

Mahr® | Precision Measurement and Solutions

# **Mahrlights**



Sept. 16 - Nov. 15

2019

# **Best Performance**

# in Every Step

The key to successful manufacturing is smart, efficient quality control. It depends on simple and accurate data acquisition, as well as a structured processing of the data. Mahr's portfolio of products offers you maximum freedom of movement, allowing you to make faster and more targeted measurements - with full transparency. This increases your agility without sacrificing the traceability of measurement steps along the entire value chain.





With integrated transmission visual feedback is provided verifying data transmission. Error message signifies loss of data connector.



Mahr measuring devices allow exact measuring - even in the machine or on hard-to-reach workpieces.

Meter (19.6 ft.) Transmission Range

Measuring Devices per i-Stick Receiver

Products for **Every Measuring Task** 



Eliminate hazards such as cable breakage and wear.



#### Scan for Marcom Download

MarCom Professional 5.2 Software transfers measuring values directly into Microsoft Excel® or via a keyboard code into any Windows® program or SPC software using a virtual interface box.



Benefit from the MarCom Professional 5.2 interface software and transfer the measurement data individually and conveniently to your Windows applications or CAQ software.

Mahr

Wireless data transmission capability is integrated within MarCal digital calipers using proven wireless technology. These calipers are easy to read, with a large clear digital display, and include a number of advanced features such as lapped guideways, a reference system that retains the zero position setting and a number of product options and accessories.



| P67\] \[ \bigvert^{(ij)}\] trides \[ \bigvert \b |            |             |                    |                          |       |     |                |  |  |  |
|--|------------|-------------|--------------------|--------------------------|-------|-----|----------------|--|--|--|
| Order No.  | List Price | Promo Price | Measuring Range    | Resolution               | Depth | Rod | Friction Wheel |  |  |  |
| 2121610*   | \$416      | \$333       | 150 mm / 6 in      | 0,01 mm / 0.0005 in      | 1     |     | Z-             |  |  |  |
| 2121611*   | *410       | 333         | 150 111111 / 6 111 | 0,01 111111 / 0.0005 111 |       | T   | <b>Z</b>       |  |  |  |

<sup>\*</sup> Starter set includes an i-Stick wireless receiver

#### MarCal 16 EWRi | Digital Caliper



| Order No | . List Price | Promo Price                       | Measuring Range  | Resolution              | Error Limit G       | Depti | n Rod | Friction Wheel |
|----------|--------------|-----------------------------------|------------------|-------------------------|---------------------|-------|-------|----------------|
| 4103400  |              |                                   |                  |                         |                     | 1     |       |                |
| 4103401  | \$243        | \$207                             | 150 mm / 6 in    |                         | 0,03 mm / 0.0015 in | 4     |       | <b>2</b>       |
| 4103402  |              | 207                               | 150 111117 6 111 |                         |                     |       | T     |                |
| 4103403  |              |                                   |                  | 0,01 mm / 0.001 in      |                     |       | T     | <b>2</b>       |
| 4103404  | \$281        | \$239                             | 200 mm / 8 in    |                         |                     |       | T     |                |
| 410340   |              | 1239                              | 200 111117 8 111 |                         |                     |       | T     | <b>2</b>       |
| 4103406  | \$421        | \$358                             | 200 mm / 12 in   |                         | 0,04 mm / 0.0015 in |       |       | Z-B            |
| 4103407  |              | \$421 <b>\$358</b> 300 mm / 12 in |                  | 0,04 11111 / 0.0013 111 |                     |       |       |                |

The MarConnect i-Stick is a wireless receiver for Mahr's measuring instruments. You can transfer your measured values directly to your PC via proven wireless technology with the i-Stick.







| Order No.                                    | 4102220  |  |  |
|--|--|--|--|
| List Price                                   | \$174  |  |  |
| Promo Price                                  | \$157  |  |  |
| Includes                                     | USB Wireless Receiver for Mahr Measuring Instruments                                     |  |  |
| Channels                                     | 3  |  |  |
| Connectable Devices with Integrated Wireless | 8 per i-Stick  |  |  |
| Radio Frequency MHz                          | 2400   |  |  |
| Wireless Range                               | Up to 6 m / 19.6 ft  |  |  |
| For Measuring Instruments                    | MarCal 16 EWRi/30 EWRi; Micromar 40 EWRi/40 EWRi-L;<br>MarCator 1086 Ri/1087 Ri/1087 BRi |  |  |

# MarCal 30 EWRi Digital Depth Gage

The NEW 30 EWRi digital depth gage with Integrated Wireless is the useful depth gage to carry along with you in production and assembly areas to measure depth quickly and easily.





| Order No. | Introductory Price | Measuring Range      | Resolution             | Error Limit         | Depth Rod |
|-----------|--------------------|----------------------|------------------------|---------------------|-----------|
| 4126751   | \$340              | 0 - 25 mm / 0 - 1 in | 0,01 mm /<br>0.0005 in | 0,02 mm / 0.0008 in | Round     |

The 30 EWRi digital depth gage ensures reliable results with its rigid design and versatile contact.



