SHIMPO INSTRUMENTS

The FG-7000TA Series digital torque gauges provide testing flexibility with their external

torque sensor input. Torque sensors with the adustable clamp adapter are immediately recognized when connected to the display base. Units are available for your specific testing needs in 1 N-m (9 in-lb) 5 N-m (44 in-lb) & 10 N-m (88 in-lb) capacities. The adjustable clamping mechanism enables flexible test size operation from approximately 0.56 to 2" (14 to 50 mm) diameters. Four selectable modes of operation include: Track mode for live readings, Peak mode for displaying the maximum reading, First Peak where only the initial peak is recorded once a decrease is sensed and Preset which initiates user-programmed tolerance alarms for go/no go testing. The display has two selectable operations, numerical view with directional bar graph or graphical view with directional bar graph. In graphical view when alarm tolerances are set, the process is plotted in relation to the upper and lower limit graph lines. Combined with the go/no go icons, a simple pass/fail determination is recognized. These hightech instruments can data log a reading at the push of a button for simple data acquisition or be set to continuous data storage. Data can be viewed on the screen, sent to the optional printer, or loaded to be analyzed and graphed on the free software program. The 1,000 point memory with definable groups allows for multiple tests to be recorded and easily separated upon loading. In addition, the comparator output can be set up for integration of the instrument into a quality system for repetitive testing such as on a production line. The large back-lit, 180° auto-reversible display, CW/CCW directional bar graph, combined with the dual labeled key pad allows for usage of the gauge in various positions while still being able to easily view and operate. These various features make the FG-7000TA the ideal torque instrument for various applications such as closing or opening analysis of containers, valves and door hardware, failure or destructive torque testing, or almost any torque testing requirement involving incoming quality inspection, finished goods testing to R&D.

Measuring Quality

FG-7000TA Digital Torque Gauge with Adjustment Clamp





Adjustment Clamp

Features

- Display operates in numerical or graph modes, both include a directional bar graph
- Graph mode combined with set point tolerances provides instant recognition of process relation to upper and lower limits
- Four Modes of Operation: Peak, First Peak Preset or Track Mode
- Memory with group categorization to easily separate your tests for review and later download
- Free software for viewing, graphing and analyzing data on PC
- Large, Backlit, Auto-Reversible display with various icons of test status aids user during testing
- Programmable High/Low tolerances combined with comparator NPN/PNP output allow usage in quality control production lines
- Adjustable clamping mechanism enables flexible testing from approximately 0.56 to 2" (14 to 50 mm) diameters

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FG-7000TA Series Specifications

| Accuracy ± 0.3% F.S. Selectable Units N-m, N-cm, kgf-cm, lbf-in (Depending on Range) Overload Capacity 120% of F.S. (LCD flashes beyond 110% of F.S.) Measurement method Peak, First Peak, Preset or Track Mode Data Sampling Rate 1000 Hz Display 160*128 dot matrix LCD with LED Backlight Display Update Rate 10 times/second Resolution (See page 2 Resolution Table) Memory 1000 data Set Point Programmable high and low limits Battery Indicator Display flashes battery icon when battery is low | | | | | | |
|--|---|--|--|--|--|--|
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| | | | | | | |
| Battery Indicator Display flashes battery icon when battery is low | | | | | | |
| | | | | | | |
| Power 3.6VDC 800mAH Ni-MH rechargeable batteries | | | | | | |
| Battery Life Approximately 16 hours continuous use per full charge | | | | | | |
| Charger / Adapter Universal USB/BM charger, Input: 110 ~ 240VAC | sal USB/BM charger, Input: 110 ~ 240VAC | | | | | |
| Temperature Effects <0.054% per °F (0.03% FS per °C) | <0.054% per °F (0.03% FS per °C) | | | | | |
| Outputs USB, Serial Port RS-232, High & Low Limit NPN | USB, Serial Port RS-232, High & Low Limit NPN | | | | | |
| Operating Temperature 14 to 104°F (-10 to 40°C) | 14 to 104°F (-10 to 40°C) | | | | | |
| Storage Temperature -4 to 122°F (-20 to 50°C) | -4 to 122°F (-20 to 50°C) | | | | | |
| Housing Aluminum | | | | | | |
| Oper. Relative Humidity 5 to 95% | | | | | | |
| Storage Relative Humidity 20 to 80% | 20 to 80% | | | | | |
| Dimensions Display: 5.7 x 2.9 x 1.4" (145 x 73 x 35.5 mm); Sensor: 4.1 x 1.8" (105 x 46 mm); Adjustable Clam 3.7 x 1.7 x 2.3" (93 x 42 x 58 mm) | | | | | | |
| Product Weight 3.5 (1.6 kg) | | | | | | |
| Package Weight 5.3 (2.4 kg) | 5.3 (2.4 kg) | | | | | |
| Warranty 1 year | | | | | | |
| AC Adapter/Charger, USB cable, carrying case, calibration cert. | | | | | | |

Ordering Details

| Model | | N-m | N-cm | kgf-cm | lbf-ft | lbf-in | Interface Type |
|-------------|------------|-------|------|--------|--------|--------|---|
| FG-7000TA-1 | Capacity | 1 | 100 | 10 | - | 8.9 | Adjustable Clamp 14.29 - 50.23 mm (0.56 - 1.98") |
| | Resolution | 0.001 | 0.1 | 0.01 | - | 0.005 | |
| FG-7000TA-2 | Capacity | 5 | 500 | 50 | 3.68 | 44.3 | |
| | Resolution | 0.001 | 0.1 | 0.01 | 0.001 | 0.01 | |
| FG-7000TA-3 | Capacity | 10 | 1000 | 100 | 7.38 | 88.5 | |
| | Resolution | 0.01 | 1 | 0.1 | 0.001 | 0.01 | |

FG-7000TA with Included Accessories & Carry Case



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