

PORTABLE LEEB HARDNESS TESTER (BASIC TYPE)

NEW



- Can change probes
- Dual-coil probe for high accuracy
- Universal testing angle, no need to set impact direction
- Based on Leeb (HLD), converted to Vickers (HV), Brinell (HB), Rockwell (HRC, HRB), Shore (HSD) and tensile strength (σb)
- Dual value display, shows both Leeb and converted hardness
- Large LCD display with backlight
- Can choose large font display and statistics display
- Automatically calculate maximum, minimum and average value
- Save 300 data
- Operation temperature: 14°F~113°F
- According to ASTM A956, GB/T 17394



impact devices (optional)



SPECIFICATION

Part No.	HDT-LP200
List price	\$ 590.00
Resolution	1HLD/1HV/1HB/0.1HRC/0.1HRB/0.1HSD/1σb
Accuracy	±6HLD (when HLD=800)
Measuring range	HL 170-960/HRC 17-70/HRB 13-109/HB 20-655/HV 80-940/HSD 32-99.5/σb(rm) 255-2639N/mm ²
Power supply	2xAAA battery
Dimension	5.31x3.03x1.26"
Weight	.53lb

LEFT HAND DIGITAL CALIPERS



- Non waterproof
- Designed for left handed users
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-22, 7302-22)

Starting At \$ 168.00



1130-150

Part No.	Range	Accuracy	List price
1130-150	0-6"/0-150mm	±.0015"	\$ 168.00
1130-200	0-8"/0-200mm	±.0015"	\$ 198.00
1130-300	0-12"/0-300mm	±.0015"	\$ 286.00

OUTSIDE MICROMETERS



Starting At \$ 45.90



3203-2A

- Graduation .0001"
- Carbide measuring faces
- Ratchet stop type
- Supplied with setting standards (except 0-1" and 0-25mm)

Individual

Part No.	Range	Accuracy	List price
3203-1A*	0-1"	.00015"	\$ 45.90
3203-2A*	1-2"	.00015"	\$ 51.30
3203-3A*	2-3"	.00020"	\$ 57.00
3203-4A*	3-4"	.00020"	\$ 64.20
3203-5A*	4-5"	.00025"	\$ 81.10
3203-6A*	5-6"	.00025"	\$ 91.90
3203-7A	6-7"	.00030"	\$ 108.00
3203-8A	7-8"	.00030"	\$ 117.00
3203-9A	8-9"	.00030"	\$ 130.00
3203-10A	9-10"	.00030"	\$ 137.00
3203-11A	10-11"	.00035"	\$ 158.00
3203-12A	11-12"	.00035"	\$ 169.00

Set

Part No.	Range	Micrometers included	Packaging	List price
3203-33A*	0-3"	3203-1A, 3203-2A, 3203-3A	blow mould case	\$ 138.00
3203-44A*	0-4"	3203-1A, 3203-2A, 3203-3A, 3203-4A	blow mould case	\$ 199.00
3203-66A*	0-6"	3203-1A, 3203-2A, 3203-3A, 3203-4A, 3203-5A, 3203-6A	blow mould case	\$ 351.00
3203-126A	6-12"	3203-7A, 3203-8A, 3203-9A, 3203-10A, 3203-11A, 3203-12A	aluminum box	\$ 704.00
3203-1212A	0-12"	3203-1A, 3203-2A, 3203-3A, 3203-4A, 3203-5A, 3203-6A, 3203-7A, 3203-8A, 3203-9A, 3203-10A, 3203-11A, 3203-12A	aluminum box	\$ 1024.00

*Supplied with manufacturer inspection certificate

DIGITAL CALIPERS (STANDARD TYPE)



Starting At \$ 69.70

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm
- Automatic power off, move the digital unit to turn on power
- Battery CR2032, data output
- Made of stainless steel
- Optional accessory: data output cable (part no. 7315-21, 7302-21)



1108-150

Part No.	Range	Accuracy	List price
1108-150	0-6"/0-150mm	±.0010"	\$ 69.70
1108-200	0-8"/0-200mm	±.0015"	\$ 103.00
1108-300	0-12"/0-300mm	±.0015"	\$ 155.00

DIAL CALIPERS



Starting At \$ 72.80

- Dial indicator graduation .001"
- Shockproof dial indicator
- Made of stainless steel

