

# Digital Caliper for special applications MarCal 16 EWri-C / 16 EWR-C

## Functions 16 EWri-C:

- 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)

## Functions 16 EWR-C:

- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- DATA (Data transmission via connection cable)

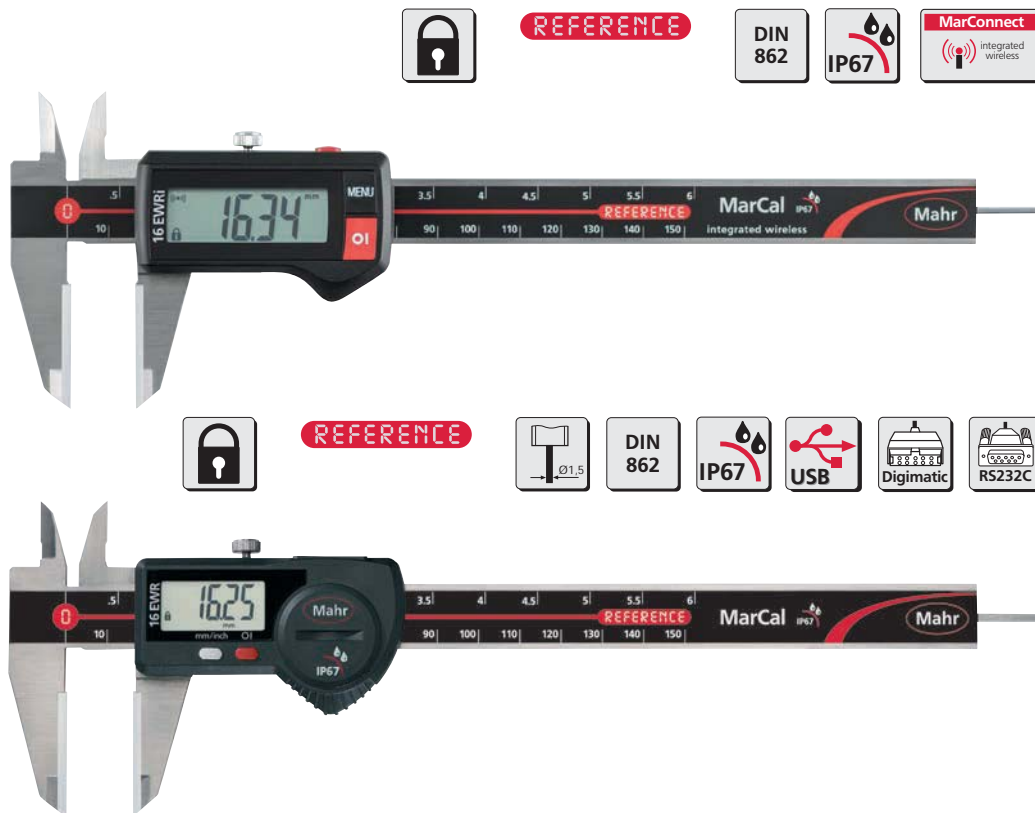
- High contrast analog display
- Locking screw above
- Lapped guideway
- Measuring blade for inside measurements
- Slide and beam made of hardened stainless steel
- Step measuring function
- Immediate measurements due to the Reference System
- Raised guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Features 16 EWri-C:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Features 16 EWR-C:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case



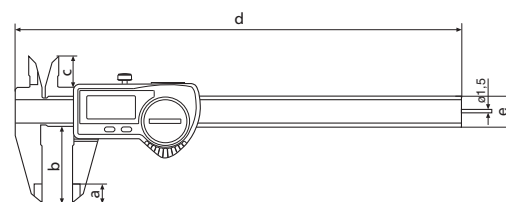
## Application:

Outer measuring surfaces made of ceramic, for measuring hard materials

## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm	inch		
4103372	16 EWri-C	0 – 150	0 – 6"	0,01 / .0005"	0,03	.001"	DIN 862	round
4103072	16 EWR-C	0 – 150	0 – 6"	0,01 / .0005"	0,03	.001"	DIN 862	round

Order no.	a	b	c	d	e
	mm	mm	mm	mm	mm
4103372	10	40	16	235	16
4103072	10	40	16	235	16



