

μ MATE⁺

LU20

×

Digital Gauge

DS series



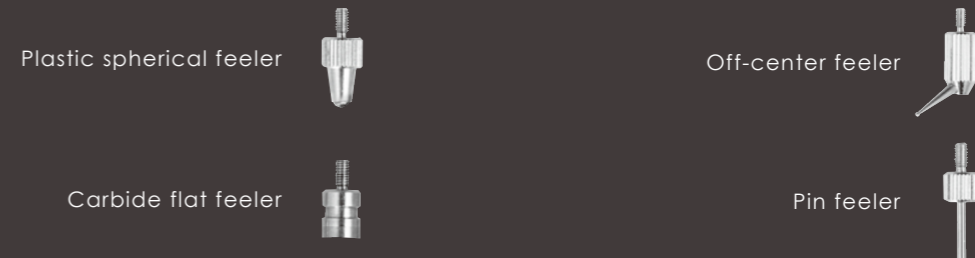
μ MATE⁺
 LU20
 ×
Digital Gauge
 DS series

High accuracy measurements in a compact form.

[Resolution]	[Accuracy]	[Repeatability]
0.1 μ m	1 μ m (DS800S model)	$\pm 0.1 \mu$ m

Digital display for a variety of measurements

Various feeler available



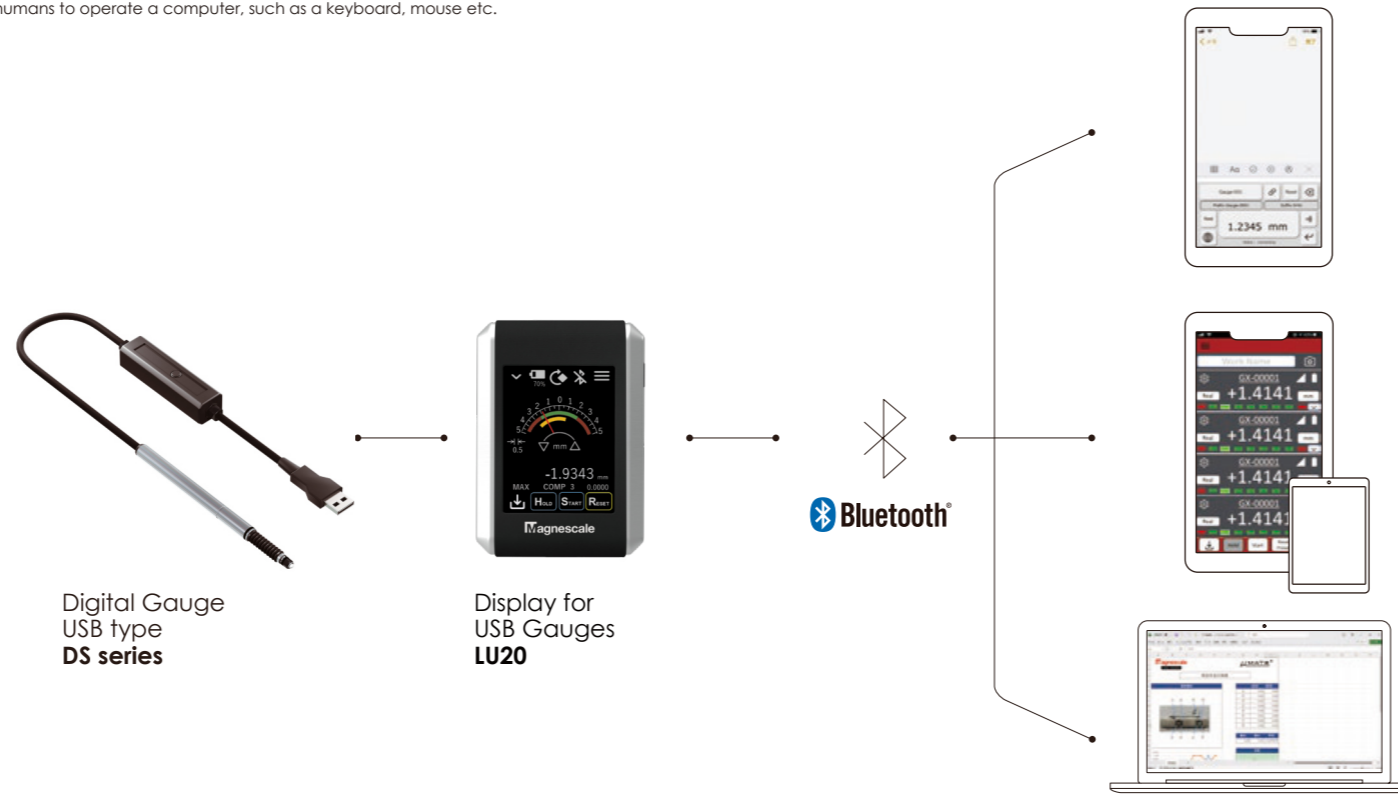
Bluetooth transmission of measurements to PC, smartphones and tablets

