

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 | mm | 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 ±0.2% of load cell capacity. Display resolution is 5,000:1.

