



Digital force  
and torque gauges  
Sales brochure



# Explore our digital force and torque gauges

Measure the tensile and compressive strength of components and assemblies with the Mecmesin range of accurate and affordable digital force and torque gauges.





# VFG

## touchscreen digital force gauge

A versatile handheld touchscreen instrument built for tough environments that delivers accuracy and reliability. Compatible with our range of external plug-and-play 'Smart Sensors' (using a Smart Adaptor) for a wide range of tension, compression and torsion testing.

Connects to our manual and motorised test stands for greater control of test conditions such as speed and force.

A dual-zone display has an upper region showing the peak readings in all common units, whilst the lower zone provides either a live graphical plot of the force or torque applied, to identify critical events, or a statistical overview of stored readings.



Discover your next Mecmesin force gauge online - visit [mecmesin.com/vfg](https://mecmesin.com/vfg)



- Sensors**  
 Choose from a range of interchangeable 'Smart' force and torque sensors. The VFG automatically recognises calibration data
- Touchscreen**  
 Easy to use icons and customisable interfaces - swipe or press and hold to access menus and options
- Battery life**  
 Fast-charging lithium-ion battery for more testing and less charging (compared with NiMH batteries)
- Statistics**  
 Use onboard statistics to save peak readings and perform basic statistical analysis onscreen
- Alarms**  
 Enhanced alarm configurations - including a 'pre-alert' warning for operators as load is applied
- Visualisation**  
 Powerful data analysis with live graphing and configurable values - pinch or drag to zoom or pan test result graphs
- Capacities**  
 Choice of 10 models from 2.5 N - 2.5 kN with accessories kit, travel case and a calibration certificate as standard



- Connectivity**  
 USB-C connectivity for charging, RS232 interfacing with VectorPro Lite data capture and analysis, external printers and data loggers
- Expansion**  
 Up to 32GB external storage with dynamic data logging via Micro-SDHC card. All data points are saved in CSV format to suit common applications e.g. Excel



- Accuracy  $\pm 0.1\%$  of full-scale
- 10 capacities - from 2.5 N to 2500 N
- Touchscreen - intuitive and customisable interface
- Graphing - live graphical plot of the test
- Data output - RS232 interfacing to VectorPro Lite
- Onboard statistics - save readings and perform analysis
- Wide range of grips and fixtures

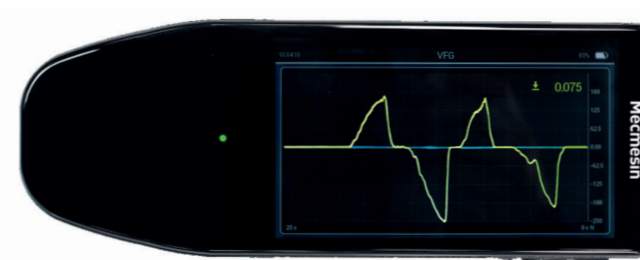
### VFG Specification Table – Capacity

Resolution - Up to 1:50,000 resolution depending on loadcell capacity (e.g. 2500 N x 0.05 N)

Model	Part No.	mN	N	kN	gf	kgf	ozf	lbf
VFG 2.5	850-600	2500	2.5	-	250	-	9	0.55
VFG 5	850-601	5000	5	-	500	0.5	18	1.1
VFG 10	850-602	10000	10	-	1000	1	35	2.2
VFG 25	850-603	25000	25	-	2500	2.5	90	5.5
VFG 50	850-604	50000	50	-	5000	5	180	11
VFG 100	850-605	-	100	-	10000	10	350	22
VFG 250	850-606	-	250	-	25000	25	900	55
VFG 500	850-607	-	500	-	50000	50	1800	110
VFG 1000	850-608	-	1000	1	-	100	3500	220
VFG 2500	850-609	-	2500	2.5	-	250	9000	550

- Accuracy  $\pm 0.1\%$  of full scale\*
- Full scale deflection of loadcell typically 0.5 mm
- Operating temperature 10°C - 35°C
- \* See [mecmesin.com](https://mecmesin.com) for more information

### Statistical summary



**Rotate screen**  
 The intuitive touchscreen display allows users to switch views for their statistical data in vertical and horizontal formats.



# VFTI

## touchscreen force & torque indicator

The VFTI Touchscreen Force & Torque Indicator is a high specification touchscreen display unit, with all the features and benefits of the VFG, for use with Mecmesin 'Smart' force and torque sensors. These 'plug and play' sensors connect to the VFTI via a 'Smart' adapter enabling the calibration parameters of the sensor to be automatically recognised without the need for any operator input.

