Metrix+™
Innovative Excellence

DIGITAL FORCE GAUGE

DFG 1D to DFG 1000D

Measure push-pull force upto 10,000N

Measuring principle

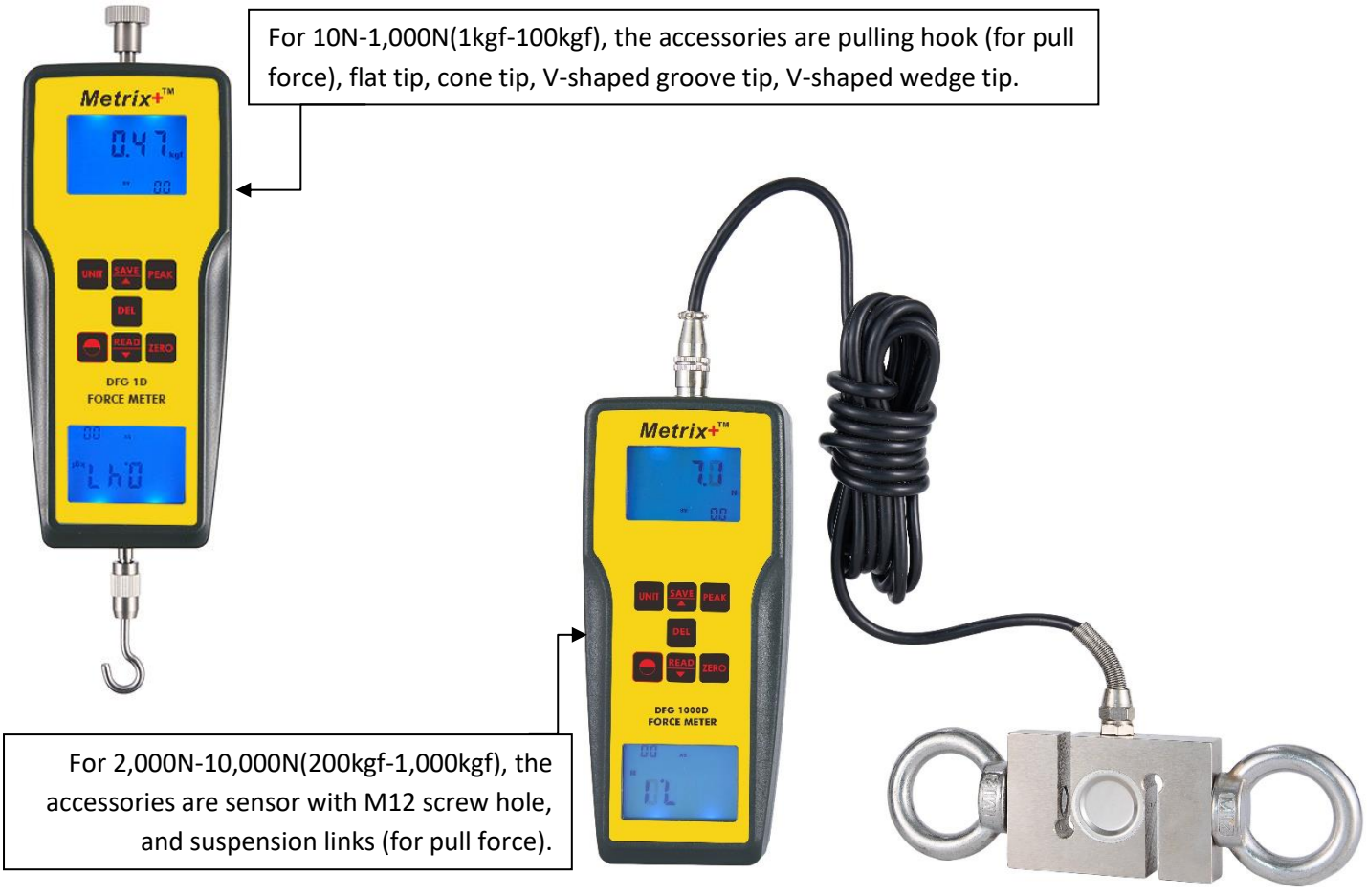
Force gauges use force sensor, or load cells, which converts mechanical force to electrical signal to measure the force applied. The applied force can be a push or pull, tensile or compressive strain, which outputs the relevant electric signal, to estimate force.

Applications

Force gauges are useful in any application where force measurement is important. It can be a push or pull force, as our meters can measure both, and display in common units. Majorly useful in electronics, building hardware, textile, auto parts, ignition device such as lighter, fire fighting equipment, pen manufacturing, lock manufacturing, fishing gear, chemical, power machinery, scientific research institutions and many other industries and consumer applications.