Touch screen color LCD display with lithium-ion rechargeable battery.

Emulated analog display for intuitive operation; digital display for accurate and easy data storage.

Direct data input to Excel-based reports and electronic forms via HID* mode.

*HID (Human Interface Device): a device that allows humans to operate a computer, such as a keyboard, mouse etc.



Digital Gauge
USB type
DS series

Display for
USB Gauges
LU20

Bluetooth

Keyboard app



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



for iOS / Android

Full control over the functions of the LU20 display. Multiple μMATE+ measurements can be taken at the same time.

PC / Notebook directly

for Windows

Automatic input into Excel, PowerApps, and various electronic forms for PC. By connecting to a PC via Bluetooth in HID mode, measurement data can be automatically input into any form in use without the need for dedicated software.

Extensive Functions



Digital display



Emulated analog display



Digital storage



Bluetooth connection



App provision



MicroSD on board



TULIP linkage

Excel

PowerApps

i-Reporter

XC-gate

This product is a wireless device, so it can be used only in countries where it is certified. Contact us if the product will be used outside the country of purchase.

Digital Gauge

Digital Gauge

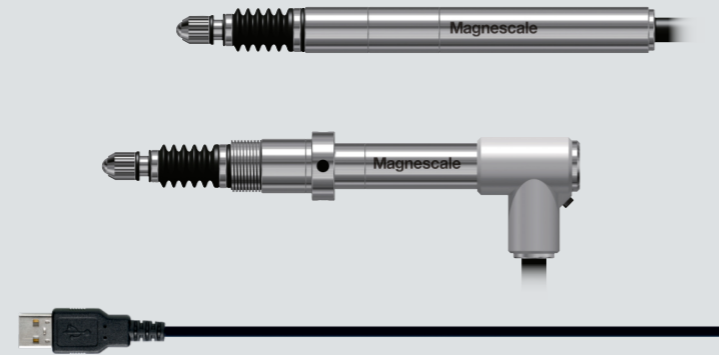
DS800S series

High-precision digital gauge in slim shape with $\varnothing 8$ mm main body size

Maximum resolution: 0.1 μm

Bearings groove construction allows superior sliding radial force and durability

Magnetical linear encoder technology allows high precision measuring over the entire range



DS800S series

Model	DS805S□□R / DS812S□□R	DS805S□□R5 / DS812S□□R5	DS830SLR
Measuring range	DS805S: 5 mm DS812S: 12 mm		30 mm
Maximum resolution	0.1 μm		0.1 μm
Accuracy	1 μm		1.5 μm
Measuring force (at 20 °C)	Upwards	DS805S: 0.35 ± 0.25 N DS812S: 0.40 ± 0.30 N*1 DS812SVR/DS812SVR5: 0.60 ± 0.50 N*2	0.50 ± 0.35 N
	Horizontal	DS805S: 0.40 ± 0.25 N DS812S: 0.50 ± 0.30 N*1 DS812SVR/DS812SVR5: 0.70 ± 0.50 N*2	0.60 ± 0.35 N
	Downwards	DS805S: 0.45 ± 0.25 N DS812S: 0.60 ± 0.30 N*1	0.70 ± 0.35 N
		DS812SVR/DS812SVR5: 0.80 ± 0.50 N*2	
Protection grade (cable and interpolator box not included)	Straight model: IP67 Right-angle model: IP64 (IP67**)		IP53 (IP67**)
Vibration resistance	100 m/s ² (20 Hz to 2 kHz)		
Impact resistance	1,000 m/s ² (11 ms)		
Operating temperature	0 to 50 °C (no condensation)		
Storage temperature	-20 to 60 °C (90 % RH or less)		
Power supply	5V DC ± 5 %		
Power consumption	120 mA max.		
Mass (Probe)	Approximately 30 g		Approximately 70 g
Cable length	Gauge ↔ Interpolator: 2 m Interpolator ↔ USB: 0.5 m		
Feeler	Carbide ball tip with M2.5 thread	Steel ball tip with M2.5 thread	Carbide ball tip with M2.5 thread
Accessory	Instruction manual, tightening nut, clamp spanner, wave washer, hose elbow, spanner		Instruction manual, spanner
Communication interface	USB2.0FS		

