

Integrated Wireless families

MarCal | Micromar | MarCator



MarCal | Micromar | MarCator

Hand-held measuring devices with integrated wireless system

Mahr's Integrated Wireless range guarantees you precise measuring results with full mobility. The modern and easy way to measure – without the restrictions of wired technology.

Maximum flexibility for every measuring task

Whether length, width, inner diameter or depth measurements – with Integrated Wireless measuring instruments you're perfectly equipped for every task. The wireless design gives you flexibility and freedom of movement in your measurements – whatever the manufacturing or production environment. The Integrated Wireless connection, together with your MarConnect interface, offers the optimal connection to your recording and evaluation program. It doesn't matter whether you choose to work with Windows Excel or a complex CAQ/SPC software.

- No data loss: Warning of connection issues
- Reference system for avoiding measurement errors
- Intuitive operation and easy handling
- Can be used individually in every production environment
- Easy integration in both Windows Excel and CAQ systems

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Best results in every step

Mahr's portfolio of wireless devices offers you maximum mobility for your measuring tasks. The wireless solution of Integrated Wireless measuring instruments means you can measure without impediment – whatever you use your measuring device for. Mahr measuring instruments are your perfect companion in every manufacturing environment, reliably delivering the performance you have come to expect from state-of-the-art hand-held measuring devices.

Inexpensive

Use your wireless connection for the price of a cable. Purchasing a USB receiver stick (i-Stick) for your computer allows you to operate up to eight measuring devices simultaneously and saves you the additional cost of a connecting cable.

Uncluttered

Keep track! The absence of various cables allows you to keep your workplace tidy and free from clutter.

ID transmission

For quick assignment: The serial and order number are read out by the measuring instrument and saved in the measuring record.



Reliable

The wireless measuring devices with an integrated transmitter provide visual feedback that data is being transferred correctly, as well as an error message if the connection is lost.



Maximum mobility

Measure autonomously and without limits. Thanks to their wireless, compact system Mahr measuring instruments allow precise measuring – even in the machine or on difficult to reach workpieces.

Integrated transmitter

Eliminate risks such as cable breaks or wear and tear. These types of hazard are now a thing of the past with integrated wireless technology.



Free software

Enjoy the benefits of MarCom Professional 5.3 interface software and transfer measuring data individually and conveniently to your Windows applications or CAQ software.

6 meter range

8 measuring instruments simultaneously per i-Stick receiver

81 device versions for every measuring task



It couldn't be easier!

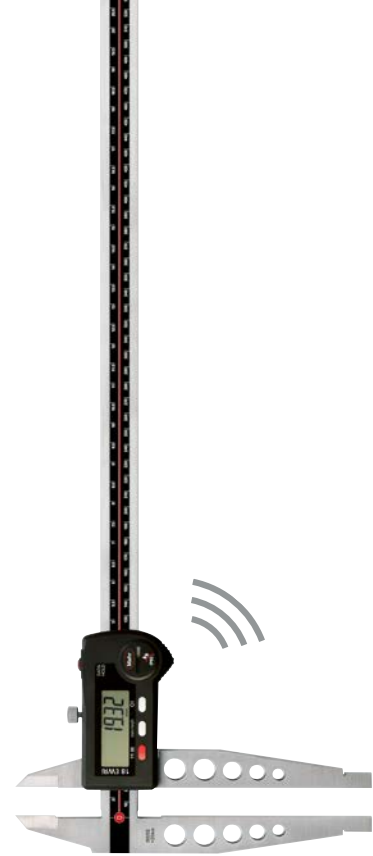
Scan the QR code and see how Integrated Wireless hand-held measuring instruments are used in practice.

Your interface for **even greater performance**

Two steps to the goal: combine your Integrated Wireless instruments with our multifunctional MarCom Professional software. This versatile interface tool combines data acquisition and data transfer with your data processing. How you process the collected data is entirely up to you – for maximum flexibility, choose from a range of output formats the one you find easiest to use.

Enjoy maximum individuality at the workplace with a free choice of output medium and four output formats:

- Virtual interface box: CAQ/SPC software
- Intelligent Excel interface: Microsoft Excel
- Emulation keyboard: any Windows software
- Text file: flexible data processing



The MarCal 18 EWRI workshop calipers with integrated wireless.



MarCom Professional is IATF ready and features a comprehensive range of functions for data transfer and data processing.





The Micromar 40 EWRi micrometer with Integrated Wireless.

Powerful and user-friendly thanks to continual updates!

Perfectly coordinated: MarCom Professional is the ideal data transfer software for all your quality assurance and production needs and is perfectly equipped for data acquisition using measuring equipment from the Integrated Wireless product line. A number of additional functions offer users maximum convenience when acquiring and transferring measurements.

3x

faster configuration

Save time: conveniently configure your measuring instruments via PC interface and eliminate the need for manually setting the instrument..

99%

more reliable

Avoid operating errors: all information is automatically transferred and assigned thanks to the automatic identification of measurements and serial number transfers.

Improved functions:

- Additional data: additional values are transferred to supplementary columns (name, serial number, item number, date and time)
- Device parameters can now be preset: reference values (preset, tolerance limits, warning limits in %) as well as function locks can be queried and changed on the instrument
- Improved Excel functionality:
 - Easily undo the last data transfer – right in the program with a simple click
 - Adapted column and row names: R1C1 reference style for use with Excel as in practice

New features:

- IATF ready: transfers and displays the measuring equipment ID and item and serial number to clearly allocate the measuring equipment to the measurements
- Tab settings in up to 3 areas: settings, device parameters and goal
- Scalable measurement value display
- Manually sort the device overview using drag-and-drop



MarCom Professional | Software

Reliable data transfer with MarCom Professional

Your measuring results are valuable: MarCom Professional, our free interface software, reliably and professionally transfers your measurements to your Windows applications or CAQ software.

The software is compatible with all electronic Mahr measuring instruments that use the MarConnect flexible interface concept. This includes the following connections:

- Integrated Wireless (wireless data transfer)
- USB
- Opto RS 232 or Digimatic
- External wireless modules

Download free of charge at
www.mahr.com/marcom

Integrated for improved performance

The portfolio of wireless devices with their integrated transmitter and perfectly coordinated software offers everything you need for the ideal measuring process. Mahr measuring technology is your perfect companion in every manufacturing environment, reliably delivering exactly the performance you have come to expect from state-of-the-art hand-held measuring instruments.

More **reliability**

Thanks to Mahr Integrated Wireless technology, you can rely on a tested and stable connection for transferring your measuring values. The integrated connectivity display will alert you to any connection errors immediately – thus preventing the loss of valuable data.

Maximum **flexibility**

The simple application and compact, wireless design enables easy, precise measuring. It means that even in the tightest of spaces or with difficult to reach workpieces in awkward corners and angles, you will always have the upper hand in all measuring tasks.

Maximum **compatibility**

Excellent connectivity in every working environment: Effortlessly operate multiple wireless measuring instruments at the same time. Even workstations in close proximity are not a problem; incoming data streams are quickly and reliably assigned to the respective measuring instrument thanks to ID transmission. This flexible system allows you to import the measuring data to Excel or CAQ software as required and thereby tailor your measuring routine completely to your needs.

The latest generation of **calipers**

Integrated Wireless

Large display

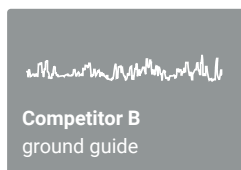
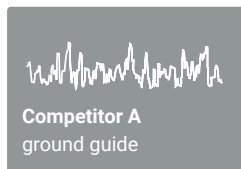
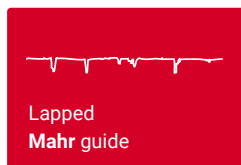
The high-contrast display with 11 mm digits provides reliable, effortless measurement readings – even at the first glance.

Ergonomic design

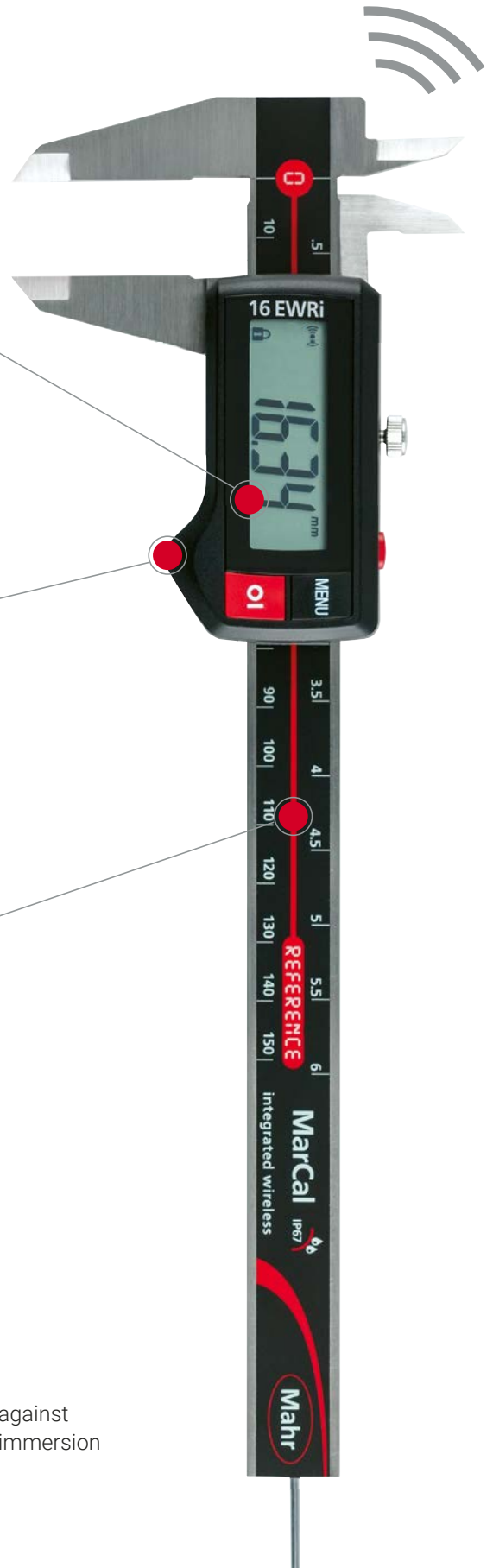
The handy thumb rest guarantees easy handling and prevents slipping even in dirty environments.