This versatility make the VFTI ideal for a variety of test applications requiring force or torque sensors.



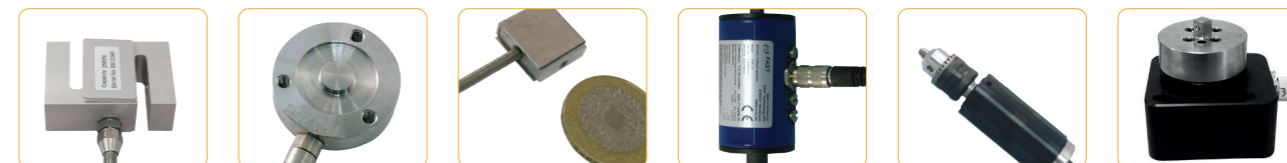
Discover your next Mecmesin force gauge online - visit [mecmesin.com/vfti](http://mecmesin.com/vfti)



These sensors are ideal for mounting onto your own test rigs and jigs to monitor load application. They can also be used for checking calibration of your machinery to assess whether it is applying the expected load.

### Force

### Torque



- Sensors**  
 Choose from a range of interchangeable 'Smart' force and torque sensors. The VFTI automatically recognises calibration data
- Battery life**  
 Fast-charging lithium-ion battery for more testing and less charging (compared with NiMH batteries)
- Alarms**  
 Enhanced alarm configurations - including a 'pre-alert' warning for operators as load is applied
- Statistics**  
 Use onboard statistics to save peak readings and perform basic statistical analysis onscreen
- Visualisation**  
 Powerful data analysis with live graphing and configurable values - pinch or drag to zoom or pan test result graphs
- Touchscreen**  
 Easy to use icons and customisable interfaces - swipe or press and hold to access menus and options
- Connectivity**  
 USB-C connectivity for charging, RS232 interfacing with VectorPro Lite data capture and analysis, external printers and data loggers
- Expansion**  
 Up to 32GB external storage with dynamic data logging via Micro-SDHC card. All data points are saved in CSV format to suit common applications e.g. Excel



Discover Mecmesin range of sensors online visit [mecmesin.com/sensors](http://mecmesin.com/sensors)



# AFG

## The advanced force gauge

The Advanced Force Gauge (AFG) can be used hand-held or fixed to a motorised test stand to allow testing under controlled speed conditions. The AFG is fitted with a high-precision "internal" loadcell accurate to  $\pm 0.1\%$  of full scale. For added flexibility the AFG is able to recognise data from a range of external 'Smart' force and torque sensors, so you can use it as a universal display for remote applications



Discover your next Mecmesin force gauge online - visit [mecmesin.com/gauges](http://mecmesin.com/gauges)



- Accuracy  $\pm 0.1\%$  of full-scale
- 10 capacities - from 2.5 N to 2500 N
- 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

### AFG Specification Table – Capacity

Resolution - Up to 1:5,000 resolution depending on load cell capacity (e.g. 2500 N x 0.5 N)

Model	Part No.	mN	N	kN	gf	kgf	ozf	lbf
AFG 2.5	850-412	2500 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	5000 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	10000 x 2	10 x 0.002	-	1000 x 0.2	1 x 0.0002	35 x 0.01	2.2 x 0.0005
AFG 25	850-415	25000 x 5	25 x 0.005	-	2500 x 0.5	2.5 x 0.0005	90 x 0.02	5.5 x 0.001
AFG 50	850-416	50000 x 10	50 x 0.01	-	5000 x 1	5 x 0.001	180 x 0.05	11 x 0.002
AFG 100	850-417	-	100 x 0.02	-	10000 x 2	10 x 0.002	350 x 0.1	22 x 0.005
AFG 250	850-418	-	250 x 0.05	-	25000 x 5	25 x 0.005	900 x 0.2	55 x 0.01
AFG 500	850-419	-	500 x 0.1	-	50000 x 10	50 x 0.01	1800 x 0.5	110 x 0.02
AFG 1000	850-420	-	1000 x 0.2	1 x 0.0002	-	100 x 0.02	3500 x 1	220 x 0.05
AFG 2500	850-421	-	2500 x 0.5	2.5 x 0.0005	-	250 x 0.05	9000 x 2	550 x 0.1

- Accuracy  $\pm 0.1\%$  of full scale\*
- Full scale deflection of loadcell typically 0.5 mm
- Operating temperature 10°C - 35°C
- \* See Mecmesin.com for more information