Part No.	Range	Accuracy	List price
1311-4	0-4"	±.0012"	\$ 88.00
1311-6	0-6"	±.0015"	\$ 72.80
1311-8	0-8"	±.0020"	\$ 96.70
1311-12	0-12"	±.0020"	\$ 162.00



1311-6

DIGITAL HEIGHT GAUGES WITH DRIVING WHEEL



Starting At \$ 734.00

- Non waterproof
- Resolution .0005"/0.01mm
- Buttons: on/off, zero, inch/mm, preset +, preset -, ABS/INC
- Automatic power off, move the digital unit to turn on power
- Carbide tipped scriber
- Made of stainless steel
- Battery CR2032, data output
- Supplied with dust cover
- With dial test indicator holder
- Optional accessory: data output cable (part no. 7315-22, 7302-22) clamp for protractors (part no. 2372-CLAMP)



1156-300E

Part No.	Range	Accuracy	List price
1156-300E	0-12"/0-300mm	±.0015"	\$ 734.00
1156-600E	0-24"/0-600mm	±.0020"	\$ 1075.00

DIGITAL OUTSIDE MICROMETERS (BASIC TYPE, WITHOUT DATA OUTPUT)



Starting At \$ 128.00

- Resolution .00005"/0.001mm
- Button functions: on/off, set, inch/mm, ABS/INC
- No data output
- Automatic power off
- Carbide measuring faces
- Friction thimble
- Supplied with spherical anvil
- Setting standards are included (except 0-1"/0-25mm)



3109-25E

Individual

Part No.	Range	Accuracy	List price
3109-25E*	0-1"/0-25mm	±.00010"	\$ 128.00
3109-50E*	1-2"/25-50mm	±.00015"	\$ 154.00
3109-75E*	2-3"/50-75mm	±.00015"	\$ 189.00
3109-100E*	3-4"/75-100mm	±.00015"	\$ 205.00
3109-125E	4-5"/100-125mm	±.00015"	\$ 215.00
3109-150E	5-6"/125-150mm	±.00015"	\$ 237.00

*Supplied with manufacturer inspection certificate

Set

Part No.	Range	Micrometers included	Packaging	List price
3109-33E*	0-3"/0-75mm	3109-25E, 3109-50E, 3109-75E	blow mould case	\$ 369.00
3109-44E*	0-4"/0-100mm	3109-25E, 3109-50E, 3109-75E, 3109-100E	blow mould case	\$ 537.00
3109-66E	0-6"/0-150mm	3109-25E, 3109-50E, 3109-75E, 3109-100E, 3109-125E, 3109-150E	aluminum box	\$ 968.00

DIAL DEPTH GAUGE

\$ 106.00



2341-E1

- Dial indicator stroke .5"
- Dial indicator graduation .001"
- Stainless steel base
- Supplied with pointed tip and ball tip

Part No.	Range	Accuracy	List price
2341-E1	0-1.2"	±.0012"	\$ 106.00

BORE GAUGES

ATTENTION: NOT SUITABLE FOR .00005" OR .0001" DIAL INDICATORS

Starting At \$ 218.00

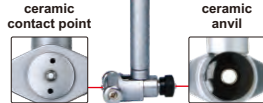
- Repeatability .00015"
- Optional accessory: setting ring (part no. 6313), long handle (part no. 7351), bore gauge setter



2323-6

With dial indicator

Part No.	Range	Indicator	Accuracy	List price
2323-15	.7-1.5"		±.00075"	\$ 239.00
2323-24	1.4-2.4"	dial indicator, range .25", graduation .0005"	±.0009"	\$ 218.00
2323-6	2-6"		±.0009"	\$ 230.00
2323-10	6-10"		±.0009"	\$ 278.00
2323-16	10-16"		±.0009"	\$ 325.00



DIAL INDICATORS

INSPECTION CERTIFICATE



2307-1

Starting At \$ 42.40

- Meet ASME B89.1.10M-2001
- With lug back
- Supplied with limit pointers and bezel clamp