Guide quality

Lapped slideways provide the unique quality of even and sensitive gliding of the slide. In addition, the service life is longer than that of ground guides due to a much greater percentage contact area of the slideway.



IP
6
7
Dust-tight
Protection against temporary immersion



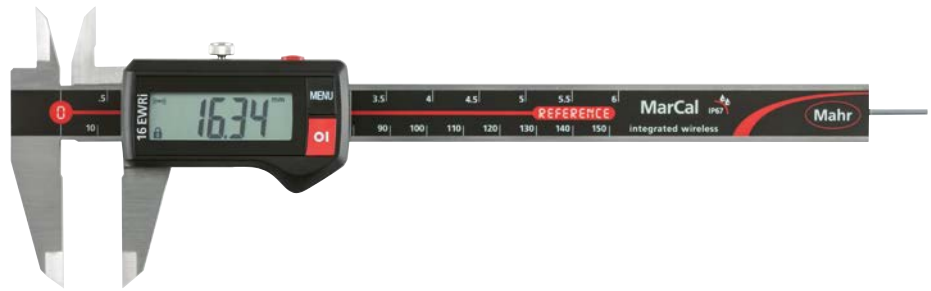
MarCal 16 EWri

Digital caliper



Functions

- ON/OFF
- AUTO-ON / OFF
- HOLD (storage of measured values)
- RESET (set display to zero)
- PRESET (for entering a numerical value)
- Reversal of counting direction
- mm/inch
- LOCK function (key lock)
- DATA (data transmission)



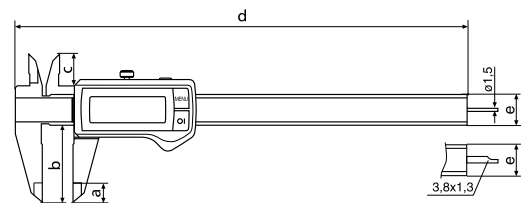
Features

- High-contrast analog display
- Locking screw above
- Lapped guideway
- Measuring blade for inside measurements
- Slide and beam made of hardened stainless steel
- Step measuring function
- Immediate measurements due to the Reference System
- Raised guideway for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 11 mm
- Data interface: Integrated wireless
- Energy supply: Battery life approx. 3 years (approx. 0.5 in wireless mode)
- IP protection category: IP 67
- Package contains: battery, instruction manual, case

Technical Data

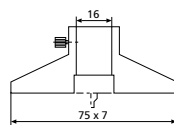
Order No.	Type	Measuring range	Numerical increment	Error limit	Standard	Depth Rod	Friction wheel
		mm	mm/inch	mm			
4103400	16 EWri	0 – 150	0,01 / .0005"	0,03	DIN 862	round	
4103401	16 EWri	0 – 150	0,01 / .0005"	0,03	DIN 862	round	•
4103402	16 EWri	0 – 150	0,01 / .0005"	0,03	DIN 862	rectangular	
4103403	16 EWri	0 – 150	0,01 / .0005"	0,03	DIN 862	rectangular	•
4103404	16 EWri	0 – 200	0,01 / .0005"	0,03	DIN 862	rectangular	
4103405	16 EWri	0 – 200	0,01 / .0005"	0,03	DIN 862	rectangular	•
4103406	16 EWri	0 – 300	0,01 / .0005"	0,04	Factory standard		
4103407	16 EWri	0 – 300	0,01 / .0005"	0,04	Factory standard		•

Order No.	a	b	c	d	e
	mm	mm	mm	mm	mm
4103400	10	40	16	235	16
4103401	10	40	16	235	16
4103402	10	40	16	235	16
4103403	10	40	16	235	16
4103404	10	50	19	285	16
4103405	10	50	19	285	16
4103406	14	64	19	388	16
4103407	14	64	19	388	16



Accessories

Order No.	Product name	Type
4102020	Depth bridge (75 x 7 mm)	16 Em
4102220	Receiver for instruments with integrated wireless	i-Stick
4102520	Battery 3 V, CR 2032	



16 Em



i-Stick

Integrated Wireless

MarCal 16 EWRI-H

Digital caliper for special applications



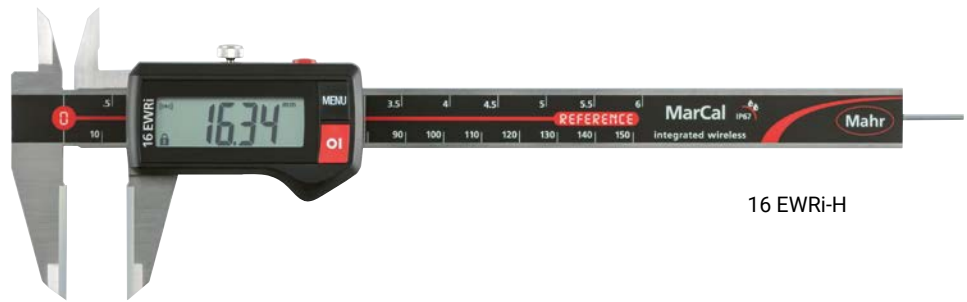
Integrated Wireless

Functions

- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- PRESET (for entering a numerical value)
- DATA (data transmission)
- HOLD (storage of measured values)

Features

- High-contrast analog display
- Locking screw on top
- Lapped guideway
- Measuring blade for inside measurements
- Slide and beam made of hardened stainless steel
- Step measuring function
- Immediate measurements due to the Reference System
- Raised guideway for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 11 mm
- Data interface: Integrated wireless
- Energy supply: Battery life approx. 3 years (approx. 0.5 in wireless mode)
- IP protection category: IP 67
- Package contains: battery, instruction manual, case



16 EWRI-H

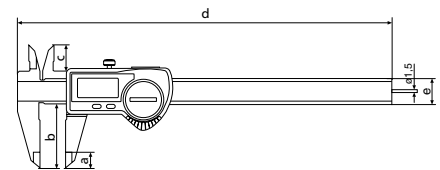
Application:

Outer measuring surfaces made of carbide, for measuring hard materials

Technical Data

Order No.	Type	Measuring range	Numerical increment	Error limit	Standard	Depth Rod
4103373	16 EWRI-H	0 – 150	mm/inch 0,01 / .0005"	mm 0,03	DIN 862	round

Order No.	a	b	c	d	e
	mm	mm	mm	mm	mm
4103373	10	40	16	235	16



Accessories

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick
4102520	Battery 3 V, CR 2032	



i-Stick

MarCal 16 EWRI-C

Digital caliper for special applications

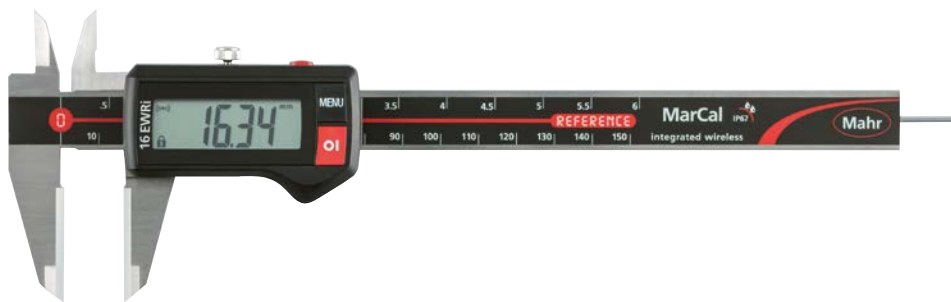


Functions

- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- PRESET (for entering a numerical value)
- DATA (data transmission)
- HOLD (storage of measured values)

Features

- High-contrast analog display
- Locking screw on top
- Lapped guideway
- Measuring blade for inside measurements
- Slide and beam made of hardened stainless steel
- Step measuring function
- Immediate measurements due to the Reference System
- Raised guideway for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 11 mm
- Data interface: Integrated wireless
- Energy supply: Battery life approx. 3 years (approx. 0.5 in wireless mode)
- IP protection category: IP 67
- Package contains: battery, instruction manual, case



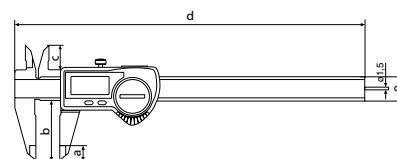
Application:

Outer measuring surfaces made of ceramic, for measuring hard materials

Technical Data

Order No.	Type	Measuring range	Numerical increment	Error limit	Standard	Depth Rod
4103372	16 EWRI-C	0 – 150	mm/inch 0,01 / .0005"	mm 0,03	DIN 862	round

