

Force Test System | FTS-MG



The FTS-MG is a complete Force Test System designed for compression and tensile testing of small samples. It precisely measures push pull forces as low as 0.002 lb with an accuracy of $\pm 0.5\%$ full scale ± 1 digit. The precision hand wheel allows fine control with greater consistency in testing results. An optional dial indicator kit displays up to 1" of displacement.

Feature

- Mounting holes for bench mounting
- Optional 1" [25.4mm] dial indicator travel kit
- Display "real-time" or "peak" force
- Push-button calibration
- Battery life: 30 hours of continuous operation
- Battery or AC operation
- Large baseplate with 5 #10-32 UNF holes for fixture mounting
- User-selected units of Pounds, Kilograms or Newtons
- Includes NIST-Traceable calibration certificate
- 3 Year Warranty

Spesification

Capacity	100 lb (45 kg)
Stroke	9" (229mm)
Travel Rate	0.06" (1.5mm) per revolution
Accuracy	$\pm 0.5\%$ of full scale, ± 1 least significant digit
Sampling Rate	30 readings per second
Display	4 1/2 digit LCD with .3" high characters. Indicators for low battery, units and mode of operation
Power	Non-rechargeable 9V battery or AC operation with included adapter
Battery Life	30 hours of continuous use, LO BAT indicator
Sensor Deflection	0.010" (0.25 mm) maximum deflection at full load
Overload Protection	150% or higher
Accessories Included	Hook and Flat head
Warranty	3 years

Force Test System | FTS-X

The FTS-X is a complete Force Test System designed for precision measurement of push / pull force on a wide variety of applications. FTS-X offers USB data output and along with a complete software package (Windows XP Compatible, Not Compatible with Windows 7) to record and analyze your test data.



Feature

- 1000 Hz Sample Rate captures true peak values even those occurring over very short time intervals
- Accuracy of $\pm 0.2\%$ providing superb repeatability
- USB, RS-232 & Analog Outputs-- all included! 3 different outputs for data transfer provides maximum flexibility
- 200% Overload Capacity minimizes the likelihood of costly repairs
- Rugged Die Cast Aluminum Housing & Rugged Construction provides exceptional durability even in the toughest field applications
- Reversible Display optimized for use as both a handheld gauge or mount upside down on a test stand
- Versatile bottom mounting plate accepts standard and custom-made attachments
- consists of the FGV-XY Digital Force Gauge and FGS-100H Manual Hand-Wheel Test Stand
- Selectable Auto-Shut Off prolongs battery life, while allowing constant use when powered via supplied AC-adapter
- Small Size Ergonomic design provides comfort for hand held testing
- Automatic Calculation & Display of Statistics provides immediate results and analysis of your force testing
- 3 Memory Modes optimize data storage for any application transferring data to PC/Laptop when convenient
- Built In User-Set Hi-Lo Alarm Limits perform quick and easy 'Go-No Go' testing with visual LCD indicator when "out of tolerance"
- Includes calibration certificate (sample)
- Constant Linear Motion
- Sturdy, all steel construction

Spesification

Capacity	110 lbs (50 kg)
Stroke	5.9" (150 mm)
Travel Rate	3 mm/wheel turn (approximately)
Dimensions	Refer to dimensions above
Measuring Modes	Realtime, Compression Peak, Tension Peak
Display Update Rate	User Selectable: 1, 2, 3, 5, 10, 20 times per second
Sampling Rate	1000 times per second (1000Hz/1KHz)
Accuracy	$\pm 0.2\%$ F.S.
Temperature Drift	Gain : $\pm 0.01\%$ LOAD / Zero : $\pm 0.01\%$ / R.C. / Drift of zero point can be cancelled with tracking function.
Display	Main display: 4-digits 12mm high, Reversible Units display: 3-digits 7mm high Other display: "LO BAT"(Low Battery Voltage), "BAT"(Battery Charging), "OVR"(Overload), "Peak"(Peak Hold)
Overload	200% of Full Scale
Tracking	User Selectable (ON/OFF)
USB Output	Allows communication between FGV-XY and Windows PC Software with ToriemonUSB via USB cable(included).
RS-232C Output	Allows communication between the FGV-XY and RS-232C devices. RS-232C cable is an optional accessory.
Analog Output	$\pm 1\text{V}$, Accuracy is $\pm 50\text{mV}$ through a 12 bit D/A. ZERO affects this output, and is updated at 1000 times/second. Load is $>10\text{k Ohms}$
Overload/Comparator Output	Open-collector output (Max DC30V/5mA).
Power	Rechargeable Nickel hydride battery or AC adapter/charger. Usable while charging.
Operating Time	Approximately 8 hours after a full charge. Charging Time: 16 Hours Max.
Auto Power Off	Default is 10 minutes. Can be disabled. Automatically disabled when connected to AC adapter.
Memory function	Continuous memory: 1000 data points, Single memory: 100 data points, Standard memory: 50 data points Statistics functions (max, minimum, peak, average, standard deviation)
Comparator function	User Selectable: HI and LO
Temperature range	0 ~ 40° C (-32 ~ 104° F)
Humidity range	35 ~ 85% RH
Dimensions	147mm (L)x 75mm (W) x 38mm(H)
Weight	Approx. 34 lbs
Accessories(Included)	AC adapter/charger, carrying case, hook, chisel, flat head, notched head, hanger, cone head, thread Adapter, extension rod, USB cable
Application Software	Application software (USB version): Available at www.shimpoinst.com/software for free.
Warranty	1 year

Force Test System | FTS-HD



The FTS-HD is a high capacity force test system engineered for precise & repeatable measurements of push or pull forces up to 1000lbs. A smooth operating turn-wheel provides a precise 0.1" travel per revolution. The FTS-HD heavy duty construction provides repeatable and reliable testing for many years. The FTS-HD features adjustable height ranges, customizable lengths (for different sample sizes) and an option for a digital length/height meter.

Feature

- 1000 lb / 500 kg / 5000 N Capacity
- Accuracy \pm 0.2%
- 200% overload protection
- Measures both compression and tension forces
- 200% overload protection
- Heavy-duty load sensor
- User-selected units of Pounds, Kilograms or Newtons
- Measures both compression and tension forces
- Removable hanger
- 1 Year Warranty
- Includes NIST Calibration Certificate

Spesification

Accuracy	±0.2% full scale
Resolution	0.1 lb, 0.1 Kg, 1 N
Display	4-Digit LCD, 12mm high. Reversible by the push of a button. Minus sign for tension
Display Update	0.05, 0.1, 0.2, 0.3, 0.5, 1 sec
Sampling Rate	1000 times per second
Overload Protection	150% of full scale
Power	Rechargeable Ni-Cad battery or AC through adapter/charger
Auto Power Shut-Off	Yes (not active if adapter/charge is in use)
Battery Life	12 hours (when fully charged)
Recharge Time	Approximately 18 hours when fully discharged
Dimensions	8.43" L x 3.23" W x 2.15" H (214 mm x 82 mm x 54.5 mm)
Weight	78 lb (34 Kg)
Approvals	CE approved
Outputs	RS232C & Analog Output ±1 VDC (through a 12 bit D/A converter)
Overload Output	One NPN OC transistor for tension, one NPN OC transistor for compression
Warranty	1 Year