

# Digital Indicator MarCator 1087 R

REFERENCE



## 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)
- MAX/MIN memory for searching the reversal point
- TIR (MAX-MIN) for testing flatness and concentricity
- ABS (display can be set to zero without losing reference to preset)
- DATA (Data transmission via connection cable)
- Factor (adjustable)
- LOCK (individual button lock)

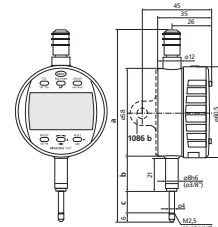


- High contrast LCD
- Operating and display unit (bezel) can be rotated through 280°
- Immediate measurements due to the Reference System
- Lifter protection cap on the measuring spindle
- Mounting shank and measuring spindle are both made of hardened stainless steel
- **Software:** MarCom Professional free download: [www.mahr.com/marcom](http://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
- **Energy supply:** Battery life approx. 3 years
- **IP protection category:** IP 42
- **Scope of delivery:** Instruction manual, Battery

## Technical Data

| Order no.                              |      | 4337660                                  | 4337661     | 4337670    | 4337671     |
|----------------------------------------|------|------------------------------------------|-------------|------------|-------------|
| <b>Product type</b>                    |      | 1087 R                                   |             | 1087 ZR    |             |
| <b>Measuring span</b>                  | mm   | 12.5                                     | 25          | 12.5       | 25          |
| <b>Measuring span</b>                  | inch | .5"                                      | 1"          | .5"        | 1"          |
| <b>Resolution</b>                      | mm   | 0.0005, 0.001, 0.002, 0.005, 0.01        |             |            |             |
| <b>Resolution</b>                      | inch | .00002", .00005", .0001", .0002", .0005" |             |            |             |
| <b>Graduation values</b>               | mm   | 0,001, 0,002, 0,005, 0,01, 0,02, 0,05    |             |            |             |
| <b>Range of analog display</b>         | mm   | ± 0,01, ± 0,02, ± 0,04, ± 0,1, ± 0,2     |             |            |             |
| <b>Error limit</b>                     | mm   | 0.004                                    |             |            |             |
| <b>Error limit over 50 graduations</b> | mm   | 0.002                                    |             |            |             |
| <b>Repeatability</b>                   | mm   | 0.001                                    |             |            |             |
| <b>Measuring force</b>                 | N    | 0.65 – 0.9                               | 0.65 – 1.15 | 0.65 – 0.9 | 0.65 – 1.15 |
| <b>Standard</b>                        |      | Factory standard                         |             |            |             |
| <b>Lifting protection cap</b>          |      | •                                        |             |            |             |

| Order no. | a     | b    | c    | Mounting shaft | Mounting shaft |
|-----------|-------|------|------|----------------|----------------|
|           | mm    | mm   | mm   | mm             | inch           |
| 4337660   | 126,3 | 23   | 13,5 | 8              |                |
| 4337661   | 153,4 | 26,8 | 26,5 | 8              |                |
| 4337670   | 126,3 | 23   | 13,5 |                | .375"          |
| 4337671   | 153,4 | 26,8 | 26,5 |                | .375"          |

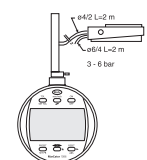


## Accessories

| Order no. | Product name                                | Product type |
|-----------|---------------------------------------------|--------------|
| 4884464   | Battery 3 V, Type CR 2450                   |              |
| 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       |
| 2246308   | Adjustable back                             |              |
| 2254939   | Screw back                                  |              |
| 2255653   | Rack back                                   |              |
| 2255778   | Adjustable back for 75B                     |              |
| 2255936   | Post back                                   |              |
| 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          |



1085 a



1082 p

# Digital Indicator MarCator 1087 Ri



## REFERENCE



### 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 button 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

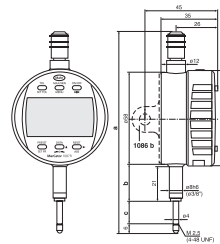
## Technical Data

| Order no.                       | 4337663          |                                          | 4337665    |  |
|---------------------------------|------------------|------------------------------------------|------------|--|
| Product type                    |                  |                                          | 1087 Ri    |  |
| Measuring span                  | mm               | 12.5                                     | 25         |  |
| Measuring span                  | inch             | .5"                                      | 1"         |  |
| Resolution                      | mm               | 0.0005, 0.001, 0.002, 0.005, 0.01        |            |  |
| Resolution                      | inch             | .00002", .00005", .0001", .0002", .0005" |            |  |
| Graduation values               | mm               | 0,001, 0,002, 0,005, 0,01, 0,02, 0,05    |            |  |
| 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 – 0.85                              | 0.9 – 0.65 |  |
| Standard                        | Factory standard |                                          |            |  |
| Lifting protection cap          | •                |                                          |            |  |

