

#### **Digital Force Gauges with 180° reversible display & dual labeled keypad for both push, pull applications**

The Series FGE-X Digital Force Gauges combine a rugged, ergonomic and compact design with exceptional accuracy to provide a solid force testing instrument. These instruments are utilized in a variety of applications such as, incoming quality inspection, finished goods testing, R&D or almost any portable or force stand testing requirement.

Simple one button adjustment changes units of measure, while pressing the peak button quickly produces the highest recorded value during the test. The 180° reversible display combined with the adjustable force direction and dual labeled keypad enable the FGE-X to excel in both compression and tension applications in any direction. Models are available from 0.5 lbs to 100 lb ranges providing a large offering for various testing requirements.

Typical applications include wallboard, wire pull, wire crimps, trigger pull, brake pedal, aerospace ceramic, springs, food ripeness, corrugated paper strength, blister pack, medical component, muscle strength, ergonomic testing, adhesives, syringe plunger, needle sharpness and many more.



#### **Features**

- 1000 Hz Sample Rate provides faster sampling producing better resolution and more accurate results
- Ideal for strict tolerances with its high accuracy  $\pm 0.2\%$  F.S.
- Measure and record compression and tension tests- permits true "push-pull" testing
- 180° Reversible display and dual printed keypad allows usage as a portable gauge or mounted upside down on a test stand
- 1 million operation load cell with superior overload protection provides a long-life, damage free product
- Rugged, ergonomic die cast aluminum construction allows usage on production floor
- Variable display response rate aids viewing readings
- Quick retrieval of peak measurement with a single push button
- Flexible user preference with one button selection of engineering units
- Dual power capable with rechargeable battery or AC line voltage
- CE Mark



**FGE-X with Accessories  
in Protective Carrying Case**

## FGE-X Specifications

FGE-X Model	FGE-0.5X	FGE-1X	FGE-2X	FGE-5X	FGE-10X	FGE-20X	FGE-50X	FGE-100X
<b>Capacity</b>	8 oz 0.5 lb 200.0 g 2.000 N	16 oz 1 lb 500.0 g 5.000 N	32 oz 2 lb 1,000 g 10.00 N	5 lb 2.000 Kg 20.00 N	10 lb 5.000 Kg 50.00 N	20 lb 10.00 Kg 100.0 N	50 lb 20.00 Kg 200.0 N	100 lb 50.00 Kg 500.0 N
<b>Resolution</b>	0.01 oz 0.001 lb 0.1 g 0.001 N	0.01 oz 0.001 lb 0.1 g 0.001 N	0.01 oz 0.001 lb 1 g 0.01 N	0.001 lb 0.001 Kg 0.01 N	0.01 lb 0.001 Kg 0.01 N	0.01 lb 0.01 Kg 0.1 N	0.01 lb 0.01 Kg 0.1 N	0.1 lb 0.01 Kg 0.1 N
<b>Accuracy</b>	±0.2% F.S.							
<b>Display</b>	4-Digit LCD, 0.5" (12 mm) high, Units 0.29" (7 mm). Reversible by the push of a button. Minus sign for tension							
<b>Display Update</b>	0.05, 0.1, 0.2, 0.3, 0.5, 1 sec							
<b>Sampling Rate</b>	1000 Hz							
<b>Overload</b>	200% of F.S. (200 lb.: 150% F.S.)							
<b>Power</b>	Rechargeable Ni-Cad battery or AC adapter/charger							
<b>Auto Power Shut-Off</b>	Yes (not active if adapter/charge is in use)							
<b>Battery Charge</b>	12 hours (when fully charged)							
<b>Recharge Time</b>	Approximately 18 hours when fully discharged							
<b>Temperature Range</b>	32 - 104°F (0 - 40°C)							
<b>Dimensions</b>	5.8 x 3 x 1.5" (147 x 75 x 38 mm)							
<b>Product Weight</b>	Approx. 1 lb (450 g)							
<b>Package Weight</b>	Approx. 2.25 lb ( 1.02 kg) for 0.5 lb and 1 lb ranges; 2.4 lb (1.09 kg) for 2 to 100 lb ranges							
<b>Certification</b>	CE							
<b>Included Accessories</b>	AC adapter/charger, carrying case, hook, chisel, flat head, notched head, hanger, cone head, thread Adapter, extension rod							

## Ordering Details

<b>FGE-0.5X</b>	0.5 lb capacity digital force gauge
<b>FGE-1X</b>	1 lb capacity digital force gauge
<b>FGE-2X</b>	2 lb capacity digital force gauge
<b>FGE-5X</b>	5 lb capacity digital force gauge
<b>FGE-10X</b>	10 lb capacity digital force gauge
<b>FGE-20X</b>	20 lb capacity digital force gauge
<b>FGE-50X</b>	50 lb capacity digital force gauge
<b>FGE-100X</b>	100 lb capacity digital force gauge
<b>NIST-FG</b>	NIST traceable certificate of calibration for ranges from 0.5 to 100 lbs
<b>FGE-PT100</b>	100 lb capacity FGE-X in ergonomic testing kit. Kit includes all of the standard FGE-X accessories but comes with larger, heavy duty case and adds padded ERGO accessories, handle, and NIST traceable certificate

## Accessories

<b>FG-M4ADP</b>	Standard adapter set with M4 threads for ranges 0.5 lb and 1 lb. Includes: chisel, cone, flat head, notched head, hook, extension rod
<b>FG-M4CL</b>	Chisel adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4CN</b>	Cone head adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4FL</b>	Flat head adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4GV</b>	Notched head adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4HK</b>	Hook adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4RD</b>	Extension rod adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M6ADP</b>	Standard adapter set with M6 threads for ranges 2 lb to 200 lb. Includes: chisel, cone, flat head, notched head, hook, extension rod
<b>FG-M6CL</b>	Chisel adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6CN</b>	Cone head adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6FL</b>	Flat head adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6GV</b>	Notched head adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6HK</b>	Hook adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6RD</b>	Extension rod adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-09V120UC</b>	Universal charger adapter for 120/240V AC
<b>ERGO-KIT</b>	Padded accessory kit for ergonomic testing
<b>FG-HANDLE</b>	Handle adapter for larger loads

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### FGE-XY Digital Force Gauges

#### **Digital Force Gauges with 180° reversible display & dual labeled keypad for both push, pull applications**

The Series FGE-XY Digital Force Gauges combine a rugged, ergonomic and compact design with exceptional accuracy to provide a solid force testing instrument. These instruments are utilized in a variety of applications such as, incoming quality inspection, finished goods testing, R&D or almost any portable or force stand testing requirement.

