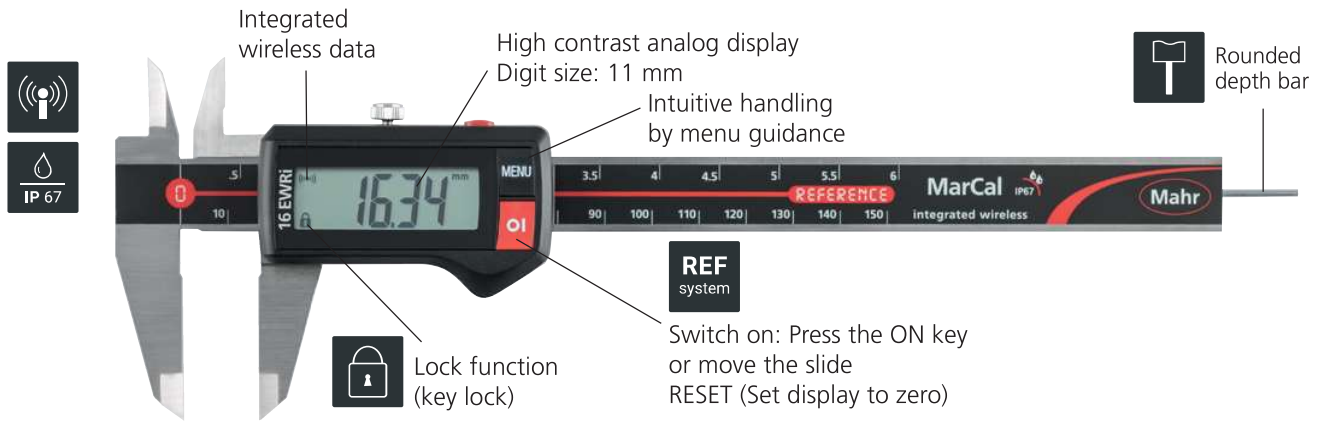
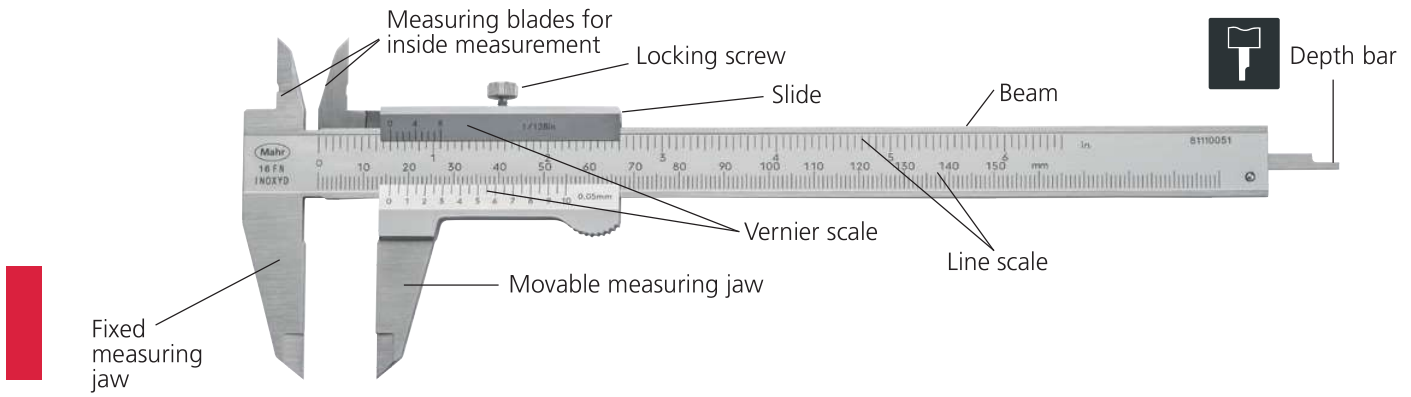


MarCal | Caliper

Calipers are some of the most important measuring instruments in production metrology due to their versatility and ease-of-use. Digital devices are simple to operate and easy to read. In addition, they enable fast and uncomplicated data acquisition.

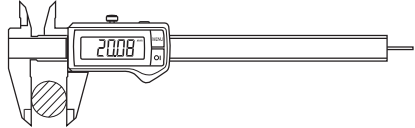
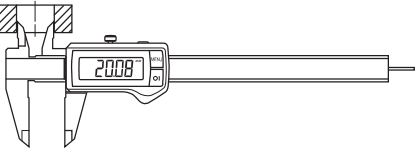
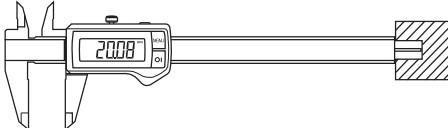
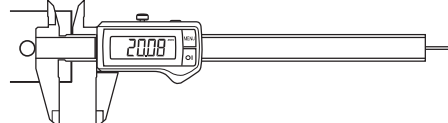