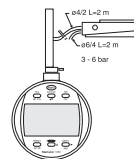
| Order no. | a     | b    | c    | Mounting shaft |
|-----------|-------|------|------|----------------|
|           | mm    | mm   | mm   | mm             |
| 4337663   | 126.3 | 23   | 13.5 | 8              |
| 4337665   | 153.4 | 26.8 | 26.5 | 8              |

## Accessories

| Order no. | Product name                                | Product type |
|-----------|---------------------------------------------|--------------|
| 4884464   | Battery 3 V, Type CR 2450                   |              |
| 4102357   | 16 EXu Data Connection Cable USB (2 m)      | 16 EXu       |
| 4102915   | Digimatic data cable (2 m)                  | 16 EWd       |
| 4102411   | Digimatic data cable (2 m)                  | 16 EXd       |
| 4102410   | Data Connection Cable RS232C (2 m)          | 16 EXr       |
| 4102220   | Receiver                                    | i-Stick      |
| 4375004   | Protective cap for 1075 R / 1086 R / 1087 R | 1086 s       |
| 4337421   | Lug back                                    | 1086 b       |
| 2246308   | Adjustable back                             |              |
| 2254939   | Screw back                                  |              |
| 2255653   | Rack back                                   |              |
| 2255778   | Adjustable back for 75B                     |              |
| 2255936   | Post back                                   |              |
| 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          |



i-Stick



1082 p



1085 a

- Integrated wireless transmitter
- High-contrast LCD display
- Operating and display unit (bezel) can be rotated through 280°
- Lift-off cap on end of measuring pin
- Clamping shaft and measuring pin in hardened stainless steel
- Immediate measurements due to the Reference System
- **Software:** MarCom Professional free download: [www.mahr.com/marcom](http://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
- **Scope of delivery:** Instruction manual, Battery

# Digital Indicator MarCator 1087 BR

## REFERENCE

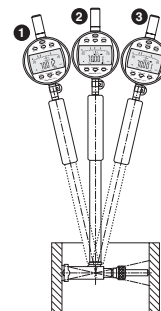


### Functions:

- ON/OFF
- RESET (set display to zero)
- mm/inch
- PRESET (for entering a numerical value)
- 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)

### 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 BR model can process 64 measured values per second, for fast measuring movements combined with measuring certainty.

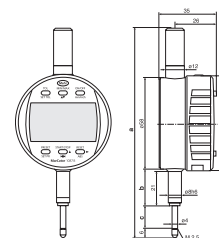


- High contrast LCD
- Operating and display unit (bezel) can be rotated through 280°
- Immediate measurements due to the Reference System
- Mounting shank and measuring spindle are both made of hardened stainless steel
- Hermetically sealed protective measuring cap
- **Software:** MarCom Professional free download: [www.mahr.com/marcom](http://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
- **Energy supply:** Battery life approx. 3 years
- **IP protection category:** IP 42
- **Scope of delivery:** Instruction manual, Battery

### Technical Data

| Order no.                        | 4337662          |                                          |  |
|----------------------------------|------------------|------------------------------------------|--|
| Product type                     | 1087 BR          |                                          |  |
| Measuring span                   | mm               | 12.5                                     |  |
| Measuring span                   | inch             | .5"                                      |  |
| Resolution                       | mm               | 0.0005, 0.001, 0.002, 0.005, 0.01        |  |
| Resolution                       | inch             | .00002", .00005", .0001", .0002", .0005" |  |
| Graduation values                | mm               | 0.001, 0.002, 0.005, 0.01, 0.02, 0.05    |  |
| 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             |
| 4337662   | 126.3 | 23 | 13.5 | 8              |