Simple one button adjustment alters units, while pressing the peak button quickly produces the highest recorded value during the test. The 180° reversible display combined with the adjustable force direction and dual labeled keypad enable the FGE-XY to excel in both compression and tension applications in any direction. Models are available from 0.5 lbs to 200 lb ranges providing a large offering for various testing requirements.

Typical applications include wallboard, wire pull, wire crimps, trigger pull, brake pedal, aerospace ceramic, springs, food ripeness, corrugated paper strength, blister pack, medical component, muscle strength, ergonomic testing, adhesives, syringe plunger, needle sharpness and many more.



#### **Features**

- 1000 Hz Sample Rate provides faster sampling producing better resolution and more accurate results
- Ideal for strict tolerances with its high accuracy  $\pm 0.2\%$  F.S.
- Measure and record compression and tension tests- permits true "push-pull" testing
- Real time or Peak Hold mode easily selectable with a single button push
- 180° Reversible display and dual printed keypad allows usage as a portable gauge or mounted upside down on a test stand.
- 1 million operation load cell with superior overload protection provides a long-life, damage free product
- Rugged, ergonomic die cast aluminum construction allows usage on production floor
- Variable display response rate aids viewing readings
- Flexible user preference with one button selection of engineering units
- Dual power capable with rechargeable battery or AC line voltage
- CE Mark & RoHS Approval



FGE-XY with Accessories  
in Protective Carrying Case

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## FGE-XY Specifications

FGE-XY Model	FGE-0.5XY	FGE-1XY	FGE-2XY	FGE-5XY	FGE-10XY	FGE-20XY	FGE-50XY	FGE-100XY	FGE-200XY
<b>Capacity</b>	8 oz 0.5 lb 200.0 g 2.000 N	16 oz 1 lb 500.0 g 5.000 N	32 oz 2 lb 1,000 g 10.00 N	5 lb 2.000 Kg 20.00 N	10 lb 5.000 Kg 50.00 N	20 lb 10.00 Kg 100.0 N	50 lb 20.00 Kg 200.0 N	100 lb 50.00 Kg 500.0 N	200 lb 100 Kg 1000N
<b>Resolution</b>	0.01 oz 0.001 lb 0.1 g 0.001 N	0.01 oz 0.001 lb 0.1 g 0.001 N	0.01 oz 0.001 lb 1 g 0.01 N	0.001 lb 0.001 Kg 0.01 N	0.01 lb 0.001 Kg 0.01 N	0.01 lb 0.01 Kg 0.1 N	0.01 lb 0.01 Kg 0.1 N	0.1 lb 0.01 Kg 0.1 N	0.1 lb 0.1 Kg 1N
<b>Accuracy</b>	±0.2% F.S. @ 73°F (23°C)								
<b>Display</b>	4-Digit LCD, 0.5" (12 mm) high, Units 0.29" (7 mm). Reversible. Minus sign for tension								
<b>Display Update</b>	0.05, 0.1, 0.2, 0.3, 0.5, 1 sec								
<b>Sampling Rate</b>	1000 Hz								
<b>Overload Capacity</b>	200% of F.S. (200 lb.: 150% F.S.)								
<b>Power</b>	Rechargeable Ni-MH battery or universal AC adapter/charger (100 - 240 VAC, 50/60 Hz)								
<b>Auto Power Shut-Off</b>	Yes (not active if adapter/charge is in use)								
<b>Battery Charge</b>	12 hours (when fully charged)								
<b>Recharge Time</b>	Approximately 18 hours (when fully discharged)								
<b>Temperature Limits</b>	32 - 104°F (0 - 40°C)								
<b>Dimensions</b>	5.8 x 3 x 1.5" (147 x 75 x 38 mm)								
<b>Product Weight</b>	Approx. 1 lb (450 g); FGE-200XY Approx. 1.1 lb (500 g)								
<b>Package Weight</b>	Approx. 2.25 lb ( 1.02 kg) for 0.5 lb and 1 lb ranges; 2.4 lb (1.09 kg) for 2 to 100 lb ranges; 2.75 lb (1.25 kg) for 200 lb range.								
<b>Certification</b>	CE, RoHS								
<b>Included Accessories</b>	AC adapter/charger, carrying case, hook, chisel, flat head, notched head, hanger, cone head, metric to inch thread adapter, extension rod								

## Ordering Details

<b>FGE-0.5XY</b>	0.5 lb capacity digital force gauge
<b>FGE-1XY</b>	1 lb capacity digital force gauge
<b>FGE-2XY</b>	2 lb capacity digital force gauge
<b>FGE-5XY</b>	5 lb capacity digital force gauge
<b>FGE-10XY</b>	10 lb capacity digital force gauge
<b>FGE-20XY</b>	20 lb capacity digital force gauge
<b>FGE-50XY</b>	50 lb capacity digital force gauge
<b>FGE-100XY</b>	100 lb capacity digital force gauge
<b>FGE-200XY</b>	200 lb capacity digital force gauge
<b>NIST-FG</b>	NIST traceable certificate of calibration for ranges from 0.5 to 100 lbs
<b>NIST-FG-HX</b>	NIST traceable certificate of calibration for ranges from 200 to 1000 lbs
<b>FGE-PT100</b>	100 lb capacity FGE-XY in ergonomic testing kit. Kit includes all of the standard FGE-XY accessories but comes with larger, heavy duty case and adds padded ERGO accessories, handle, and NIST traceable certificate
<b>FGE-PT200</b>	200 lb capacity FGE-XY in ergonomic testing kit. Kit includes all of the standard FGE-XY accessories but comes with larger, heavy duty case and adds padded ERGO accessories, handle, and NIST traceable certificate

## Accessories

<b>FG-M4ADP</b>	Standard adapter set with M4 threads for ranges 0.5 lb and 1 lb. Includes: chisel, cone, flat head, notched head, hook, extension rod
<b>FG-M4CL</b>	Chisel adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4CN</b>	Cone head adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4FL</b>	Flat head adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4GV</b>	Notched head adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4HK</b>	Hook adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4RD</b>	Extension rod adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M6ADP</b>	Standard adapter set with M6 threads for ranges 2 lb to 200 lb. Includes: chisel, cone, flat head, notched head, hook, extension rod
<b>FG-M6CL</b>	Chisel adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6CN</b>	Cone head adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6FL</b>	Flat head adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6GV</b>	Notched head adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6HK</b>	Hook adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6RD</b>	Extension rod adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-09V120UC</b>	Universal charger adapter for 120/240V AC
<b>ERGO-KIT</b>	Padded accessory kit for ergonomic testing
<b>FG-HANDLE</b>	Handle adapter for larger loads