| Order No. | List Price        | Promo Price | Measuring Range        | Resolution          | Error Limit |  |
|-----------|-------------------|-------------|------------------------|---------------------|-------------|--|
| 4126755   | <sup>\$</sup> 621 | \$590       | 0 - 150 mm / 0 - 6 in  |                     | 0.02 ***    |  |
| 4126754   | \$669             | \$636       | 0 - 200 mm / 0 - 8 in  | 0.01 / 0.0005 in    | 0,03 mm     |  |
| 4126756   | \$726             | \$690       | 0 - 300 mm / 0 - 12 in | 0,01 mm / 0.0005 in | 0,04 mm     |  |
| 4126757   | \$867             | \$824       | 0 - 500 mm / 0 - 20 in |                     | 0,05 mm     |  |

# MarCal 30 EWRi-N | Digital Depth Gage

The 30 EWRi-N digital depth gage ensures fast results on the shop floor.





| Order No. | List Price | Promo Price | Measuring Range       | Resolution          | Error Limit |
|-----------|------------|-------------|-----------------------|---------------------|-------------|
| 4126532   | \$803      | \$763       | 0 - 100 mm / 0 - 4 in | 0,01 mm / 0.0005 in | 0,03 mm     |

## MarCal 16 EWR-V/16 EWRi-V | Digital Universal Caliper

The MarCal 16 EWRi-V is a versatile precision measuring kit which can be employed in production. The kit contains interchangable contacts to meet virtually any measurement application. The 16 EWRi-V incorporates the Integrated Wireless transmitter.





| Order No. | List Price | Promo Price | Measuring Range       | Resolution          | Depth Rod   | Wireless |
|-----------|------------|-------------|-----------------------|---------------------|-------------|----------|
| 4118807   | \$603      | \$573       | 0 - 200 mm / 0 - 8 in | 0.01 mm / 0.0005 in | Dootongulor |          |
| 4118907   | \$796      | \$756       | 0 - 200 mm / 0 - 8 m  | 0,01 mm / 0.0005 m  | Rectangular | X        |

#### MarCator 1075 R | Digital Indicator

1075 R digital indicators are equipped with the innovative reference system. The zero position only has to be set one time; once it is set, the zero remains stored for all further measurements. Therefore, when the indicator is switched ON or the measuring spindle is moved the indicator is immediately ready for measurement.



# MarCator 1086 R/1086 Ri Digital Indicators

The 1086 digital indicators with fixed resolution incorporate the reference system which automatically stores the zero position for further measurements. The 1086 digital indicators with selectable resolution offer large display and wet proof models, and also incorporates the reference system. All 1086 digital indicators come standard with MarConnect. If you need to document your data, we have digital indicators which offer Integrated Wireless data transmission, the optimal solution for transmitting your measured values to a PC.



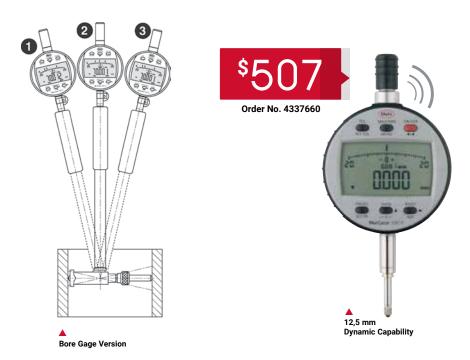


| Order No. | Model     | List Price        | Promo Price       | Measuring Span   | Resolution  | Wireless |
|-----------|-----------|-------------------|-------------------|------------------|---|----------|
| 4337620   |           | <sup>\$</sup> 473 | \$426             | 12,5 mm / 0.5 in |   |          |
| 4337621   | 4006 0    | \$558             | \$502             | 25 mm / 1 in     | 0,0005 mm, 0,001 mm,  |          |
| 4337622   | 1086 R    | \$935             | \$842             | 50 mm / 2 in     | 0,002 mm, 0,005 mm,   |          |
| 4337623   |           | \$1,180           | \$1,062           | 100 mm / 4 in    | 0,01 mm / 0.00002 in,<br>0.00005 in, 0.0001in,  |          |
| 4337650*  | 1006 70   | \$473             | \$426             | 12,5 mm / 0.5 in | 0.0002 in, 0.0005 in  |          |
| 4337651*  | 1086 ZR   | \$558             | \$502             | 25 mm / 1 in     |   |          |
| 4337624   |           | \$531             | \$478             | 12,5 mm / 0.5 in |   | Х        |
| 4337625   |           | \$595             | \$536             | 25 mm / 1 in     | 0,0005 mm, 0,001 mm,<br>0.002 mm, 0.005 mm.   | Х        |
| 4337626   | 1086 Zi   | \$972             | \$875             | 50 mm / 2 in     | 0,01 mm / 0.00002 in,<br>0.00005 in, 0.0001in,<br>0.0002 in, 0.0005 in  | Х        |
| 4337627   |           | \$1,200           | \$1,080           | 100 mm / 4 in    |   | Х        |
| 4337628** |           | §611              | \$550             | 25 mm / 1 in     | 0.0002 III, 0.0003 III  | X        |
| 4337697   | 1086 R HR | <sup>\$</sup> 795 | <sup>\$</sup> 716 | 12,5 mm / 0.5 in | 0,0001 mm, 0,0005 mm,<br>0,001 mm, 0,002 mm,<br>0,005 mm, 0,01 mm /<br>0.000001 in, 0.00002 in,<br>0.00005 in, 0.0001 in,<br>0.0002 in, 0.0005 in |          |

Note: all indicators with 8 mm stem diameter, \* 3/8 in stem diameter, \*\* No gaging spring