### Accessories

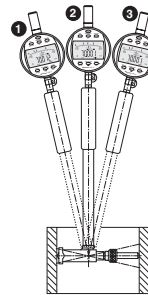
| Order no. | Product name                                | Product type |
|-----------|---------------------------------------------|--------------|
| 4884464   | Battery 3 V, Type CR 2450                   |              |
| 4102357   | 16 EXu Data Connection Cable USB (2 m)      | 16 EXu       |
| 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       |
| 2246308   | Adjustable back                             |              |
| 2254939   | Screw back                                  |              |
| 2255653   | Rack back                                   |              |
| 2255778   | Adjustable back for 75B                     |              |
| 2255936   | Post back                                   |              |
| 4310103   | Adapter bush (.375" / 8 mm)                 | 940          |

# Digital Indicator MarCator 1087 BRi



## 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.



## Functions:

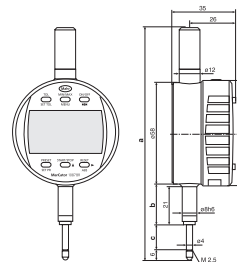
- ON/OFF
- RESET (set display to zero)
- mm/inch
- PRESET (for entering a numerical value) from range 500 mm
- Reversal of counting direction
- TOL (enter tolerance limit values)
- START/STOP search for reversal point
- MAX/MIN memory for searching the reversal point
- ABS (display can be set to zero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

## Technical Data

|                                         |                  |                                          |  |
|-----------------------------------------|------------------|------------------------------------------|--|
| <b>Order no.</b>                        | <b>4337664</b>   |                                          |  |
| <b>Product type</b>                     | 1087 BRi         |                                          |  |
| <b>Measuring span</b>                   | <b>mm</b>        | 12.5                                     |  |
| <b>Measuring span</b>                   | <b>inch</b>      | .5"                                      |  |
| <b>Resolution</b>                       | <b>mm</b>        | 0.0005, 0.001, 0.002, 0.005, 0.01        |  |
| <b>Resolution</b>                       | <b>inch</b>      | .00002", .00005", .0001", .0002", .0005" |  |
| <b>Graduation values</b>                | <b>mm</b>        | 0,001, 0,002, 0,005, 0,01, 0,02, 0,05    |  |
| <b>Range of analog display</b>          | <b>mm</b>        | ± 0,01, ± 0,02, ± 0,04, ± 0,1, ± 0,2     |  |
| <b>Error limit</b>                      | <b>mm</b>        | 0.004                                    |  |
| <b>Error limit over 50 graduations</b>  | <b>mm</b>        | 0.002                                    |  |
| <b>Repeatability</b>                    | <b>mm</b>        | 0.001                                    |  |
| <b>Measuring force</b>                  | <b>N</b>         | 0.65 – 0.9                               |  |
| <b>Standard</b>                         | Factory standard |                                          |  |
| <b>Protective measuring spindle cap</b> | •                |                                          |  |

- Integrated wireless transmitter
- High-contrast LCD display
- Operating and display unit (bezel) can be rotated through 280°
- Lift-off cap on end of measuring pin
- Clamping shaft and measuring pin in hardened stainless steel
- Immediate measurements due to the Reference System
- **Software:** MarCom Professional free download: [www.mahr.com/marcom](http://www.mahr.com/marcom) (only for Mahr data cables and wireless systems with USB and RS232 interface)

| Order no. | a     | b  | c    | Mounting shaft |
|-----------|-------|----|------|----------------|
|           | mm    | mm | mm   | mm             |
| 4337664   | 126.3 | 23 | 13.5 | 8              |

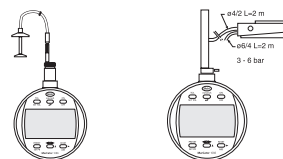


## Accessories

| Order no. | Product name                                | Product type |
|-----------|---------------------------------------------|--------------|
| 4884464   | Battery 3 V, Type CR 2450                   |              |
| 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       |
| 4102220   | Receiver                                    | i-Stick      |
| 4375004   | Protective cap for 1075 R / 1086 R / 1087 R | 1086 s       |
| 4337421   | Lug back                                    | 1086 b       |
| 2246308   | Adjustable back                             |              |
| 2254939   | Screw back                                  |              |
| 2255653   | Rack back                                   |              |
| 2255778   | Adjustable back for 75B                     |              |
| 2255936   | Post back                                   |              |
| 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          |



i-Stick



1085 a

1082 p

- **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
- **Scope of delivery:** Instruction manual, Battery