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### FGE-HXY High Capacity Digital Force Gauges

#### **High Capacity Digital Force Gauges with 180° reversible display & dual labeled keypad for both push, pull applications**

The Series FGE-HXY Digital Force Gauges offer an enhanced heavy-duty housing allowing them to be utilized in high capacity tension and compression applications. Simple one button adjustment alters units, while pressing the peak button quickly produces the highest recorded value during the test. The 180° reversible display combined with the adjustable force direction and dual labeled keypad enable the FGE-HXY to excel in both compression and tension applications in any direction. These instruments are utilized in a variety of applications such as, incoming quality inspection, finished goods testing, R&D, ergonomic and isokinetic testing or almost any portable or force stand testing requirement.

Models are available in 500 lb ranges providing necessary performance for high capacity testing.



FGE-HXY

#### **Features**

- 1000 Hz Sample Rate provides faster sampling producing better resolution and more accurate results
- Ideal for strict tolerances with its high accuracy  $\pm 0.2\%$  F.S.
- Measure and record compression and tension tests. Permits true "push-pull" testing
- 180° Reversible display and dual printed keypad allows usage as a portable gauge or mounted upside down on a test stand
- 1 million operation load cell with superior overload protection provides a long-life, damage free product
- High-capacity rugged, ergonomic die cast aluminum construction allows usage on production floor
- Variable display response rate aids viewing of readings
- Real Time or Peak hold mode easily selectable with a single button push
- Flexible user preference with one button selection of engineering units
- Field calibration through keypad eliminates down time
- Dual power capable with rechargeable battery or AC line voltage
- CE Mark & RoHS Approval



FGE-HXY with Accessories  
in Protective Carrying Case

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## FGE-HXY Specifications

<b>Capacity</b>	500 lb, 250 kg, 2500 N
<b>Resolution</b>	0.1 lb/0.1 kg/1 N
<b>Accuracy</b>	±0.2% F.S. @ 73°F (23°C)
<b>Display</b>	4-digit LCD, 0.5" high (12 mm) Units 0.29" (7 mm). Reversible. Minus sign for tension.
<b>Display Update</b>	0.05, 0.1, 0.2, 0.3, 0.5, 1 sec
<b>Sampling Rate</b>	1000 Hz
<b>Overload Capacity</b>	150% of F.S.
<b>Power</b>	Rechargeable Ni-MH battery or universal AC adapter/charger (100-240 VAC, 50/60 Hz)
<b>Auto Power Shut-Off</b>	Yes (not active if adapter/charge is in use)
<b>Battery Charge</b>	12 hours (when fully charged)
<b>Recharge Time</b>	Approximately 18 hours when fully discharged
<b>Temperature Limit</b>	32 - 104°F (0 - 40°C)
<b>Dimensions</b>	8.43" x 3.23" x 2.25" (214 x 82 x 57 mm)
<b>Product Weight</b>	Approx. 2 lb (900 g)
<b>Package Weight</b>	Approx. 7.45 lb (3.38 kg)
<b>Certification</b>	CE, RoHS
<b>Warranty</b>	2 year
<b>Included Accessories</b>	AC adapter/charger, carrying case, 2 handles, hanger, metric thread to inch adapter and attachments (flat head, hook, chisel, notched head, cone head, extension rod)

## Ordering Details

<b>FGE-500HXY</b>	500 lb high capacity digital force gauge
<b>NIST-FG-HX</b>	NIST traceable calibration certificate for ranges 200 to 1000 lbs.
<b>FGE-PT500</b>	500 lb capacity FGE-HXY in ergonomic testing kit. Kit includes all the standard FGE-HXY accessories but adds padded ERGO accessories and NIST traceable certificate.

## Accessories

<b>FG-M10ADP</b>	Standard adapter set with M10 threads for ranges Includes: chisel, cone, flat head, notched head, hook, extension rod
<b>FG-M10CL</b>	Chisel adapter with M10 thread for ranges
<b>FG-M10CN</b>	Cone head adapter with M10 thread for ranges
<b>FG-M10FL</b>	Flat head adapter with M10 thread for ranges
<b>FG-M10GV</b>	Notched head adapter with M10 thread for ranges
<b>FG-M10HK</b>	Hook adapter with M10 thread for ranges
<b>FG-M10RD</b>	Extension rod adapter with M10 thread for ranges
<b>FG-09V120UC</b>	Universal charger adapter for 120/240V AC

Note: Additional accessory adapters available. Please contact the factory.



**FGE-HXY with  
included handles**

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### FGV-XY DART 2.0 Digital Force Gauges

#### **Digital Force Gauges with 180° reversible display & dual labeled keypad for both push, pull applications**

The Series FGV-XY DART 2.0 Force Gauges combine a rugged, ergonomic and compact design to provide a complete force testing instrument. These instruments are utilized in a variety of applications such as, incoming quality inspection, finished goods testing, R&D or almost any portable or force stand testing requirement.

Onboard statistical calculations provide fast access to maximum, minimum, average and standard deviation data. Units include the free Toriemon USB software and USB cable allowing further data analysis on a PC. The 1,000 point memory allows for data exporting in real time or after testing is complete. In addition, the RS-232C and analog outputs provide the DART 2.0 with maximum communication flexibility. Models are available from 0.5 lbs to 200 lb ranges providing a large offering for various testing requirements. The 180° reversible display combined with the adjustable force direction and dual labeled keypad enable the FGE-XY to excel in both compression and tension applications in any direction.

Typical applications include wallboard, wire pull, wire crimps, trigger pull, brake pedal, aerospace ceramic, springs, food ripeness, corrugated paper strength, blister pack, medical component, muscle strength, ergonomic testing, adhesives, syringe plunger, needle sharpness and many more.



