



Handheld Force GaugeUser Manual

... enter to new dimensions!

HANDHELD FORCE GAUGE

Type: HFG-50

The **HFG-50** 50N capacity **Handy Force Gauge** is an accurate, high-quality instrument, it was developed for simple and accurate measurement of contact compression force on **test probes** kept in hand or mounted on a support. It is also suitable for tension force measuring.

Operation features:

- Small, lightweight, handheld, fits in pocket,
- Strain gauge load cell system for accurate force measurement,
- High grade amplifier for strain gauge bridge,
- Programmable microprocessor controlled,
- Easy to read 3 digit LCD display with large numbers,
- Hold function for displaying the maximum force,
- Low voltage warning : LoBat,
- Operating voltage: 9V DC - battery or rechargeable accu,
- Alarm signal at overload, at 120% of full scale (60N),
- LED display for tension load signaling,
- Automatic switch-off in 30 seconds if the force is under 1N,
- Robust case, the cabinet load free, when mounted on a support (test stand),
- High durability: more, than 1.000.000 cycles,
- Foil keyboard with 2 keys,
- Lead free soldering construction,
- Easy installation and handling, calibrated, (available Test Report).

Technical Data

Measuring range	0-50 N
Display resolution	0-9.99 N, (0.01 N steps) 10.0-50.0 N (0.1 N steps)
Accuracy	0.2 % of full scale
Temperature dependence	0.05%/10°C
Operating temperature	5°C to 50°C
Safe overload capacity w/o damage	120% (60N)
Tare capacity	50% of full scale
Full scale deflection	0.05mm
Power supply	9V DC alkaline battery or rechargeable accumulator
Battery life	min. 10 hours, at continuous operation
Environmental protection	IP 40
Case Material	ABS
Dimensions	80x61x23 mm (HxWxL)
Weight	125 grams (with battery)
Mechanical connection for adapters	M3x6mm
Adapter's maximum diameter	4.5mm
Mounting screws for support	2pcs. M4, Min. length=support thickness+7mm Max. length=support thickness+10mm

Operation:

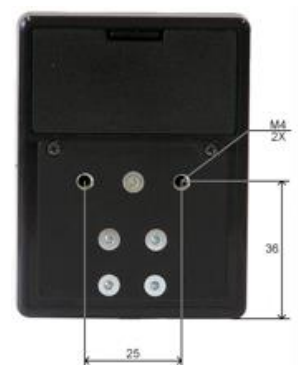
Switch on: press the *null* key for 1 second, *Cont* will be displayed. Press *null* key for 2 seconds, and the instrument will be in continuous measuring mode. Press the *null* key for zeroing the display, then **0.00N** will be displayed and start measuring.

Hold function: press the *set/hold* key, the display is: *Hold*, then press the *null* key, then the instrument will be in Hold measuring mode. Press the *null* key for zeroing display then **0.00N** will be displayed. Now you can measure. In hold function you can measure the maximum value (peak) of the applied force. If you apply more load, the instrument displays and holds this new maximum value. For starting new measure press the *null* key for zeroing display, then **0.00N** will be displayed and start measuring.

Continuous measuring function: press the *set/hold* key, until the display is: *Cont* , then press the *null* key, then the instrument will be in Continuous measuring mode. Press the *null* key for zeroing the display, then **0.00N** will be displayed and start measuring.

Switch off: press the *set/hold* key, until *Off* will be displayed then press *null* key so the instrument is switching off, or put the instrument down, and it will automatically switch off in 30 seconds, when the displayed force is under 1N.

For mounting to the holding support (test stand), use 2pcs. M4 screws,
Min.length of screws =support thickness + 7mm,
Max. length of screws=support thickness+11mm, no longer!



Calibration:

Recommended time interval: 1 year, with a recognized calibration laboratory.

Maintenance, warranty:

The HFG-50 requires no maintenance or regular electric control. We offer a 12 month guarantee should the instrument fail under proper use. The guarantee is not valid if the failure is caused by improper use, transport or storing, or by improper design of the connecting mechanical devices. The guarantee is valid only if the installment and operation was performed properly. **Improper repair or modification of the instrument will void the guarantee.** Problems that can be solved by using the keyboard are not subject to the warranty. We reserve the right to carry out minor modifications on the instrument construction.

May not be disassembled!
GOOD MEASUREMENT!

