

## FG-3000R Digital Force Gauge with Integral Load Cell Sensor

**The new FG-3000R Series digital force gauges are the choice for simple, cost-effective compression testing.**

Combining one of the most compact housings, yet maintaining a large back-lit LCD, these units were designed to fit perfectly in the hand for ease of use. The integral button style load-cell attached via the flexible, metal braided cable enables readings to be taken in machinery or fixtures where other force gauge adapters are unable to reach or fit. The multi-language FG-3000's provide menu programming for intuitive set-up of the instrument to your desired requirements. Three modes of operation are selectable: Track mode displays live readings, Peak mode records the maximum reading sensed during the test, and Pre-set mode which activates user defined high and low limit set points. The programmable limits provide a quick visual and audible indication if a test passes or fails. In addition, a comparator output enables integration of the instrument into your quality system for repetitive testing such as on production lines.

The display graphics facilitate user comprehension and operation. An analog bar graph provides perspective of current reading in comparison to the full scale range. Pass/Fail icons provide an instant response of the testing outcome while a storage symbol acknowledges when a reading is logged. A menu-selectable display orientation enables switching from display direction to aid in viewing.



### Features

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- Compact load-cell sensor combined with 8.7" (220 mm) length flexible, metal-braided cable enables readings to be taken in difficult locations.
- 1000 Hz Sample Rate combined with  $\pm 0.5\%$  F.S. accuracy provides fast sampling producing great resolution and more accurate results.
- Three mode operation: Track, Peak & Preset Limits.
- 180° reversible display, tension/compression icons, and vertical printed keypad allows usage as a portable gauge or mounted upside down on a test stand.
- Programmable High & Low Limits allow for instant visual and audible indication of pass or fail testing in Preset mode.
- 500 point data collection capability can be viewed on display, sent to optional printer, or uploaded to software package for further analysis.
- Rugged, ergonomic die cast aluminum construction allows usage in demanding applications.
- Comparator output function provides user with easy Pass/Fail testing system integration capabilities.
- Multi-language and engineering unit's selection provides flexible user comfort.
- Field Calibration capability eliminates need to send to lab.
- Free Data logging/graphing software available for free download on website.

## Specifications

Accuracy	± 0.5% F.S.
Selectable Units	Varies by range. See Table
Overload Capacity	150% of F.S. (LCD flashes beyond 110% of F.S.)
Measurement Method	Peak, Track, Preset
Data Sampling Rate	1000 Hz
Display	160*128 dot matrix LCD with Back-light
Display Update Rate	10 times/second
Resolution	See chart
Memory	500 data
Set Point	Programmable high and low limits in Preset Mode
Battery Indicator	Display flashes battery icon when battery is low
Power	3.6 VDC 400 mA Ni-MH rechargeable batteries
Battery Life	Approximately 16 hours continuous use per full charge
Charger / Adaptor	Universal USB/BM charger, Input: 110 ~ 240 V ac
Temperature Effects	<0.054% per °F (0.03% FS per °C)
Outputs	USB, RS-232; High & Low Limit NPN's
Operating Temperature	14 to 104°F (-10 to 40°C)
Storage Relative Humidity	20 to 80%
Housing	Aluminum
Storage Temperature	-4 to 122°F (-20 to 50°C)
Oper. Relative Humidity	5 to 95%
Dimensions	5.5 x 2.8 x 1.4" (140 x 71 x 35.5 mm) Sensor: 32 x 23 mm (-1, -5, -10); 38 x 24 mm (-20, -50)
Product Weight	1.1 lb (0.5 kg)
Package Weight	2.8 lb (1.3 kg)
Warranty	1 year
Approvals	CE, RoHS
Included Accessories	AC Adaptor/Charger, USB cable, calibration cert., carrying case



FG-3000R with Accessories in Included Carrying Case

## Ordering Details

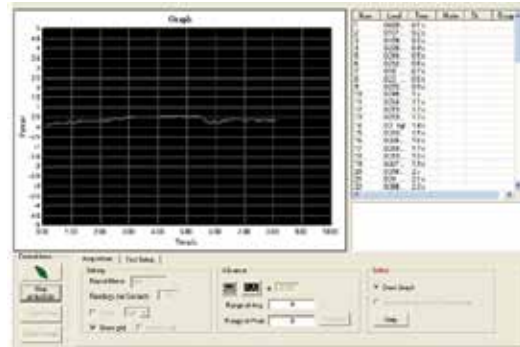
Model	N	kN	kgf	lbf	klbf
FG-3000R-1	Capacity	1000	1	100	220
	Resolution	1	0.001	0.01	0.01
FG-3000R-5	Capacity	5000	5	500	1100
	Resolution	1	0.001	0.1	1
FG-3000R-10	Capacity		10	1000	2250
	Resolution		0.01	1	1
FG-3000R-20	Capacity		20	2000	4500
	Resolution		0.01	1	1
FG-3000R-50	Capacity		50.0	5000	11
	Resolution		0.01	1	0.01

## Accessories

FG-7CHRG	Charger
FG-7USB	USB Cable
FG-7RS23CBL	RS-232 Communication Cable

## EDMS Data Acquisition Software

Allows full testing of FG Series Force Gauges with live analysis of the test results. Users can set a delay or a time period for the test data to record as well as begin or end if a load threshold is reached. The load can be inverted so the graph shows the resultant force in the direction desired. Average and peak readings are automatically calculated, but the user can zoom in on a section of a graph and recalculate the new average and peak over the selected portion of the test. Besides acquiring live data, the EDMS program can also upload previously stored readings from the gauge. Additionally, the software provides the ability to easily save the data set to a spreadsheet file, plus save the resultant graph as a photo for later review.



Data Management Program Available from Website