*1 Except SVR/SVR5 *2 When air pressure in 0.055 Mpa *3 When $\varnothing 4$ mm tube is connected
*4 When bellow set (optional accessory) is mounted and $\varnothing 4$ mm tube is connected

Digital Gauge

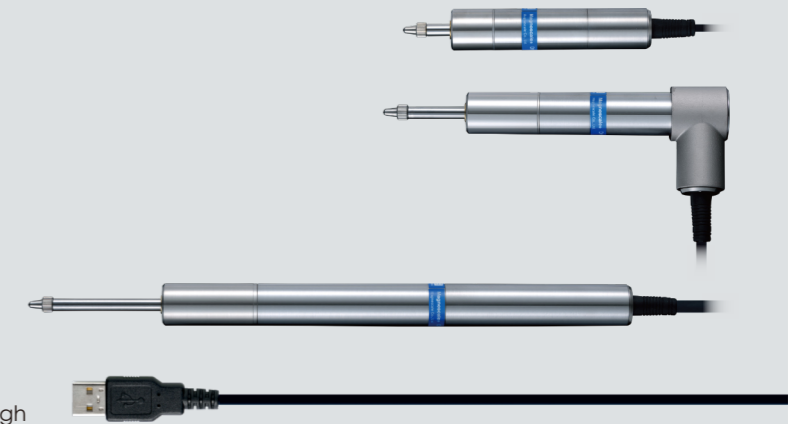
Digital Gauge

DS series

High rigidity $\varnothing 20$ mm body is suitable for harsh environments

Available in lengths up to 100 mm with 0.5 μm resolution

Magnetical linear encoder technology allows high precision measuring over the entire range



DS series

Model	DS10NR5	DS25NR5	DS25NLR5	DS50NR5	DS50PR5	DS100NR5	DS100PR5
Measuring range	10 mm	25 mm		50 mm		100 mm	
Maximum resolution	0.5 μm						
Accuracy	3 μm			4 μm		5 μm	
Measuring force (at 20 °C)	Upwards	0.30 ± 0.25 N	0.40 ± 0.30 N	-	6.20 N or less	-	9.30 N or less
	Horizontal	0.60 ± 0.30 N	0.70 ± 0.35 N	0.90 ± 0.40 N		1.80 ± 0.65 N	
	Downwards	0.80 ± 0.35 N	1.00 ± 0.40 N	1.30 ± 0.50 N		2.70 ± 0.55 N	
Protection grade (cable and interpolator box not included)	IP50				IP64	IP50	IP64
Vibration resistance	150 m/s ² (10 Hz to 2 kHz)						
Impact resistance	1,500 m/s ² (11 ms)						
Operating temperature	0 to 50 °C (no condensation)						
Storage temperature	-20 to 60 °C (90 % RH or less)						
Power supply	5V DC ± 5 %						
Power consumption	120 mA max.						
Mass (Probe)	Approximately 230 g	Approximately 300 g		Approximately 360 g		Approximately 630 g	
Cable length	Gauge ↔ Interpolator: 2 m Interpolator ↔ USB: 0.5 m						
Feeler	Carbide ball tip with M2.5 thread						
Accessory	Instruction manual						
Communication interface	USB2.0FS						