**RS232, Mitutoyo, Analogue data output** for easy data transmission. A calibrated analogue output can be supplied as an option

**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 5000 Hz

**Recognises data from a range of external 'Smart' force & torque sensors**

**Reversible display** - view readings even when the gauge is positioned away from you

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

**Rugged metal housing** ideal for factory or outdoor use

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



AFG shown mounted to the motorised MultiTest 2.5-dV test stand



# AFTI

## The advanced force & torque indicator

The Advanced Force & Torque Indicator (AFTI) is a high-specification display unit with all the features and benefits of the AFG, for use with Mecmesin 'Smart' force and torque sensors. These plug one-at-a-time into the AFTI enabling it to automatically register either force or torque sensors for a variety of test applications. 'Smart' sensors may also be used with Mecmesin's Advanced Force Gauge (AFG).



These sensors are ideal for mounting onto your own test rigs and jigs to monitor load application. They can also be used for checking calibration of your machinery to assess whether it is applying the expected load.

### Force

### Torque



**Fully interchangeable 'Smart' sensors**  
- No need for additional calibration of display or sensor, just 'Plug & Play'

**RS232, Digimatic, Analogue** data output for easy data transmission

**Measurements made in N, lbf, kgf, kN, N.m, kgf.cm, lbf.in, gf.cm and ozf.in** with a sampling rate of 5000 Hz

**Reversible display** - view readings even when the gauge is positioned away from you

**Tension, compression and torque measurement** with full unit conversion of displayed value

**View the 1st peak and ultimate peak**

**Rugged metal housing** ideal for factory or outdoor use



Select from a wide range of Smart loadcells & torque sensors to connect to your AFTI and start measuring.

- Sensor automatically recognised by AFTI display
- Sensor supplied with 1.5m cable and calibration certificate
- AFTI displays reading with 1 : 5,000 resolution
- AFTI alerts user with audible and visual limit signals



# Sensors

For AFG/AFTI and VFG/VFTI gauges

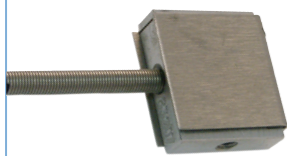
Mecmesin provides a wide choice of 'Smart' force and torque sensors for connection to its range of AFG and VFG force gauges plus the dedicated AFTI and VFTI display units.

The capacity and calibration parameters of these 'Smart' sensors is hosted within the sensor plug and are automatically recognised by these instruments allowing true 'plug-and-play'. Each Smart sensor is supplied with its own calibration certificate traceable to national standards.

Smart sensors are available in different types for measuring tension, compression, static torque and rotary torque. For further details on Smart sensors please visit [mecmesin.com](http://mecmesin.com).



## Tension and Compression Sensors

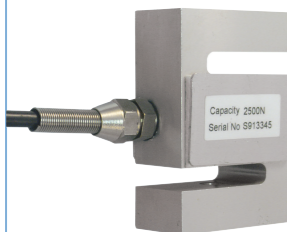


### Junior S-Beam

The Junior S-beam is suitable for measuring tension and compression in applications where space is limited. Available in 9 capacities from 1 N to 500 N, its height is less than 20 mm and dedicated fixtures can be fitted via a single M3 threaded hole.

Part No.	Capacity		
870 - 101	1 N	100 gf	3.5 ozf
870 - 102	2.5 N	250 gf	9 ozf
870 - 103	5 N	500 gf	18 ozf
870 - 104	10 N	1 kgf	2.2 lbf
870 - 105	25 N	2.5 kgf	5.5 lbf
870 - 106	50 N	5 kgf	11 lbf
870 - 107	100 N	10 kgf	22 lbf
870 - 108	250 N	25 kgf	55 lbf
870 - 109	500 N	50 kgf	110 lbf

• Accuracy ±0.25% of full scale



### S-Beam

The S-Beam provides an economical solution to general force measurement applications where space is not restricted. Available in 10 capacities from 100 N to 100 kN, it has a threaded hole at each end for fitting of fixtures - sensor height and thread size varying according to capacity.

