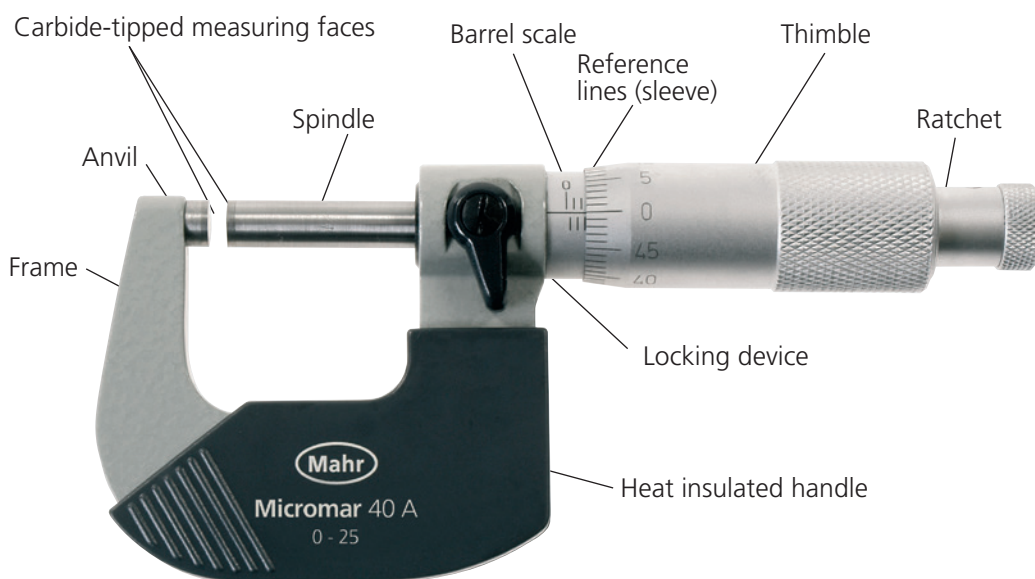


## Micromar | Micrometers

Micrometers fall alongside calipers with regards to the most frequently used hand-held measuring instruments. With their precision ground spindle, carbide-tipped measuring faces and robust frame construction, the modern micrometer from the Micromar series ensures maximum precision and a long working life. Our mechanical micrometers are extremely reliable and easy to read due to the scales' satin chrome finish, thus ensuring accuracy and user comfort. Our digital micrometers unite the highly renowned mechanical precision from Mahr with most modern electronics. These digital micrometers offer simple operation with an error free reading, as well as problem-free data of the determined parameters to an external evaluation instrument. Micromar 40 EWR, the newest generation of waterproof digital micrometers, ensures that even in the most difficult workshop conditions, precise and reliable results are obtained. One of Mahr's specialties would be the micrometer with a dial comparator. The device's built-in dial comparator, stationary anvil and constant measuring force result in rapid measurements and highly precise serial measurements.

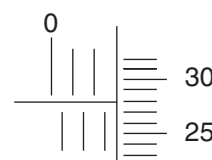


## Micromar | Design Features



### Reading example:

Micrometer with 0.01 mm divisions



Sleeve	2.5
Thimble	0.28
<b>Measuring result</b>	<b>2.78 mm</b>

## Micromar | Types of Micrometers

Mahr Micrometers are available with the following means of indication:

a) Digital micrometer with digital display



b) Mechanical micrometer with scale and dial



c) Mechanical micrometer with scale



## Error limits G according to DIN 863-1

Measuring range		Error limit	Measuring force
mm		G µm	N
0	– 25	4	5 – 10
25	– 50	4	5 – 10
50	– 75	5	5 – 10
75	– 100	5	5 – 10
100	– 125	6	5 – 10
125	– 150	6	5 – 10
150	– 175	7	5 – 10
175	– 200	7	5 – 10
200	– 225	8	5 – 10
225	– 250	8	5 – 10
250	– 275	9	5 – 10
275	– 300	9	5 – 10
300	– 325	10	5 – 10
325	– 350	10	5 – 10
350	– 375	11	5 – 10
375	– 400	11	5 – 10
400	– 425	12	5 – 10
425	– 450	12	5 – 10
450	– 475	13	5 – 10
475	– 500	13	5 – 10

# Micromar | Digital Micrometer Micromar 40 EWRI Micrometers with Integrated Wireless

With the digital waterproof Micrometer **Micromar** 40 EWRI, precise and reliable results are obtained even in the most difficult conditions.



