

- Quick detection of workpiece offset and tip position.
- Abundant series available for various tool materials and diameters.



Repeatability within  $1\mu\text{m}$  ( $2\sigma$ ). LED illuminates when the cutting edge touches the sensor plate.

Measures 50mm from cutting edge and workpiece top surface

### BASE MASTER 16

For use with conductive cutting tools, workpieces, and machine tools.



Electronic detection of cutting edge position

### BASE MASTER GOLD 16

For all cutting tools, workpieces and machine tools



Cutting edge position detection of 100mm from workpiece top surface

### BASE MASTER GOLD **BM-100G**

Cutting edge position detection for  $\phi 0.05\text{mm}$  tool diameters

### BASE MASTER MICRO

For all cutting tools, workpieces and machine tools 17



Separable body and measuring unit

### BASE MASTER RED 17

For all cutting tools, workpieces and machine tools



Easy maintenance by replacing measurement part!!

Compact design with attention to tool/workpiece interference

### BASE MASTER MINI 18

For all cutting tools, workpieces and machine tools



**BMM-20**  
Outer diameter  $\phi 20$ :  
world's smallest diameter



With loupe

**BMM-10**  
Reference height 10mm  
Ultra-compact design



Detects tool position for all materials including non-conductive tools and workpieces.

### TOOL MASTER 18



Advice

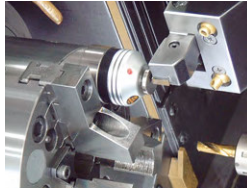


The accuracy of measurement is greatly affected by the environment. The specifications and height accuracy of the Base Master are applied at  $20^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$  temperature and  $55\% \pm 5\%$  humidity.

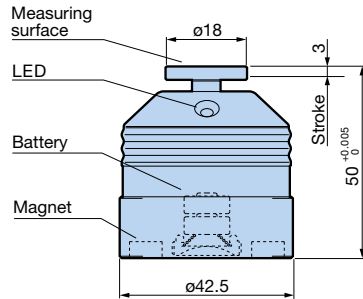
If precision measuring is required in conditions other than stated above, please compensate the height by comparing with a gauge block.

### BASE MASTER

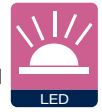
- Electronic detection of cutting edge position.
- Repeatability  $\pm 1\mu\text{m}$  ( $2\sigma$ ).



Model **BM-50**



For use with conductive cutting tools, workpieces, and machine tools



Notifies via LED

Height accuracy	$50^{+0.005}_0$ mm
Repeatability	$\pm 1\mu\text{m}$ ( $2\sigma$ )
Min. tool diameter	$\phi 1\text{mm}$
Measuring pressure	3N
Stroke	3mm
Touch signal	LED illuminates (red)
Battery	SR44 x 2
Battery life	10 continuous hours
Weight	0.23kg

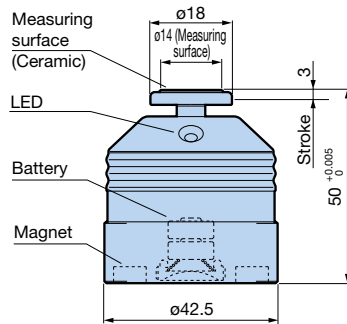
※ Type without magnets is also available. If required, add /N at the end of the model number when ordering. (Example: **BM-50/N**)

### BASE MASTER GOLD

- Internal contact method compatible with various tools and workpieces.



Model **BM-50G**



For all cutting tools, workpieces and machine tools



Notifies via LED

Height accuracy	$50^{+0.005}_0$ mm
Repeatability	$\pm 1\mu\text{m}$ ( $2\sigma$ )
Min. tool diameter	$\phi 1\text{mm}$
Measuring pressure	2N
Stroke	3mm
Touch signal	LED illuminates (red)
Battery	SR44 x 2
Battery life	10 continuous hours
Weight	0.24kg

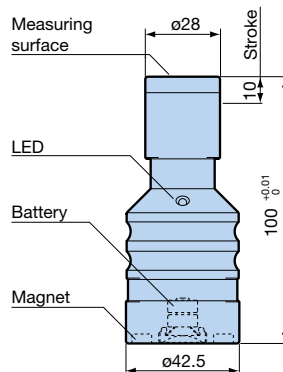
※ Type without magnets is also available. If required, add /N at the end of the model number when ordering. (Example: **BM-50G/N**)

Easily visible measuring surface even with large machines



Model **BM-100G**

Cutting edge detection position of 100mm from machining object top surface.



