Data Sheet

Digital Force Gauges Series 4

32-1116 REV 1



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.



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Shown with an ESM301 test stand and G1061 wedge grips

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 button easily allows for further data manipulation.

MESUR[™] Lite data acquisition software is included with Series 4 gauges

Features

- 3,000 Hz sampling rate
- USB, RS-232, Mitutoyo, and analog outputs
- Large backlit graphic display

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50-point data memory with statistics and outputs

Report As Eacol Described Gauge Memory

Live load bar graph with set point markers

- Programmable set points, with indicators and outputs
- Peak readings and set points always displayed
- Configurable audio alarms and key tones
- 5 selectable units of measurement
- MESUR[™] Lite data collection software included



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Specifications subject to change without prior notice

Data Sheet

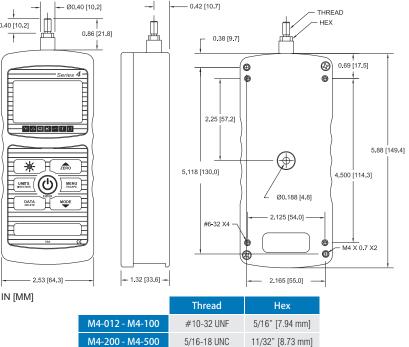
Digital Force Gauges Series 4

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Sampling nate.	0,000 Hz, puise response of 1/1,000 see. minimum
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
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):	M4-012 - M4-100: 1.0 lb [0.45 kg] M4-200 - M4-500: 1.2 lb [0.54 kg]
Load cell deflection:	All models 0.010 [0.25], except 0.005 [0.13] for M4-012
Included items:	Carrying case with 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, MESUR™gauge DEMO software, and user's guide), and NIST-traceable certificate of calibration with data.
Warranty:	3 years (see individual statement for further details)



Capacity & Resolution

MARK-10

Model	lbF	ozF	kgF	gF	Ν	kN	mN	lbF	ozF	kgF	gF	Ν	kN	mN	
M4-012	0.12	2		50	0.5		500	0.00005	0.001		0.02	0.0002		0.2	
M4-025	0.25	4		100	1		1000	0.0001	0.002		0.05	0.0005		0.5	5 All models inc 110V AC adap
M4-05	0.5	8		250	2.5		2500	0.0002	0.005		0.1	0.001		1	
M4-2	2	32	1	1000	10			0.001	0.02	0.0005	0.5	0.005			Add suffix
M4-5	5	80	2.5	2500	25			0.002	0.05	0.001	1	0.01			euro plug
M4-10	10	160	5	5000	50			0.005	0.1	0.002	2	0.02			for UK plu or 'A' for /
M4-20	20	320	10	10000	100			0.01	0.2	0.005	5	0.05			plug (220
M4-50	50	800	25	25000	250			0.02	0.5	0.01	10	0.1			Ex: M4-05
M4-100	100	1600	50	50000	500			0.05	1	0.02	20	0.2			M4-100U
M4-200	200	3200	100		1000	1		0.1	2	0.05		0.5	0.0005		M4-500A
M4-500	500	8000	250		2500	2.5		0.2	5	0.1		1	0.001		

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