Features

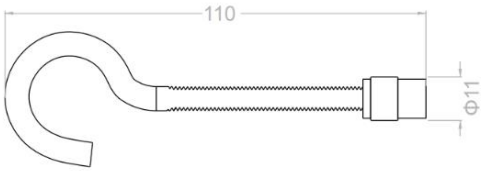
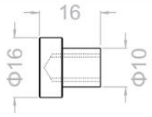
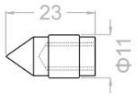
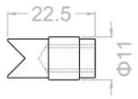
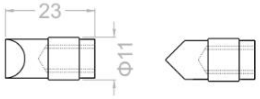
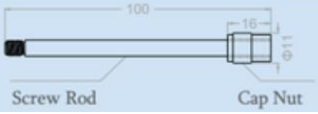
- Various models from 10N-10,000N
- 2 reversed backlit LCD for easy readability
- Data storage and Max data hold
- Convertible measurement units: N, kg, lb
- Battery or external power supply
- Optional data logging



Technical Specifications

Model	*Metrix+* DFG 1D - DFG 100D	*Metrix+* DFG 200D – DFG 1000D
Range	DFG 1D – ±1kgf/ 9.8N DFG 2D – ±2kgf/ 19.6N DFG 5D – ±5kgf/ 49N DFG 10D – ±10kgf/ 98N DFG 20D – ±20kgf/ 196N DFG 50D – ±50kgf/ 490N DFG 100D – ±100kgf/ 980N	DFG 200D – ±200kgf/ 1960N DFG 500D – ±500kgf/ 4900N DFG 1000D – ±1000kgf/ 9800N
Resolution	0.01kgf/ 0.1N	<100kgf: 0.01kgf, < 1000N: 0.1N ≥100kgf: 0.1kgf, ≥ 1000N: 1N
Measuring accessories	Big pulling hook, flat tip, cone tip, V-shaped groove and wedge tip	Sensor with M12 screw hole, 2 suspension links
Accuracy	±0.2% FS ±1 digit	
Units	Kgf, N, lbf	
Display	2 reversed backlit display for convenient readability	
Safe load	150% FS (buzzer alarm over 110% FS)	
Power	2 x 1.5V AA batteries or 5V DC power supply	
Features	Max hold, data storage, backlit display, low battery indication, auto power off	
Operating	Temp: 0~40C, Humidity <80% RH	
Dimensions	211 x 80 x 36mm, approx. 390g (800g for suspension links)	
Surrounding	No vibrating source or corrosive medium	
Std accessories	Main unit, measuring accessories, manual, case	
Optional accessories	Data logging: PC interface (USB & software), Bluetooth, lengthening rod(DFG 1D – DFG 100D), Force Gauge stand	

For DFG 1D(10N) – DFG 100D(1,000N),

Accessory	Structure Diagram	Applications
Pulling Hook (Big)		To hang tested objects when testing pulling force.
Flat Tip		To test thrust of flat surface or convex surface.
Cone Tip		To test thrust of flat surface, concave surface or circular hole.
V-shaped Groove Tip		To test thrust of cylindrical surface or the edge of perpendicular planes.
V-shaped Wedge Tip		To test thrust of flat surface or groove surface.
Lengthening Connection Rod		It is used in the situation when the measurement tip is not long enough.

For DFG 200D(2,000N) – DFG 1000D(10,000N)

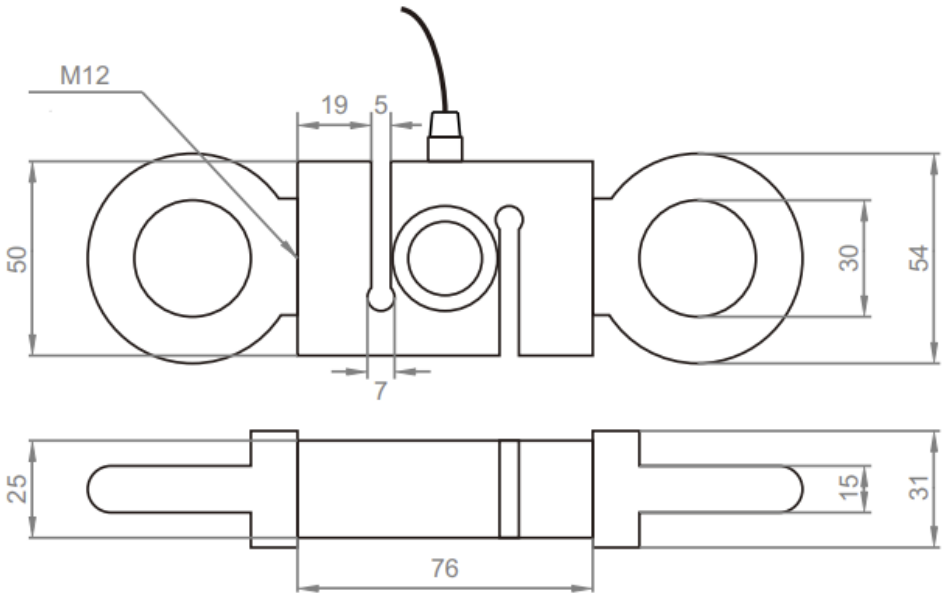


Fig 5 Shape And Installation Dimensions