**FGV-XY with Memory & Data Output**

#### **Features**

- 1000 Hz Sample Rate provides faster sampling producing better resolution and more accurate results
- Ideal for strict tolerances with its high accuracy  $\pm 0.2\%$  F.S.
- Measure and record compression and tension tests- permits true "push-pull" testing
- 180° Reversible display and dual printed keypad allows usage as a portable gauge or mounted upside down on a test stand
- Maximum data collection flexibility with 3 outputs: USB, RS-232 & Analog Output
- 1 million operation load cell with superior overload protection provides a long-life, damage free product
- Rugged, ergonomic die cast aluminum construction allows usage on production floor
- On board statistics provides immediate results and analysis of test data
- Variable display response rate aids viewing readings
- Expanded memory for reviewing data points and transferring to PC/Laptop
- Built In Hi-Lo Comparator function provides user with easy 'Go-No Go' Testing
- Quick retrieval of peak measurement with a single push button
- Flexible user preference with one button selection of up to 4 engineering units
- Dual power capable with rechargeable battery or AC line voltage
- Field Calibration through keypad eliminates down time
- CE Mark



**FGV-XY 2.0 Kit with Standard Accessories**

## FGV-XY Specifications

FGV-XY Model	FGV-0.5XY	FGV-1XY	FGV-2XY	FGV-5XY	FGV-10XY	FGV-20XY	FGV-50XY	FGV-100XY	FGV-200XY
<b>Capacity</b>	8 oz 0.5 lb 200.0 g 2.000 N	16 oz 1 lb 500.0 g 5.000 N	32 oz 2 lb 1,000 g 10.00 N	5 lb 2.000 Kg 20.00 N	10 lb 5.000 Kg 50.00 N	20 lb 10.00 Kg 100.0 N	50 lb 20.00 Kg 200.0 N	100 lb 50.00 Kg 500.0 N	200 lb 100 Kg 1000N
<b>Resolution</b>	0.01 oz 0.001 lb 0.1 g 0.001 N	0.01 oz 0.001 lb 0.1 g 0.001 N	0.01 oz 0.001 lb 1 g 0.01 N	0.001 lb 0.001 Kg 0.01 N	0.01 lb 0.001 Kg 0.01 N	0.01 lb 0.01 Kg 0.1 N	0.01 lb 0.01 Kg 0.1 N	0.1 lb 0.01 Kg 0.1 N	0.1 lb 0.1 Kg 1N
<b>Accuracy</b>	±0.2% F.S.								
<b>Display</b>	4-Digit LCD, 0.5" (12 mm) high, Units 0.29" (7 mm). Reversible by the push of a button. Minus sign for tension								
<b>Display Update</b>	0.05, 0.1, 0.2, 0.3, 0.5, 1 sec								
<b>Sampling Rate</b>	1000 Hz								
<b>Overload</b>	200% of F.S. (200 lb.: 150% F.S.)								
<b>Power</b>	Rechargeable Ni-MH battery or universal AC adapter/charger (100-240VAC, 50-60Hz)								
<b>Output</b>	Analog: ±1 VDC (through a 12 bit D/A converter) RS232C: Baud rate (19200, 9600, 4800, 2400 bps selectable), commands control USB: Allows communication between FGV-XY and Windows® PC Software with Toriemon USB via USB cable (included) Overload Comparator: Open-collector output (Max DC30V/5mA)								
<b>Auto Power Shut-Off</b>	Yes (not active if adapter/charge is in use)								
<b>Battery Charge</b>	12 hours (when fully charged)								
<b>Recharge Time</b>	Approximately 18 hours when fully discharged								
<b>Temperature Range</b>	32 - 104°F (0 - 40°C)								
<b>Dimensions</b>	5.8 x 3 x 1.5" (147 x 75 x 38 mm)								
<b>Product Weight</b>	Approx. 1 lb (450 g); FGV-200XY Approx. 1.1 lb (500 g)								
<b>Package Weight</b>	Approx. 2.4 lb ( 1.09 kg) for 0.5 lb and 1 lb ranges; 2.6 lb (1.12 kg) for 2 to 100 lb ranges; 2.75 lb (1.25 kg) for 200 lb range.								
<b>Certification</b>	CE								
<b>Warranty</b>	2-Year								
<b>Included Accessories</b>	AC adapter/charger, carrying case, hook, chisel, flat head, notched head, hanger, cone head, thread Adapter, extension rod, USB cable. (Note: software available at <a href="http://www.shimpoint.com">www.shimpoint.com</a> for free download)								

## Ordering Details

<b>FGV-0.5XY</b>	0.5 lb capacity digital force gauge
<b>FGV-1XY</b>	1 lb capacity digital force gauge
<b>FGV-2XY</b>	2 lb capacity digital force gauge
<b>FGV-5XY</b>	5 lb capacity digital force gauge
<b>FGV-10XY</b>	10 lb capacity digital force gauge
<b>FGV-20XY</b>	20 lb capacity digital force gauge
<b>FGV-50XY</b>	50 lb capacity digital force gauge
<b>FGV-100XY</b>	100 lb capacity digital force gauge
<b>FGV-200XY</b>	200 lb capacity digital force gauge
<b>NIST-FG</b>	NIST traceable certificate of calibration for ranges from 0.5 to 100 lbs
<b>NIST-FG-HC</b>	NIST traceable certificate of calibration for ranges 200 lbs to 1000 lbs
<b>FGV-PT100 or FGV-PT200</b>	100 lb or 200 lb capacity FGV-XY in ergonomic testing kit. Kit includes all of the standard FGV-XY accessories but comes with larger, heavy duty case and adds padded ERGO accessories, handle, and NIST traceable certificate

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## Accessories

<b>FG-M4ADP</b>	Standard adapter set with M4 threads for ranges 0.5 lb and 1 lb. Includes: chisel, cone, flat head, notched head, hook, extension rod
<b>FG-M4CL</b>	Chisel adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4CN</b>	Cone head adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4FL</b>	Flat head adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4GV</b>	Notched head adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4HK</b>	Hook adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M4RD</b>	Extension rod adapter with M4 thread for ranges 0.5 lb and 1 lb.
<b>FG-M6ADP</b>	Standard adapter set with M6 threads for ranges 2 lb to 200 lb. Includes: chisel, cone, flat head, notched head, hook, extension rod
<b>FG-M6CL</b>	Chisel adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6CN</b>	Cone head adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6FL</b>	Flat head adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6GV</b>	Notched head adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6HK</b>	Hook adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-M6RD</b>	Extension rod adapter with M6 thread for ranges 2 lb to 200 lb.
<b>FG-09V120UC</b>	Universal charger adapter for 120/240V AC
<b>ERGO-KIT</b>	Padded accessory kit for ergonomic testing
<b>FG-HANDLE</b>	Handle adapter for larger loads
<b>FGV-ANALOG</b>	±1 VDC analog output connection cable



# SHIMPO INSTRUMENTS

Measuring Quality

## FGV/E-HX DART 2.0 High Capacity Digital Force Gauges

### **High Capacity Digital Force Gauges with 180° reversible display & dual labeled keypad for both push, pull applications**

The Series FGV-HX & FGE-HX Digital Force Gauges offer an enhanced heavy-duty housing allowing them to be utilized in high capacity tension and compression applications. These instruments are utilized in a variety of applications such as, incoming quality inspection, finished goods testing, R&D or almost any portable or force stand testing requirement.