**Integrated wireless** offers you much more freedom. Whether at the measuring workspace, for inspections inside or on the machine, in the case of large workpieces, you get fully autonomous measuring without limits by a cable.

The high-contrast display with 10 mm high digits enables accurate, fatigue-free reading of the measurement results.

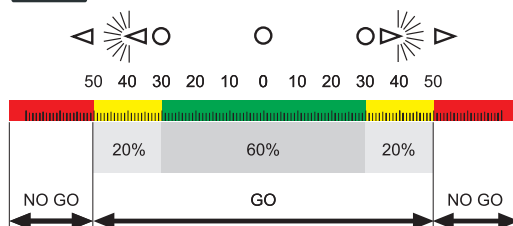
**Reference Lock Function** prevents operating error caused by accidental usage of the operating buttons.

Stainless steel, hardened spindle

Sturdy hard lacquered steel frame

**ABS Absolute Function:** Micrometer can be set in any position to 0.000 mm / .0000" without the reference to the preset value being lost

**Tolerance function with warning limits:**



**Hold:** Freezes the measured value after the measurement. Practical function for measuring tasks, where the display is not visible, i.e. measurements in the machine.

The ergonomically formed and thermally insulated handle as well as the integrated ratchet in the thimble ensures both trouble free handling and accurate measurement results.



Protection class IP65 in accordance to IEC 60529, the waterproof measuring system FPS (Fluid Protected measuring System) with a sealed housing.



# Micromar 40 A

## Micrometer

### FEATURES

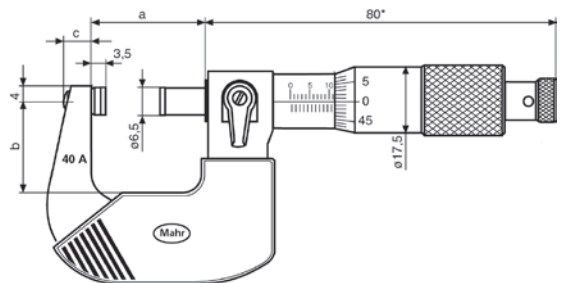
- Operating and display units with satin chrome finish
- Hard lacquered steel frame
- Spindle and anvil made of hardened steel, carbide-tipped
- Heat insulators
- Rapid drive with integrated ratchet
- Locking device
- **Package contains:** setting standard (measuring range of 25–50 mm), instruction manual, case



### TECHNICAL DATA

Order no.	Product type	Measuring range	Graduation value	Error limit	Spindle thread pitch	Standard
		mm	mm	µm	mm	
4134000	40 A	0–25	0.01	4	0.5	DIN 863–1
4134001	40 A	25–50	0.01	4	0.5	DIN 863–1
4134002	40 A	50–75	0.01	5	0.5	DIN 863–1
4134003	40 A	75–100	0.01	5	0.5	DIN 863–1
4134004	40 A	100–125	0.01	6	0.5	DIN 863–1
4134005	40 A	125–150	0.01	6	0.5	DIN 863–1
4134006	40 A	150–175	0.01	7	0.5	DIN 863–1
4134007	40 A	175–200	0.01	7	0.5	DIN 863–1

Order no.	a	b	c
	mm	mm	mm
4134000	31	25.5	7
4134001	56	34.5	12
4134002	81	47.5	12
4134003	106	58.5	13
4134004	131	71.5	13
4134005	156	83.5	13
4134006	182	95.5	13
4134007	207	108.5	13



### ACCESSORIES

Order no.	Product name	Product type
4158000	Stand, for holding outside micrometers	41 H