## MarCator 1087 R/1087 ZR/1087 Ri/1087 BR/1087 BRi Digital Indicators

The 1087 digital indicators, with dynamic capabilities and analog bar graph, provide easy readings of MIN/MAX/MAX-MIN conditions and incorporate the reference system which automatically stores the zero position for further measurements. All 1087 digital indicators come standard with MarConnect. If you need to document your data, we have digital indicators which offer Integrated Wireless data transmission, the optimal solution for transmitting your measured values to a PC. The BR version is specifically designed for adjustable bore gage use and greatly enhances operator usability.



|                                       | (Reservence)               |                                |
|---------------------------------------|----------------------------|--------------------------------|
| MarConnect ((p)) Integrated Witheless | MarConnect  SEED Biginatic | ABS System TOL (((*))) MAX TOL |

| Order No. | Model     | List Price        | Promo Price       | Measuring Range             | Resolution  | Wireless | Bore Gage Version |
|-----------|-----------|-------------------|-------------------|-----------------------------|---|----------|-------------------|
| 4337660   | 1087 R    | \$563             | \$507             | 12,5 mm / 0.5 in            |   |          |                   |
| 4337661   | 1007 K    | <sup>\$</sup> 648 | \$583             | 25 mm / 1 in                |   |          |                   |
| 4337670*  | 1087 ZR   | \$563             | \$507             | 12,5 mm / 0.5 in            | 0.0005  |          |                   |
| 4337666   | 1087 R    | \$1,030           | \$927             | 50 mm / 2 in                | 0,0005 mm, 0,001mm,   |          |                   |
| 4337671*  | 1087 ZR   | §648              | \$583             | 25 mm / 1 in                | 0,002 mm, 0,005 mm,<br>0,01 mm / 0.00002 in,<br>0.00005 in, 0.0001 in,<br>0.0002 in, 0.0005 in  |          |                   |
| 4337663   |           | <sup>\$</sup> 611 | \$550             | 12,5 mm / 0.5 in            |   | Х        |                   |
| 4337665   | 1087 Ri   | \$719             | \$647             | 25 mm / 1 in                |   | X        |                   |
| 4337667   |           | \$1,110           | \$999             | 50 mm / 2 in                |   | X        |                   |
| 4337662   | 1087 BR   | §648              | \$583             | 10 F mans / 0 F in          |   |          | X                 |
| 4337664   | 1087 BRi  | \$717             | \$645             | 12,5 mm / 0.5 in            |   | X        | X                 |
| 4337695   | 1087 R-HR | \$995             | <sup>\$</sup> 896 | 0 - 12,5 mm /<br>0 - 0.5 in | 0,0001 mm, 0,0005 mm,<br>0,001 mm, 0,002 mm,<br>0,005 mm, 0,01 mm /<br>0.000001 in, 0.00002 in,<br>0.00005 in, 0.0001 in,<br>0.0002 in, 0.0005 in |          |                   |

Note: all indicators with 8 mm stem except \* 3/8 in stem diameter

## Micromar 40 EWRi | Digital Micrometer

Wireless data transmission capability is integrated within the Micromar digital micrometer using proven wireless technology. With an extra large display, these micrometers are easy to read and include a number of advanced features such as a reference system that retains the zero position setting, absolute reading for comparative measurements, tolerance indicators to qualify parts, a lock feature to prevent user error and a hold feature to retain the measured value.



| Order No. | Model   | Introductory<br>Price | Measuring Range               | Resolution | Error<br>Limit | Spindle Thread<br>Pitch | Measuring<br>Force |
|-----------|---------|-----------------------|-------------------------------|------------|----------------|-------------------------|--------------------|
| 4157100   |         | \$360                 | 0 - 25 mm / 0 - 1 in          |            | 2              |                         |                    |
| 4157101   |         | \$432                 | 25 mm - 50 mm / 1 in - 2 in   |            | 2 µm           | - 0,5 mm                | 5 N - 10 N         |
| 4157102   |         | \$566                 | 50 mm - 75 mm / 2 in - 3 in   |            | 2              |                         |                    |
| 4157103   | 40 EWRi | \$617                 | 75 mm - 100 mm / 3 in - 4 in  | 0,001 mm / | 3 µm           |                         |                    |
| 4157104   |         | \$814                 | 100 mm - 125 mm / 4 in - 5 in | 0.00005 in | 6              |                         |                    |
| 4157105   |         | \$840                 | 125 mm - 150 mm / 5 in - 6 in |            | 6 µm           |                         |                    |
| 4157106   |         | \$866                 | 150 mm - 175 mm / 6 in - 7 in |            | 7 µm           |                         |                    |
| 4157107   |         | \$890                 | 175 mm - 200 mm / 7 in - 8 in |            |                |                         |                    |

#### Micromar 40 EWRi | Digital Micrometer Set



#### INTRODUCTORY PRICE

Order No. 4157115



| Order No. | Model   | Introductory<br>Price | Measuring Range       | Resolution               | Number of Micrometers | Spindle<br>Thread Pitch | Measuring<br>Force |
|-----------|---------|-----------------------|-----------------------|--------------------------|-----------------------|-------------------------|--------------------|
| 4157115   | 40 EWRi | <sup>\$</sup> 1,960   | 0 - 100 mm / 0 - 4 in | 0,001 mm /<br>0.00005 in | 4                     | 0,5 mm                  | 5 N - 10 N         |