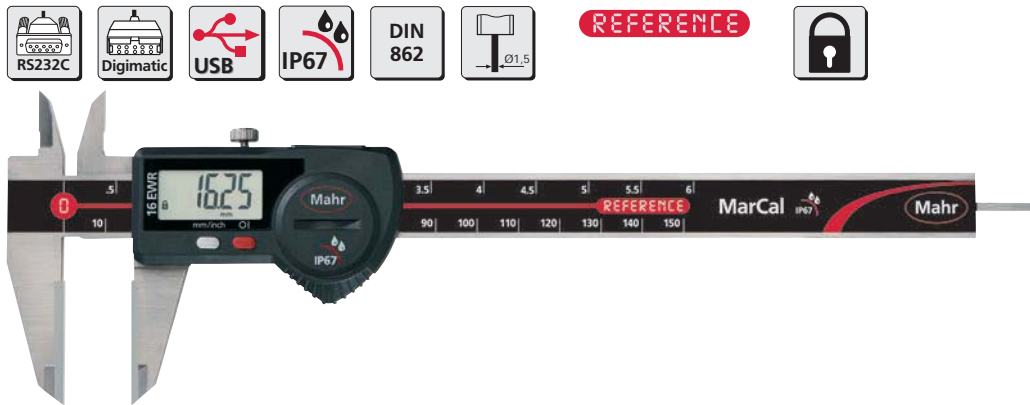
## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWri-C	Receiver	i-Stick
4102357	16 EWR-C	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-C	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-C, 16 EWri-C	Battery 3 V, CR 2032	
4102915	16 EWR-C	Digimatic data cable (2 m)	16 EWd



i-Stick

# Digital Caliper for special applications MarCal 16 EWRI-H / 16 EWR-H



## Functions 16 EWRI-H:

- 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)

## Functions 16 EWR-H:

- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- DATA (Data transmission via connection cable)

## Application:

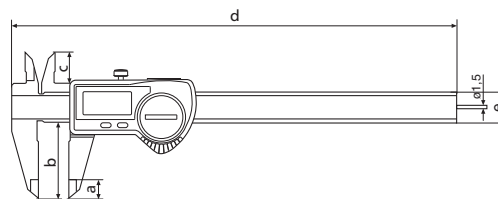
Outer measuring surfaces made of carbide, for measuring hard materials

- 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 guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm/inch	mm		
4103373	16 EWRI-H	0 - 150	0 - 6"	0,01 / .0005"	0,03	.001"	DIN 862	round
4103073	16 EWR-H	0 - 150	0 - 6"	0,01 / .0005"	0,03	.001"	DIN 862	round

Order no.	a	b	c	d	e
	mm	mm	mm	mm	mm
4103373	10	40	16	235	16
4103073	10	40	16	235	16



## Features 16 EWRI-H:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Features 16 EWR-H:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWRI-H	Receiver	i-Stick
4102357	16 EWR-H	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-H	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-H, 16 EWRI-H	Battery 3 V, CR 2032	
4102915	16 EWR-H	Digimatic data cable (2 m)	16 EWd



i-Stick

# Digital Caliper for special applications MarCal 16 EWRI-AR / 16 EWR-AR

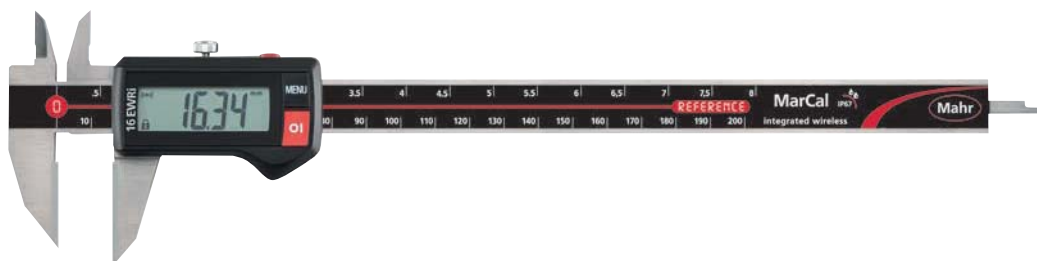


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## Functions 16 EWRI-AR:

- 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)



## Functions 16 EWR-AR:

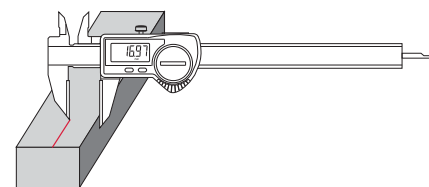
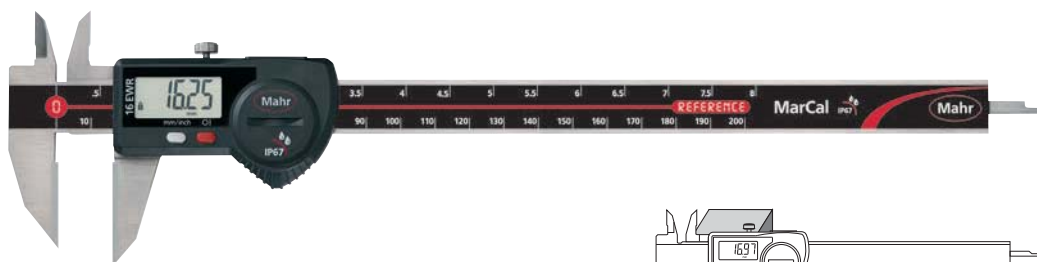
- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- DATA (Data transmission via connection cable)



REFERENCE



- 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 guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide



## Application:

For marking out workpieces

## Features 16 EWRI-AR:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

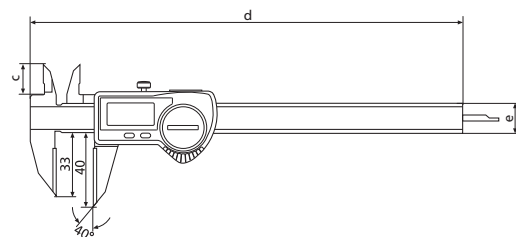
## Features 16 EWR-AR:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm	inch		
4103382	16 EWRI-AR	0 – 200	0 – 8"	0,01 / .0005"	0,03	.001"	Factory standard	rectangular
4103082	16 EWR-AR	0 – 200	0 – 8"	0,01 / .0005"	0,03	.001"	Factory standard	rectangular

Order no.	c	d	e
	mm	mm	mm
4103382	16,5	285	16
4103082	16,5	285	16



## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWRI-AR	Receiver	i-Stick
4102357	16 EWR-AR	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-AR	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-AR, 16 EWRI-AR	Battery 3 V, CR 2032	
4102915	16 EWR-AR	Digimatic data cable (2 m)	16 EWd



i-Stick

# Digital Caliper for special applications MarCal 16 EWRI-NA / 16 EWR-NA



## Functions 16 EWRI-NA:

- 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)

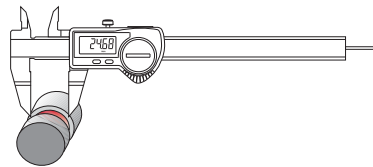


## Functions 16 EWR-NA:

- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- DATA (Data transmission via connection cable)

## Application:

For measuring keyseats

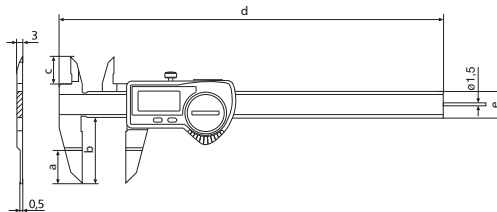


- High contrast analog display
- Locking screw above
- Lapped guideway
- Measuring blade for inside measurements
- Slide and beam made of hardened stainless steel
- Step measuring function
- Immediate measurements due to the Reference System
- Raised guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm	inch		
4103374	16 EWRI-NA	0 - 150	0 - 6"	0,01 / .0005"	0,03	.001"	Factory standard	round
4103074	16 EWR-NA	0 - 150	0 - 6"	0,01 / .0005"	0,03	.001"	Factory standard	round

Order no.	a	b	c	d	e
	mm	mm	mm	mm	mm
4103374	20	40	16,5	235	16
4103074	20	40	16,5	235	16



## Features 16 EWRI-NA:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Features 16 EWR-NA:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWRI-NA	Receiver	i-Stick
4102357	16 EWR-NA	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-NA	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-NA, 16 EWRI-NA	Battery 3 V, CR 2032	
4102915	16 EWR-NA	Digimatic data cable (2 m)	16 EWd