Part No.	Range	Graduation	Accuracy		Range/rev	Dial reading	List price
			First 2.5 rev	Overall			
2307-025	.25"	.001"	±.001"	±.001"	.1"	0-100	\$ 43.70
2307-05	.5"	.001"	±.001"	±.002"	.1"	0-100	\$ 45.50
2307-1	1"	.001"	±.001"	±.002"	.1"	0-100	\$ 42.40
2307-2	2"	.001"	±.001"	±.004"	.1"	0-100	\$ 101.00
2307-0255	.25"	.0005"	±.0005"	±.0015"	.05"	0-50	\$ 49.50
2307-055	.5"	.0005"	±.0005"	±.0015"	.05"	0-50	\$ 49.50
2307-105	1"	.0005"	±.0005"	±.002"	.05"	0-50	\$ 50.90

FEELER GAUGE

\$ 12.40



4608-31

- .010" is made of brass, others are made of hardened alloy steel
- Each blade is marked with inch/metric size

Part No.	Range	Quantity of leaves	List price
4608-31	.0015"-.035"	32	\$ 12.40

Thickness of leaves included	Accuracy
.010" (brass)	±.00039"
.0015", .002"	±.0002"
.0025", .003", .004", .005", .006", .007"	±.00028"
.008", .009"	±.00035"
.010", .011"	±.00039"
.012", .013"	±.00047"
.014", .015"	±.00051"
.016", .017"	±.00055"
.018", .019"	±.00059"
.020", .021"	±.00067"
.022", .023"	±.00071"
.024", .025", .026"	±.00075"
.028"	±.00091"
.030"	±.00094"
.032", .035"	±.00102"

DIGITAL INDICATORS (STANDARD TYPE)

INSPECTION CERTIFICATE

DATA OUTPUT

- Meet ASME B89.1.10M-2001
- Button function: on/off, inch/mm, zero, data preset, change measuring direction, absolute/incremental measurement
- Switchable high/low frequency measurement mode, high frequency mode is suitable for high speed moving of spindle and has large power consumption, low power consumption in low frequency mode
- Keep preset data in memory after restart
- CR2032 battery
- Automatic power off (time is adjustable)
- Data output, with lug back
- Optional accessory: data output cable (part no. 7315-50M, 7302-40M, 7305-40M), backs, contact points



2112-10E

Starting At \$ 152.00

Resolution .00005"/0.001mm

Part No.	Range	Accuracy	Hysteresis	Maximum measuring force	List price
2112-101E	.5"/12.7mm	±.00015"	.00005"	.337lbf	\$ 359.00
2112-251E	1"/25.4mm	±.00015"	.00005"	.495lbf	\$ 340.00
2112-501E	2"/50.8mm	±.00015"	.00005"	.562lbf	\$ 613.00

Resolution .0005"/0.01mm

Part No.	Range	Accuracy	Hysteresis	Maximum measuring force	List price
2112-10E	.5"/12.7mm	±.0015"	.0005"	.337lbf	\$ 152.00
2112-25E	1"/25.4mm	±.0015"	.0005"	.495lbf	\$ 166.00
2112-50E	2"/50.8mm	±.0015"	.0005"	.562lbf	\$ 411.00

DIAL TEST INDICATORS

JEWELLED BEARING

INSPECTION CERTIFICATE

Starting At \$ 91.20

- Jeweled bearing
- Carbide contact point
- Two measuring directions
- Anti magnetic body
- Supplied with two clamps: 5/32" DIA and 3/8" DIA



2380-31

Part No.	Range	Graduation	Accuracy	Dial reading	List price
2380-31	.03"	.001"	±.001"	0-15-0	\$ 91.20
2380-35	.03"	.0005"	±.0005"	0-15-0	\$ 110.00
2380-301	.008"	.0001"	±.0001"	0-40-0	\$ 137.00

UNIVERSAL MAGNETIC STANDS

Starting At \$ 149.00

- With fine adjustment and dovetail groove
- For digital/dial indicators and dial test indicators



6210-80E

Part No.	Magnetic force	Applicable holding stem	List price
6210-81E	176lbf	3/8" DIA	\$ 149.00
6210-80E	176lbf	3/8" DIA	\$ 190.00
6210-100E	220lbf	3/8" DIA	\$ 227.00

DIGITAL LEVEL AND SLOPE METER

DISPLAY FLIPS OVER WHEN THE BOTTOM FACES UP

WORKING TEMPERATURE 23°F-122°F

BACKLIGHT

MAGNETIC BOTTOM

ABSOLUTE LEVEL

\$ 111.00

- Used as level and slope meter
- Aluminum frame, magnetic bottom
- The display flips over when the bottom faces up
- The backlight is on automatically when in use, and automatically off in 15 seconds after use
- The sea level is permanently set inside the chip, zero setting is not needed when battery is replaced
- Buttons: ON/OFF, ZERO, absolute and incremental measurement
- One AAA battery, automatic power off in 5 minutes