Wireless data transmission capability is integrated within the NEW Micromar 40 EWRi-L digital micrometer with a quick drive spindle where 1 turn of the thimble is now equal to 5 mm (0.2 in) of spindle travel. Moving to different sizes on a sample part is now 10 times faster than with a standard micrometer.



| Order No. | Model     | Introductory<br>Price | Measuring Range                 | Resolution            | Error<br>Limit | Spindle<br>Thread Pitch | Measuring<br>Force |
|-----------|-----------|-----------------------|---------------------------------|-----------------------|----------------|-------------------------|--------------------|
| 4157120   |           | §567                  | 0 - 25 mm / 0 - 1 in            |                       |                |                         |                    |
| 4157121   |           | <sup>\$</sup> 618     | 25 mm - 50 mm /<br>1 in - 2 in  |                       | 2 µm           | 0,5 mm                  | 5 N - 10 N         |
| 4157122   | 40 EWRi-L | \$670                 | 50 mm - 75 mm /<br>2 in - 3 in  | 0,001 mm / 0.00005 in |                |                         |                    |
| 4157123   | 4157123   |                       | 75 mm - 100 mm /<br>3 in - 4 in |                       | 3 µm           |                         |                    |

# Micromar 40 EWR-L | Digital Micrometer with Quick Drive Spindle & Wired MarConnect Output



| Order No. | Model    | Introductory<br>Price | Measuring Range                 | Resolution            | Error<br>Limit | Spindle<br>Thread Pitch | Measuring<br>Force |
|-----------|----------|-----------------------|---------------------------------|-----------------------|----------------|-------------------------|--------------------|
| 4157020   |          | §541                  | 0 - 25 mm / 0 - 1 in            |                       |                |                         |                    |
| 4157021   |          | \$593                 | 25 mm - 50 mm /<br>1 in - 2 in  |                       | 2 µm           | 0,5 mm                  | 5 N - 10 N         |
| 4157022   | 40 EWR-L | \$644                 | 50 mm - 75 mm /<br>2 in - 3 in  | 0,001 mm / 0.00005 in |                |                         |                    |
| 4157023   |          | \$706                 | 75 mm - 100 mm /<br>3 in - 4 in |                       | 3 µm           |                         |                    |

# Micromar 40 ER | Digital Micrometer

The Micromar 40 ER is a micrometer that incorporates an extra large display that is easy to read, a reference system that retains the zero position setting and a lock feature to prevent user error.



| Order No. | Model | Introductory<br>Price | Measuring<br>Range   | Resolution            | Error<br>Limit | Spindle<br>Thread<br>Pitch | Measuring<br>Force | Standard            |
|-----------|-------|-----------------------|----------------------|-----------------------|----------------|----------------------------|--------------------|---------------------|
| 4157010   | 40 ER | <sup>\$</sup> 205     | 0 - 25 mm / 0 - 1 in | 0,001 mm / 0.00005 in | 2 µm           | 0,5 mm                     | 5 N - 10 N         | Factory<br>Standard |

## Micromar 40 EWR | Digital Micrometer

The Micromar 40 EWR micrometer, with IP65 protection, incorporates an extra large display, a reference system that retains the zero position setting, absolute reading for comparative measurements and a lock feature to prevent user error.





| Order No. | Model   | Introductory<br>Price | Measuring<br>Range              | Resolution            | Error<br>Limit | Spindle<br>Thread<br>Pitch | Measuring<br>Force | Standard            |
|-----------|---------|-----------------------|---------------------------------|-----------------------|----------------|----------------------------|--------------------|---------------------|
| 4157011   |         | \$268                 | 0 - 25 mm / 0 - 1 in            |                       |                |                            |                    |                     |
| 4157012   |         | \$371                 | 25 mm - 50 mm /<br>1 in - 2 in  |                       | 2 µm           | 0,5 mm                     | 5 N - 10 N         | Factory<br>Standard |
| 4157013   | 40 EWR  | \$459                 | 50 mm - 75 mm /<br>2 in - 3 in  | 0,001 mm / 0.00005 in | 3 µm           |                            |                    |                     |
| 4157014   | 4157014 |                       | 75 mm - 100 mm /<br>3 in - 4 in |                       | ο μπι          |                            |                    |                     |

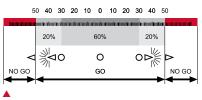
The NEW Micromar 40 EWR micrometer with data output incorporates an extra large display, a reference system that retains the zero position setting and lock feature to prevent user error. It also incorporates new MarConnect data output where data collection is selected by cable – either USB, RS-232C, or Digimatic.



#### INTRODUCTORY PRICE



Order No. 4157000



**Integrated Tolerance Markers** 



Shown with Optional Stand 41 H



| Order No. | Model  | Introductory<br>Price | Measuring Range                  | Resolution            | Error<br>Limit | Spindle<br>Thread<br>Pitch | Measuring<br>Force |
|-----------|--------|-----------------------|----------------------------------|-----------------------|----------------|----------------------------|--------------------|
| 4157000   |        | §351                  | 0 - 25 mm / 0 - 1 in             |                       |                |                            |                    |
| 4157001   |        | \$418                 | 25 mm - 50 mm /<br>1 in - 2 in   |                       | 2 µm           |                            |                    |
| 4157002   |        | \$546                 | 50 mm - 75 mm /<br>2 in - 3 in   |                       | 3 µm           |                            |                    |
| 4157003   |        | \$603                 | 75 mm - 100 mm /<br>3 in - 4 in  |                       | Эрп            | 0,5 mm                     | 5 N - 10 N         |
| 4157004   | 40 EWR | \$788                 | 100 mm - 125 mm /<br>4 in - 5 in | 0,001 mm / 0.00005 in |                |                            |                    |
| 4157005   |        | \$813                 | 125 mm - 150 mm /<br>5 in - 6 in |                       | 6 μm           |                            |                    |
| 4157006   |        | \$840                 | 150 mm - 175 mm /<br>6 in - 7 in |                       | 7.um           |                            |                    |
| 4157007   |        | \$861                 | 175 mm - 200 mm /<br>7 in - 8 in |                       | 7 μm           |                            |                    |