Part No.	Capacity		
870 - 002	100 N	10 kgf	22 lbf
870 - 004	200 N	20 kgf	44 lbf
870 - 009	500 N	50 kgf	110 lbf
870 - 001	1000 N	100 kgf	220 lbf
870 - 006	2500 N	250 kgf	550 lbf
870 - 008	5000 N	500 kgf	1100 lbf
870 - 003	10 kN	1000 kgf	2200 lbf
870 - 007	25 kN	2500 kgf	5500 lbf

### Cylindrical

Part No.	Capacity		
870 - 011	*50 kN	5000 kgf	11 000 lbf
870 - 010	*100 kN	10 000 kgf	22 000 lbf

• Accuracy ±0.25% of full scale \* Uni-directional calibration (specify tension or compression)

## Compression Sensors



### Load Button Cell

The Load Button Cell is a sensor for compression measurement only where the available space is very limited. For optimum results apply compressive load to the top of the sensors central dome. It is available in 2 designs and varying load capacities. The Miniature series features 3 threaded holes for fixing the Load Button to a base and is typically larger and taller than the Sub-Miniature series which has a low-profile design without fixing holes.

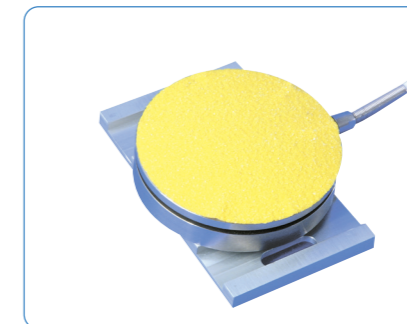
Part No.	Capacity		
<b>Miniature series</b>			
878 - 008	100 N	10 kgf	22 lbf
878 - 009	250 N	25 kgf	55 lbf
878 - 010	500 N	50 kgf	110 lbf
878 - 011	1000 N	100 kgf	220 lbf
878 - 012	2500 N	250 kgf	550 lbf
878 - 013	5000 N	500 kgf	1100 lbf
<b>Sub-Miniature series</b>			
878 - 002	100 N	10 kgf	22 lbf
878 - 003	250 N	25 kgf	55 lbf
878 - 004	500 N	50 kgf	110 lbf
878 - 005	1000 N	100 kgf	220 kgf
878 - 005	5000 N	500 kgf	1100 kgf

• Accuracy ±1% of full scale\*

In addition to the standard range of compression-only sensors, Mecmesin also offers specialised Smart loadcells dedicated to specific compression applications.



Hand Gripper (1000 N)



Pedal Force Sensor (500 N & 1000 N)



Donut Loadcell (Thru Hole Loadcell) from 25 N to 50 kN



## Static Torque Sensors



### TT-ST Torque Transducer 'Smart'

The TT-ST Torque Transducer is a sensor for static torque measurement below 2 N.m in clockwise (CW) and counter-clockwise (CCW) directions. Available in 5 capacities, the torque is applied via a 3mm diameter bore hole or ¼" hex socket. Fixing holes in the sensor body allow it to be mounted to a bench or integrated into a test rig.

Model	Part No.	Capacity				
TT-ST0.05	872 - 030	50 mN.m	500 gf.cm	7	ozf.in	
TT-ST0.20	872 - 032	200 mN.m	2000 gf.cm	28	ozf.in	
TT-ST0.50	872 - 033	500 mN.m	5 kgf.cm	4.5	lbf.in	
TT-ST1	872 - 034	1 N.m	10 kgf.cm	9	lbf.in	
TT-ST2	872 - 035	2 N.m	20 kgf.cm	18	lbf.in	

• Accuracy ±0.5% of full scale

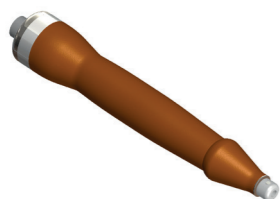


### ST Torque Transducer 'Smart'

The ST Torque Transducer is a sensor for static torque measurement in clockwise (CW) and counter-clockwise (CCW) directions. Available in 9 capacities from 1.5 N.m to 1,000 N.m, the sensor is equipped with a male square drive for easy fitting of adaptors to apply torque. Fixing holes in the sensor body allow it to be mounted to a bench or integrated into a test rig.

Model	Part No.	Capacity				
ST1.5	872 - 001	1.5 N.m	15 kgf.cm	13	lbf.in	
ST6	872 - 009	6 N.m	60 kgf.cm	53	lbf.in	
ST10	872 - 004	10 N.m	100 kgf.cm	90	lbf.in	
ST15	872 - 006	15 N.m	150 kgf.cm	133	lbf.in	
ST60	872 - 008	60 N.m	600 kgf.cm	530	lbf.in	
ST100	872 - 003	100 N.m	1000 kgf.cm	870	lbf.in	
ST150	872 - 005	150 N.m	1500 kgf.cm	1300	lbf.in	
ST600	872 - 007	600 N.m	6000 kgf.cm	5200	lbf.in	
ST1000	872 - 002	1000 N.m	10000 kgf.cm	8850	lbf.in	

• Accuracy ±0.5% of full scale



### TTH 'Mini' Torque Screwdriver - 'Smart'

The TTH Mini Torque Screwdriver is designed for hand-held applications requiring the measurement of very fine static torque below 1 N.m. Available in 6 capacities, the torque is applied via a 3mm diameter bore hole or ¼" hex socket.

