



# DFX II Series

Digital Force Gauge

# Functions and Features



## Simple Operation

User friendly four button operation for; Peak, Units, Zero and Info.

- PEAK- change from Normal to Peak mode
- UNITS- select desired units of measurement
- ZERO- used to zero or tare
- INFO- for gauge setup and status reviews



## Battery Operated with Automatic Shutoff Power Saver

The gauge has power saving feature that automatically turns off the gauge when no keys are pressed. This saves the battery life and gives up 70 to 100 hours of continuous use with the rechargeable NiMH battery pack.

The charger comes with Universal adapters for Worldwide usage from 100 to 240 volts.

## Wide assortment of accessories

The gauge has either #10-32 or 5/16-18 male threads depending on the gauge capacity. As standard the gauge is supplied with Flat adapter and Hook. A wide assortment of optional accessories are available.

## DFX II Series

The DFX II Series is an economical digital force gauge ideal for applications where users are interested in basic peak force measurement.

The DFX II is available in four capacities (10 lbf, 50 lbf, 100 lbf, 200 lbf) and features an integral loadcell with a measurement accuracy of better than 0.3% full scale.

The DFX II Series operates using a rechargeable NiMH battery pack and can operate using the supplied universal charger as well. Under battery operation, the DFX II Series will operate for 70 to 100 hours of continuous use.

A large, easy-to-read, high resolution dot matrix LCD display supports a variety of standard gauge functions including normal and peak readings. Loads are displayed in ozf, gf, lbf, kgf and N units. The display language may be setup to indicate in English, Spanish, French, German, Portuguese and Chinese. The DFX II Series' calibration procedure is included in the gauge's setup.

# Expect more...

## Battery Status

View the current battery power remaining on your rechargeable battery pack.

## Normal Display

Shows the current load being applied to the sensor. Indicates load direction.

## Peak Display

Shows the peak (maximum) force that was applied during the test.

## Overload Display

Shows the overload history for the force gauge. Indicates the number of overloads that occurred in both the tension and compression direction.

## Load Bargraph

Shows the load in real time being applied to the internal sensor graphically. Indicates overload conditions and zero offset.

## Rugged Construction

Cast aluminum housing and integral mechanical overload protection are designed into the DFX.



## Units Lock

Select the desired units of measurement. Units may be "locked" to your desired measurement type: ozf, gf, lbf, kgf or N.

## Load Direction Indicator

Shows the direction of load being applied in Tension and Compression

## Language Setup

Let's you select the desired display language for your DFX. Information may be displayed in English, Spanish, French, German, Portuguese and Chinese.

## Configuration Setup

Let's you validate or calibrate your DFX. The calibration procedure is included in the gauge setup. Just follow the step-by-step prompts.

# Ordering

## DFX II Series with Certificate of Calibration (NIST)

Model	ozf	gf	lbf	kgf	N
DFX2-010-NIST	160 x 0.2	5000 x 5	10 x 0.01	5 x 0.005	50 x 0.05
DFX2-050-NIST	800 x 1	25000 x 20	50 x 0.05	25 x 0.02	250 x 0.2
DFX2-100-NIST	1600 x 2	50000 x 50	100 x 0.1	50 x 0.05	500 x 0.5
DFX2-200-NIST	-	-	200 x 0.2	100 x 0.1	1000 x 1

## DFX II Series with Certificate of Conformance

Model	ozf	gf	lbf	kgf	N
DFX2-010	160 x 0.2	5000 x 5	10 x 0.01	5 x 0.005	50 x 0.05
DFX2-050	800 x 1	25000 x 20	50 x 0.05	25 x 0.02	250 x 0.2
DFX2-100	1600 x 2	50000 x 50	100 x 0.1	50 x 0.05	500 x 0.5
DFX2-200	-	-	200 x 0.2	100 x 0.1	1000 x 1

## Test Stand Adapters

Part No.	Item	DFX II
SPK-MT-0001	MT150 Series, 150lbf	•
SPK-MT-0004	MT500 Series, 500 lbf	•
Not required	LTCM Series, 100 lbf	•
NC002582	TT Tester, 500 lbf	•