i-Stick

# Digital Caliper for special applications MarCal 16 EWri-S / 16 EWR-S

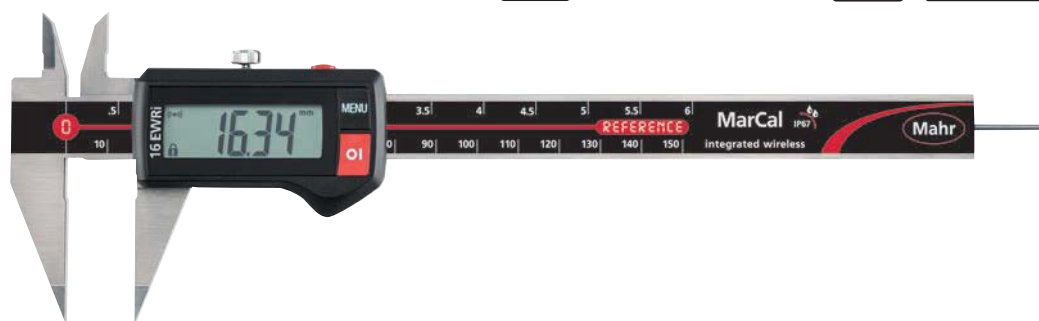


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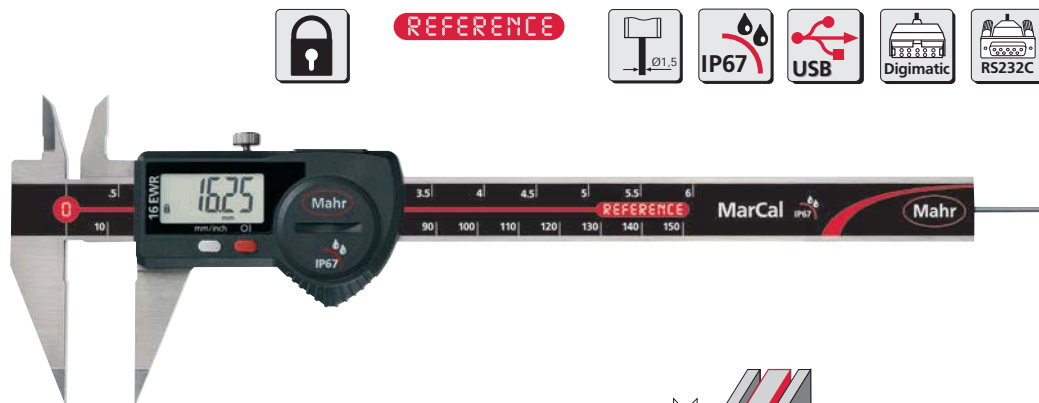
## Functions 16 EWri-S:

- 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)



## Functions 16 EWR-S:

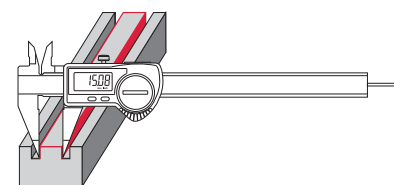
- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- DATA (Data transmission via connection cable)



- 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 guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Application:

With pointed jaws e.g. for measuring distances between grooves



## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm	inch		
4103375	16 EWri-S	0 – 150	0 – 6"	0,01 / .0005"	0,03	.001"	Factory standard	round
4103075	16 EWR-S	0 – 150	0 – 6"	0,01 / .0005"	0,03	.001"	Factory standard	round

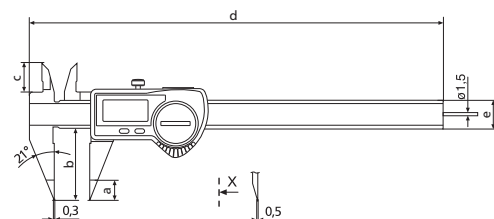
## Features 16 EWri-S:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

Order no.	a	b	c	d	e
	mm	mm	mm	mm	mm
4103375	10	40	16,5	235	16
4103075	10	40	16,5	235	16

## Features 16 EWR-S:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case



## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWri-S	Receiver	i-Stick
4102357	16 EWR-S	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-S	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-S, 16 EWri-S	Battery 3 V, CR 2032	
4102915	16 EWR-S	Digimatic data cable (2 m)	16 EWD



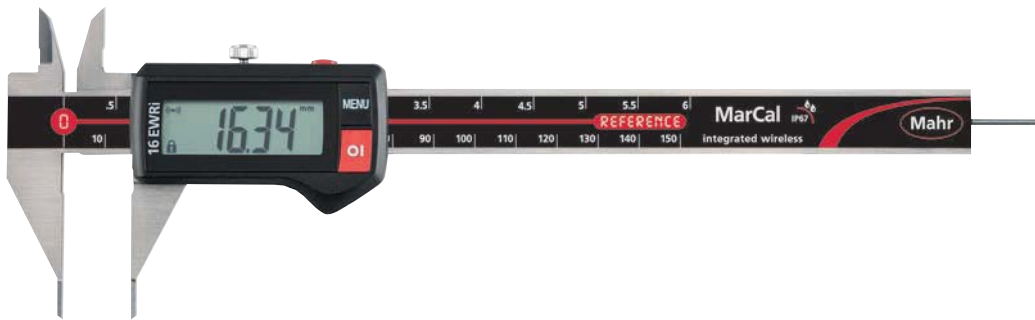
i-Stick



# Digital Caliper for special applications MarCal 16 EWRI-SM / 16 EWR-SM



REFERENCE



## Functions 16 EWRI-SM:

- 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)



REFERENCE

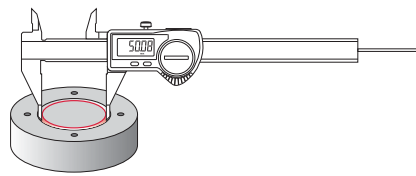


## Functions 16 EWR-SM:

- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- DATA (Data transmission via connection cable)

## Application:

With pointed jaws e.g. for measuring distances between grooves

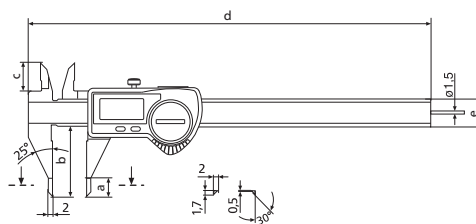


- High contrast analog display
- Locking screw above
- Lapped guideway
- Measuring blade for inside measurements
- Slide and beam made of hardened stainless steel
- Step measuring function
- Immediate measurements due to the Reference System
- Raised guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm	inch		
4103376	16 EWRI-SM	0 - 150	0 - 6"	0,01 / .0005"	0,03	.001"	Factory standard	round
4103076	16 EWR-SM	0 - 150	0 - 6"	0,01 / .0005"	0,03	.001"	Factory standard	round