2170-1

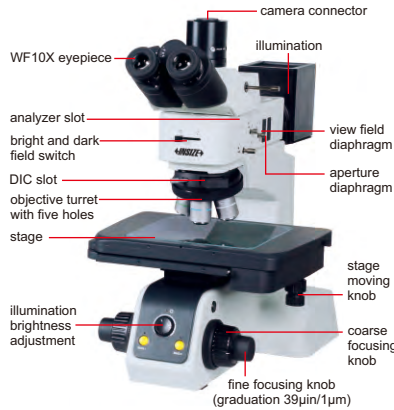


Part No.	Range	Resolution	Accuracy	List price
2170-1	4x90°	0.1° (=0.21in/ft)	at 0° and 90°: ±0.1°; at others: ±0.2°	\$ 111.00

METALLURGICAL MICROSCOPES (PROFESSIONAL TYPE)

NEW
Starting At
\$ 15489.00

- Infinite chromatic aberration correction optical system
- Three way observation tube with infinite hinge
- Translucent and reflective frame, front low-hand position coarse and fine coaxial focus adjustment mechanism, with adjustment elastic device to prevent sliding and random upper limit device
- Bright and dark field five-hole converter with DIC slot
- Adopt digital dimming, with light intensity reset and setting function
- With polarizer insert plate and 360° rotating analyzer insert slot

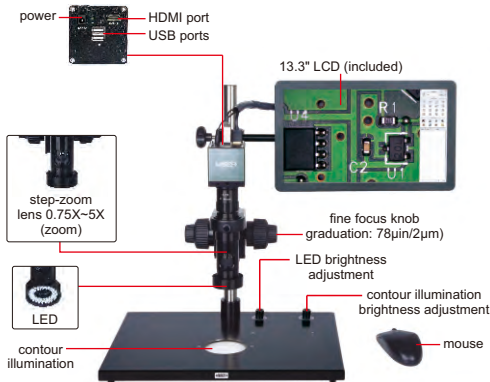


5108-M3000

SPECIFICATION

Part No.	5108-M3000 (standard type)	5108-M3000H (high-definition type)						
List price	\$ 15489.00	\$ 17265.00						
Eye-piece	high eye point large field SWH10X-H (view field .98" DIA/Ø25mm, adjustable visibility)							
Objective (infinite long working distance bright and dark field semi achromatic)	5X	10X	20X	50X	5X	10X	20X	50X
Working distance	.59"	.33"	.41"	.12"	.79"	.43"	.12"	.04"
Numerical aperture	0.15	0.30	0.40	0.75	0.15	0.30	0.45	0.80
Optical magnification	50X~500X (up to 1000X with optional 100X objective)							
Digital magnification	170X~1700X (on 21.5" monitor), up to 3400X with optional 100X objective							
Stage	double layer size: 12.20"×9.45" travel: 5.90"×3.94"							
Condenser	roll-out achromatic condenser (numerical aperture 0.9)							
Illumination	5W LED, transmitted and reflected							
Observation Tube	inverse image, distance adjustment: 1.96~2.99", two grade spectral ratio binocular: trinocular=100: 0							
Diopter adjustment	±5 diopter (two eyepieces)							
Power Supply	AC 100-240V							
Dimension (L×W×H)	12.20×23.62×19.68"							
Weight	59.52lb							

DIGITAL MEASURING MICROSCOPE PART NO. ISM-DL301



ISM-DL301 (with contour illumination)

\$ 3825.00

BUILT-IN SOFTWARE WITHOUT COMPUTER

MEASUREMENT

TAKE PICTURES

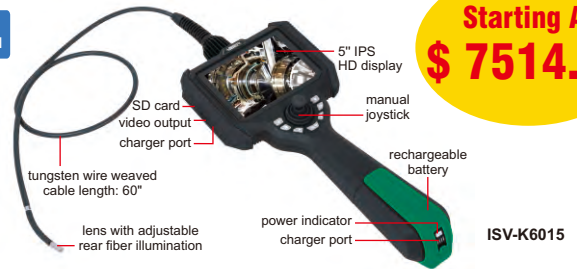
SPECIFICATION

List price	\$ 3825.00
Magnification	15X~100X
Sensor	1/2" CMOS
Pixel	2M
Resolution	1920×1080
Frame rate	60fps
Output	HDMI
Power supply	power adapter
Dimension (L×W×H)	22.44×11.81×16.93"
Weight	14.44lb