Models are available in 200, 500 or 1000 lb ranges providing necessary performance for high capacity testing. The 180° reversible display combined with the adjustable force direction and dual labeled keypad enable these units to excel in both compression and tension applications in any direction.

The FGV-HX's add the free Toriemon software allowing further data analysis on a PC. In addition, the RS-232C and analog outputs provide maximum communication flexibility.



### **Features**

- 1000 Hz Sample Rate provides faster sampling producing better resolution and more accurate results
- Ideal for strict tolerances with its high accuracy  $\pm 0.2\%$  F.S.
- Measure and record compression and tension tests. Permits true "push-pull" testing
- 180° Reversible display and dual printed keypad allows usage as a portable gauge or mounted upside down on a test stand
- 1 million operation load cell with superior overload protection provides a long-life, damage free product
- High-capacity rugged, ergonomic die cast aluminum construction allows usage on production floor
- Variable display response rate aids viewing readings
- Quick retrieval of peak measurement with a single push button in test stand
- Flexible user preference with one button selection of engineering units
- Field calibration through keypad eliminates down time
- Dual power capable with rechargeable battery or AC line voltage
- CE Mark

FGV Models Additionally Include:

- Maximum data collection flexibility with 2 outputs: RS-232 & Analog Output



FGV-HXY with Accessories  
in Protective Carrying Case

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## FGE-HX & FGV-HX Specifications

<b>Capacity</b>	-200HX: 200 lb, 100 kg, 1000 N; -500HX: 500 lb, 250 kg, 2500 N; -1000HX: 1000 lb, 453.6 kg, 4448 N
<b>Resolution</b>	0.1 lb/0.1 kg/1 N
<b>Accuracy</b>	±0.2% F.S.
<b>Display</b>	Four digit LCD, .47" high (12 mm) with various indicators including tension and low battery indication (reversible) Minus sign for tension
<b>Average/Peak Mode</b>	Selectable
<b>Display Update</b>	0.05, 0.1, 0.2, 0.3, 0.5, 1 sec
<b>Sampling Rate</b>	1000 Hz
<b>Overload Capacity</b>	150% of F.S.
<b>Power</b>	Rechargeable Ni-Cad batteries (included) or AC adapter/charger (included)
<b>Auto Power Shut-Off</b>	Yes (not active if adapter/charge is in use)
<b>Battery Charge</b>	12 hours (when fully charged)
<b>Temperature Range</b>	32 - 104°F (0 - 40°C)
<b>Dimensions</b>	8.43" x 3.23" x 2.15" (214 x 82 x 54.5 mm)
<b>Product Weight</b>	Approx. 2 lb (900 kg) for 500 lb range; 2.65 lb (1.20 kg) for 1000 lb range
<b>Package Weight</b>	Approx. 7.45 lb (3.38 kg) for 500 lb range; 8.25 lb (3.74 kg) for 1000 lb range
<b>Certification</b>	CE
<b>Warranty</b>	2-Year
<b>Included Accessories</b>	AC adapter/charger, carrying case, 2 handles, metric thread to inch adapter and attachments (flat head, hook, chisel, notched head, cone head, extension rod), RS-232 cable. RS-232 cable is included with FGV-HX series only. Note: software available at <a href="http://www.shimpointst.com">www.shimpointst.com</a> for free download

## Ordering Details

<b>FGE-200HX</b>	200 lb high capacity digital force gauge
<b>FGE-500HX</b>	500 lb high capacity digital force gauge
<b>FGV-500HX</b>	500 lb high capacity digital force gauge with data output
<b>FGV-1000HX</b>	1000 lb high capacity digital force gauge with data output
<b>NIST-FG-HC</b>	NIST traceable calibration certificate

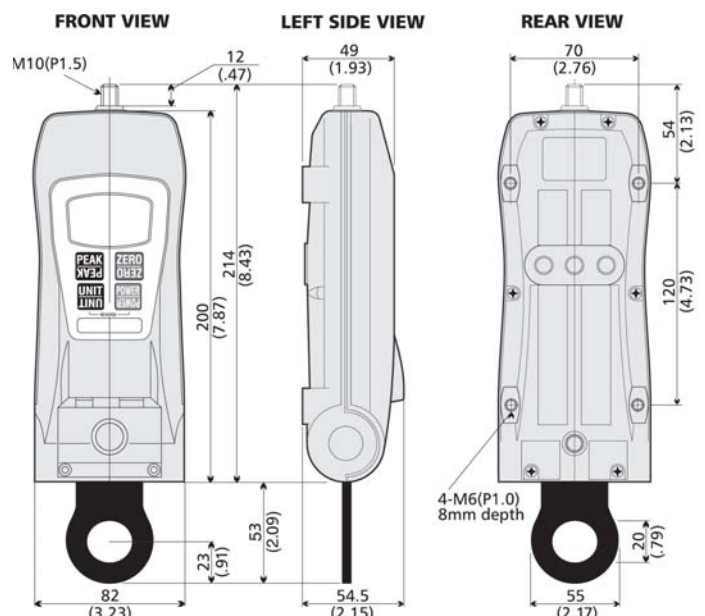
## Accessories

<b>FG-M10ADP</b>	Standard adapter set with M10 threads for ranges Includes: chisel, cone, flat head, notched head, hook, extension rod
<b>FG-M10CL</b>	Chisel adapter with M10 thread for ranges
<b>FG-M10CN</b>	Cone head adapter with M10 thread for ranges
<b>FG-M10FL</b>	Flat head adapter with M10 thread for ranges
<b>FG-M10GV</b>	Notched head adapter with M10 thread for ranges
<b>FG-M10HK</b>	Hook adapter with M10 thread for ranges
<b>FG-M10RD</b>	Extension rod adapter with M10 thread for ranges
<b>FG-09V120UC</b>	Universal charger adapter for 120/240V AC

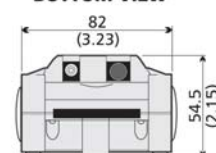
Note: Additional accessory adapters available. Please contact the factory.