Order no.	a	b	c	d	e
	mm	mm	mm	mm	mm
4103376	10	40	16,5	235	16
4103076	10	40	16,5	235	16



## Features 16 EWRI-SM:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Features 16 EWR-SM:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWRI-SM	Receiver	i-Stick
4102357	16 EWR-SM	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-SM	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-SM, 16 EWRI-SM	Battery 3 V, CR 2032	
4102915	16 EWR-SM	Digimatic data cable (2 m)	16 EWd



i-Stick

# Digital Caliper for special applications MarCal 16 EWRI-VS / 16 EWR-VS



REFERENCE



## Functions 16 EWRI-VS:

- 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)



## Functions 16 EWR-VS:

- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- DATA (Data transmission via connection cable)



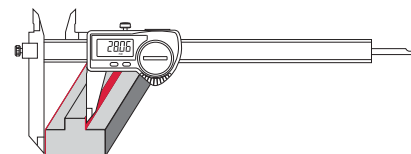
REFERENCE



- High contrast analog display
- Locking screw above
- Lapped guideway
- Measuring blade for inside measurements
- Slide and beam made of hardened stainless steel
- Immediate measurements due to the Reference System
- Raised guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Application:

With moving jaws for measuring stepped workpieces



## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm	inch		
4103383	16 EWRI-VS	0-200	0-8"	0,01 / .0005"	0,04	.0015"	Factory standard	rectangular
4103083	16 EWR-VS	0-200	0-8"	0,01 / .0005"	0,04	.0015"	Factory standard	rectangular

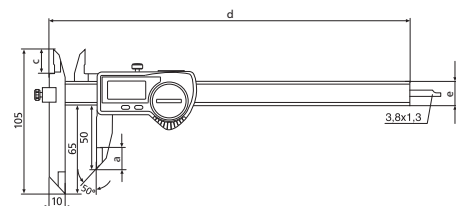
## Features 16 EWRI-VS:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Features 16 EWR-VS:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

Order no.	a	c	d	e
	mm	mm	mm	mm
4103383	14	18	278	16
4103083	14	18	278	16



## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWRI-VS	Receiver	i-Stick
4102357	16 EWR-VS	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-VS	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-VS, 16 EWRI-VS	Battery 3 V, CR 2032	
4102915	16 EWR-VS	Digimatic data cable (2 m)	16 EWd



i-Stick

# Digital Caliper for special applications MarCal 16 EWRI-BA / 16 EWR-BA



REFERENCE



## Functions 16 EWRI-BA:

- 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)



REFERENCE

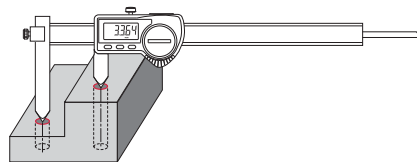


## Functions 16 EWR-BA:

- 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 via connection cable)

## Application:

For measuring the distance between bores

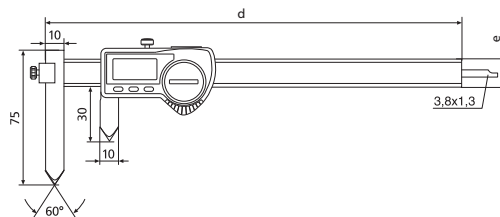


- High contrast analog display
- Locking screw above
- Lapped guideway
- Slide and beam made of hardened stainless steel
- Immediate measurements due to the Reference System
- Raised guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm/inch	mm		
4103384	16 EWRI-BA	10 - 210	0,4 - 8,3"	0,01 / .0005"	0,04	.0015"	Factory standard	rectangular
4103084	16 EWR-BA	10 - 210	0,4 - 8,3"	0,01 / .0005"	0,04	.0015"	Factory standard	rectangular

Order no.	d		e
	mm	mm	
4103384	278	16	
4103084	278	16	



## Features 16 EWRI-BA:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Features 16 EWR-BA:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWRI-BA	Receiver	i-Stick
4102357	16 EWR-BA	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-BA	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-BA, 16 EWRI-BA	Battery 3 V, CR 2032	
4102915	16 EWR-BA	Digimatic data cable (2 m)	16 EWd



i-Stick



# Digital Caliper for special applications MarCal 16 EWRI-SA / 16 EWR-SA

## Functions 16 EWRI-SA:

- 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)

## Functions 16 EWR-SA:

- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- DATA (Data transmission via connection cable)

- High contrast analog display
- Locking screw above
- Lapped guideway
- Slide and beam made of hardened stainless steel
- Immediate measurements due to the Reference System
- Raised guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Features 16 EWRI-SA:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Features 16 EWR-SA:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case