For all cutting tools, workpieces and machine tools



Notifies via LED

Height accuracy	$100^{+0.01}_0$ mm
Repeatability	$\pm 1\mu\text{m}$ ( $2\sigma$ )
Min. tool diameter	$\phi 1\text{mm}$
Measuring pressure	2N
Stroke	10mm
Touch signal	LED illuminates (red)
Battery	SR44 x 2
Battery life	10 continuous hours
Weight	0.36kg

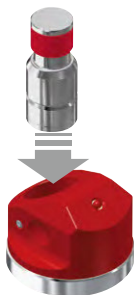
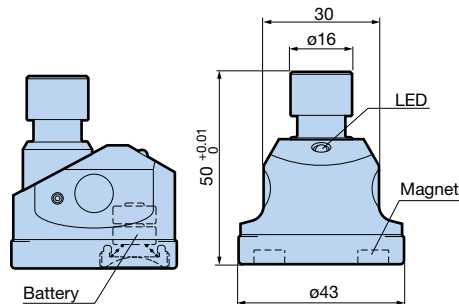
※ Type without magnets is also available. If required, add /N at the end of the model number when ordering. (Example: **BM-100G/N**)

# COMPACT SENSOR

## BASE MASTER RED

- Independent body and measurement part.
- DLC coated Sensor Plate.

Safe stroke amount of 5mm.



### Body Set

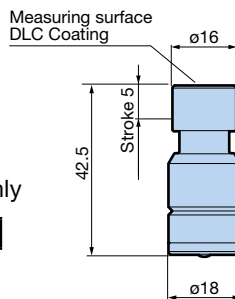
Model	<b>BM-50R</b>
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1. Measurement part (BM-MEG) is included.

### Measurement Part only

Model	<b>BM-MEG</b>
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1. Measurement part is also available separately.



For all cutting tools, workpieces and machine tools



Notifies via LED

Height accuracy	50 <sup>+0.01</sup> mm
Repeatability	±1 μm (2σ)
Min. tool diameter	ø1mm
Measuring pressure	2N
Stroke	5mm
Touch signal	LED illuminates (red)
Battery	SR44 x 2
Battery life	10 continuous hours
Weight	0.2kg

## BASE MASTER MICRO

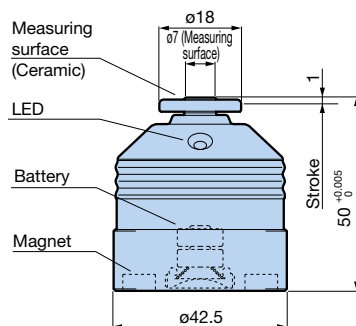
- Cutting edge position detection of ø0.05mm tool.
- Low-contact pressure cushion mechanism realizes measurement of ultra-small tools.



Small-diameter tools supported  
Min. measurable tool diameter ø0.05mm



Model	<b>BM-50M</b>
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For all cutting tools, workpieces and machine tools



Notifies via LED

Height accuracy	50 <sup>+0.005</sup> mm
Repeatability	±1 μm (2σ)
Min. tool diameter	ø0.05mm
Measuring pressure	0.3N
Stroke	1mm
Touch signal	LED illuminates (green)
Battery	SR44 x 2
Battery life	10 continuous hours
Weight	0.24kg

※ Type without magnets is also available. If required, add /N at the end of the model number when ordering.  
(Example: **BM-50M/N**)

**BASE MASTER MINI**

**[BMM-10]**

- 10mm reference height tool offset sensor.
- Ultra-compact design to prevent tool interference.
- High-brightness LEDs (green) light up for instantaneous detection of reference points.