- 1080P high-definition image
- Built-in software without computer, operated by mouse
- Take pictures, saved to USB flash disk
- Measurement results can be sent to Excel
- Automatic white balance and exposure
- Brightness, contrast ratio, gain are adjustable

VIDEOSCOPIES

REAR FIBER ILLUMINATION



Starting At
\$ 7514.00

ISV-K6015

SPECIFICATION

Part No.	ISV-K3915	ISV-K6015	
List price	\$ 9410.00	\$ 7514.00	
Lens	diameter (D)	.154" DIA	.236" DIA
	pixel	0.92M	
	resolution	1280×720	
	depth of field	.315~5.906"	.472~7.874"
	bending direction	four directions	
	bending range (α)	±160°	
	angle of view (θ)	120°	
	illumination	rear fiber	
	lens	sapphire glass lens	
	dust/waterproof	IP67	
Cable	bend control	manual joystick	
	length	60"	
Main unit	type	tungsten wire weaved cable	
	display	5" high definition LCD	
	function	take pictures, take videos	
	file format	picture: JPG, video: MP4	
	image process	image zoom (1X, 2X, 3X, 4X)	
	image control	freeze, flip over, playback and analog ruler	
	memory	memory card	
output	USB, HDMI		
power supply	rechargeable lithium battery (working time ≥ 4hours), AC/DC adapter (for continuous working)		
Weight	2.205lb		

QUICK MEASUREMENT SYSTEM (WITHOUT STITCHING)

\$ 29250.00



- One or more workpieces can be measured by one step operation
- Place workpieces at any position
- Focus and measure automatically

SPECIFICATION

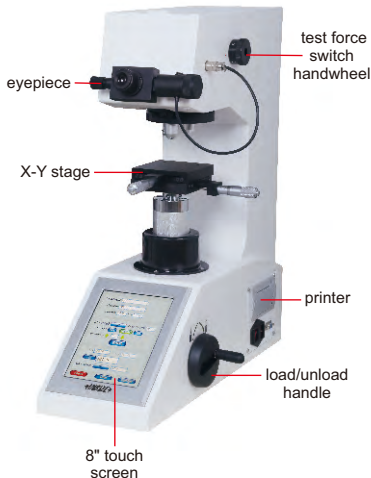
Part No.	QMS-A110-U	
List price	\$ 29250.00	
Optical lens	low-distortion lens, single-field telecentric 3.94" DIA	
View field range	3.94×3.15"	
Measurement range (X×Y)	3.86×3.07"	
Measurement accuracy	±.00012"	
Repeatability	±.00004"	
Max. weight of workpiece	11lb	
Measurement time	<2s	
Measurement data	2D measurement	
Power supply	110V, 50Hz, 600W	
Illumination system	back light	telecentric illuminator, green light
	ring light	4-zone circular white high light circular (directional) low-angle green light (electric)
	coaxial light (optional)	vertical illuminator, white light
Environmental requirement	temperature: 68°F±3.6°F, relative humidity: 30%~80%, vibration: <.00007oz, less than 15Hz	
Dimension (L×W×H)	22.83×9.25×31.10"	
Weight	88lb	

* The optimum temperature is 68°F±1.8°F Within 3.15×2.52", on focal position and environment temperature at 68°F±1.8°F

DIGITAL MICRO-VICKERS HARDNESS TESTER



NEW



- Measure hardness of thin or small workpieces
- Converted to HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
- Motor driven turret to switch between indenter and objective lens automatically
- Calibrated according to standard hardness blocks or length scales
- Test result can be sent to Word or Excel
- According to ISO 6507