Model	Part No.	Capacity				
TTH0.01	871 - 100	10 mN.m	100 gf.cm	1	ozf.in	
TTH0.05	871 - 101	50 mN.m	500 gf.cm	7	ozf.in	
TTH0.10	871 - 102	100 mN.m	1000 gf.cm	14	ozf.in	
TTH0.20	871 - 105	200 mN.m	2000 gf.cm	28	ozf.in	
TTH0.50	871 - 103	500 mN.m	5 kgf.cm	4.5	lbf.in	
TTH1	871 - 104	1 N.m	10 kgf.cm	9	lbf.in	

• Accuracy ±0.5% of full scale

Note: not suitable for applications which require multiple rotations of the sensor (see Rotary Torque Sensors)



### TS Torque Screwdriver - 'Smart'

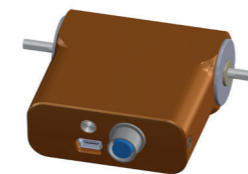
The TS Torque Screwdriver is designed for hand-held applications or may be mounted in a bench stand for stationary use. Available in 5 capacities from 0.3 N.m to 10 N.m, the torque is applied via a male square drive or an interchangeable 3-jaw chuck.

Model	Part No.	Capacity				
TS0.3	871-004	0.3 N.m	3 kgf.cm	2.6	lbf.in	
TS1.5	871-002	1.5 N.m	15 kgf.cm	13	lbf.in	
TS3	871-003	3 N.m	30 kgf.cm	26	lbf.in	
TS3	871-005	6 N.m	60 kgf.cm	53	lbf.in	
TS10	871-001	10 N.m	100 kgf.cm	90	lbf.in	

• Accuracy ±0.5% of full scale

Note: not suitable for applications which require multiple rotations of the sensor (see Rotary Torque Sensors)

## Rotary Torque Sensors



### TTR 'Mini' Rotary Torque Transducers - 'Smart'

The TTR range of Torque Transducers is designed for applications requiring the measurement of very fine rotary torque below 1 N.m. Available in 5 capacities, the outer housing should be held allowing the central round shaft to rotate as torque is applied. Suitable for applications with multiple revolutions (eg cassette spool mechanism, fine gears) typically up to speeds of 5000 rpm.

Model	Part No.	Capacity				
TTR0.05	877 - 030	50 mN.m	500 gf.cm	7	ozf.in	
TTR0.10	877 - 031	100 mN.m	1000 gf.cm	14	ozf.in	
TTR0.20	877 - 032	200 mN.m	2000 gf.cm	28	ozf.in	
TTR0.50	877 - 033	500 mN.m	5 kgf.cm	4.5	lbf.in	
TTR1	877 - 034	1 N.m	10 kgf.cm	9	lbf.in	

• Accuracy ±0.5% of full scale



### FAST Rotary Torque Transducers - 'Smart'

The FAST range of Torque Transducers is designed for applications requiring the measurement of rotary torque from 2 N.m to 150 N.m. The outer housing should be held allowing the central shaft to rotate as torque is applied. Shaft fittings are either round or square-drive. Suitable for torque applications with multiple revolutions typically up to speeds of 5000 rpm.

Model	Part No.	Capacity				
FAST 2 N.m sq	877 - 020	2 N.m	20 kgf.cm	18	lbf.in	
FAST 2 N.m rd	877 - 021	2 N.m	20 kgf.cm	18	lbf.in	
FAST 6 N.m sq	877 - 022	6 N.m	60 kgf.cm	53	lbf.in	
FAST 6 N.m rd	877 - 023	6 N.m	60 kgf.cm	53	lbf.in	
FAST 15 N.m sq	877 - 024	15 N.m	150 kgf.cm	133	lbf.in	
FAST 15 N.m rd	877 - 025	15 N.m	150 kgf.cm	133	lbf.in	
FAST 60 N.m sq	877 - 026	60 N.m	600 kgf.cm	530	lbf.in	
FAST 60 N.m rd	877 - 027	60 N.m	600 kgf.cm	530	lbf.in	
FAST 150 N.m sq	877 - 028	150 N.m	15.3 kgf.cm	111	lbf.ft	
FAST 150 N.m rd	877 - 029	150 N.m	15.3 kgf.cm	111	lbf.ft	

• Accuracy ±1% of full scale



# BFG

## The basic force gauge

The Basic Force Gauge (BFG) is designed for easy operation and provides outstanding tension and compression measurement performance and reliability at an affordable price.