# MarCal 16 ER | Digital Caliper

The MarCal 16 ER features a new ergonomic design with lapped guideways - perfect for your daily measurement needs. Supplied with a case, battery and operating instructions.





| Order No. | List Price | Promo Price       | Measuring Range   | Туре                | Error Limit G       | Dept | h Rod | Friction<br>Wheel |   |  |
|-----------|------------|-------------------|-------------------|---------------------|---------------------|------|-------|-------------------|---|--|
| 4103010   |            |                   |                   |                     |                     | 1    |       |                   |   |  |
| 4103011   | \$134      | \$121             | 150 mm / 6 in     | Mithaut Output      | 0,03 mm / 0.001 in  | 1    |       |                   |   |  |
| 4103012   | *134       | 121               | 150 11111 / 6 111 | Without Output      |                     |      | T     |                   |   |  |
| 4103013   |            |                   |                   |                     |                     |      | 7     |                   |   |  |
| 4103014   | \$165      | <sup>\$</sup> 149 | \$1.40            | \$149 150 mm / 6 in |                     |      | 呈     |                   |   |  |
| 4103015   | *105       |                   | 130111117 0111    |                     | 0,03 mm / 0.001 in  | 1    |       | <b>2</b>          |   |  |
| 4103018   | \$224      | \$202             | 200 mm / 8 in     |                     |                     |      | 7     |                   |   |  |
| 4103020   | \$351      | \$316             | 300 mm / 12 in    | With Output         | 0,04 mm / 0.0015 in |      |       |                   |   |  |
| 4103016   | \$165      | \$4.40            | \$4.40            | 64.40               | 150 / 6 in          |      |       |                   | Ŧ |  |
| 4103017   | \$165      | \$149             | 150 mm / 6 in     |                     | 0,03 mm / 0.001 in  |      | T     | <b>2</b>          |   |  |
| 4103019   | \$224      | \$202             | 200 mm / 8 in     |                     |                     |      | 7     | <b>Z</b>          |   |  |
| 4103021   | \$351      | \$316             | 300 mm / 12 in    |                     | 0,04 mm/ 0.0015 in  |      |       | Z-B               |   |  |

Note: resolution is 0,01 mm / 0.0005 in for all calipers

# MarCal 16 EWR ☐ Digital Caliper with IP67 Rating

The MarCal 16 EWR features a new ergonomic design with lapped guideways and larger display. This digital caliper offers IP67 protection against dust, coolants and lubricants, extended three year battery life, and an innovative reference system, which automatically stores the zero position for further measurements. Available for next day delivery.







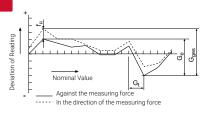
| Order No. | List Price | Promo Price | Measuring Range  | Туре           | Error Limit G       | Depth Rod       |   | Friction<br>Wheel |  |
|-----------|------------|-------------|------------------|----------------|---------------------|-----------------|---|-------------------|--|
| 4103300   |            |             |                  |                |                     | <b>T</b>        |   |                   |  |
| 4103302   | \$191      | \$172       | 150 mans / 6 in  | Without Output | Marie O             | 0.02 / 0.001 in |   | T                 |  |
| 4103301   | 1 191      |             | 150 mm / 6 in    |                | 0,03 mm / 0.001 in  | 呈               |   | <b>Z</b>          |  |
| 4103303   |            |             |                  |                |                     |                 | T | <b>2</b>          |  |
| 4103064   |            |             |                  |                |                     | 1               |   |                   |  |
| 4103066   | 0000       | \$00F       | 150 mm / 6 in    | Maril O. I. I. | 0.00 / 0.001 in     |                 | T |                   |  |
| 4103065   | \$228      | \$205       |                  |                |                     | 1               |   | <b>2</b>          |  |
| 4103067   |            |             |                  |                | 0,03 mm / 0.001 in  |                 | T | <b>2</b>          |  |
| 4103068   | \$264      | \$238       | 200 mans / 0 in  | With Output    |                     |                 | T |                   |  |
| 4103069   | °204       | *238        | 200 mm / 8 in    |                |                     |                 | T | Z                 |  |
| 4103070   | SOOF       | \$256       | 200 mans / 12 in |                | 0.04 / 0.001E in    |                 |   |                   |  |
| 4103071   | \$395      | \$356       | 300 mm / 12 in   |                | 0,04 mm / 0.0015 in |                 |   | <b>Z</b>          |  |

Note: resolution is 0,01 mm / 0.0005 in for all calipers

For over 60 years, the Millimess series of dial comparators has been synonymous with both high precision and extreme robustness, suitable for measuring tasks where the accuracy and the reversal span of a conventional dial indicator are not sufficient.