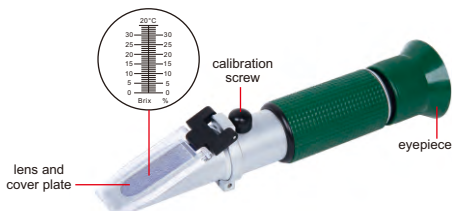
SPECIFICATION

Part No.	HDT-MV290-U (manual switch of test force)
List price	\$ 13766.00
Test force	0.098N (0.01kgf), 0.245N (0.025kgf), 0.49N (0.05kgf), 0.98N (0.1kgf), 1.96N (0.2kgf), 2.94N (0.3kgf), 4.9N (0.5kgf), 9.8N (1kgf)
Vickers scales	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Range	8HV~2900HV
Length measurement resolution	.394µm/0.01µm
Objective/indenter switch	motor driven turret
Stage lifting	manual
Load control	automatic (load/dwell/unload)
Load dwell time	1~99 second
Objective	10X, 40X
Eye-piece	10X
Total magnification	100X (for measurement or observation), 400X (for measurement)
Max. workpiece height	3.94"
Max. testing width	5.12" (from the center of indenter to the wall of main body)
X-Y stage	dimensions: 3.94×3.94", travel range .98×.98"
Data output	built-in printer, RS232
Power supply	110V, 50/60Hz
Dimension	21.26×10.24×25.59"
Weight	110lb

PORTABLE REFRACTOMETER PART NO. ISQ-RM30

SUITABLE FOR WATER BASED COOLANT

\$ 124.00



SPECIFICATION

List price	\$ 124.00
Measuring range	0~32%
Graduation	0.2%
Dimension	1.06×1.57×6.3"
Weight	.39lb

- Quickly measure the concentration of coolant
- Refer to the refraction factor of coolant, for example: the refraction factor of grinding emulsion is 2.1, the reading value is 6%, so the actual concentration is (2.1×6%)=12.6%

ROUGHNESS TESTER (SEPARABLE TYPE) PART NO. ISR-C300

BLUETOOTH DATA OUTPUT TOUCH SCREEN

CAN BE OPERATED BY MOBILE PHONES OR COMPUTERS

\$ 2679.00



- Roughness tester can be operated by mobile phones (only Android system) or computers
- Data can be sent to Excel by connecting to computers via bluetooth or SPC cable
- Support bluetooth printer
- 22 roughness parameters
- Meet ISO, DIN, ANSI, JIS standards
- Display roughness values, profile and curve
- Memory of maximum 100 data and waveform
- Built-in lithium battery, working time more than 50 hours
- Touch screen
- Automatic power off

SPECIFICATION

List price	\$ 2679.00	
Parameters	Ra, Rz, Rq, Rv, Rp, Rs, R3z, R3y, Rt, Rc, Rz (JIS), Rk, Rku, Rsm, Rpc, Rpk, Rvk, Rsk, Mr1, Mr2, Ry, Rmax	
Range	X axis	.689"
	Z axis	12598µin (-6299µin~6299µin)
Accuracy	±10%	
Resolution (Ra)	.01µin	
Probe	type	inductive
	stylus radius/angle	196µin/90°
	stylus material	diamond
Measuring force	.01ozf	
Measuring unit	µm/µin	
Cut off	.01/.03/.1"	
Number of cut-offs	1~5	
Moving speed	.005"/s, .02"/s, .04"/s	
Memory	100 measurement results	
Output	bluetooth and USB	
Power	built-in rechargeable battery	
Dimension (L×W×H)	6.22×2.52×2.05"	
Weight	.89lb	

TESLAMETERS (GAUSSMETERS)

DATA OUTPUT

NEW
Starting At
\$ 246.00

- Measure magnetic induction of DC magnetic field
- Directly display the N/S polarity of the measured magnetic field
- One-key zero function: eliminate the influence of zero drift before measurement
- Maximum value hold: record the maximum value of the changing magnetic field
- Unit switch between mT or G (1mT=10G)
- Auto ranging, auto power off
- Built-in USB interface for data transmission
- Display with backlight

SPECIFICATION

Part No.	0501-MA01	0501-MA05
List price	\$ 592.00	\$ 246.00
Range	2000mT	
Resolution	.01mT	(0~200mT)
	.1mT	(200~2000mT)
Accuracy	±1.0%	±2.0% (≤1000mT)
		±5.0% (1000mT~2000mT)
Temperature coefficient	±1%/K	
Zero drift	±5mT/h	
Interface	USB	
Power supply	3×1.5V AA batteries or USB	
Dimension (L×W×H)	6.50×3.54×1.57"	
Weight	.77lb	



0501-MA01