Supplied as standard with calibration certificate traceable to national standards.

Constructed in a rigid yet lightweight aluminium housing, with its ergonomically attractive shape, the BFG can be used as a hand-held instrument, or alternatively it can be mounted to manual or motorised test stands to allow testing under more controlled conditions.



Discover your next Mecmesin force gauge online - visit [mecmesin.com/gauges](http://mecmesin.com/gauges)



- Accuracy  $\pm 0.25\%$  of full range
- 6 capacities - from 10 N up to 2500 N
- Peak capture - in tension and compression
- Wide range of grips and fixtures

### BFG Specification Table – Capacity

Resolution - Up to 1:5,000 resolution depending on load cell capacity (e.g. 2500 N x 0.5 N)

Model	Part No.	mN	N	kN	gf	kgf	ozf	lbf
BFG 10	853-410	10000 x 2	10 x 0.002	-	1000 x 0.2	1 x 0.0002	35 x 0.01	2.2 x 0.0005
BFG 50	853-411	50000 x 10	50 x 0.01	-	5000 x 1	5 x 0.001	180 x 0.05	11 x 0.002
BFG 200	853-412	-	200 x 0.05	-	20000 x 5	20 x 0.005	720 x 0.2	44 x 0.01
BFG 500	853-413	-	500 x 0.1	-	50000 x 10	50 x 0.01	1800 x 0.5	110 x 0.02
BFG 1000	853-414	-	1000 x 0.2	1 x 0.0002	-	100 x 0.02	3500 x 1	220 x 0.05
BFG 2500	853-417	-	2500 x 0.5	2.5 x 0.0005	-	250 x 0.05	9000 x 2	550 x 0.1

- Accuracy  $\pm 0.25\%$  of full scale
- Full scale deflection of loadcell typically 0.5 mm
- Operating temperature 10°C - 35°C
- See [Mecmesin.com](http://Mecmesin.com) for more information

**RS232, Digimatic, Analogue data output** for easy data transmission

**'Live' display mode** for applications requiring loads to be continuously monitored

**Measurements made in N, kN, mN, lbf, ozf, kgf and gf** with a sampling rate of 1000 Hz

**Accurate to  $\pm 0.25\%$  full-scale**

**Captures peak readings** in tension or compression

**Rugged metal housing** ideal for factory or outdoor use

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



BFG shown mounted to the MDD manual test stand



# CFG+

the compact force gauge

The Compact Force Gauge+ (CFG+) is a pocket-sized, lightweight force gauge designed for elementary tension and compression measurement. Powered by disposable AA batteries, the CFG+ is delivered with a Declaration of Conformity as standard. A Calibration Certificate can be ordered separately.

The CFG+ provides a simple digital alternative to traditional analogue spring balances. It is ideal for users with a limited budget, who only measure on an occasional basis for non-critical applications.

### CFG+ Specification Table – Capacity

Resolution - Up to 1:1000 resolution depending on loadcell capacity (e.g. 500 N x 0.5 N)

Model	Part No.	N	kgf	lbf
CFG+ 50	860-021	50 x 0.05	5 x 0.005	11 x 0.01
CFG+ 200	860-022	200 x 0.2	20 x 0.02	44 x 0.05
CFG+ 500	860-023	500 x 0.5	50 x 0.05	110 x 0.1

- Accuracy  $\pm 0.5\%$  of full scale



Peak readings captured at 500 Hz with an accuracy of  $\pm 0.5\%$  of full scale

Measurements made in N, lbf, ozf, kgf and gf with a resolution of 1:1000



## Explore our range of accessories

A wide selection of accessories exclusive to Mecmesin are available. See our Accessory Catalogue for an extensive range of grips and fixtures, to enable you to complete thousands of different tests. Alternatively make use of our experienced team of engineers to provide a customised grip to solve your particular problem.