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## FGE-HX & FGV-HX Dimensions



**BOTTOM VIEW**



mm (inches)

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### FGV-HXY High Capacity Digital Force Gauges

**High Capacity Digital Force Gauges with 180° reversible display & dual labeled keypad for both push, pull applications.** The Series FGV-HXY Digital Force Gauges offer an enhanced heavy-duty housing allowing them to be utilized in high capacity tension and compression applications. These instruments are utilized in a variety of applications such as, incoming quality inspection, finished goods testing, R&D or almost any portable or force stand testing requirement.

Models are available in 500 lb or 1000 lb ranges providing necessary performance for high capacity testing.

The 180° reversible display combined with the adjustable force direction and dual labeled keypad enable these units to excel in both compression and tension applications in any direction. FGV models possess onboard statistical calculations and provide fast access to maximum, minimum, average and standard deviation data. Models include the free Toriemon software and USB cable allowing further data analysis on a PC. The FGV-HXY's 1,000 point memory allows for data exporting in real time or after testing is complete. In addition, the RS-232C, USB and analog outputs provide maximum communication flexibility.



**FGV-HXY  
with Memory  
& Data Output**

#### Features

- 1000 Hz Sample Rate provides faster sampling producing better resolution and more accurate results
- Ideal for strict tolerances with its high accuracy  $\pm 0.2\%$  F.S.
- Measure and record compression and tension tests. Permits true "push-pull" testing
- 180° Reversible display and dual printed keypad allows usage as a portable gauge or mounted upside down on a test stand
- Included handle attachment aid in testing heavy loads
- 1 million operation load cell with superior overload protection provides a long-life, damage free product
- High-capacity rugged, ergonomic die cast aluminum construction allows usage on production floor
- Variable display response rate aids viewing readings
- Quick retrieval of peak measurement with a single push button in test stand
- Flexible user preference with one button selection of engineering units
- Field calibration through keypad eliminates down time
- On board statistics provides immediate results and analysis of test data
- Dual power capable with rechargeable battery or AC line voltage
- Include data collection flexibility with 3 outputs: USB, RS-232 & Analog Output
- Expanded memory for reviewing data points and transferring to PC/Laptop
- Provide Built In Hi-Lo Comparator function provides user with easy 'Go-No Go' Testing
- CE Mark & RoHS Approval



**FGV-HXY with Accessories  
in Protective Carrying Case**

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## FGV-HXY Specifications

<b>Capacity</b>	-500HXY: 500 lb, 250 kg, 2500 N; -1000HXY: 1000 lb, 500 kg, 4448 N
<b>Resolution</b>	0.1 lb/0.1 kg/1 N
<b>Accuracy</b>	±0.2% F.S.
<b>Display</b>	Four digit LCD, .47" high (12 mm) with various indicators including tension and low battery indication (reversible) Minus sign for tension
<b>Average/Peak Mode</b>	Selectable
<b>Display Update</b>	0.05, 0.1, 0.2, 0.3, 0.5, 1 sec
<b>Sampling Rate</b>	1000 Hz
<b>Overload Capacity</b>	150% of F.S.
<b>Power</b>	Rechargeable Ni-Cad batteries (included) or AC adapter/charger (included)
<b>Auto Power Shut-Off</b>	Yes (not active if adapter/charge is in use)
<b>Battery Charge</b>	17 hours (when fully charged)
<b>Temperature Range</b>	32 - 104°F (0 - 40°C)
<b>Dimensions</b>	8.43" x 3.23" x 2.25" (214 x 82 x 57 mm)
<b>Product Weight</b>	Approx. 2 lb (900 g) for 500 lb range; 2.65 lb (1.20 kg) for 1000 lb range
<b>Package Weight</b>	Approx. 7.45 lb (3.38 kg) for 500 lb range; 8.25 lb (3.74 kg) for 1000 lb range
<b>Certification</b>	CE, RoHS
<b>Warranty</b>	2-Year
<b>Included Accessories</b>	AC adapter/charger, carrying case, 2 handles, metric thread to inch adapter and attachments (flat head, hook, chisel, notched head, cone head, extension rod), USB cable Note: software available at <a href="http://www.shimpoint.com">www.shimpoint.com</a> for free download

## Ordering Details

<b>FGV-500HXY</b>	500 lb (250 kg) high capacity digital force gauge
<b>FGV-1000HXY</b>	1000 lb (500 kg) high capacity digital force gauge
<b>NIST-FG-HC</b>	NIST traceable calibration certificate

## Accessories

<b>FG-M10ADP</b>	Standard adapter set with M10 threads for ranges Includes: chisel, cone, flat head, notched head, hook, extension rod
<b>FG-M10CL</b>	Chisel adapter with M10 thread for ranges
<b>FG-M10CN</b>	Cone head adapter with M10 thread for ranges
<b>FG-M10FL</b>	Flat head adapter with M10 thread for ranges
<b>FG-M10GV</b>	Notched head adapter with M10 thread for ranges
<b>FG-M10HK</b>	Hook adapter with M10 thread for ranges
<b>FG-M10RD</b>	Extension rod adapter with M10 thread for ranges
<b>FG-09V120UC</b>	Universal charger adapter for 120/240 V ac
<b>FGV-ANALOG</b>	±1 V dc analog output connection cable
<b>FGV-RS-232</b>	RS-232 output cable

Note: Additional accessory adapters available. Please contact the factory.



**FGV-HXY with included handles.**

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### FG-3000 Digital Force Gauge

**The new FG-3000 Series digital force gauges are the choice for simple, cost-effective tension and 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 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 streamlines switching from push to pull testing for portable or test stand applications.

These high-tech instruments can log up to 500 readings at the push of a button for instant data acquisition. The data can be viewed on screen, sent to optional printer, or uploaded on the free software program for graphing and statistical analysis. Models are available from 2.2 to 220 lb ranges providing a large offering for various applications such as, incoming quality inspection, finished goods testing, R&D or almost any portable or force stand testing requirement.