REFERENCE

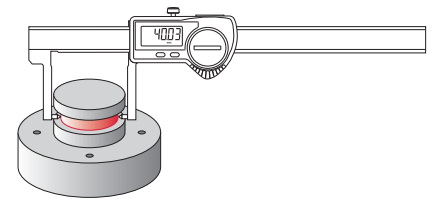


REFERENCE



## Application:

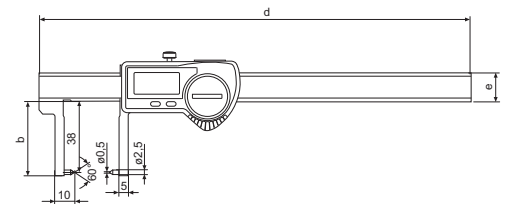
Inward-angled measuring tips for measuring wall thicknesses and recesses on shafts



## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm	inch		
4103377	16 EWRI-SA	0 - 140	0 - 6"	0,01 / .0005"	0,03	.001"	Factory standard	none
4103077	16 EWR-SA	0 - 140	0 - 6"	0,01 / .0005"	0,03	.001"	Factory standard	none

Order no.	b	d	e
	mm	mm	mm
4103377	40	235	16
4103077	40	235	16



## Accessories

Order no.	For measuring instrument	Product name	Product type
4102220	16 EWRI-SA	Receiver	i-Stick
4102357	16 EWR-SA	16 EXu Data connection cable USB (2 m)	16 EXu
4102410	16 EWR-SA	Data connection cable RS232C (2 m)	16 EXr
4102520	16 EWRI-SA, 16 EWR-SA	Battery 3 V, CR 2032	
4102915	16 EWR-SA	Digimatic data cable (2 m)	16 EWd



i-Stick

# Digital Caliper for special applications MarCal 16 EWRI-AA / 16 EWR-AA



REFERENCE



REFERENCE



## Functions 16 EWRI-AA:

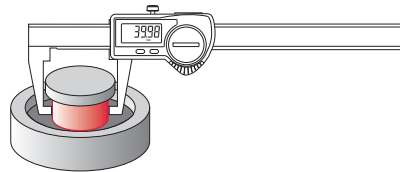
- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- PRESET (for entering a numerical value)
- DATA (Data transmission)
- HOLD (storage of measured values)

## Functions 16 EWR-AA:

- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- DATA (Data transmission via connection cable)

## Application:

Inward-angled measuring surfaces for measuring wall thicknesses and recesses on shafts

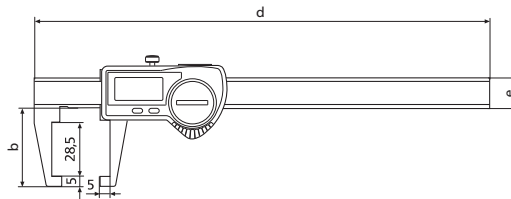


- High contrast analog display
- Locking screw above
- Lapped guideway
- Slide and beam made of hardened stainless steel
- Immediate measurements due to the Reference System
- Raised guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm	inch		
4103379	16 EWRI-AA	0-150	0-6"	0,01 / .0005"	0,03	.001"	Factory standard	none
4103079	16 EWR-AA	0-150	0-6"	0,01 / .0005"	0,03	.001"	Factory standard	none

Order no.	b	d	e
	mm	mm	mm
4103379	40	235	16
4103079	40	235	16



## Features 16 EWRI-AA:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Features 16 EWR-AA:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWRI-AA	Receiver	i-Stick
4102357	16 EWR-AA	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-AA	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-AA, 16 EWRI-AA	Battery 3 V, CR 2032	
4102915	16 EWR-AA	Digimatic data cable (2 m)	16 EWd



i-Stick

# Digital Caliper for special applications MarCal 16 EWri-SI / 16 EWR-SI

## Functions 16 EWri-SI:

- 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)

## Functions 16 EWR-SI:

- 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 via connection cable)

- High contrast analog display
- Locking screw above
- Lapped guideway
- Slide and beam made of hardened stainless steel
- Immediate measurements due to the Reference System
- Raised guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Features 16 EWri-SI:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Features 16 EWR-SI:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case



REFERENCE

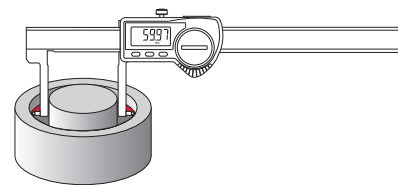


REFERENCE



## Application:

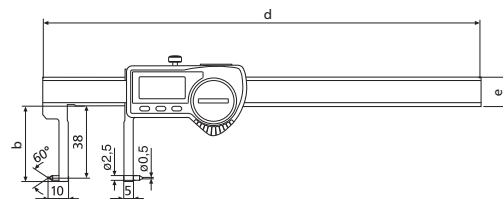
Outward-angled measuring tips for measuring recesses in bores



## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm	inch		
4103378	16 EWri-SI	20 - 170	0,8 - 6,7"	0,01 / .0005"	0,03	.001"	Factory standard	none
4103078	16 EWR-SI	20 - 170	0,8 - 6,7"	0,01 / .0005"	0,03	.001"	Factory standard	none