Order No.	a	b	c	d	e
4103372	mm 10	mm 40	mm 16	mm 235	mm 16



Accessories

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick
4102520	Battery 3 V, CR 2032	



i-Stick

Integrated Wireless

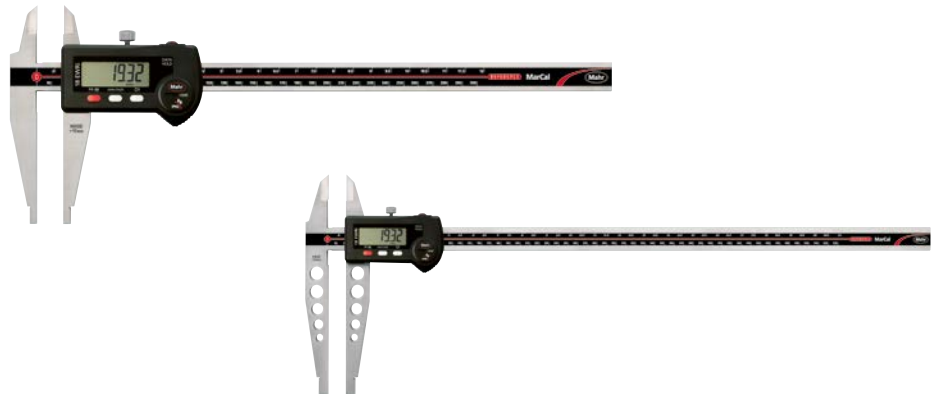
MarCal 18 EWri

Digital workshop calipers



Functions

- ON/OFF
- AUTO ON / OFF
- HOLD (storage of measured values)
- RESET (set display to zero)
- PRESET (enter a numerical value)
- Reversal of counting direction
- mm/inch
- LOCK function (key lock)
- DATA (data transfer)



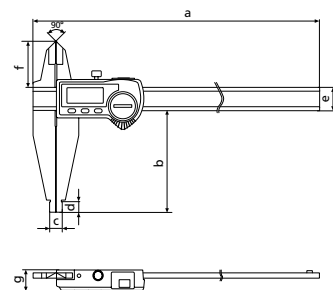
Features

- High-contrast numerical display
- Locking screw, upper
- Rounded measuring surfaces for inner dimensions
- Slide and rail are made of hardened stainless steel
- Ready to measure immediately thanks to reference system
- Raised guideways to protect the scale
- Excellent resistance to dust, coolants and lubricants
- Dirt scraper in the slide
- Software: MarCom Professional is free to download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS-232 interface)
- Digit height: 12.5 mm
- Data interface: Integrated wireless
- Power supply: Battery life approx. 3 years (approx. 0.5 in wireless mode)
- IP protection rating: IP 65
- Scope of delivery: battery, operating instructions, case

Technical data

Order no.	Type	Measuring range	Resolution	Measuring blades for outer dimensions	Error limit	Standard
		mm	mm/inch		mm	
4112571	18 EWri	0 – 300	0.01 / .0005"	•	0.03	Factory standard
4112572	18 EWri	0 – 500	0.01 / .0005"	•	0.04	Factory standard
4112573	18 EWri	0 – 750	0.01 / .0005"	•	0.05	Factory standard
4112574	18 EWri	0 – 1000	0.01 / .0005"	•	0.06	Factory standard

Order no.	a	b	c	d	e	f
	mm	mm	mm	mm	mm	mm
4112571	430	90	10	10	20	40
4112572	650	150	20	20	25	55
4112573	905	150	20	20	25	55
4112574	1165	150	20	20	30	60



Accessories

Order no.	Description	Type
4102220	Wireless receiver for measuring instruments with Integrated Wireless	i-stick



i-Stick

MarCal 16 EWri-V

Digital universal caliper

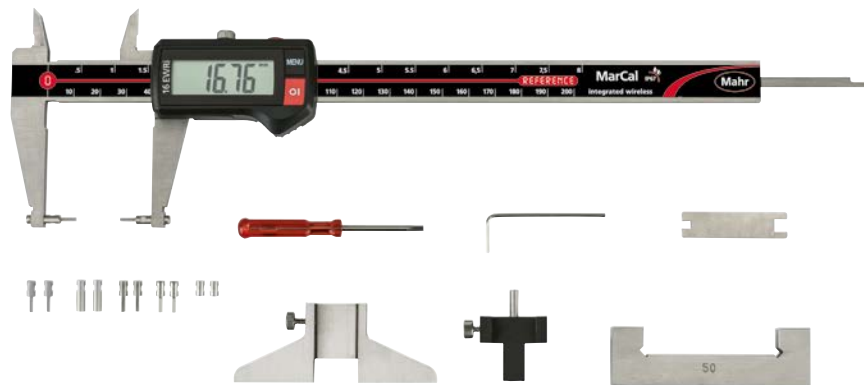


Functions

- AUTO-ON / OFF
- ON/OFF
- DATA (data transmission via connection cable)
- HOLD (storage of measured values)
- PRESET (for entering a numerical value)
- RESET (set display to zero)
- mm/inch
- LOCK-Function (key lock)

Features

- High-contrast analog display
- Locking screw on top
- Lapped guideway
- Measuring blade for inside measurements
- Slide and beam made of hardened stainless steel
- Step measuring function
- Immediate measurements due to the Reference System
- Raised guideway for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 11 mm
- Data interface: Integrated wireless
- Energy supply: Battery life approx. 3 years (approx. 0.5 in wireless mode)
- IP protection category: IP 67
- Package contains: battery, instruction manual, case, setting gage for inside measurement 16 Eel, measuring force device 16 Ec, depth measuring bridge 16 Em, anvils for outside and inside measurement 16 Eea 1-3



Application:

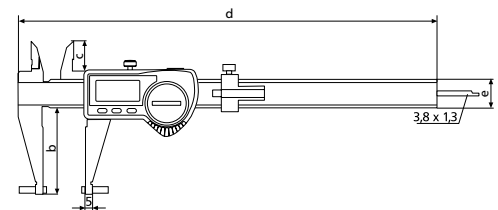
- Can be used as standard caliper (four measuring directions) with standard accessories for measuring recesses, grooves, etc.
- Can be used with special accessories for measuring threads, bores and gears



Technical Data

Order No.	Type	Measuring range	Numerical increment	Error limit	Standard	Depth Rod	Incl. Accessories
4118907	16 EWri-V	0 – 200	0,01 / .0005"	0,03	DIN 862	rectangular	•

Bestell-Nr.	b	c	d	e
4118907	mm	mm	mm	mm
	48	16,5	285	16



Accessories

Order No.	Product name	Quantity	unit	Type
4102020	Depth bridge (75 x 7 mm)			16 Em
4118810	Anvil for outside measurement (3,5 x 12 mm)	piece		16 Eea 1
4118811	Anvil for outside measurement (1,5 x 6 mm)	piece		16 Eea 2
4118812	Anvil for outside measurement (3,5 x 6 mm)	piece		16 Eea 3
4118813	Anvil for inside measurement (3,5 x 6 mm)	piece		16 Eei 1
4118814	Anvil for inside measurement (1,5 x 6 mm)	piece		16 Eei 2
4118815	Anvil for inside measurement (3,5 x 6 mm)	piece		16 Eei 3
4118816	Anvil for inside measurement (4 x 2,5 mm)	piece		16 Eei 4
4118817	Setting Gage for inside measurement (50 mm)			16 Eel
4118818	Measuring Force Device			16 Ec
4879602	Screws M2x8	piece		
4118819	Mounting Attachment for thread anvils 844 TG/844Tr and ball anvils 844 Tk			16 Eab
4102220	Receiver for instruments with integrated wireless			i-Stick
4102520	Battery 3 V, CR 2032			

Multimar 25 EWri

Digital universal caliper



functions

- ON/OFF
- AUTO ON / OFF
- HOLD (storage of measured values)
- RESET (set display to zero)
- PRESET (enter a numerical value)
- Reversal of counting direction
- mm/inch
- LOCK function (key lock)
- DATA (data transfer)



Application:

for measuring inner and outer diameters, centering shoulders, narrow collars, outer and inner tapers, dovetails, recesses, bore distances

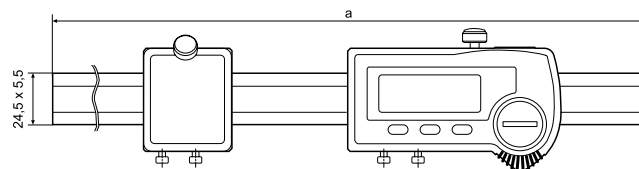
Features

- Can be customized to the measuring task thanks to modular accessories (optional)
- Digital display can always be read as the measuring elements can be installed on the top or bottom
- The application range can be extended by turning the measuring arms
- The two arm holders can be moved along the rail for optimal balance, which is particularly practical with small dimensions
- Slide and rail are made of hardened stainless steel
- Data interface: Integrated wireless
- Power supply: Battery life approx. 3 years (approx. 0.5 in wireless mode)
- IP protection rating: IP 65
- Software: MarCom Professional is free to download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS-232 interface)
- Scope of delivery: Operating instructions, mounting and resting blocks, wooden box, without measuring arms/ mounting attachments and measuring anvils

Technical data

Order no.	Type	Application range	Resolution	Error limit
		mm	mm/inch	mm
4119050	25 EWri	0 – 300	0.01 / .0005"	0.03
4119051	25 EWri	0 – 600	0.01 / .0005"	0.03
4119052	25 EWri	0 – 1000	0.01 / .0005"	0.04
4119053	25 EWri	0 – 1250	0.01 / .0005"	0.04