**FG-3000 with Accessories  
in Protective Carrying Case**

#### Features

- 1000 Hz Sample Rate combined with  $\pm 0.3\%$  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
- Calibration Certificate included along with popular adapter attachments
- Free Data logging/graphing software available for free download on website

## FG-3000 Specifications

Accuracy	± 0.3% F.S.
Selectable Units	N, kgf, ozf, and lbf. (Depending on Range)
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 Backlight
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	3.6VDC 800mAH Ni-MH rechargeable batteries
Battery Life	Approximately 16 hours continuous use per full charge
Charger / Adaptor	Universal USB/BM charger, Input: 110 ~ 240VAC
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)
Product Weight	0.9 lb (0.4 kg)
Package Weight	2.25 lb (1 kg)
Warranty	1 year
Included Accessories	AC Adaptor/Charger, USB cable, calibration cert., 6 attachments: hook, flat tip, conical tip, chisel tip, notched tip, extension shaft.

## Ordering Details

Model		N	kgf	ozf	lbf
FG-3003	Capacity	10.000	1.0000	35.00	2.2000
	Resolution	0.001	0.0001	0.01	0.0005
FG-3005	Capacity	50.000	5.0000	180.00	11.000
	Resolution	0.005	0.0005	0.05	0.001
FG-3006	Capacity	100.00	10.000	350.0	22.000
	Resolution	0.01	0.001	0.1	0.005
FG-3008	Capacity	500.00	50.000	1800.0	110.00
	Resolution	0.05	0.005	0.5	0.01
FG-3009	Capacity	1000.0	100.00	3500	220.00
	Resolution	0.1	0.01	1	0.05

## Accessories

FG-7CHRG	Charger
FG-7USB	USB Cable
FG-HK	Hook Adapter (M6)
FG-7FL	Flat Adapter (M6)
FG-7CN	Cone Adapter (M6)
FG-7CL	Chisel Adapter (M6)
FG-7GV	Notched Adapter (M6)
FG-7RD	Extension Rod (M6)
FG-PRINT	Portable Thermal Printer

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### FG-7000 Digital Force Gauge

**The new FG-7000 Series digital force gauges are loaded with functionality to simplify your compression and tension testing needs.**

The multiple-language FG-7000's provide menu programming for easy selection and set-up of the instrument to your desired requirements. Three modes of operation are selectable: Track mode for live readings, Peak mode for displaying the peak reading that remains until a higher peak is sensed, and Auto Peak mode which is similar to Peak mode except the peak on the display will additionally reset after a programmed time period. Programmable limits provide a quick visual and audible indication if a test passed or failed on the LCD. In addition, the comparator output can be set up for integration of the instrument into your quality system for repetitive testing such as on a production line.

These high-tech instruments can easily 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.

The FG-7000's robust housings are designed to fit perfectly in the operator's hand for portable testing. The large backlit, 180° auto-reversible display, compression/tension icons, combined with the dual labeled key pad allows for instant switching from push to pull testing for portable or test stand applications. Models are available from 0.5 lbs to 220 lb ranges providing a large offering for various applications such as, incoming quality inspection, finished goods testing, R&D or almost any portable or force stand testing requirement.



**FG-7000 with Accessories  
in Protective Carrying Case**

#### Features

- 1000 Hz Sample Rate combined with  $\pm 0.2\%$  F.S. accuracy provides fast sampling producing great resolution and more accurate results
- Three mode operation: Track, Peak & Auto-Peak
- 180° Auto-reversible display, tension/compression icons, and dual 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.
- 1000 point data collection capability can be viewed on display, sent to optional printer, or uploaded to software package via USB or RS-232 Serial Port 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 units selection provides flexible user comfort
- Field Calibration capability eliminates need to send to lab
- Calibration Certificate included along with popular adapter attachments
- Free Datalogging/graphing software available for free download on website



## FG-7000 Specifications

<b>Accuracy</b>	± 0.2% F.S.
<b>Selectable Units</b>	mN, N, gf, kgf, ozf, and lbf. (Depending on Range)
<b>Overload Capacity</b>	150% of F.S. (LCD flashes beyond 110% of F.S.)
<b>Measurement Method</b>	Peak, Autopeak or Track Mode
<b>Data Sampling Rate</b>	1000 Hz
<b>Display</b>	2.1 x 1.6" (54 x 40 mm); dot matrix LCD with LED Backlight
<b>Display Update Rate</b>	10 times/second
<b>Resolution</b>	See chart
<b>Memory</b>	1000 data
<b>Set Point</b>	Programmable high and low limits
<b>Battery Indicator</b>	Display flashes battery icon when battery is low
<b>Power</b>	3.6VDC 800mAH Ni-MH rechargeable batteries
<b>Battery Life</b>	Approximately 16 hours continu- ous use per full charge
<b>Charger / Adaptor</b>	Universal USB/BM charger, Input: 110 ~ 240VAC
<b>Temperature Effects</b>	<0.054% per °F (0.03% FS per °C)
<b>Outputs</b>	USB, Serial Port RS-232, High & Low Limit NPN
<b>Operating Temperature</b>	14 to 104°F (-10 to 40°C)
<b>Storage Relative Humidity</b>	20 to 80%
<b>Housing</b>	Aluminum
<b>Storage Temperature</b>	-4 to 122°F (-20 to 50°C)
<b>Oper. Relative Humidity</b>	5 to 95%
<b>Dimensions</b>	5.7 x 2.9 x 1.4" (145 x 73 x 35.5 mm)
<b>Product Weight</b>	1.5 lb (0.7 kg)
<b>Package Weight</b>	2.8 lb (1.3 kg)
<b>Warranty</b>	1 year
<b>Included Accessories</b>	AC Adaptor/Charger, USB cable, calibration cert., 6 attach- ments: hook, flat tip, conical tip, chisel tip, notched tip, extension shaft.