41 H

# Micromar 40 SA

## Micrometer

### FEATURES

- Operating and display units with satin chrome finish
- Hard lacquered steel frame
- Spindle and anvil made of hardened steel, carbide-tipped
- Heat insulators
- Rapid drive with integrated ratchet
- Locking device
- **Package contains:** instruction manual, setting values 25 mm / 75 mm, case



### TECHNICAL DATA

Order no.	Product type	Measuring range	Graduation value	Spindle thread pitch	Standard	Number of micrometers
		mm	mm	mm		
4134050	40 SA	0 – 100	0.01	0.5	DIN 863-1	4
4134051	40 SA	100 – 200	0.01	0.5	DIN 863-1	4

### ACCESSORIES

Order no.	Product name	Product type
4158000	Stand, for holding outside micrometers	41 H



41 H

# Micromar 40 A

## Micrometer

### FEATURES

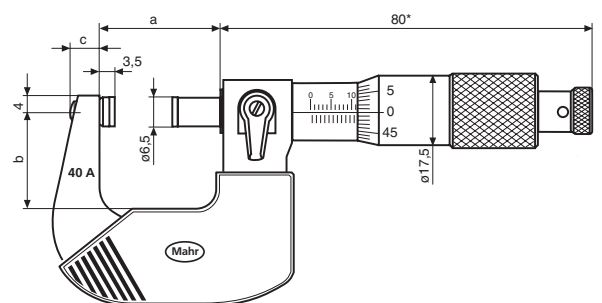
- Operating and display units with satin chrome finish
- Hard lacquered steel frame
- Spindle and anvil made of hardened steel, carbide-tipped
- Heat insulators
- Rapid drive with integrated ratchet
- Locking device
- **Package contains:** instruction manual, setting standard (from measuring range 1–2”), case



### TECHNICAL DATA

Order no.	Product type	Measuring range	Graduation value	Error limit	Micrometer pitch	Standard
4134900	40 A	0 – 1"	.0001"	.00016"	.025"	Factory standard
4134901	40 A	1 – 2"	.0001"	.00016"	.025"	Factory standard
4134902	40 A	2 – 3"	.0001"	.0002"	.025"	Factory standard
4134903	40 A	3 – 4"	.0001"	.0002"	.025"	Factory standard
4134904	40 A	4 – 5"	.0001"	.00024"	.025"	Factory standard
4134905	40 A	5 – 6"	.0001"	.00024"	.025"	Factory standard
4134906	40 A	6 – 7"	.0001"	.00028"	.025"	Factory standard
4134907	40 A	7 – 8"	.0001"	.00028"	.025"	Factory standard

Order no.	a	b	c
	mm	mm	mm
4134900	31	25.5	7
4134901	56	34.5	12
4134902	81	47.5	12
4134903	106	58.5	13
4134904	131	71.5	13
4134905	156	83.5	13
4134906	182	95.5	13
4134907	207	108.5	13



### ACCESSORIES

Order no.	Product name	Product type
4158000	Stand, for holding outside micrometers	41 H



41 H

# Micromar 40 AS

## Micrometer

### FEATURES

- Operating and display units with satin chrome finish
- Hard lacquered steel frame
- Spindle and anvil made of hardened steel, carbide-tipped
- Heat insulators
- Rapid drive with integrated ratchet
- Locking device
- **Package contains:** instruction manual, setting values 1" / 3", case



### TECHNICAL DATA

Order no.	Product type	Measuring range	Graduation value	Micrometer pitch	Standard
4134960	40 AS	inch 0 – 4"	inch .0001"	inch .025"	Factory standard
4134961	40 AS	4 – 8"	.0001"	.025"	Factory standard

### ACCESSORIES

Order no.	Product name	Product type
4158000	Stand, for holding outside micrometers	41 H