Order no.	a
	mm
4119050	480
4119051	790
4119052	1200
4119053	1450



Accessories

Order no.	Description	Type
4102220	Wireless receiver for measuring instruments with Integrated Wireless	i-stick
4118520	Setting standard	25 Eel
4119010	Measuring tips for drill hole intervals, Ø 2–20 mm	25 Eba
4119011	Measuring tips for drill hole intervals, Ø 10–40 mm	25 Eba
4503020	Accessories case	844 Tzb
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
4503030	Mounting attachments	844 Tma
4503031	Mounting attachments	844 Tmi
4503109	Depth stops for measuring arms 844 Tma, 844 Tmi, 844 Te	844 Tw

MarCal 30 EWRI

Digital depth gage



Functions

- ON/OFF
- AUTO-ON / OFF
- RESET (set display to zero)
- mm/inch
- PRESET (for entering a numerical value)
- LOCK function (key lock)
- HOLD (storage of measured values)
- Reversal of counting direction
- DATA (data transmission)

Features

- High-contrast analog display
- Locking screw on top
- Lapped guideway
- Measuring surfaces made of steel
- Slide and beam made of hardened stainless steel
- Immediate measurements due to the Reference System
- Raised guideway for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide
- Digit height: 11 mm
- Data interface: Integrated wireless
- Energy supply: Battery life approx. 3 years (approx. 0.5 in wireless mode)
- IP protection category: IP 67
- Package contains: battery, instruction manual, case

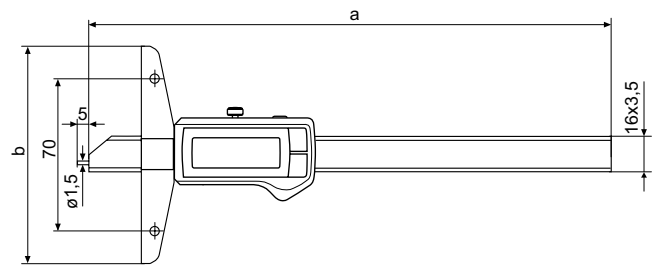


30 EWRI

Technical Data

Order No.	Type	Measuring range		Error limit	Standard
		mm	mm/inch		
4126755	30 EWRI	0 – 150	0,01 / .0005"	0,03	Factory standard
4126754	30 EWRI	0 – 200	0,01 / .0005"	0,03	Factory standard
4126756	30 EWRI	0 – 300	0,01 / .0005"	0,04	Factory standard
4126757	30 EWRI	0 – 500	0,01 / .0005"	0,05	Factory standard

Order No.	a	b
	mm	mm
4126755	234	100
4126754	284	100
4126756	384	150
4126757	584	150

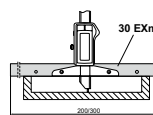


Accessories

Order No.	Product name	Quantity unit	Type
4102220	Receiver for instruments with integrated wireless		i-Stick
4102520	Battery 3 V, CR 2032		
4125611	Anvil (4 mm)	Piece	30 ESa
4126510	Cross beam extension (300 mm)		30 EXm
4126511	Cross beam extension (200 mm)		30 EXm



i-Stick



30 EXm



30 ESa

MarCal 30 EWRI

Digital depth gage



Integrated Wireless

Functions

- ON/OFF
- AUTO-ON / OFF
- RESET (set display to zero)
- mm/inch
- PRESET (for entering a numerical value)
- LOCK function (key lock)
- HOLD (storage of measured values)
- Reversal of counting direction
- DATA (data transmission)

Features

- High-contrast analog display
- Locking screw on top
- Lapped guideway
- Measuring surfaces made of steel
- Slide and beam made of hardened stainless steel
- Immediate measurements due to the Reference System
- Raised guideway for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Data interface: Integrated wireless
- Energy supply: Battery life approx. 3 years (approx. 0.5 in wireless mode)
- IP protection category: IP 67
- Package contains: battery, instruction manual, case



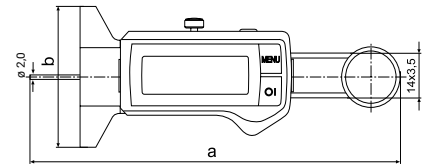
Application:

- Small, handy, practical
- Ideal for mobile use in production, control and assembly
- For small measuring depths in bores and grooves

Technical Data

Order No.	Type	Measuring range	Numerical increment	Error limit	Standard	Depth Rod
4126751	30 EWRI	0 – 25 mm	0,01 / .0005" mm/inch	0,02 mm	Factory standard	round

Order No.	a	b
4126751	129 mm	48 mm



Accessories

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick
4102520	Battery 3 V, CR 2032	



i-Stick

i Information on our accessories for MarCal 30 EWRI can be found at www.mahr.de

MarCal 30 EWRI-U

Digital depth gage



Functions

- ON/OFF
- AUTO-ON/OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- PRESET (for entering a numerical value)
- DATA (data transmission)
- HOLD (storage of measured values)

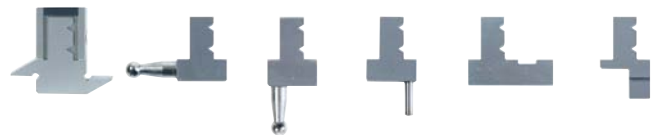
Features

- High-contrast analog display
- Locking screw above
- Lapped guideway
- Measuring surfaces made of steel
- Slide and beam made of hardened stainless steel
- Immediate measurements due to the Reference System
- Raised guideway for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 11 mm
- Data interface: Integrated wireless
- Energy supply: Battery life approx. 3 years (approx. 0.5 in wireless mode)
- IP protection category: IP 67
- Package contains: Measuring anvil 30 Ud (twin hook for widths and distances), battery, instruction manual, case



Application:

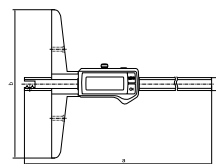
- Measuring groove widths and distances between grooves (with standard 30 Ud anvil with twin hook)
- This depth gage can also be adapted to other measuring applications with the extensive range of optional accessories (anvils and adjustable measuring bridges)



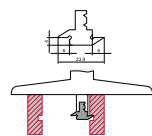
Technical Data

Order No.	Type	Measuring range	Numerical increment	Error limit	Standard
		mm	mm/inch	mm	
4126603	30 EWRI-U	0 – 300	0,01 / .0005"	0,04	Factory standard
4126604	30 EWRI-U	0 – 500	0,01 / .0005"	0,05	Factory standard

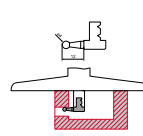
Order No.	a	b	c
	mm	mm	mm
4126603	385	150	16
4126604	585	150	16



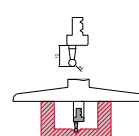
Accessories



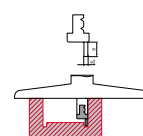
30 EUd
Order No. 4126630



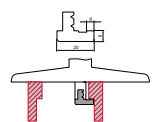
30 EUw
Order No. 4126631



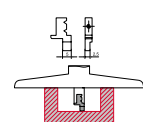
30 EUg
Order No. 4126632



30 EUb
Order No. 4126633



30 EUh
Order No. 4126634



30 EUs
Order No. 4126635



30 EUm Adjustable measuring bridge
300 mm, Order No. 4126641
400 mm, Order No. 4126641



i-Stick
Order No. 4102220



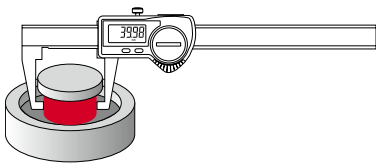
Detailed information on accessories for MarCal 30 EWRI-U can be found at www.mahr.de

MarCal Digital caliper for special applications

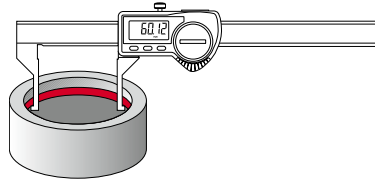


MarCal 16 EWRi-BA

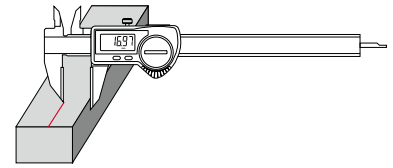
MarCal 16 EWRi-AA



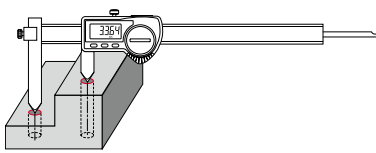
MarCal 16 EWRi-AI



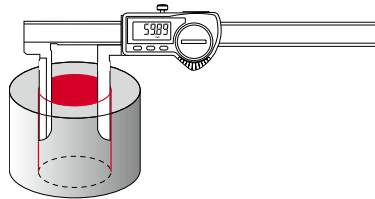
MarCal 16 EWRi-AR



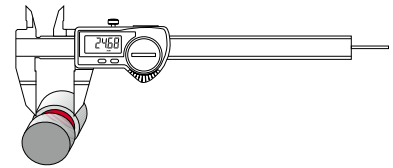
MarCal 16 EWRi-BA



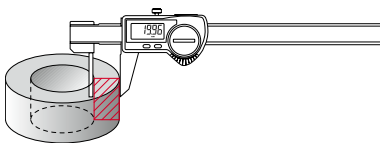
MarCal 16 EWRi-LI



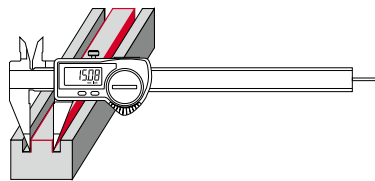
MarCal 16 EWRi-NA



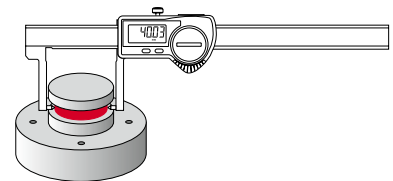
MarCal 16 EWRi-RW



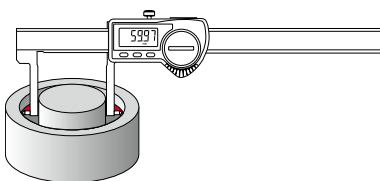
MarCal 16 EWRi-S



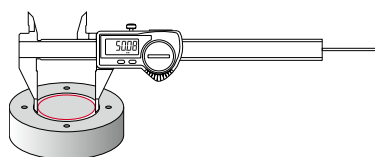
MarCal 16 EWRi-SA



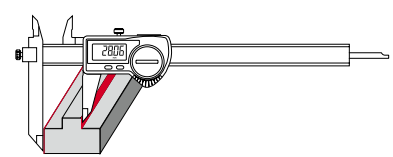
MarCal 16 EWRi-SI



MarCal 16 EWRi-SM



MarCal 16 EWRi-VS



Functions

- ON/OFF
- AUTO-ON / OFF
- HOLD (storage of measured values)
- RESET (set display to zero)
- PRESET (for entering a numerical value)
- Reversal of counting direction
- mm/inch
- LOCK function (key lock)
- DATA (data transmission)