Order no.	b	d	e
	mm	mm	mm
4103378	38	235	16
4103078	38	235	16



## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWri-SI	Receiver	i-Stick
4102357	16 EWR-SI	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-SI	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-SI, 16 EWri-SI	Battery 3 V, CR 2032	
4102915	16 EWR-SI	Digimatic data cable (2 m)	16 EWd



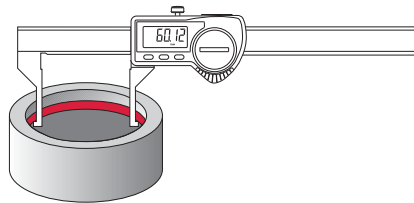
i-Stick

# Digital Caliper for special applications MarCal 16 EWRI-AI / 16 EWR-AI



## Application:

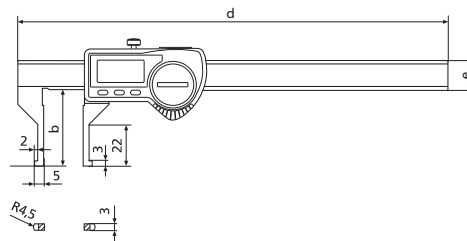
Outward-angled measuring surfaces for measuring recesses in bores



## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm/inch	mm		
4103380	16 EWRI-AI	10 – 160	0,4 – 6,3"	0,01 / .0005"	0,03	.001"	Factory standard	none
4103080	16 EWR-AI	10 – 160	0,4 – 6,3"	0,01 / .0005"	0,03	.001"	Factory standard	none

Order no.	b	d	e
	mm	mm	mm
4103380	40	235	16
4103080	40	235	16



## Functions 16 EWRI-AI:

- 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)

## Functions 16 EWR-AI:

- 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 via connection cable)

- High contrast analog display
- Locking screw above
- Lapped guideway
- Slide and beam made of hardened stainless steel
- Immediate measurements due to the Reference System
- Raised guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Features 16 EWRI-AI:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Features 16 EWR-AI:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWRI-AI	Receiver	i-Stick
4102357	16 EWR-AI	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-AI	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-AI, 16 EWRI-AI	Battery 3 V, CR 2032	
4102915	16 EWR-AI	Digimatic data cable (2 m)	16 EWd



i-Stick

# Digital Caliper for special applications MarCal 16 EWRI-RW / 16 EWR-RW

## Functions 16 EWRI-RW:

- 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)

## Functions 16 EWR-RW:

- ON/OFF
- AUTO-ON / OFF
- mm/inch
- LOCK function (key lock)
- RESET (set display to zero)
- DATA (Data transmission via connection cable)

- High contrast analog display
- Locking screw above
- Lapped guideway
- Slide and beam made of hardened stainless steel
- Immediate measurements due to the Reference System
- Raised guideways for the protection of the scale
- Excellent resistance against dust, coolants and lubricants
- Dirt wipers are integrated in the slide

## Features 16 EWRI-RW:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

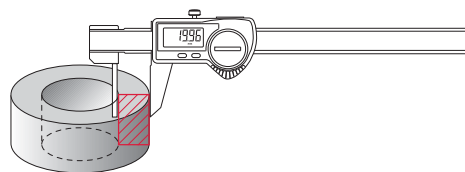
## Features 16 EWR-RW:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case



## Application:

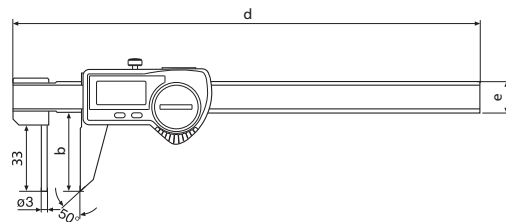
Measurement of wall thicknesses



## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm	inch		
4103381	16 EWRI-RW	0-150	0-6"	0,01 / .0005"	0,05	.002"	Factory standard	none
4103081	16 EWR-RW	0-150	0-6"	0,01 / .0005"	0,05	.002"	Factory standard	none