Digital Display LU20

Color touch panel LCD display, with convenient lithium-ion rechargeable battery

Intuitive operation with emulated analog display

Simple and accurate digital data storage

Mounting flexibility is drastically improved with a powerful magnetic stand to hold the display in place



Mounting stand for LU20

LU20 [European version]

Model	LU20	
Display	2.7" color-LCD / Touch Panel	
Input/Output connector	Connection to DS series: USB Type-A Power supply/Signal interface point: USB Type-C	
Data-I/F	Data transmitted by Bluetooth (BLE): Display controlled by custom apps; current measurement value can be sent to PC/Notebook from LU20 display. MicroSD card slot: Measuring data can be stored on a commercial MicroSD card (max. 32 GB)	
Main function	Display	Digital numerical display, analog meter display, bar graph display, real-time chart, 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, display in inch (oversea model only)
Power consumption	6W (with connected DS gauge)	
Power supply	Powered by built-in lithium-ion battery (rechargeable) or by USB Type-C connector	
Operating temperature	0 to +40 °C (no condensation)	
Storage temperature	-10 to +60 °C (no condensation)	
External dimensions	64(W) x 40(D) x 91(H) mm	
Accessories	Mounting stand, instruction manual, rechargeable lithium-ion battery x2 (replaceable), USB cable (USB-A ↔ USB-C, 1.2 m), LCD screen protector	

Various measurement can be made on 5 different display views

1 Function extension
Display mode, screen lock settings, etc.



2 Battery level display

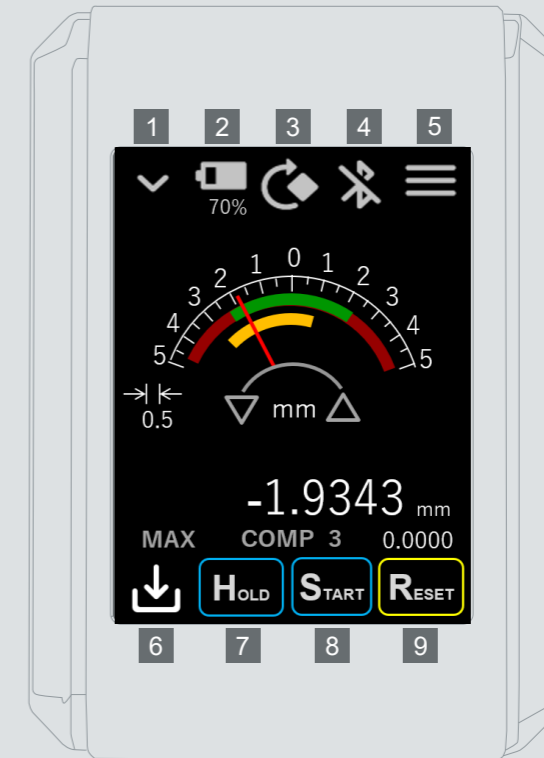
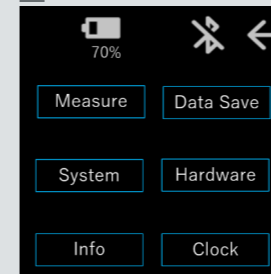


3 Display screen rotation

Center area can be rotated 90 degrees to the right.

4 Bluetooth connection status display

5 Menu



6 Data save

7 Hold
Holds the update of the of current, maximum, minimum, and p-p values.

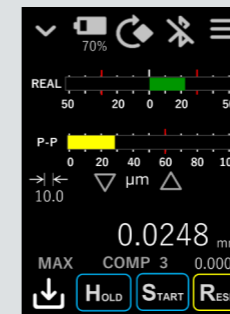
8 Measurement start
Maximum, minimum and p-p values are set to the current value.

9 Reset, Preset
Zero reset and preset values are available.

Emulated analog display



Bar graph display



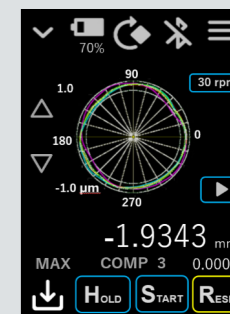
Digital numerical display



Real-time chart



Simple circle measurement



 To use this product safely, please read the instruction manual carefully and thoroughly prior to usage.

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