Order No. 4334900



| Order No. | Model  | List Price | Promo Price       | Measuring Range | Readings    | Overtravel | Measuring<br>Force |
|-----------|--------|------------|-------------------|-----------------|-------------|------------|--------------------|
| 4335900   | 1002 Z | \$587      | \$558             | + 0.0010 in     | 0.00002 in  | - 0.11 in  | – 1N               |
| 4335905*  | 10022  | \$645      | <sup>\$</sup> 613 | ± 0.00 TO III   | 0.00002 111 |            |                    |
| 4334905*  | 1003 Z | \$382      | \$363             | ± 0.0020 in     | 0.00005 in  |            |                    |
| 4334900   | 1003 Z | \$267      | \$254             | ± 0.0020 III    | 0.00005 III |            |                    |
| 4333905*  | 10047  | \$382      | \$363             | . 0.0050 :      | 0.0001 %    |            |                    |
| 4333900   | 1004 Z | \$258      | \$245             | ± 0.0050 in     | 0.0001 in   | 0.10 in    |                    |
| 4332900   | 1010 7 | \$249      | \$237             | . 0.0100 :      | 0.0005 in   | U. 10 IN   |                    |
| 4332905*  | 1010 Z | \$289      | \$275             | ± 0.0100 in     | 0.0005 in   |            |                    |

Note: \* Waterproof

Including plastic case; adapter 940 (for inch instruments only)

IP54, including plastic case, splash guard cover 957, rubber bellows (only for 1002/1003/1004); adapter 940 (for inch instruments only)

# MarStand 815 MG Indicator Stand with Magnetic Base

The 815 MG stand is a 3D indicator stand which can reach any position within its operating range in conjunction with a very powerful ON/OFF magnet.



Order No. 4420350

| Order No. | List Price | Promo Price | Fine<br>Adjustment<br>Range | Total Height          | Projection<br>(Max.)  | Magnetic<br>Force |  |
|-----------|------------|-------------|-----------------------------|-----------------------|-----------------------|-------------------|--|
| 4420350   | \$233      | \$221       |                             | 224 mm /<br>8.818 in  | 130 mm /<br>5.118 in  | 300 N             |  |
| 4420360   | \$261      | \$248       | 2 mm /<br>0.078 in          | 316 mm /<br>12.440 in | 200 mm /<br>7.784 in  | 000 N             |  |
| 4420370   | \$316      | \$300       |                             | 401 mm /<br>15.787 in | 280 mm /<br>9.8425 in | 800 N             |  |
| 4420380   | \$595      | \$565       | 5 mm /<br>0.19 in           | 444 mm /<br>17.480 in | 330 mm /<br>12.992 in | 1000 N            |  |

Note: Indicator not included

Mahr is one of the leading global producers of test indicators. The sensitive computer-optimized shockproof mechanism of the test indicator ensures maximum precision. MarTest's sealed dial makes it impervious to liquids, ideal for use in workshop conditions. With the MarTest series of test indicators, not only is there a broad product range, but also a wide variety of accessories available.



|             | <br> |                |
|-------------|------|----------------|
| DIN<br>2270 |      | SHOCK<br>PROOF |

| Order No. | Model   | List Price        | Promo<br>Price    | Measuring Range    | Reading             | Dial<br>Diameter | Length of Styli |  |
|-----------|---------|-------------------|-------------------|--------------------|---------------------|------------------|-----------------|--|
| 4305960   | 801 S1  | \$178             | \$1 <b>42</b>     |                    | 0.0001 in           | 1.1 in           |                 |  |
| 4305950   | 801 S   | \$191             | \$153             | ±0.015 in          | 0.0005 in           | 1.1111           |                 |  |
| 4307950   | 801 SG  | \$212             | \$170             |                    | 0,01 mm / 0.0005 in |                  | 0.57 in         |  |
| 4307970   | 801 SGI | <sup>\$</sup> 185 | \$148             | ±0,3 mm / 0.015 in | 0.0001 in           | 1.5 in           |                 |  |
| 4308970   | 801 SGM | \$243             | \$194             | ± 0.004 in         | 0.0001111           |                  |                 |  |
| 4306950   | 801 SL  | \$234             | <sup>\$</sup> 187 | ±0.0005 in         |                     | 1.1 in           | 1.62 in         |  |
| 4306960   | 801 SGL | \$266             | \$213             | ±0.0003 III        | 0.0005 in           | 1.5 in           | 1.02 111        |  |
| 4302950   | 801 V   | \$236             | \$189             | ±0.015 in          |                     | 1.0 in           | 0.57 in         |  |
| 4302960   | 801 VGM | \$266             | \$213             | ±0.004 in          | 0.0001 in           | 1.5 in           | 0.57 III        |  |

For fast height measuring or scribing applications when used on granite plate bases. With its rapid drive and large digital display, direct or comparative readings are fast and simple.



# Digimar 816 CL | Height Measuring Instrument

The Digimar 816 CL height gage provides highly accurate measurements without complicated procedures. A robust design and user-friendly operation are combined with advanced features and functionality to improve dimensional measurement on the shop floor or in the lab.



The Digimar 817 CLM offers a wide range of measurement applications in both 1D and 2D, including dynamic measurement functions with analog display such as MAX, MIN and MAX/MIN. Operation is easy, with self-explanatory ISO standard icons,

operator prompts and menus in several different languages.



