



Mark 10 M4-012 Series 4 Force Gauge, 0.12 x 0.00005 lb

Series 4 advanced digital force gauges are designed for tension and compression force testing in numerous applications across virtually every industry, with capacities from 0.12 lb to 500 lb (0.5 N to 2500 N).



MARK-10®

Capacity x Readability
0.12 lb x 0.00005 lb

Manufature: Mark 10

SKU: M4-012

Weight: 1.00 lb

Free Ground Shipping within the
48 continental US States

Please Call
(800)832-0055

Features

Series 4 digital force gauges are designed for tension and compression force testing in numerous applications across virtually every industry, with capacities from 0.12 lb to 500 lb (0.5 N to 2500 N). The gauges feature a sampling rate of 3,000 Hz, producing accurate results under a wide range of test conditions. Accuracy is $\pm 0.2\%$ of full scale ± 1 digit, and resolution is 1/2000. A large, backlit graphics LCD displays large, legible characters, while the simple menu navigation allows for quick access to the gauges' many features and configurable parameters. Data can be transferred to a PC or data collectors via USB, RS-232, Mitutoyo (Digimatic), or analog outputs.

On-board data memory for up to 50 readings is included, as are statistical calculations with output to a PC. Integrated set points with indicators and outputs are ideal for pass-fail testing and for triggering external devices such as an alarm, relay, or test stand. The gauges are overload protected to 150% of capacity, and an analog load bar is shown on the display for graphical representation of applied force.

An ergonomic, reversible aluminum design allows for hand held use or test stand mounting for more sophisticated testing requirements. Series 4 digital force gauges are directly compatible with Mark-10 test stands, grips, and software.

Series 4 gauges include MESUR Lite data acquisition software. MESUR Lite tabulates continuous or single point data from Series 5 and 4 gauges. Data saved in the gauge's memory can also be

downloaded in bulk. One-click export to Excel easily allows for further data manipulation.

- High-speed 3,000 Hz sampling rate
- USB, RS-232, Mitutoyo, and analog outputs
- Large backlit graphic display
- 50-point data memory with statistics (min, max, mean, standard deviation) and outputs
- Live load bar graph with set point markers
- Programmable set points, with alarms and outputs
- Peak readings and set points always displayed
- 5 selectable units of measurement
- Configurable audio alarms and key tones
- Password protection, configurable for individual keys and calibration

Specifications

Model	M4-012	M4-025	M4-05	M4-2	M4-5	M4-10	M4-20	M4-50	M4-100	M4-200	M4-500
Capacity X	0.12 x	0.25 x	0.5 x	2 x	5 x	10 x	20 x	50 x	100 x	200 x	500 x
Resolution lb	0.00005	0.0001	0.0002	0.001	0.002	0.005	0.01	0.02	0.05	0.1	0.2
Capacity X	2 x	4 x	8 x	32 x	80 x	160 x	320 x	800 x	1600 x	3200 x	8000 x
Resolution oz	0.001	0.002	0.005	0.02	0.05	0.1	0.2	0.5	1	2	5
Capacity X				1 x	2.5 x	5 x	10 x	25 x	50 x	100 x	250 x
Resolution kg	-	-	-	0.0005	0.001	0.002	0.005	0.01	0.02	0.05	0.1
Capacity X	50 x	100 x	250 x	1000	2500	5000	10000	25000	50000	-	-
Resolution g	0.02	0.05	0.2	x 0.5	x 1	x 2	x 5	x 10	x 20	-	-
Capacity X	0.5 x	1 x	2.5 x	10 x	25 x	50 x	100 x	250 x	500 x	1000 x	2500 x
Resolution N	0.0002	0.0005	0.002	0.005	0.01	0.02	0.05	0.1	0.2	0.5	1
Capacity X										1 x	2.5 x
Resolution kN	-	-	-	-	-	-	-	-	-	0.0005	0.001
Capacity X	500 x	1000 x	2500								
Resolution mN	0.2	0.5	x 1	-	-	-	-	-	-	-	-
Accuracy	±0.2% of full scale ±1 digit										
Power	AC or rechargeable battery. Multi-step low battery indicator is displayed, gauge shuts off automatically when power is too low										
Battery life	Backlight on: up to 7 hours of continuous use Backlight off: up to 24 hours of continuous use										
Measurement units	lb, oz, g, kg, N, kN, mN (depending on model)										
Outputs	USB / RS-232: Configurable up to 115,200 baud Mitutoyo (Digimatic): Serial BCD suitable for all Mitutoyo SPC-compatible devices. Analog: ±1 VCD, ±0.25% of full scale at capacity General purpose: Three open drain outputs, one input Set points: Three open drain lines.										
Configurable settings	Digital filters, outputs, automatic shutoff, default settings, key tones, audio alarms, calibration										
Safe overload	150% of full scale (display shows "OVER" at 110% and above)										
Weight (gauge only)	1.0 lb [0.45 kg]					1.2 lb [0.54 kg]					

Included items	Carrying case, chisel, cone, V-groove, hook, flat, extension rod, universal voltage AC adapter, battery, quick-start guide, USB cable, resource CD (USB driver, MESUR Lite software, MESURgauge DEMO software, and users guide), NIST-traceable certificate of calibration with data										
Warranty	3 years (see individual statement for further details)										
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Included Extension Rods							G1024			G1031	
Included Cone							G1026			G1033	
Included Chisel							G1025			G1032	
Included V-Groove							G1027			G1034	
Included Flat							G1029			G1036	
Included Hook				G1028				G1038		G1035	
Included Coupling				-				G1039		G1037	

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