- High-contrast analog display
- Locking screw on top
- Lapped guideway
- Measuring blade for inside measurements
- Slide and beam made of hardened stainless steel
- Step measuring function
- Immediate measurements due to the Reference System
- Raised guideway for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Height of digits: 11 mm
- Data interface: Integrated wireless
- Energy supply: Battery life approx. 3 years (approx. 0.5 in wireless mode)
- IP protection category: IP 67
- Package contains: battery, instruction manual, case

Technical Data

Order No.	Type	Measuring range		Error limit	Standard	Depth Rod
		mm	mm/inch			
4103379	16 EWRI-AA	0 – 150	0,01 / .0005"	0,03	Factory standard	without
4103380	16 EWRI-AI	10 – 160	0,01 / .0005"	0,03	Factory standard	without
4103382	16 EWRI-AR	0 – 200	0,01 / .0005"	0,03	Factory standard	rectangle
4103384	16 EWRI-BA	10 – 210	0,01 / .0005"	0,04	Factory standard	rectangle
4103385	16 EWRI-LI	10 – 200	0,01 / .0005"	0,05	Factory standard	without
4103374	16 EWRI-NA	0 – 150	0,01 / .0005"	0,03	Factory standard	round
4103381	16 EWRI-RW	0 – 150	0,01 / .0005"	0,05	Factory standard	without
4103375	16 EWRI-S	0 – 150	0,01 / .0005"	0,03	Factory standard	round
4103377	16 EWRI-SA	0 – 140	0,01 / .0005"	0,03	Factory standard	without
4103378	16 EWRI-SI	20 – 170	0,01 / .0005"	0,03	Factory standard	without
4103376	16 EWRI-SM	0 – 150	0,01 / .0005"	0,03	Factory standard	round
4103383	16 EWRI-VS	0 – 200	0,01 / .0005"	0,04	Factory standard	rectangle

Accessories

Order No.	Product name	Type
4102220	Receiver	i-Stick
4102520	Battery 3 V, CR 2032	



For detailed information about the special caliper line visit www.mahr.com

The latest generation of micrometers

No damage to workpieces

The non-rotating, contacting measuring system prevents scratches to sensitive and precision-machined surfaces. You can even measure thin metal foils for example, without them becoming twisted or deformed.

Quick sliding adjustment

The quick adjustment dramatically reduces measuring times: a spindle feed rate 10 times faster than the standard achieves a measuring path of 5 mm per revolution.

Non-rotating spindle

The non-rotating spindle maintains the engaged position. For example, when it comes to thread flank measurement using thread measuring wires, the two measuring wire holders always remain engaged with each other.

Compact design

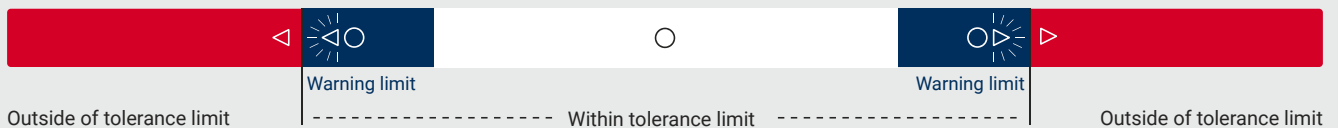
The handy size and sophisticated ergonomics enable the easiest one-handed operation in its compact class.

40 EWRI-L

Mahr
Micromar
IP65

OR mm
OR ABS H TOL

Tolerance function with warning limits



Micromar 40 EWri

Digital micrometer set



Functions

- RESET (set display to zero)
- ABS (display can be set to zero without losing reference to ORIGIN)
- mm/inch
- ORIGIN (for entering a numerical value)
- LOCK function (key lock)
- TOL (Tolerance and warning limits)
- HOLD (storage of measured values)
- DATA (data transmission)
- Bi-directional data interface (external input option of characteristic values and setting of individual lock functions by software MarCom)

Features

- High-contrast analog display
- Stainless spindle is hardened throughout and ground
- Spindle and anvil are carbide tipped
- Rapid drive
- Ratchet is integrated in the thimble
- Lacquered steel frame, heat insulated
- MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 10 mm
- Data interface: Integrated wireless
- Energy supply: Battery life approx. 3 years (approx. 0.5 in wireless mode)
- IP protection category: IP 65
- Package contains: instruction manual, battery, setting values, case



40 EWri

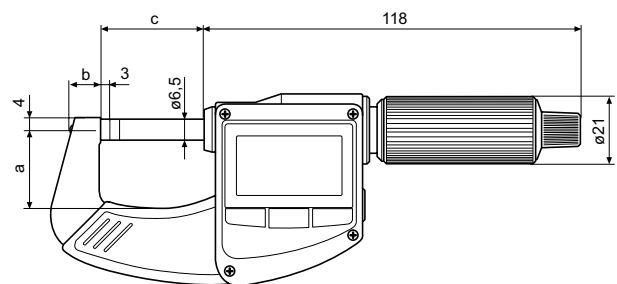


40 EWri set 4157115

Technical Data

Order No.	Measuring range	Numerical increment	Error limit	Parallelism deviation	Flatness deviation	Spindle thread pitch	Measuring force	Standard	Number of Micrometers
	mm	mm/inch	µm	µm	µm	mm	N		
4157100	0 – 25	0,001 / .00005"	2	2	0,6	0,5	5 – 10	Factory standard	
4157101	25 – 50	0,001 / .00005"	2	2	0,6	0,5	5 – 10	Factory standard	
4157102	50 – 75	0,001 / .00005"	3	3	0,6	0,5	5 – 10	Factory standard	
4157103	75 – 100	0,001 / .00005"	3	3	0,6	0,5	5 – 10	Factory standard	
4157104	100 – 125	0,001 / .00005"	6	3	0,6	0,5	5 – 10	Factory standard	
4157105	125 – 150	0,001 / .00005"	6	3	0,6	0,5	5 – 10	Factory standard	
4157106	150 – 175	0,001 / .00005"	7	4	0,6	0,5	5 – 10	Factory standard	
4157107	175 – 200	0,001 / .00005"	7	4	0,6	0,5	5 – 10	Factory standard	
4157115	0 – 100	0,001 / .00005"				0,5	5 – 10	Factory standard	4

Order No.	a	b	c
	mm	mm	mm
4157100	24	9,5	32
4157101	36	11	57
4157102	45	13	82
4157103	57	13	107
4157104	73	13	132
4157105	82	13	157
4157106	95	13	182
4157107	106	13	207
4157115			



Accessories

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick
4102520	Battery 3 V, CR 2032	
4158000	Stand, for holding outside micrometers	41 H

Micromar 40 EWRI-L

Digital micrometer



Functions

- RESET (set display to zero)
- ABS (display can be set to zero without losing reference to ORIGIN)
- mm/inch
- ORIGIN (for entering a numerical value)
- LOCK function (key lock)
- TOL (Tolerance and warning limits)
- HOLD (storage of measured values)
- DATA (data transmission via connection cable)
- Bi-directional data interface (external input option of characteristic values and setting of individual lock functions by software MarCom)

Features

- High-contrast analog display
- Stainless spindle is hardened throughout
- Spindle and anvil are carbide tipped
- QUICK DRIVE
- Rapid adjustment
- Sliding spindle
- Ratchet is integrated in the thimble
- Lacquered steel frame, heat insulated
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 10 mm
- Data interface: Integrated wireless
- Energy supply: Battery life approx. 2 years (approx. 0.5 in wireless mode)
- IP protection category: IP 65
- Package contains: instruction manual, battery, setting standard (measuring range of 25-50 mm), case



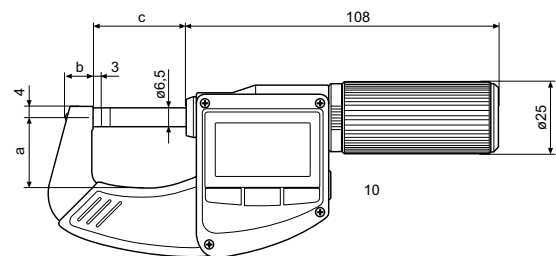
Application:

- Avoiding workpiece damage: The non-rotating spindle has a infringing touch, which prevents scratch marks on sensitive and finely machined surfaces
- Ideal for measuring thin metal foils without twisting and bending them
- Thread flank measurement by using thread wires: Both wire holders always remain in the engaged position with the non-rotating spindle