41 H

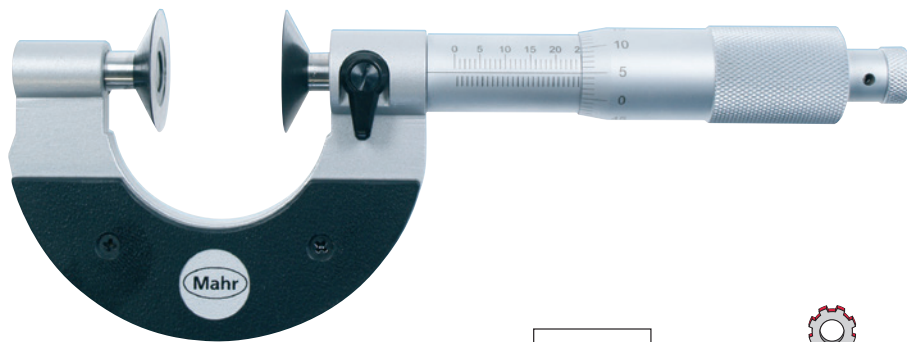
# Micromar 40 SM

Micrometer

DIN 863-3

## FEATURES

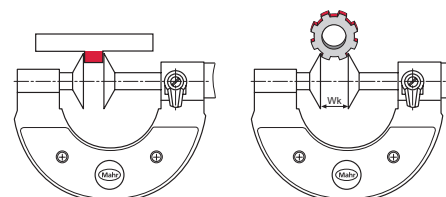
- Operating and display units with satin chrome finish
- Maximum stability
- Stainless spindle is hardened throughout and ground
- Disc-type anvils are hardened and lapped
- Chrome plated steel frame, heat insulated
- Rapid drive with integrated ratchet
- Locking device
- **Package contains:** instruction manual, case



## Application:

For the measurement of:

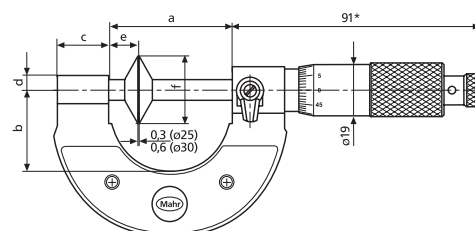
- Tooth spans  $W_k$  as of module 0.8 as indirect determination of tooth thickness on spur gears with straight and helical teeth
- Shoulders on shafts
- Undercut dimensions
- Registers
- Soft materials such as rubber, cardboard, felt, etc.



## TECHNICAL DATA

Order no.	Product type	Measuring range	Graduation value	Error limit	Parallelism deviation	Flatness deviation	Spindle thread pitch	Measuring force	Standard
		mm	mm	$\mu\text{m}$	$\mu\text{m}$	$\mu\text{m}$	mm	N	
4134600	40 SM	0–25	0.01	4	4	0.6	0.5	5–10	DIN 863–3
4134601	40 SM	25–50	0.01	4	4	0.6	0.5	5–10	DIN 863–3
4134602	40 SM	50–75	0.01	5	4	0.6	0.5	5–10	DIN 863–3
4134603	40 SM	75–100	0.01	5	4	0.6	0.5	5–10	DIN 863–3
4134604	40 SM	100–125	0.01	6	5	0.6	0.5	5–10	DIN 863–3
4134605	40 SM	125–150	0.01	6	5	0.6	0.5	5–10	DIN 863–3
4134606	40 SM	150–175	0.01	7	5	0.6	0.5	5–10	DIN 863–3
4134607	40 SM	175–200	0.01	7	5	0.6	0.5	5–10	DIN 863–3

Order no.	a	b	c	d	e	f
	mm	mm	mm	mm	mm	mm
4134600	45	30.5	18.1	6	11	25
4134601	70	35	18.1	6	11	25
4134602	95	48	18.1	6	11	25
4134603	120	59.5	18.1	6	11	25
4134604	145	71	18.1	6	11	30
4134605	170	83	18.1	6	11	30
4134606	195	96	18.1	6	11	30
4134607	220	108	18.1	6	11	30



## ACCESSORIES

Order no.	Product name	Product type
4158000	Stand, for holding outside micrometers	41 H



41 H