Order no.	b	d	e
	mm	mm	mm
4103381	40	235	16
4103081	40	235	16



## Accessories

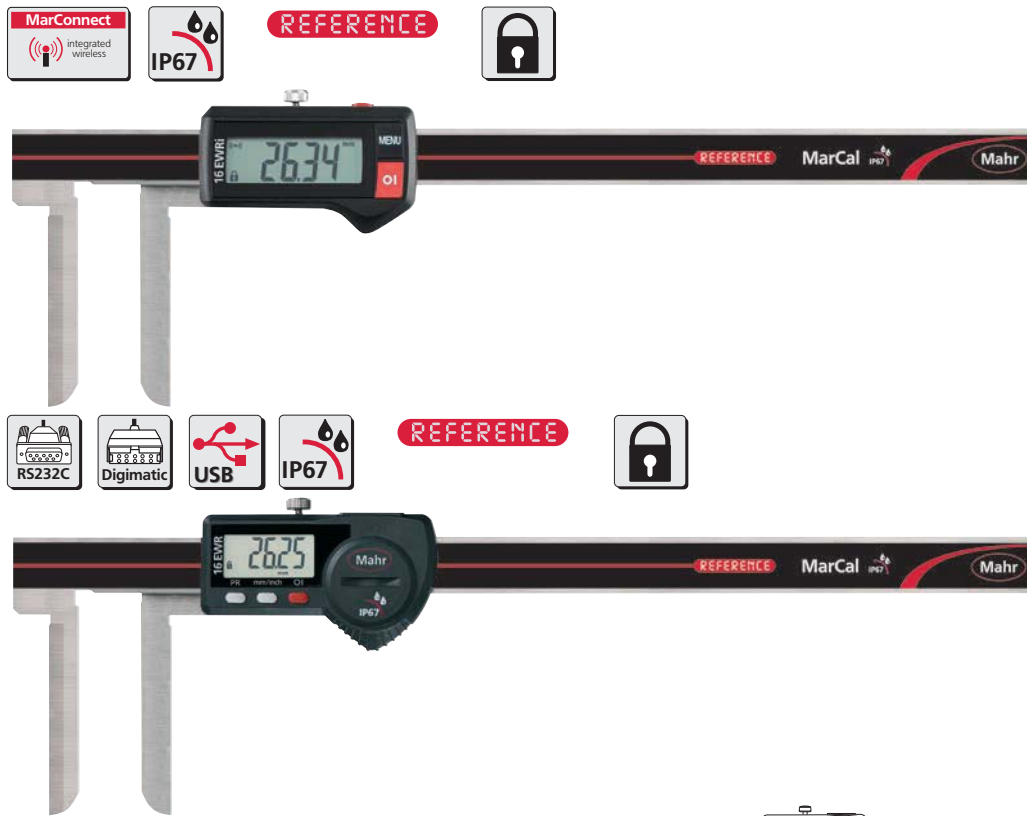
Order no.	For measuring instrument	Product description	Product type
4102220	16 EWRI-RW	Receiver	i-Stick
4102357	16 EWR-RW	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-RW	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-RW, 16 EWRI-RW	Battery 3 V, CR 2032	
4102915	16 EWR-RW	Digimatic data cable (2 m)	16 EWD



i-Stick

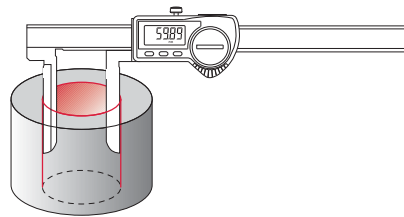


# Digital Caliper for special applications MarCal 16 EWRI-LI / 16 EWR-LI



## Application:

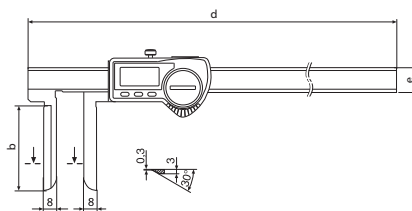
With long inner blades



## Technical Data

Order no.	Product type	Measuring range		Resolution	Error limit		Standard	Depth Rod
		mm	inch		mm/inch	mm		
4103385	16 EWRI-LI	10 - 200	0,4 - 8"	0,01 / .0005"	0,05	.002"	Factory standard	none
4103085	16 EWR-LI	10 - 200	0,4 - 8"	0,01 / .0005"	0,05	.002"	Factory standard	none

Order no.	b	d	e
	mm	mm	mm
4103385	60	285	16
4103085	60	285	16



## Accessories

Order no.	For measuring instrument	Product description	Product type
4102220	16 EWRI-LI	Receiver	i-Stick
4102357	16 EWR-LI	Data Connection Cable USB (2 m)	16 EXu
4102410	16 EWR-LI	Data Connection Cable RS232C (2 m)	16 EXr
4102520	16 EWR-LI, 16 EWRI-LI	Battery 3 V, CR 2032	
4102915	16 EWR-LI	Digimatic data cable (2 m)	16 EWd



i-Stick

## Functions 16 EWRI-LI:

- 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)

## Functions 16 EWR-LI:

- 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 via connection cable)

- High contrast analog display
- Locking screw above
- Lapped guideway
- Measuring blade for inside measurements
- Slide and beam made of hardened stainless steel
- Immediate measurements due to the Reference System
- Raised guideways 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](http://www.mahr.com/marcom) (only for Mahr data cables and wireless systems with USB and RS232 interface)

## Features 16 EWRI-LI:

- **Height of digits:** 11 mm
- **Data interface:** Integrated wireless
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case

## Features 16 EWR-LI:

- **Height of digits:** 8,5 mm
- **Data interface:** USB, Opto RS232C, Digimatic
- **Energy supply:** Battery, life span ca. 3 years
- **IP protection category:** IP 67
- **Scope of delivery:** Battery, Instruction manual, Case