Order No. 4429010



Optional Accessory for Squareness Checks





| Order No.  | 4429010  | 4429011   | 4429012              |  |  |  |  |  |
|--|--|---|----------------------|--|--|--|--|--|
| List Price   | \$8,480  | \$9,020   | <sup>\$</sup> 16,080 |  |  |  |  |  |
| Promo Price  | \$8,056  | \$8,569   | \$15,276             |  |  |  |  |  |
| Measuring Range                                    | 0 - 350 mm / 0 - 14 in                                 | 0 - 350 mm / 0 - 14 in  |                      |  |  |  |  |  |
| Range of Application                               | 520 mm / 20.47 in 770 mm / 30.31 in 1170 mm / 46.06 in |   |                      |  |  |  |  |  |
| Resolution   |  | 0,01 mm, 0,005 mm, 0,001 mm, 0,0005 mm, 0,0001 mm /<br>0.001 in, 0.0005 in, 0.0001 in, 0.00005 in, 0.00001 in |                      |  |  |  |  |  |
| Error Limit  |  | (1,8 + L/600) L in mm   |                      |  |  |  |  |  |
| Repeatability: Bore                                |  | 1 µm  |                      |  |  |  |  |  |
| Repeatability: Plane                               |  | 0,5 µm  |                      |  |  |  |  |  |
| Perpendicularity Error in µm                       | ≤5 µm  | ≤6 µm   | ≤10 µm               |  |  |  |  |  |
| Operating Time Max.                                |  | Up to 12 hours  |                      |  |  |  |  |  |
| Measuring Force                                    |  | 1.0 +/- 0.2 N   |                      |  |  |  |  |  |
| Permissible Relative Air<br>Humidity Non-Condensed | 65%  |   |                      |  |  |  |  |  |
| Working Temperature                                |  | 20 ° C / 68 ° F   |                      |  |  |  |  |  |
| Operating Temperature                              |  | 10 ° C - 40 ° C / 50 ° F -  | 104 ° F              |  |  |  |  |  |



| Order No.   | 4429018             | 4429019 |  |
|-------------|---------------------|---------|--|
| List Price  | <sup>\$</sup> 1,210 | \$1,750 |  |
| Promo Price | \$1,150             | \$1,663 |  |
| Probe Set   | 817 ts2             | 817 ts1 |  |

Millimar compact amplifiers are easy to use and allow users to view analog scale, digital readout, or both. These evaluation instruments are highly accurate and insensitive to environmental influences.



Order No. 5312010





| Order No.               | 3312010   |  |  |
|-------------------------|---|--|--|
| List Price              | <sup>\$</sup> 1,530   |  |  |
| Promo Price             | \$1, <b>30</b> 1  |  |  |
| Digital                 | ± 5000 mm / ± 0.194 in  |  |  |
| Display<br>Range Analog | ± 5000 mm, ± 2000 mm / ± 0.19 in, ± 0.07 in<br>± 1000 mm, ± 300 mm / ± 0.03 in, ± 0.01 in<br>± 100 mm, ± 30 mm / ± 0.003 in, ± 0.001 in<br>± 10 mm, ± 3 mm / ± 0.0003 in, ± 0.0001 in |  |  |
| Resolution              | 10 µmm, 1 µmm, 0,1 µmm / 100 µin, 10 µin, 5 µin   |  |  |

#### Millimar P2004 M Inductive Probe

Robust construction and precise frictionless ball bearing, provides high performance.



| Order No.       | 5323010             |  |
|-----------------|---------------------|--|
| List Price      | <sup>\$</sup> 438   |  |
| Promo Price     | \$37 <b>2</b>       |  |
| Product         | P2004 M             |  |
| Measuring Range | ± 2 mm / ± 0.078 in |  |



with 8 mm Diameter

# Pocket Surf® IV | The Portable Surface Roughness Gage

The Pocket Surf IV is simple to use and easy to read, displaying measurement results of Ra, Rz, or Rmax at a glance. This portable surface finish gage employs Mahr's unique MarConnect universal interface which allows for USB, RS-232 or digimatic output of data by choosing the right cable.



2,104

Order No. 2191800

| Order No.         | 2191800  | 2191802   |  |  |
|-------------------|--|---|--|--|
| List Price        | \$2,630  |   |  |  |
| Promo Price       | <sup>\$</sup> 2,104                              |   |  |  |
| Traverse Length   |  | 2,0 mm / 0.075 in<br>3,5 mm / 0.135 in              |  |  |
| (Nominal)         | $R_a/R_z/R_{max}$                                | 5,0 mm / 0.195 in                                   |  |  |
| Evaluation Length | R /R   | 0,8 mm / 0.030 in<br>2,4 mm / 0.090 in              |  |  |
|                   | R <sub>a</sub> /R <sub>z</sub> /R <sub>max</sub> | 4,0 mm / 0.150 in                                   |  |  |
| Includes          | 10 μm Radius                                     | 10 μm Radius 5 μm Radius, Certified Specimen, Probe |  |  |

Note: A Pocket Surf kit includes a Pocket Surf unit, general purpose probe, 3,2 μm/125 μin (nominal) reference specimen, 9 Volt battery, riser plate, and a fitted case

The MarSurf PS 10 is a practical roughness measuring unit for mobile use. Using a smartphone-like 4.3 in TFT touch screen display, operation is fast, intuitive and user-friendly. Our next generation MarSurf PS 10 measures 31 roughness parameters, incorporates a removable drive and provides laboratory level performance on the shop floor.

