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ISF-KF Series
FORCE GAGE
Operation Manual



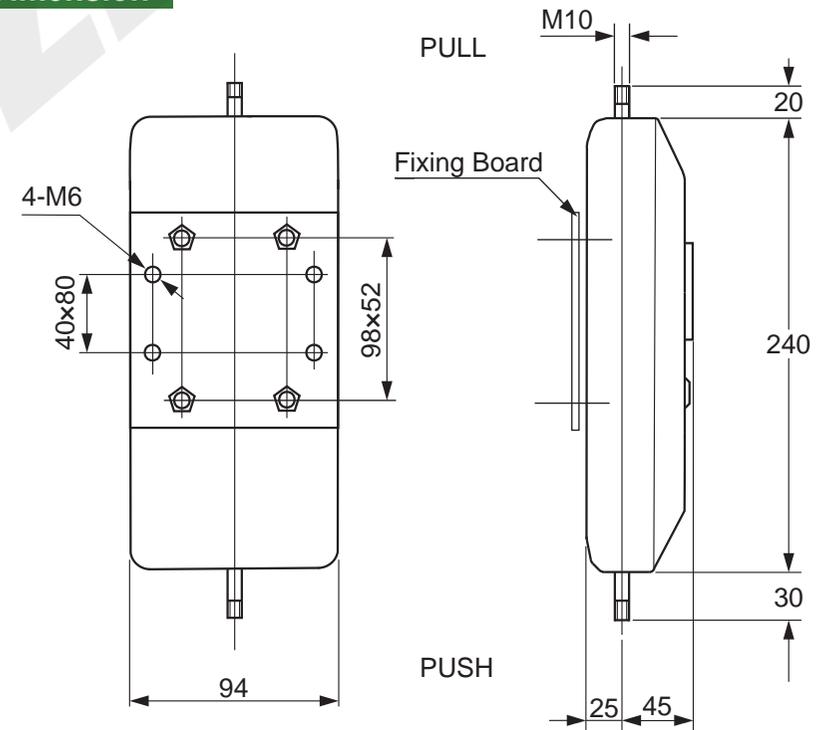
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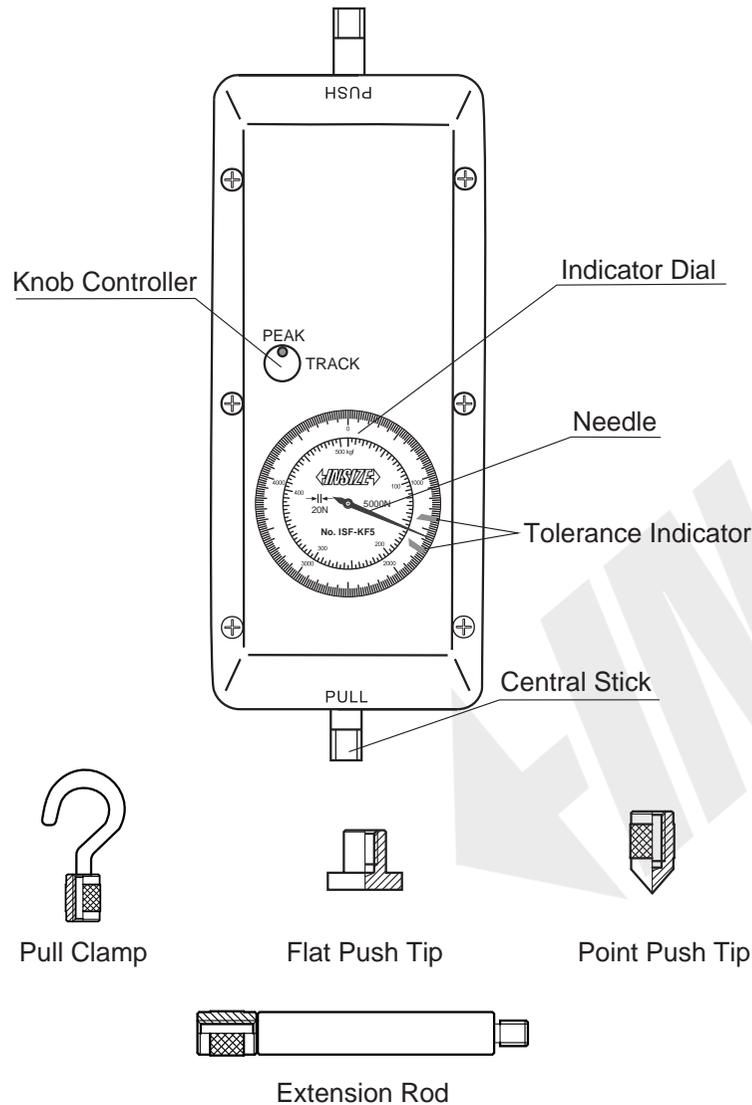
Parameter