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## Ordering Details

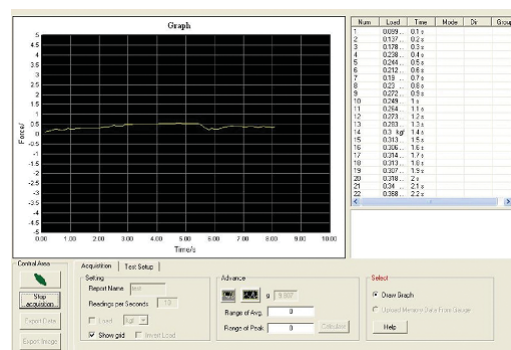
Model		mN	N	gf	kgf	ozf	lbf
FG-7001	Capacity	2000.0	2.0000	200.00	-	7.000	-
	Resolution	0.5	0.0005	0.05	-	0.001	-
FG-7002	Capacity	5000.0	5.0000	500.00	-	18.000	1.1000
	Resolution	0.5	0.0005	0.05	-	0.005	0.0001
FG-7003	Capacity	10000	10.000	1000.0	1.0000	35.00	2.2000
	Resolution	1	0.001	0.1	0.0001	0.01	0.0005
FG-7004	Capacity	20000	20.000	2000.0	2.0000	70.00	4.400
	Resolution	5	0.005	0.5	0.0005	0.01	0.001
FG-7005	Capacity	50000	50.000	5000.0	5.0000	180.00	11.000
	Resolution	5	0.005	0.5	0.0005	0.05	0.001
FG-7006	Capacity	-	100.00	10000	10.000	350.0	22.000
	Resolution	-	0.01	1	0.001	0.1	0.005
FG-7007	Capacity	-	200.00	20000	20.000	700.0	44.00
	Resolution	-	0.05	5	0.005	0.1	0.01
FG-7008	Capacity	-	500.00	50,000	50.000	1800.0	110.00
	Resolution	-	0.05	5	0.005	0.5	0.01
FG-7009	Capacity	-	1000.0	-	100.00	3500	220.00
	Resolution	-	0.1	-	0.01	1	0.05

## Accessories

<b>FG-7CHRG</b>	Charger
<b>FG-7USB</b>	USB Cable
<b>FG-HK</b>	Hook Adapter (M6)
<b>FG-7FL</b>	Flat Adapter (M6)
<b>FG-7CN</b>	Cone Adapter (M6)
<b>FG-7CL</b>	Chisel Adapter (M6)
<b>FG-7GV</b>	Notched Adapter (M6)
<b>FG-7RD</b>	Extension Rod (M6)
<b>FG-PRINT</b>	Portable Thermal Printer

## 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

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### Physical Therapy Kits with Digital Force Gauge

**For muscle strength and ergonomic force testing**, the Shimpo digital PT kits have just the right ingredients for the professional Physical Therapist, or Ergonomist. Lightweight, rugged and attractive, these kits are great for isokinetic testing and job task analysis. The PT kits with digital force gauges are ergonomically crafted and are easy to operate. In addition, the FGV-PT series kits are equipped with free software for Force data collection.

All kits are capable of displaying peak compression, tension or real time forces. These handsome padded kits are furnished with padded ERGO accessories, handle adapters and N.I.S.T. traceable certificates of calibration. The digital PT Kits are ideal for A.D.A. Compliance, workplace design and ergonomic studies.



Kit Shown in 100 or 200 lb.  
with FGE or FGV Gauge  
(NIST Certificate Included)

### Features

- Ranges from 100 to 500 lbs (50 to 250 kg)
- Large easy to read LCD display with units selection
- Peak hold tension and compression or real time force mode
- 180° Reversible display aids user operation in various test configurations
- Compact, ergonomic design is perfect for handheld use
- Outstanding  $\pm 0.2\%$  F.S. accuracy allows usage in strictest applications
- Rugged, die cast aluminum housing provides proper protection
- Operate with the rechargeable batteries or AC Power Adapter
- CE Mark & RoHS Approval



Digital force gauge (100 or 200 lb.) shown  
with attachable handle. 500 lb. models  
handles thread into body of gauge

## PT Kit Specifications

<b>Capacity</b>	FGE-PT100, FGV-PT100: 100 lb, 50 kg, 500 N FGE-PT200, FGV-PT200: 200 lb, 100 kg, 1000 N FGE-PT500, FGV-PT500: 500 lb, 250 kg, 2500 N
<b>Resolution</b>	FGV/FGE-PT100: 0.1 lb / 0.01 kg / 0.1 N FGV/FGE-PT200 & -PT500: 0.1 lb / 0.1 kg / 1 N
<b>Accuracy</b>	+/- 0.2% F.S. @ 73°F (23°C)
<b>Display</b>	Reversible 4-Digit LCD, 0.47" high (12 mm) with various indicators including tension and low battery indication
<b>Mode</b>	Real time or Peak hold mode
<b>Display Update</b>	Selectable
<b>Sampling Rate</b>	1000/sec
<b>Overload Capacity</b>	150% of F.S.; 200% of F.S. for 100 lb
<b>Power</b>	Rechargeable Ni-battery or universal AC adapter/charger (100 - 240 VAC 50/60 Hz)
<b>Auto Power Shut-Off</b>	Yes (not active if adapter/charge is in use)
<b>Temperature Limits</b>	32 to 104°F (0 to 40°C)
<b>Dimensions</b>	FGV/FGE-PT100, -PT200: 5.8" x 3" x 1.5" (147 x 75 x 38 mm) FGV/FGE-PT500: 8.43" x 3.23" x 2.25" (214 x 82 x 57 mm)
<b>Kit Weight</b>	PT100 Kits: 6.3 lb (2.85 kg) PT200 Kits: 6.65 lb (3 kg) PT500 Kits: 7.5 lb (3.4 kg)
<b>Kit Includes</b>	Force gauge, carrying case and attachments (hook, chisel, flat head, notched head, hanger, cone head, extension rod, metric to inch adapter), padded ERGO accessories, handle, AC adapter/charger, N.I.S.T. traceable certificate of calibration and FGV-RS232 cable (w/FGV series only)
<b>Certification</b>	CE, RoHS
<b>Warranty</b>	2 year

## Ordering Details

<b>FGE-PT100</b>	Physical therapy kit with FGE-100XY gauge
<b>FGE-PT200</b>	Physical therapy kit with FGE-200XY gauge
<b>FGE-PT500</b>	Physical therapy kit with FGE-500HXY high capacity gauge
<b>FGV-PT100</b>	Physical therapy kit with FGV-100XY data-logging gauge
<b>FGV-PT200</b>	Physical therapy kit with FGV-200XY data-logging gauge
<b>FGV-PT500</b>	Physical therapy kit with FGV-500HXY high capacity data-logging gauge
<b>NIST-FG</b>	NIST traceable certificate of calibration for ranges 0.5 to 100 lbs
<b>NIST-FG-HC</b>	NIST traceable certificate of calibration for ranges 200 to 1000 lbs



**500 lb Kit with FGE or FGV Gauge  
(NIST Certificate Included)**

**NIDEC-SHIMPO CORPORATION**

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