Technical Data

Order No.	Measuring range	Numerical increment	Error limit	Parallelism deviation	Flatness deviation	Spindle thread pitch	Measuring force	Standard
	mm	mm/inch	µm	µm	µm	mm	N	
4157120	0 – 25	0,001 / .00005"	2	2	0,6	5	5 – 10	Factory standard
4157121	25 – 50	0,001 / .00005"	2	2	0,6	5	5 – 10	Factory standard
4157122	50 – 75	0,001 / .00005"	3	3	0,6	5	5 – 10	Factory standard
4157123	75 – 100	0,001 / .00005"	3	3	0,6	5	5 – 10	Factory standard

Order No.	a	b	c
	mm	mm	mm
4157120	24	9,5	32
4157121	36	11	57
4157122	45	13	82
4157123	57	13	107



Accessories

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick
4102520	Battery 3 V, CR 2032	
4158000	Stand, for holding outside micrometers	41 H



41 H



i-Stick

Micromar 40 EWRI-V

Digital micrometer



Functions

- RESET (set display to zero)
- ABS (display can be set to zero without losing reference to ORIGIN)
- mm/inch
- ORIGIN (for entering a numerical value)
- LOCK function (key lock)
- TOL (Tolerance and warning limits)
- HOLD (storage of measured values)
- DATA (data transmission via connection cable)
- Bi-directional data interface (external input option of characteristic values and setting of individual lock functions by software MarCom)

- Package contains:
For each pair of measuring anvils:

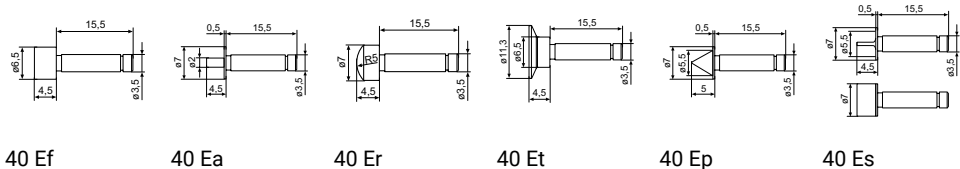
- 40 Ef flat $\varnothing 6.5$ mm
- 40 Ea offset $\varnothing 2 \times 4$ mm
- 40 Et plate $\varnothing 11.3$ mm
- 40 Eb spherical $R=5$ mm
- 40 Ep tapered $60^\circ \varnothing 0.3 - 5.5$ mm
- 40 Es blade 0.75×4 mm

- instruction manual, battery, case



Application:

Universal adjustment to different workpieces and measurement situations using individual interchangeable measuring anvils. Thread flanks and spherical measuring anvils (optional accessories) can also be used.



Technical Data

Order No.	Type	Measuring range	Numerical increment	Error limit	Spindle thread	Measuring force	Standard	Incl. accessories
		mm	mm/inch	μm	mm	N		
4157150	40 EWRI-V	0 - 25	0,001 / .00005"	4	5	5 - 10	DIN 863-3	•

Accessories

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick



i-Stick



Further information and exchangeable measuring inserts for thread flank measurement as well as ball measuring inserts can be found at www.mahr.de

Micromar 40 EWri-V

Digital micrometer



Features

- High-contrast analog display
- Stainless spindle is hardened throughout
- With mounting bores for measuring anvils with a shaft \varnothing 3.5 mm
- QUICK DRIVE
- Rapid adjustment
- Sliding spindle
- Ratchet is integrated in the thimble
- Lacquered steel frame, heat insulated
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 10 mm
- Data interface: MarConnect (bidirectional), USB, Digimatic
- Energy supply: Battery life approx. 3 years
- IP protection category: IP 65
- Package contains: instruction manual, battery, case



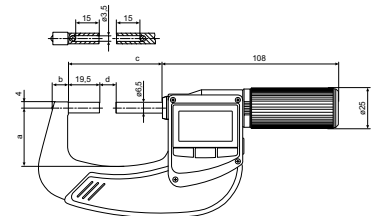
Application:

Universal adjustment to different workpieces and measurement situations using individual interchangeable measuring anvils. Thread flanks and spherical measuring anvils (optional accessories) can also be used.

Technical Data

Order No.	Type	Measuring range		Numerical increment		Error limit μm	Spindle thread pitch mm	Measuring force N	Standard
		mm	mm/inch	mm/inch	mm				
4157145	40 EWri-V	0 – 25	0,001 / .00005"	4	5	5 – 10	DIN 863–3		
4157146	40 EWri-V	25 – 50	0,001 / .00005"	4	5	5 – 10	DIN 863–3		
4157147	40 EWri-V	50 – 75	0,001 / .00005"	6	5	5 – 10	DIN 863–3		
4157148	40 EWri-V	75 – 100	0,001 / .00005"	6	5	5 – 10	DIN 863–3		

Order No.	a	b	c	Mounting hole
	mm	mm	mm	
4157145	32	11,5	57	For measuring anvils with a shaft diameter 3.5 x 15.5 mm
4157146	44	13,5	82	For measuring anvils with a shaft diameter 3.5 x 15.5 mm
4157147	57	15,5	107	For measuring anvils with a shaft diameter 3.5 x 15.5 mm
4157148	73	17	132,5	For measuring anvils with a shaft diameter 3.5 x 15.5 mm



Accessories

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick



i-Stick

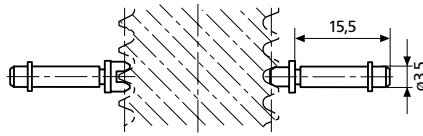
i Further information and exchangeable measuring inserts for thread flank measurement as well as ball measuring inserts can be found at www.mahr.de

Micromar Thread anvils

Digital micrometer

Features

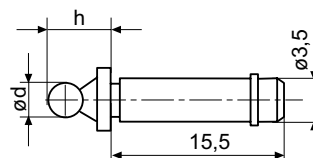
- Wear-resistant special steel, hardened. With cylindrical mounting shank and retainer ring for rotatable mounting in the bore of the measuring spindle and anvil.
- Pair comprises V-anvil and cone.
- With a pitch of 0.2 - 0.45 mm, the V-anvil bridges 3 turns. It should therefore be set with 715 E thread adjustment pins, otherwise with 43 Z setting standards.



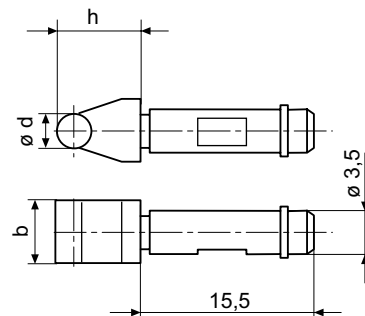
Thread pitch	Taper Order No.	V-anvil Order No.
Pitch diameter, external thread		
Metric 60°		
0,2	4173407	4173007
0,25	4173408	4173008
0,3	4173409	4173009
0,35	4173410	4173010
0,4	4173411	4173011
0,45	4173412	4173012
0,5 - 0,7	4173400	4173000
0,7 - 1	4173401	4173001
1,25 - 2	4173402	4173002
2 - 3,5	4173403	4173003
3,5 - 5	4173404	4173004
5 - 7	4173405	4173005
7 - 9	4173406	4173006
Trapezoid 30°		
1	4173650	4173250
1,5	4173651	4173251
2	4173652	4173252
3	4173653	4173253
4	4173654	4173254
5	4173655	4173255
6	4173656	4173256
7	4173657	4173257
8	4173658	4173258
9	4173659	4173259
10	4173660	4173260
12	4173661	4173261
14	4173662	4173262
16	4173663	4173263
18	4173664	4173264
20	4173665	4173265

Thread pitch in TPI	Taper Order No.	V-anvil Order No.
Pitch diameter, external thread		
UST 60°		
60 - 48	4173513	4173113
48 - 40	4173514	4173114
40 - 32	4173515	4173115
32 - 24	4173516	4173116
24 - 18	4173517	4173117
18 - 14	4173518	4173118
14 - 10	4173519	4173119
10 - 7	4173520	4173120
7 - 4,5	4173521	4173121
4,5 - 3	4173522	4173122
Whitworth 55°		
40 - 32	4173443	4173043
32 - 24	4173444	4173044
24 - 18	4173445	4173045
18 - 14	4173446	4173046
14 - 10	4173447	4173047
10 - 7	4173448	4173048
7 - 4,5	4173449	4173049
4,5 - 3	4173450	4173050
3 - 2,5	4179409	4179408

i Further accessories, ball measuring inserts and roller blades for measuring gears can be found at www.mahr.de



MaraMeter
Ball contact

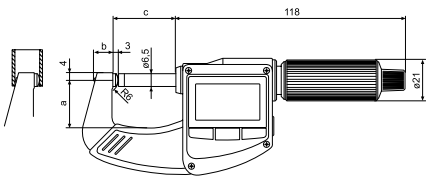
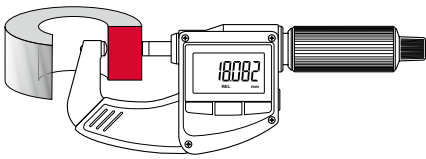


MaraMeter
Roller blades, carbide

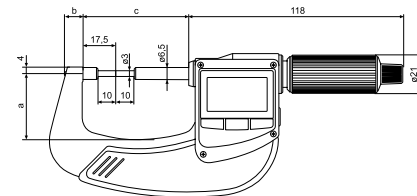
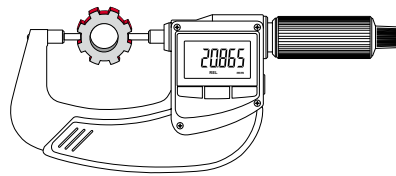
Micromar Digital micrometers for special applications

