prisms, Pair, for diameter 5–55 mm (measuring tables 100x100 mm, 200x100 mm)	220 p
4246831	Prisms, Pair, for diameter 5–55 mm (measuring table 250 x 170 mm)	220 p
4246832	Prisms, Pair, for diameter 5–55 mm (measuring table 400 x 250 mm)	220 p
4246802	Center support, Pair, center height 40 mm (measuring tables 100x100 mm, 200x100 mm)	220 sp
4246833	Center support, Pair, center height 40 mm (measuring table 250 x 170 mm)	220 sp
4246834	Center support, Pair, center height 40 mm (measuring table 400 x 250 mm)	220 sp
4246806	Center support, pivoting, Pair, center height 50 mm, distance between centers 130 mm (measuring table 200 x 100 mm)	220 sps
4246807	Center support, pivoting, Pair, center height 50 mm, distance between centers 130 mm (measuring table 250 x 170 mm)	220 sps
4246808	Center support, pivoting, Pair, center height 50 mm, distance between centers 130 mm (measuring table 400 x 250 mm)	220 sps
4246920	Rotary glass plate, D=100 mm (measuring 200x100 mm)	200 dk
4246921	Rotary glass plate, D=100 mm (measuring 250x170 mm)	200 dg
4246922	Rotary glass plate, D=100 mm (measuring 400x250 mm)	200 db
4246821	90-degree stop for MM 220 / MM 420	220 as90
4246901	Calibration standard for circles, with calibration certificate	420 nkz
4246071	Protective cover for measuring table 100x100 and 200x100 mm	
4246072	Protective cover for measuring table 250x170 mm	
4246073	Protective cover for measuring table 400x250 mm	



220 p



220 sp



200 sps

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E X A C T L Y

Mahr GmbH
Standort Esslingen
Reutlinger Straße 48, 73728 Esslingen
Tel. +49 711 9312 600, Fax +49 711 9312 756
mahr.es@mahr.de, www.mahr.com

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