Order No. 6910230



| Order No.            | 6910230   | 6910232 |  |
|----------------------|---|---------|--|
| List Price           | <sup>\$</sup> 2,890   |         |  |
| Promo Price          | <sup>\$</sup> 2,599   |         |  |
| Measuring Principle  | Skid Probe System   |         |  |
| Number of Parameters | 31 (DIN/ISO, JIS, ASME, MOTIF)  |         |  |
| Measuring Range      | 350 μm / 0.014 μin  |         |  |
| Profile Resolution   | 8 µm / 3 µin  |         |  |
| Internal Memory      | 3,900 Profiles, 1500 PDF Files, 500,000 Results,<br>Memory can be Extended with Micro SD-Card up to 32 GB |         |  |
| Description          | PS 10 Kit with 2 µm Probe Tip PS 10 Kit with 5 µm Probe Tip   |         |  |

#### MarSurf PS 10 C2 | with Traverse Drive



Traverse Drive for Shaft Measurments





| Order No.                                  | 6910235                                     |  |
|--|---|--|
| List Price                                 | \$3,800                                     |  |
| Promo Price                                | \$3,420                                     |  |
| Stylus                                     | 2 μm  |  |
| Traverse Length Lt According to ISO/JIS    | 1,5 mm, 4,8 mm, N x Lc, Variable, Automatic |  |
| Traverse Length According to 12085 (MOTIF) | 1 mm, 2 mm, 4 mm                            |  |
| Evaluation Length According to ISO/JIS     | 1,25 mm, 4,0 mm                             |  |

Both in the measuring room and production area, there is a need for surface evaluation requiring skidless tracing. This generally requires a higher degree of skilled operators, work alignment and time. The MarSurf M 400 has the necessary functions and features for the most demanding measurements, while being quick and easy to use. Wireless connectivity increases versatility and portability.



Order No. 6910404



**High Performance Skidless Measurement** 

# MarSurf M 400 C | Fast, Easy, Innovative - Wired Drive and Controller



| Order No.  | 6910404  | 6910412       |  |  |
|--|--|---------------|--|--|
| List Price                                       | \$1(   | \$10,490      |  |  |
| Promo Price                                      | \$9  | 441           |  |  |
| Product  | M 400  | M 400 C       |  |  |
| Measuring Principle                              | Stylus   | Stylus Method |  |  |
| Probe  | BFW Skidless System  |               |  |  |
| Measuring Range                                  | ± 250 μm (up to ± 750 μm with 3x probe arm length)   |               |  |  |
| Profile Resolution                               | Measuring range +/- 250 µm: 8 nm<br>Measuring range +/- 25 µm: 0,8 nm  |               |  |  |
| Filter According to ISO/JIS                      | Gaussian filter as per ISO 11562<br>Filter as per ISO 13565  |               |  |  |
| Number n of Sampling Length According to ISO/JIS | 1 - 5  |               |  |  |
| Contacting Speeds                                | 0,2 mm/s; 1,0 mm/s   |               |  |  |
| Measuring Force (N)                              | 5 mN   |               |  |  |
| Weight Drive Unit                                | Approximately 0,9 kg   |               |  |  |
| Weight Measuring Instrument                      | ately 1,0 kg   |               |  |  |
| Surface Parameters                               | Over 50 surface parameters for R, P and W profiles according to current ISO/JIS or MOTIF standards (ISO 12085) |               |  |  |

A precision benchtop instrument, the Optimar 25 can be used for the calibration of a wide variety of precision measuring instruments. The Optimar 25 calibrator is capable of measuring to many National Standards and comes with a large MarCheck LCD monochrome digital display with background illumination and clear 13 mm/0.512 in high digits.



| Order No.           | 2062722   |  |  |
|---------------------|---|--|--|
| List Price          | \$8,559   |  |  |
| Promo Price \$7,275 |   |  |  |
| Range               | 25 mm / 1 in  |  |  |
| Resolution          | 0,0001 mm, 0,0005 mm, 0,001 mm, 0,005 mm, 0,01 mm, 0,1 mm / 0.00005 in, 0.00001 in, 0.00005 in, 0.0001 in |  |  |
| Accuracy            | ± 0,2 μm (± 10 μin)   |  |  |
| Display Power       | 110V - 60Hz, 240V - 50Hz  |  |  |



#### Precimar® SM 60 | Small Length Measurement System

The Precimar SM 60 is an easy-to-use small length measurement system for fast and precise measurement on workpieces. With easy setup and your choice of readout, the SM 60 quickly adapts to the measurement requirements.



| Orde | er No. | Model        | List Price        | Promo Price | Measuring Range     | Capacity   | Details                         |
|------|--------|--------------|-------------------|-------------|---------------------|--|---------------------------------|
| 535  | 7360   | SM 60        | \$2,800           | \$2,520     | 0- 25 mm / 0 - 1 in | 0 - 60 mm / 0 - 2.36 in  | 6.5 mm Diameter Hardened Anvils |
| 433  | 7697   | 1086<br>R-HR | <sup>\$</sup> 795 | \$716       | 0 - 12,5 mm /       | 0,0001 mm, 0,0005 mm,<br>0,001 mm, 0,002 mm,<br>0,005 mm, 0,01 mm /        |                                 |
| 433  | 7695   | 1087<br>R-HR | \$995             | \$896       | 0 - 0.5 in          | 0.000001 in, 0.00002 in,<br>0.00005 in, 0.0001 in,<br>0.0002 in, 0.0005 in | _                               |



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