Discover your next Mecmesin force gauge online - visit [mecmesin.com/accessories](http://mecmesin.com/accessories)



### All CFG+ models are supplied with:

- Carrying case
- Set of standard accessories
- Calibration certificate\*

\* optional extra for CFG+



# VectorPro®

## Lite Data Acquisition Software

VectorPro Lite is an advanced data-acquisition and plotting software package available as an optional extra to Mecmesin's Digital Force Gauges (VFG, AFG, BFG and CFG+ and VFTI/AFTI Digital Force & Torque Indicators.

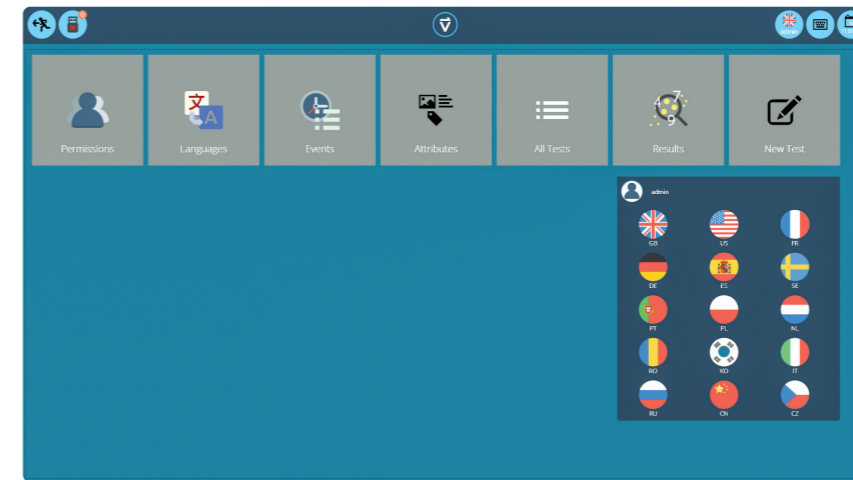
It captures load and time data from the instruments and plots it live in a graph. This makes it ideal for applications where you need to know more from a test than just the peak load shown on the force gauge display. When an AFG or VFG force gauge is combined with a MultiTest-dV test stand, it will also plot the load vs displacement data captured by this configuration.

Its innovative drag-and-drop interface makes VectorPro Lite a powerful tool yet remains easy to use for experienced and novice operators alike.

It provides standard calculations against which samples can be immediately flagged up to the operator as Pass or Fail. From the collected data it provides test results from pre-defined calculations, generates a basic statistical analysis and allows you to create a customised report for submission to your customers. The test routines and their associated results are automatically stored together so you can recall and make comparisons between different batches.

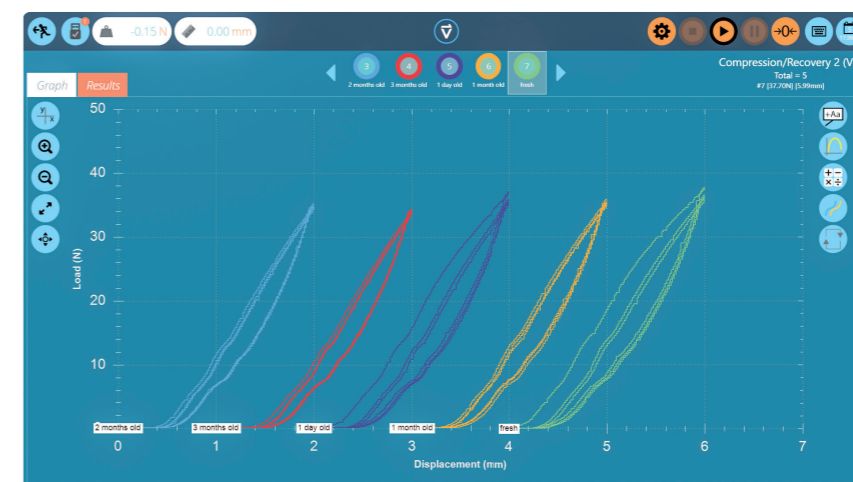
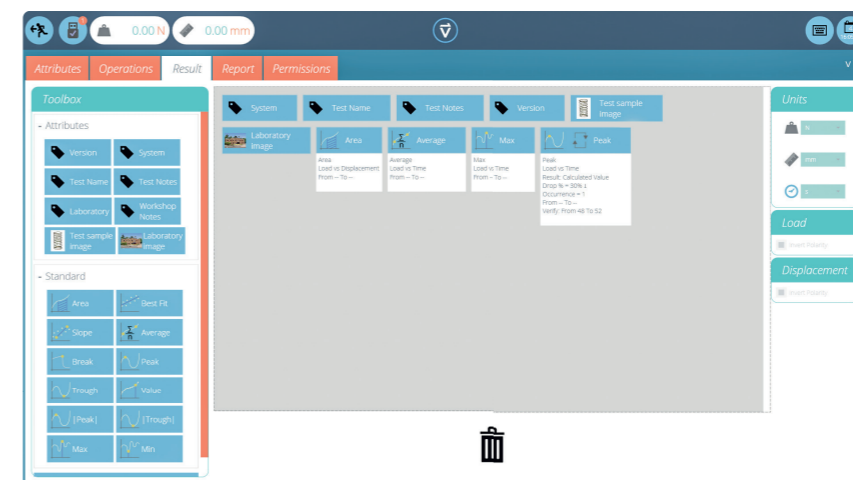
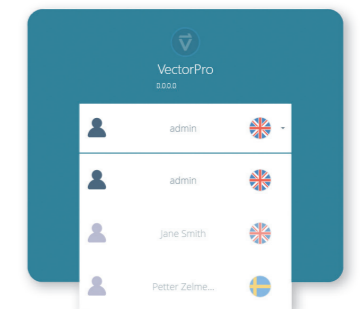