## Accessories

Part No.	Item	DFX II
SPK-FMG-011A	Flat, #10-32, 100 lbf	■ <sup>1</sup>
SPK-FMG-011B	Flat, #5/16-18, 500 lbf	■ <sup>1</sup>
SPK-FMG-012A	Hook, #10-32, 50 lbf	■ <sup>1</sup>
SPK-FMG-012B	Hook, #10-32, 100 lbf	■ <sup>1</sup>
SPK-FMG-012C	Hook, 5/16-18, 200 lbf	■ <sup>1</sup>
SPK-DF2-UNIV	Universal Battery Charger	■
SPK-DF-118	Carrying Case	■
SPK-FMG-008A	Chisel Point, #10-32, 100 lbf	•
SPK-FMG-008B	Chisel Point, 5/16-18, 200 lbf	•
SPK-FMG-009A	Point, #10-32, 100 lbf	•
SPK-FMG-009B	Point, 200 lbf	•
SPK-FMG-010A	Notch, #10-32, 100 lbf	•
SPK-FMG-010B	Notch, 200 lbf	•
SPK-FMG-013A	Extension Rod, 6", 100 lbf	•
SPK-FMG-013B	Extension Rod, 6", 200 lbf	•
17160	Adapter, #10-32 to #10-32	•
SPK-EYE-1032F	5/8" Eye End Adapter to #10-32	•
SPK-DF-HANDLE	Handle Assembly	•
SPK-FMG-141	Pistol Grip	•
NC002845	Soft Carrying Case	•

<sup>1</sup> - Accessories are Model dependent



# Dimensions and Specifications

Specifications	
Accuracy	±0.3% of Full Scale
Certification	Certificate of Conformance(std.)
Data Sampling Rate	1000 Hz
Peak Capture Rate	1000 Hz
Display Update Rate	250mS
Tare Capacity	110% full scale
Overload Protection	150% full scale
Display Characteristics	High resolution, dot-matrix, 8 lines, 21 characters
Automatic Shutoff	30 minutes. May be disabled
Power	NIMH battery pack or Universal Battery Charger
Battery Life	Approx. 70-100 hours
Instrument Weight	1,5 lbs (0.7 kg)
Shipping Weight	4 lbs (1.8 kg) with accessories
Warranty	1 year
Storage Temperature	0 to 130°F
Operating Temperature	40 to 110 °F
Temperature Stability	Better than 0.03% of rated output per °F
Relative Humidity	20% to 85%

## Conformance

The DFX Series has been assessed against the essential health and safety requirements of the Low Voltage and the EMC Directives listed and found to be in compliance.

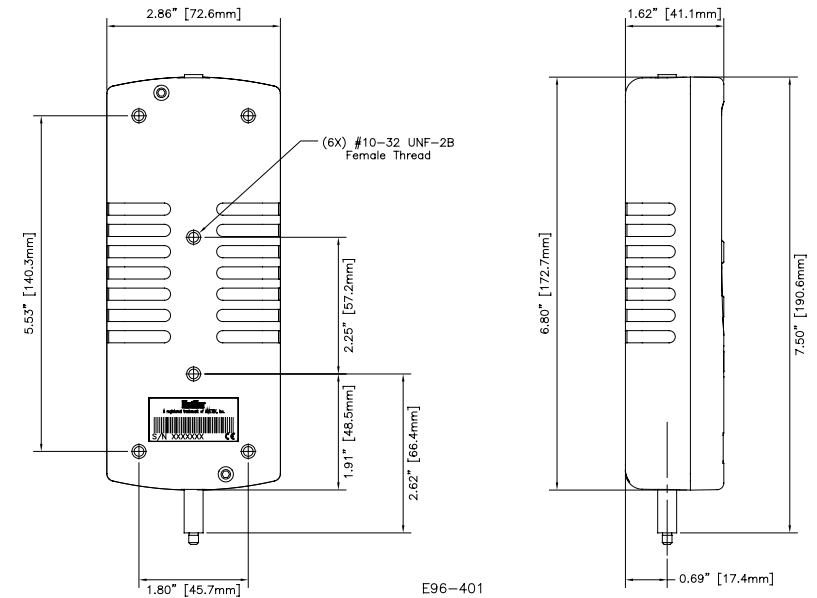
BS EN 61010-1:2001	Safety Requirement for Electrical Equipment
BS EN 61000-6-3:2001	EMC Generic Emission Standard
BS EN 61000-6-1:2001	EMC Generic Immunity Standard

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## Loadcell Deflection Specifications

Specified loadcell deflection values at full capacity.

Capacity	Deflection
10 lbf (50N)	0.010" ±0.004"
50 lbf (250N)	0.010" ±0.004"
100 lbf (500N)	0.010" ±0.004"
200 lbf (1000N)	0.010" ±0.004"



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