Integrated Wireless

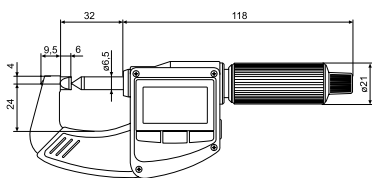
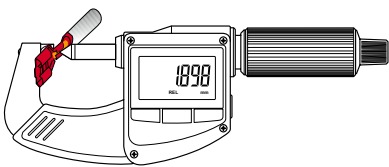
40 EWri-R



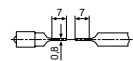
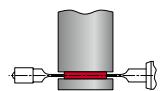
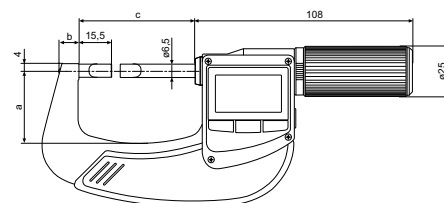
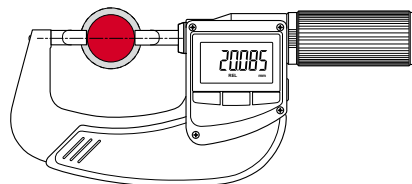
40 EWri-B



40 EWri-K



40 EWri-S



Micromar

Digital micrometers for special applications



Functions

- RESET (set display to zero)
- ABS (display can be set to zero without losing reference to ORIGIN)
- mm/inch
- ORIGIN (for entering a numerical value)
- LOCK function (key lock)
- TOL (tolerance and warning limits)
- HOLD (storage of measured values)
- DATA (data transmission)
- Bi-directional data interface (external input option of characteristic values and setting of individual lock functions by software MarCom)

Features

- High-contrast analog display
- Spindle is hardened throughout, and ground, stainless
- Ratchet is integrated in the thimble
- Lacquered steel frame, heat insulated
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 10 mm
- Data interface: Integrated wireless
- Energy supply: battery, life span ca. 2 years
- IP protection category: IP 65
- Package contains: operation manual, battery, setting standard (from measuring range 25-50 mm), case

Technical Data

Order No.	Type	Measuring range	Measuring face	Numerical increment	Error limit	Spindle thread pitch	Measuring force	Standard
		mm		mm/inch	µm	mm	N	
4157132	40 EWRI-B	0 – 25	carbide	0,01 / .0005"	4	5	5 – 10	DIN 863-3
4157133	40 EWRI-B	25 – 50	carbide	0,01 / .0005"	4	5	5 – 10	DIN 863-3
4157130	40 EWRI-R	0 – 25	carbide	0,01 / .0005"	4	5	5 – 10	DIN 863-3
4157131	40 EWRI-R	25 – 50	carbide	0,01 / .0005"	4	5	5 – 10	DIN 863-3
4157141	40 EWRI-S	0 – 25	hardened steel	0,01 / .0005"	4	5	5 – 10	DIN 863-3
4157142	40 EWRI-S	25 – 50	hardened steel	0,01 / .0005"	4	5	5 – 10	DIN 863-3
4157143	40 EWRI-S	50 – 75	hardened steel	0,01 / .0005"	4	5	5 – 10	DIN 863-3
4157144	40 EWRI-S	75 – 100	hardened steel	0,01 / .0005"	4	5	5 – 10	DIN 863-3
4157140	40 EWRI-K	0 – 20	carbide	0,01 / .0005"	4	0,5	5 – 10	Factory standard

Accessories

Order no.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick



i For more information on our special micrometers, please visit www.mahr.de

The latest generation of dial indicators

Clear tolerance display

The practical tolerance function makes tolerance deviations easy to detect thanks to clear symbols. Values that are below or above the permitted tolerance range are indicated by arrows in the display.

Save time with reference system

After it has been set once, the zero position will be saved for all subsequent measurements, even after automatic switch-off in energy saving mode. Thanks to the reference system, your measuring instrument will always be ready to measure.

Absolute function

The dial indicator can be set to zero in any position without losing its absolute reference.

MarConnect i-Stick

The compact i-Stick allows you to connect your wireless instruments to your work computer. Plug the receiver into a USB port and use up to eight measuring instruments at the same time. The MarCom Professional 5.3 free software is the ideal interface for your applications.



Marameter 840 F with MarCator 1086 Ri



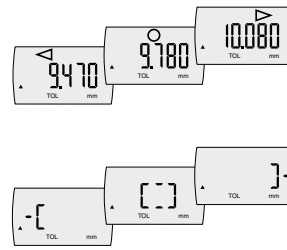
MarCator 1086 Ri

Digital indicator



Functions

- ON/OFF
- RESET (set display to zero)
- mm/inch
- Reversal of counting direction
- PRESET (for entering a numerical value)
- TOL (enter tolerance limit values)
- <0> (tolerance GO / NO GO display mode)
- ABS (display can be set to zero without losing reference to preset)
- DATA (data transmission via connection cable)
- Factor (adjustable)
- LOCK (individual key lock)



REF system

Application:

Comprehensive measuring function for static measurements such as lengths, distances and length differences

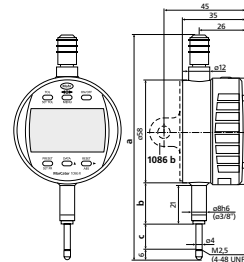
Features

- Integrated wireless transmitter
- High-contrast LCD
- Operating and display unit (bezel) can be rotated through 280°
- Mounting shank and measuring spindle are both made of hardened stainless steel
- Immediate measurements due to the Reference System
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 11 mm
- Data interface: Digimatic, Opto RS232C, USB, Integrated wireless
- IP protection category: IP 42
- Package contains: instruction manual, battery

Technical Data

Order No.	4337624	4337625	4337626	4337627	4337628	
Type	1086 Ri					
Measuring span	mm	12,5	25	50	100	25
Numerical increment	mm	0,0005, 0,001, 0,002, 0,005, 0,01				
Numerical increment	inch	.00002", .00005", .0001", .0002", .0005"				
Error limit	mm	0,004	0,007	0,008	0,004	
Error limit over 50 graduations	mm	0,002				
Repeatability	mm	0,001				
Measuring force	N	0,65 – 0,9	0,65 – 1,15	1,25 – 2,7	1,8 – 3,5	0 – 0
Standard	Factory standard					
Lifting protection cap	•					

Order No.	a	b	c	Mounting shaft
	mm	mm	mm	mm
4337624	126,3	23	13,5	8
4337625	153,4	26,8	26,5	8
4337626	267,3	40	52	8
4337627	420,3	91	103	8
4337628	153,4	26,8	26,5	8



Accessories

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick
4102357	16 EXu Data connection cable USB (2 m)	16 EXu
4102915	Digimatic data cable (2 m)	16 EWd
4102410	Data connection cable RS232C (2 m)	16 EXr
4375004	Protective cap for 1075 R / 1086 R / 1087 R	1086 s
4337421	Lug back	1086 b
4336311	Cable release (12,5 + 25 mm)	1085 a
4336237	Pneumatic lifting (12,5 + 25 mm)	1082 p
4310103	Adapter bush (.375" / 8 mm)	940
4884464	Battery 3 V, Type CR 2450	
4336230	Pneumatic lifting (50 + 100 mm)	1082 p

Integrated Wireless

MarCator 1086 Ri

Digital Indicator



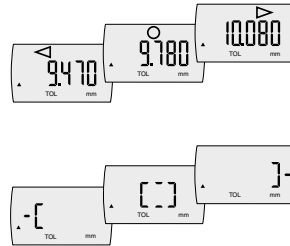
Integrated Wireless

Functions

- ON/OFF
- RESET (set display to zero)
- mm/inch
- Reversal of counting direction
- PRESET (for entering a numerical value)
- TOL (enter tolerance limit values)
- <0> (tolerance GO / NO GO display mode)
- ABS (display can be set to zero without losing reference to preset)
- DATA (data transmission via connection cable)
- Factor (adjustable)
- LOCK (individual key lock)



REF system



Application:

Comprehensive measuring function for static measurements such as lengths, distances and length differences

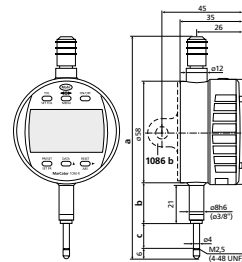
Features

- Integrated wireless transmitter
- High-contrast LCD
- Operating and display unit (bezel) can be rotated through 280°
- Mounting shank and measuring spindle are both made of hardened stainless steel
- Immediate measurements due to the Reference System
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232C interface)
- Digit height: 11 mm
- Data interface: Digimatic, Opto RS232C, USB, Integrated wireless
- IP protection category: IP 42
- Package contains: instruction manual, battery

Technical Data

Order No.	4337134	4337135
Type	1086 Ri	
Measuring span	mm 12,5	25
Numerical increment	mm 0,01	
Numerical increment	inch .0005"	
Error limit	mm 0,02	
Error limit over 50 graduations	mm 0,02	
Repeatability	mm 0,01	
Measuring force	N 0,65 – 0,9	0,65 – 1,15
Standard	Factory standard	
Lifting protection cap	.	

