

DFG

DIGITAL FORCE GAGE

Starrett®

METROLOGY SOLUTIONS

The DFG is our basic digital force gage with a measurement accuracy of 0.2% full scale. The gage is ideal for peak measurements in either tension or compression directions.

The DFG features an internal data sampling rate of 10Hz and can communicate to external devices using USB and RS-232. Display resolution is 5,000:1.

Save up to 50 test results in internal memory. View historical and statistical results.

The DFG features a high-resolution 320 x 240 pixel color display with an adjustable backlight. The instrument is powered using a lithium ion battery. The gage is charged using the standard USB cable supplied. Information can be displayed in multiple languages: English, Deutsch, Portugues, Spanish, French, Italian, Chinese and more.

The DFG is supplied with a full set of testing adapters, USB cable and a NIST-traceable certificate of calibration. The DFG has a standard 3-year warranty.

Specification	DFG
Accuracy, Full Scale	0.20%
Data Sampling (Hz)	10,000
Display Resolution	5,000:1
Safe Overload, Full Scale	200%
Maximum Tare	10%
Communications	
USB 2.0	Yes
RS-232	Yes
Memory, saved results max.	50
Operating Mode	
Real Time	Yes
Peak Compression	Yes
Peak Tension	Yes
Power, Environmental	
Battery Type	Lithium Ion
Battery Life, @ 20% brightness	>30 hours
Charge Time, using 110/240V	<3 hours
Display (OLED)	320 x 240
Operating Temperature	40°F to 110°F (4°C to 43°C)
Thread, for adapters (Metric)	M6, M10
Instrument Weight (approx.)	3 lbs (1.36 kgs)
CE Compliance	
EN61010-1	
Safety for Electrical Equipment	
EN61000-6-3	
EMC Generic Emissions	
EN61000-6-1	
EMC Generic Immunity	



DFG Gage on the
MTH Manual Tester

FOR BASIC TESTING APPLICATIONS

The DFG Digital Force Gage can be used as a handheld force gage for basic applications or with a FMM Digital Force Tester, or our MTL and MTH Manual Testers. Listed are the various test methods that can be performed:

- **Real Time** - Measure real time forces. The gage will display the currently applied force and automatically capture peak forces in both tensile or compression directions.
- **Peak Tension Testing** - The peak tension mode captures the maximum load applied in the tensile direction. The gage displays tolerances and will provide a "pass" or "fail" based on the measurement.
- **Peak Compression Testing** - The compression mode captures the maximum load applied in the compression direction. The gage is ideal for testing springs using the MTH manual tester with the digital scale option.

DFG - Advanced Force Controller

Model	Load Capacity					Full Scale Deflection		Thread	Accessory Kit
	N	KGF	LBF	OZF	GF	in	mm		
DFG-10	50	5	10	160	5000	0.006	0.15	M6 x 1-6H	SPK-FG-S
DFG-20	100	10	20	320	9000	0.008	0.20	M6 x 1-6H	SPK-FG-S
DFG-50	250	25	50	800	23,000	0.015	0.39	M6 x 1-6H	SPK-FG-S
DFG-100	500	50	110	1600	45,000	0.024	0.60	M6 x 1-6H	SPK-FG-S
DFG-200	1000	100	225	-	-	0.021	0.54	M6 x 1-6H	SPK-FG-M
DFG-500	2500	250	550	-	-	0.028	0.70	M10 x 1.5-5H	SPK-FG-L

NOTES

Load measurement accuracy is $\pm 0.2\%$ of load cell capacity. Display resolution is 5,000:1.