For all cutting tools, workpieces and machine tools

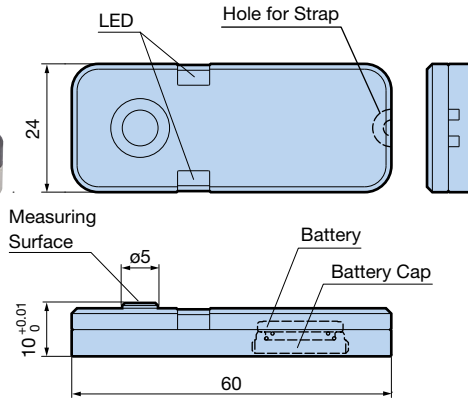


Notifies via LED

**Ultra-Thin Type Height 10mm**



Model **BMM-10**



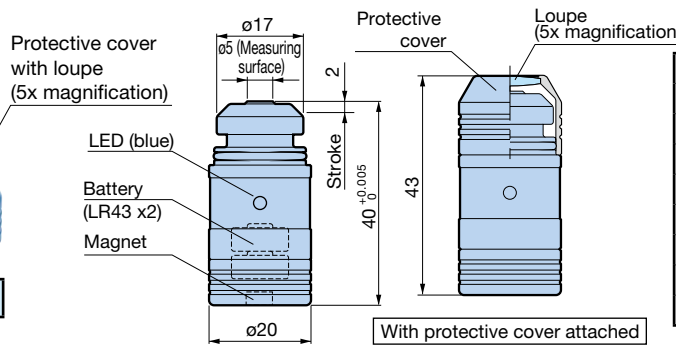
Height accuracy	10 <sup>+0.01</sup> mm
Repeatability	±1 μm(2σ)
Min. tool diameter	ø0.1mm
Measuring pressure	1N
Stroke	1mm
Touch signal	LED illuminates (green)
Battery	CR1620×1
Battery life	10 continuous hours
Weight	0.04kg
Standard accessory	Exclusive strap×1P

**[BMM-20]**

- World's smallest tool offset sensor with a diameter of ø20.



Model **BMM-20**



Height accuracy	40 <sup>+0.005</sup> mm
Repeatability	±1 μm (2σ)
Min. tool diameter	ø0.1mm
Measuring pressure	1.8N
Stroke	2mm
Touch signal	LED illuminates (blue)
Battery	LR43 x 2
Battery life	40 continuous hours
Weight	55g

※An exclusive wrench for battery cap is included.

**TOOL MASTER** **NEW** Now even easier to use

- Notifies the height with LED and buzzer (new function)
- Large stroke that prevents collision: 10mm
- Reference can be checked with a setting gauge (100mm)
- Can also measure non-conductive workpieces and tools
- Firmly fixed with a magnet.



For all cutting tools, workpieces and machine tools



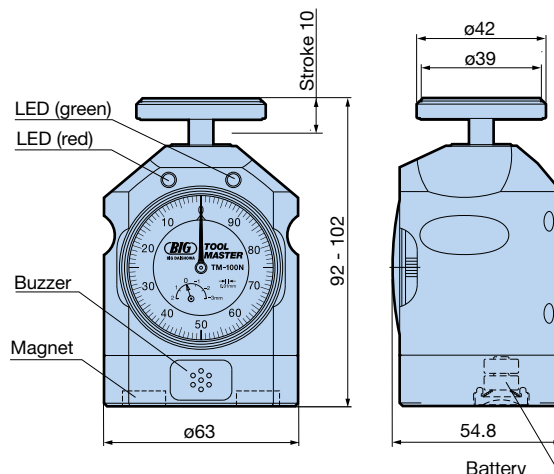
Notifies via LED



Notifies via buzzer



Model **TM-100N**



Height accuracy	100 <sup>+0.02</sup> mm		
Min. tool diameter	ø1mm		
Stroke	10mm		
Stroke range	92 - 102mm		
Measuring pressure	3N (at 100mm)		
Notification signal	Around 100.5mm	LED	Lit (green)
	Around 99.5mm	Buzzer	"Beep"
Notification signal	Around 99.5mm	LED	Flashing (green/red)
	Around 99.5mm	Buzzer	"Beep Beep Beep"
Battery	SR44×2		
Weight	1.0kg		
Standard accessory	Setting gauge: 1P		
Dial Gauge Accuracy	Min. scale	0.01mm	
	Indicator error	±15μm	
	Repeatability	5μm	
Return error	5μm		

※Dial gauge accuracy conforms to JIS B7503:1997.  
 ※Type without magnets is also available.  
 If required, add /N at the end of the model number when ordering. (Example: **TM-100N/N**)