Order No.	a	b	c	Mounting shaft
	mm	mm	mm	mm
4337134	126,3	23	13,5	8
4337135	153,4	26,8	26,5	8

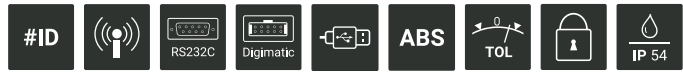


Accessories

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick
4102357	Data connection cable USB (2 m)	16 EXu
4102915	Digimatic data cable (2 m)	16 EWd
4102410	Data connection cable RS232C (2 m)	16 EXr
4375004	Protective cap for 1075 R / 1086 R / 1087 R	1086 s
4337421	Lug back	1086 b
4310103	Adapter bush (.375" / 8 mm)	940
4336311	Cable release (12,5 + 25 mm)	1085 a
4336237	Pneumatic lifting (12,5 + 25 mm)	1082 p
4884464	Battery 3 V, CR 2032	

MarCator 1086 WRi

Digital micrometer

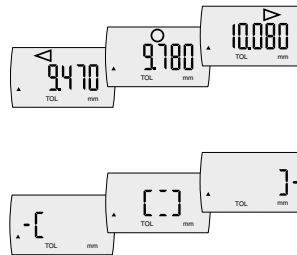


Functions

- ON/OFF
- RESET (set display to zero)
- mm/inch
- Reversal of counting direction
- PRESET (for entering a numerical value)
- TOL (enter tolerance limit values)
- <0> (tolerance GO / NO GO display mode)
- ABS (display can be set to zero without losing reference to preset)
- DATA (data transmission via connection cable)
- Factor (adjustable)
- LOCK (individual key lock)



REF system



Application:

Comprehensive measuring function for static measurements such as lengths, distances and length differences

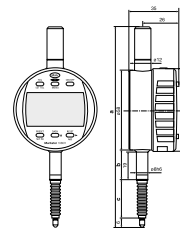
Features

- Integrated wireless transmitter
- High-contrast LCD
- Operating and display unit (bezel) can be rotated through 280°
- Mounting shank and measuring spindle are both made of hardened stainless steel
- Immediate measurements due to the Reference System
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 11 mm
- Data interface: Digimatic, Opto RS232C, USB, Integrated wireless
- IP protection category: IP 54
- Package contains: instruction manual, battery

Technical Data

Order No.	4337142	4337143
Type	1086 WRi	
Measuring span	mm 12,5	25
Numerical increment	mm 0,0005, 0,001, 0,002, 0,005, 0,01	
Numerical increment	inch .00002", .00005", .0001", .0002", .0005"	
Error limit	mm 0,004	
Error limit over 50 graduations	mm 0,002	
Repeatability	mm 0,001	
Measuring force	N 0,65 – 1,4	1 – 2,25
Standard	Factory Standard	
Protective measuring spindle cap	•	

Order No.	a	b	c	Mounting shaft
	mm	mm	mm	mm
4337142	144,3	21	28,5	8
4337143	193,2	24,8	50	8



Accessories

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick
4102357	Data connection cable USB (2 m)	16 EXu
4102915	Digimatic data cable (2 m)	16 EWd
4102410	Data connection cable RS232C (2 m)	16 EXr
4375004	Protective cap for 1075 R / 1086 R / 1087 R	1086 s
4337421	Lug back	1086 b
4336311	Cable release (12,5 + 25 mm)	1085 a
4310103	Adapter bush (.375" / 8 mm)	940
4336237	Pneumatic lifting (12,5 + 25 mm)	1082 p
4337472-E	Rubber bellows (12,5 mm)	
4884464	Battery 3 V, Type CR 2450	
4337474-E	Rubber bellows (25 mm)	

Integrated Wireless

MarCator 1087 Ri

Digital Indicator



REF system

Functions

- 0 (set the analog display to zero)
- ABS (display can be set to zero without losing reference to preset)
- AUTO-ON / OFF
- DATA (data transmission via connection cable)
- Factor (adjustable)
- LOCK (individual key lock)
- MAX/MIN memory for searching the reversal point
- ON/OFF
- PRESET (for entering a numerical value)
- RANGE (switch the measuring range and resolution)
- RESET (set display to zero)
- TIR (MAX-MIN) for testing flatness and concentricity
- TOL (enter tolerance limit values)
- Reversal of counting direction
- mm/inch

Features

- Integrated wireless transmitter
- High-contrast LCD display
- Operating and display unit (bezel) can be rotated through 280°
- Lifter protection cap on the measuring spindle
- Clamping shaft and measuring pin made of hardened stainless steel
- Immediate measurements due to the Reference System
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 8,5 mm
- Data interface: Digimatic, Opto RS232C, USB, Integrated wireless
- Energy supply: Battery operation
- IP protection category: IP 42
- Package contains: instruction manual, battery



Application:

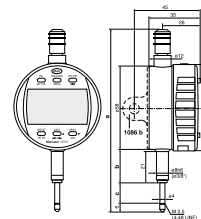
Comprehensive measuring functions for:

- Static measurements such as lengths, distances and length differences
- Dynamic measurements such as radial runout, straightness and flatness via MAX / MIN / MAX-MIN functions

Technical Data

Order No.	4337663	4337665	4337667
Type	1087 Ri		
Measuring span	mm	12,5	25
Numerical increment	mm	0,0005, 0,001, 0,002, 0,005, 0,01	
Numerical increment	inch	.00002", .00005", .0001", .0002", .0005"	
Graduation values	mm	0,0005, 0,001, 0,002, 0,005, 0,01	
Range of analog display	mm	± 0,01, ± 0,02, ± 0,04, ± 0,1, ± 0,2	
Error limit	mm	0,004	0,007
Error limit over 50 graduations	mm	0,002	
Repeatability	mm	0,001	
Measuring force	N	0,65 – 0,85	0,65 – 0,9
Standard	Factory standard		
Lifting protection cap	•		

Order No.	a	b	c	Mounting shaft
	mm	mm	mm	mm
4337663	126,3	23	13,5	8
4337665	153,4	26,8	26,5	8
4337667	267,3	40	52	8



Zubehör

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick
4102357	Data connection cable USB (2 m)	16 EXu
4102915	Digimatic data cable (2 m)	16 EWd
4102410	Data connection cable RS232C (2 m)	16 EXr
4375004	Protective cap for 1075 R / 1086 R / 1087 R	1086 s
4337421	Lug back	1086 b
4336237	Pneumatic lifting (12,5 + 25 mm)	1082 p
4336311	Cable release (12,5 + 25 mm)	1085 a
4310103	Adapter bush (.375" / 8 mm)	940
4884464	Battery 3 V, Type CR 2450	
4336230	Pneumatic lifting (50 + 100 mm)	1082 p

MarCator 1087 BRi

Digital Indicator



REF system

Functions

- ON/OFF
- RESET (set display to zero)
- mm/inch
- PRESET (enter a numerical value) from range 500 mm
- Reversal of counting direction
- TOL (enter tolerance limit values)
- START/STOP search for reversal point
- MAX/MIN memory for searching the reversal point
- ABS (display can be set to zero without losing reference to preset)
- 0 (set the analog display to zero)
- DATA (data transmission via connection cable)
- Factor (adjustable)
- LOCK (individual key lock)



Application:

In measurements with a 2-point bore gage the reversing point can be calculated automatically during oscillation. Then a PRESET value can be assigned. The ACTUAL value measured is saved by the MIN or MAX function and is shown on the display. The 1087 BRi model can process 64 measured values per second, for fast measuring movements combined with measuring certainty.

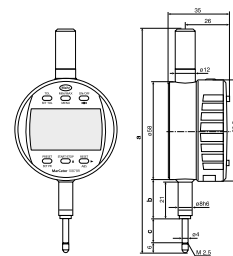
Features

- Integrated wireless transmitter
- High-contrast LCD display
- Operating and display unit (bezel) can be rotated through 280°
- Lifter protection cap on the measuring spindle
- Clamping shaft and measuring pin made of hardened stainless steel
- Immediate measurements due to the Reference System
- Software: MarCom Professional free download: www.mahr.com/marcom (only for Mahr data cables and wireless systems with USB and RS232 interface)
- Digit height: 8,5 mm
Data interface: Opto RS232C, Digimatic, USB, Integrated wireless
- Energy supply: Battery life approx. 3 years
- IP protection category: IP 42
- Package contains: instruction manual, battery

Technical Data

Order No.	4337664	
Type	1087 BRi	
Measuring span	mm	12,5
Numerical increment	mm	0,0005, 0,001, 0,002, 0,005, 0,01
Numerical increment	inch	.00002", .00005", .0001", .0002", .0005"
Graduation values	mm	0,0005, 0,001, 0,002, 0,005, 0,01
Range of analog display	mm	± 0,01, ± 0,02, ± 0,04, ± 0,1, ± 0,2
Error limit	mm	0,004
Error limit over 50 graduations	mm	0,002
Repeatability	mm	0,001
Measuring force	N	0,65 – 0,9
Standard	Factory standard	
Protective measuring spindle cap	•	

Order No.	a	b	c	Mounting shaft
	mm	mm	mm	mm
4337664	126,3	23	13,5	8



Accessories

Order No.	Product name	Type
4102220	Receiver for instruments with integrated wireless	i-Stick
4102357	Data connection cable USB (2 m)	16 EXu
4102915	Digimatic data cable (2 m)	16 EWd
4102410	Data connection cable RS232C (2 m)	16 EXr
4375004	Protective cap for 1075 R / 1086 R / 1087 R	1086 s
4310103	Adapter bush (.375" / 8 mm)	940
4884464	Battery 3 V, Type CR 2450	

Integrated Wireless



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