MarCal | Terms



MarCal | Types of measurement

16 series calipers (e.g. 16 EWri, 16 U, 16 FN) can be used to conduct 4 different types of measurements:

- a) Outside measurement 
- b) Inside measurement 
- c) Depth measurement 
- d) Step (Distance) measurement 

Error limits G according to DIN 862

Measuring length	Error limits G in μm		Resolution
	Scale interval and/or vernier interval		
mm	0.1 and 0.05	0.02	0.01
50	50	20	20
100			
200			
300	60	30	30
400			
500			
600	80	40	40
700			
800			
900	100	50	—
1000			
1200			
1400	120	60	—
1600			
1800			
2000	220		

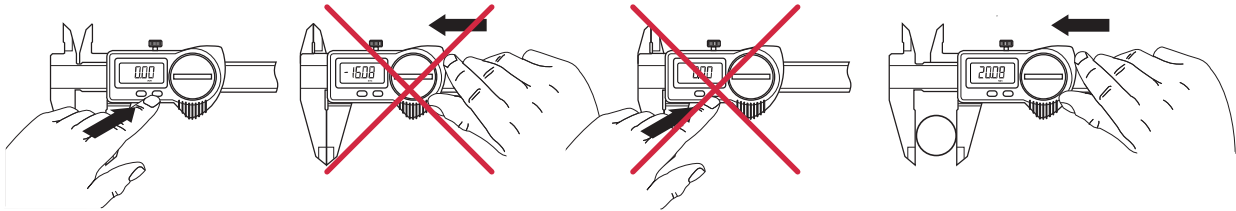
MarCal - The innovative Reference System



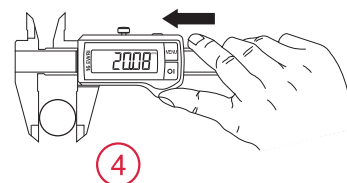
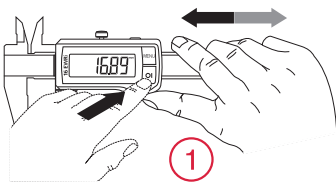
All Mahr digital calipers with this logo are equipped with the innovative Reference System. The zero position only has to be set once: after setting the zero position, the zero remains stored for all further measurements. Therefore, once the caliper is switched ON or the slide is moved the caliper is immediately ready for measurement. Once the caliper is initially set to zero, there is no need to reset to zero each time the caliper is turned on.

Conventional

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



- ① Switch ON
- ② Results of measurement



Press the ON key

or

move the slide

IP Protection classes

First digit is the degree of protection according to IEC 60529 – against particles, contaminants and dusts

- 0 Not protected
- 1 Particles > 50.0 mm
- 2 Particles > 12.5 mm
- 3 Particles > 2.5 mm
- 4 Particles > 1.0 mm
- 5 Dust protected
- 6 Dust tight

Second digit is the degree of protection according to IEC 60529 (approximate) – against wet conditions (fluids)

- 0 Not protected
- 1 Falling water drops - vertical
- 2 Falling water drops - tilted < 15°
- 3 Spray water < 60°
- 4 Water splashing from all directions
- 5 Water jets from all directions
- 6 Powerful water jets
- 7 Temporary immersion in water
- 8 Continuous immersion in water



Example
IP67 means that the product is dust tight and is protected against temporary immersion in water.

MarCal | The new Generation Waterproof Digital Calipers with the Reference System and Integrated Wireless

Security due to the Reference Lock function

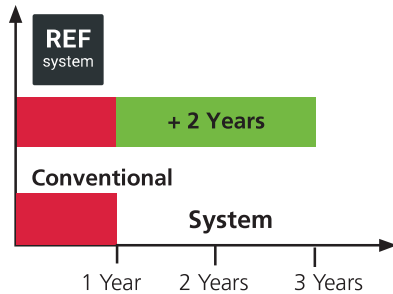
- Zero-position is secured
- Operating error is not possible

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



Battery service life is 3 years

The new Reference System is extremely energy efficient because of its standby mode feature; almost no power is required, thus extending the life of the battery up to 3 years*.



* When Integrated Wireless is deactivated

Superior quality of the guideways

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



Surface of the guideway



MarConnect Integrated Wireless



Wireless data transmission for the price of a data cable.

Mahr's Integrated Wireless, users have a new Integrated Wireless data transmission system for the price of a data cable. Data acquisition with digital calipers is now even simpler: simply transmit your measured data directly into Microsoft Office Excel® or any Windows program with a keyboard code.

Secure data transmission



With Integrated Wireless, your data will be transferred to the digital indicator, which is confirmed with a message in the digital indicator's display. The message will show whether the sent data has been transferred correctly, and/or whether you are in the reception range of the i-Stick.



Ergonomic design

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



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



Excellent resistance against dust, coolant and lubricants



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

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

