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µMATE+

Magnescale Co., Ltd.

μMATE+

High accuracy measurements in a compact form developed using two new core technologies

Backlash error is reduced
by using a unique mechanical system (AL link).

Adopts an ID sensor that measures inductance for position detection. ABS values can be easily accessed with minimal configuration.

[Resolution]	[Accuracy]	[Repeatability]
0.1μm	1μm (Measuring range 1mm)	0.5μm

Bluetooth Standard

μMATE+ can be seamlessly controlled by dedicated mobile apps.

μMATE+

Digital Indicator Gauge
DU10-12
DU10-30

Digital Lever Gauge
DM10-01
DM10-02

Digital Indicator
LU20

Bluetooth

Keyboard app μMATE Link

for iOS

On iPhone or iPad, the app works just like a control panel. The measured values are displayed, and can be stored in a text format by pressing the save button, and used with any application.

Dedicated measurement app μMATE Mobile

for iOS / Android

Full control over the functions of the μMATE+ main unit. Multiple μMATE+ measurements can be taken at the same time.

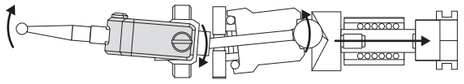
Extensive Functions

- Digital display
- Analog display
- Digital storage
- Bluetooth connection
- App provision
- MicroSD on board
- TULIP linkage

Digital Lever Gauge

DM10-01 / DM10-02

- High accuracy, high resolution lever gauge
- A variety of measurements can be made by connecting to a digital indicator
- Mounting is done with a dovetail groove, allowing direct attachment to commercially available magnetic stands.

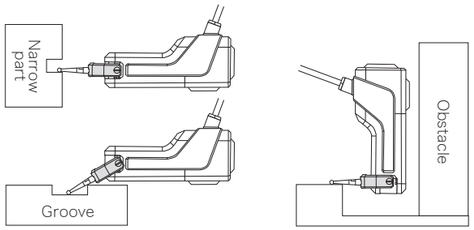


AL Link mechanism (Arc-to-Linear conversion link mechanism)

Newly developed mechanism that converts circular arc motion into linear motion. This eliminates the backlash that commonly appears with conventional lever-type gauges, and reduces the return error.

ID Sensor (Inductance to Digital conversion sensor)

A sensor that measures inductance is used for position detection. The changing frequency is detected as the amount of movement. The simple structure design and absolute readings allows the position of the stylus tip to be visualized on the display, making it easy to confirm end of travel.



Enables scanning measurement in a position suitable for the measurement

DM10-01 / DM10-02

Model	DM10-01	DM10-02
Measuring range	1 mm	2 mm
Length of stylus	11 mm	41 mm
Resolution	0.1 μm	0.2 μm
Accuracy	1 μm	2 μm
Cable length	200 mm (Extension cables available)	
Operating temperature	0～+40 ℃	
Storage temperature	-10～+60 ℃	
Communication method	USB2.0 (Type-A connector)	
External Dimensions	68(W) × 18(D) × 25(H) mm	
Mass	75g	

Digital Indicator

LU20

- Color touch panel LCD display, with convenient lithium-ion rechargeable battery
- The analog display allows operation similar to a conventional lever-type gauge, with data acquisition and digital storage
- Mounting flexibility is dramatically improved with a powerful magnetic stand to hold the main unit in place

LU20 mounting stand

LU20

Model		LU20
Display		2.7 inch color LCD / Touch Panel
Input/Output connector		Connection to DM10 : USB Type-A　Power supply/Singal interface point : USB Type-C
Data I/F		Data transmitted by Bluetooth(BLE), Main unit controlled by custom apps　MicroSD card slot, Measuring data can be stored on a commercial MicroSD card
Main function	Display	Digital numerical display, Analog meter display, Bar graph display, real-time chart mode, Simple circle measurement
	Measuring function	Current, maximum, minimum, peak-to peak, data hold, Display resolution switching (digital, analog), comparator function
	Other	Key lock, display rotation, displayed in inch (oversea model only)
Power consumption		1W or less
Power supply		Powered by built-in lithium ion battery, power supplied by USB Type-C connector (rechargeable)
Operating temperature		0 to +40 ℃ (No condensation)
Storage temperature		-10 to +60 ℃ (No condensation)
External Dimensions		64(W) × 40(D) × 91(H) mm
Accessories		mounting stand, instruction manual, lithium ion battery × 2 (replaceable)

Digital Indicator Gauge

DU10-12 / DU10-30

- Integrated digital indicator gauge with the same functionality of LU20
- Measuring range of 12mm and 30mm available
- Resolution：0.1μm　Accuracy：1μm

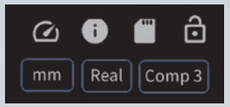
DU10-12 / DU10-30

Model		DU10-12	DU10-30
Measuring range		12 mm	30 mm
Resolution		0.1 μm	0.5 μm
Accuracy		1 μm	1.5 μm
Display		2.7 inch color LCD / Touch Panel	
Input/Output connector		Power supply/Single port: USB Type-C	
Data I/F		Data transmitted by Bluetooth(BLE), Main unit controlled by custom apps　MicroSD card slot, Measuring data can be stored on commercial MicroSD card	
Main function	Display	Digital numerical display, Analog meter display, Bar graph display, real-time chart mode, Simple circle measurement	
	Measuring function	Current, maximum, minimum, peak-to peak, data hold, Display resolution switching (digital, analog), comparator function	
	Other	Key lock, display rotation, displayed in inch (oversea model only)	
Power consumption		1W or less	
Power supply		Powered by built-in lithium ion battery, power supplied by USB Type-C connector (rechargeable)	
Operating temperature		0～+40 ℃(No condensation)	
Storage temperature		-10～+60 ℃(No condensation)	
External Dimensions		64(W) × 49(D) × 156(H) mm	TBD
Accessaries		instruction manual, lithium ion battery × 2 (replaceable)	

Various measurements can be made on 5 different display views

1 Function extension buttons

Display mode, screen lock settings, etc.



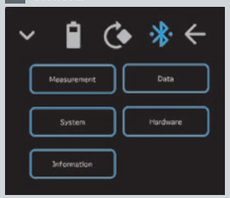
2 Battery level display

3 Display screen rotation button

Center area can be rotated 90 degrees to the right.

4 Bluetooth connection status display

5 Menu



6 ABS display

Displays the position of the lever gauge stylus tip. Red light indicates end of travel.

7 Data save button

8 Hold button

Holds the update of the of current, maximum, minimum, and P-P values.

9 Measurement start button

Maximum, minimum and P-P values are set to the current value.

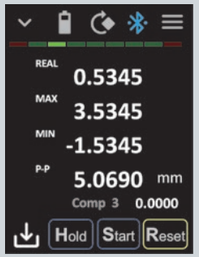
10 Reset, Preset button

Zero reset and preset values are available.

Analog display

Bar graph display

Digital numerical display



Real-time chart mode

Simple circle measurement