

Mecmesin

testing to perfection

Digital Force & Torque Gauges



Tension and Compression
Test Solutions



Advanced Force Gauge

The Advanced Force Gauge (AFG) is the most versatile and fully-featured instrument available on the market. Housed in an ergonomically shaped rugged aluminium case, the AFG is powered by either mains-adaptor or standard rechargeable AAA batteries. It can be used hand-held or fixed to a manual or motorised test stand to enable tension and compression testing under controlled conditions.

KEY FEATURES:

- 10 capacities - from 2.5N to 2500N
- Peak capture - Ultimate max + 1st peak
- Data output - RS232, digimatic and analogue
- Pass/Fail Alarms - audible and visual
- Overload warning with trend bar
- Wide range of grips and fixtures

versatile
rugged
accurate



AFG shown mounted to the MultiTest-d motorised test stand

RS232, Mitutoyo, Analogue data output for easy data transmission

Recognises data from a range of external force & torque transducers, e.g. S-Beam, Load Button Cell and Static Torque Wrench.

View the 1st peak and ultimate peak readings. On-board memory stores up to 500 readings

Accurate to $\pm 0.1\%$ full-scale

Internal loadcell stud for quick and easy change of accessories and fixtures
Loadcell stud 10-32 UNF male
(5/16 UNC male for AFG 1000N & 2500N)



AFG Specification Table

Model	Part No.	mN	N	kN	gf	kgf	ozf	lbf
AFG 2.5	850- 412	2,500 x 0.5	2.5 x 0.0005	-	250 x 0.05	-	9 x 0.002	0.55 x 0.0001
AFG 5	850- 413	5,000 x 1	5 x 0.001	-	500 x 0.1	0.5 x 0.0001	18 x 0.005	1.1 x 0.0002
AFG 10	850- 414	10,000 x 2	10 x 0.002	-	1,000 x 0.2	1 x 0.0002	35 x 0.01	2.2 x 0.0005
AFG 25	850- 415	25,000 x 5	25 x 0.005	-	2,500 x 0.5	2.5 x 0.0005	90 x 0.02	5.5 x 0.001
AFG 50	850- 416	50,000 x 10	50 x 0.01	-	5,000 x 1	5 x 0.001	180 x 0.05	11 x 0.002
AFG 100	850- 417	-	100 x 0.02	-	10,000 x 2	10 x 0.002	350 x 0.1	22 x 0.005
AFG 250	850- 418	-	250 x 0.05	-	25,000 x 5	25 x 0.005	900 x 0.2	55 x 0.01
AFG 500	850- 419	-	500 x 0.1	-	50,000 x 10	50 x 0.01	1,800 x 0.5	110 x 0.02
AFG 1000	850- 420	-	1,000 x 0.2	1 x 0.0002	-	100 x 0.02	3,500 x 1	220 x 0.05
AFG 2500	850- 421	-	2,500 x 0.5	2.5 x 0.0005	-	250 x 0.05	9,000 x 2	550 x 0.1

- Accuracy $\pm 0.1\%$ of full scale
- Full scale deflection of loadcell typically 0.5mm

Audible & visual pass/fail alarms

Set a threshold for immediate alert when limits are exceeded

Measurements made in N, kN, mN, lbf, ozf, kgf and gf with a sampling rate of 5000Hz

Reversible display

View readings even when the gauge is positioned away from you

Rugged metal housing

Ideal for factory or outdoor use

For added flexibility the AFG is able to recognise data from a range of external 'Smart' force and torque transducers, so you can use it as a universal display for remote applications, (see pages 5 to 8).

The dual level design of the keypad ensures that operation of this powerful gauge is kept simple, thereby making it ideal for use from production shop floor to R&D.

All models carry CE marking and are supplied in a robust carrying case with standard accessories and a calibration certificate traceable to UK national standards.



Textile tension test



AFG and accessories