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Testing software



### User access

VectorPro utilises separate user accounts for individuals, enabling personalised workspaces, in the language of choice. This provides security for the organisation and simplicity for the user.



In addition to the standard range of compression-only sensors, Mecmesin also offers specialised Smart loadcells dedicated to specific compression applications.

## Comparison table



FEATURES/GAUGES	VFG	AFG	BFG	CFG+	VFTI	AFTI
<b>Technical Specifications</b>						
Housing material	Aluminium	Aluminium	Aluminium	Plastic	Aluminium	Aluminium
Battery type	Lithium Ion (Fast Charge)	NiMH - Rechargeable	NiMH - Rechargeable	Alkaline	Lithium Ion (Fast Charge)	NiMH - Rechargeable
Models and Capacity	10 (2.5 N to 2500 N)	10 (2.5 N to 2500 N)	6 (10 N to 2500 N)	3 (50 N to 500 N)	n/a	n/a
Accuracy	0.1%	0.1%	0.25%	0.5%	n/a	n/a
Load resolution	1:50,000	1:5,000	1:5,000	1:1,000	1:50,000	1:5,000
Sampling rate	50,000 Hz	5,000 Hz	1,000 Hz	500 Hz	50,000 Hz	5,000Hz
Smart Port for additional sensors	✓	✓	✗	✗	✓	✓
<b>Display</b>						
Display type/Operation	5" Colour Touchscreen / capacitive	4.5 di git LCD/Keypad	4.5 digit LCD/Keypad	4.5 digit LCD/Keypad	5" Colour Touchscreen / capacitive	4.5 digit LCD/Keypad
Graphical display of data	✓ (Pan/Zoom)	✗	✗	✗	✓ (Pan/Zoom)	✗
Invert display	✓	✓	✗	✗	✓	✓
User-configurable display	✓ (advanced)	✗	✗	✗	✓ (advanced)	✗
On-board statistics mode	✓	✗	✗	✗	✓	✗
Password protection	✓	✓	✗	✗	✓	✓
Display modes	Live, Max, 1st & 2nd Peak, Break detect, Coefficient	Live, Max, 1st Peak, Average, Coefficient	Live, Max	Live, Max	Live, Max, 1st & 2nd Peak, Coefficient	Live, Max, 1st Peak, Average, Coefficient
Alarms for Pass / Fail	✓ (visual with pre-alert)	✓ (audible & visual)	✗	✗	✓ (visual with pre-alert)	✓ (audible & visual)
<b>Communications &amp; Control</b>						
Output formats	RS232	RS232, Digimatic, Analog	RS232, Digimatic, Analog	RS232	RS232	RS232, Digimatic, Analog
Bi-directional communication commands	✓	✓	✗	✗	✓	✓
Memory Storage (internal)	✓	✓	✗	✗	✓ (>500 readings)	✓
Memory Storage (external)	✓ (Micro SD card)	✗	✗	✗	✓ (Micro SD upto 32GB)	✗
Control commands for motorised test stand	✓	✓	✗	✗	✓	✓
<b>Overload &amp; Calibration</b>						
Overload warning symbol	✓	✓	✓	✓	✓	✓
Overload History	✓	✗	✗	✗	✓	✗
Calibration Certificate	✓	✓	✓	✗ order separately	✗	✗





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