| Code | | ISF-KF1 | ISF-KF2 | ISF-KF3 | ISF-KF5 |
|-------------------|-------|--------------------------------|---------|---------|---------|
| Capacity | (N) | 1000 | 2000 | 3000 | 5000 |
| | (kgf) | 100 | 200 | 300 | 500 |
| Graduation | (N) | 5 | 10 | 20 | 20 |
| | (kgf) | 1 | 2 | 2 | 5 |
| Accuracy | | ±2%FS | | | |
| Dimension | | 100×70×290mm | | | |
| Weight | | 3.2kg | | | |
| Stroke | | 10mm | | | |
| Work Temperature | | 20±10°C | | | |
| Carry Temperature | | -27°C~+70°C | | | |
| Relative Humidity | | 15%~80%RH | | | |
| Work Environment | | No vibrancy and cautery around | | | |

Dimension



Parts Appellation



Preparation before test

Choose appropriate clamp or tips and install it on the gage before test.

1. Pull and extend test
Choose appropriate pull clamp and install it on the central stick which marked [PULL].
2. Compression
Choose appropriate tip from push tips and install it on the central stick which marked [PUSH].
3. Use of extension rod
When it is impossible to touch the tested object, use extension rod to install clamp.
Note: When using extension rod to test, the tested object and gage must be on the same straight line. Or it will not possible to test the right value of load.
4. The confirmation and the operating method of changing knob
 - ① [PEAK] change into [TRACK]
Lightly press knob changing, at the same time, turn it to left to make the mark "•" be in the place of [TRACK].
 - ② [TRACK] change into [PEAK]
Turn knob to right, the knob springs and the mark "•" is in the place of [PEAK].
 - ③ Points for attention after testing
After finishing testing, change the mark "•", please put it in the place of [PEAK]. If changing knob is put in the place of [TRACK] for a longtime, life of inner springs lamination will be shorten.
5. Adjustment of indicator dial
 - ① Please confirm whether needle aims at [0] of dial, if not, please turn around the adjustable circle of dial, and dial will run with it to make needle aimed at [0]
 - ② When the machine is vertically placed to use, especially with installing clamp, even not applied load, the needle will be leaned. It is because of the deadweight of the machine and clamp. Turn around the adjustable circle of dial to have [0] aimed at needle, which can't affect veracity of testing result.

6. Tolerance indication and setting

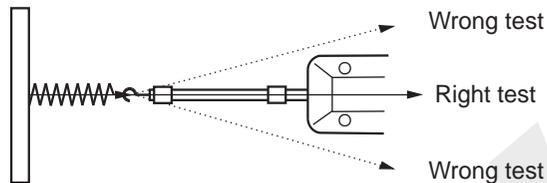
Turn the two needles on the tolerance indicator to set the tolerance limit (Max. Min). In testing, the needle shows among the range of the tolerance indicator, it is eligible value, or it is incompetent value.

Note:

- ①Close for prolonged periods of time peak load of the equipment or superload measurement, load detection of the elastic force institutions will gradually deteriorate, leading to the load can not be detected in the correct value, it is recommended to choose another large rally of up specifications;
- ②Using the equipment to do high-intensity fracture test may let the pointer beats or damage the instrument for the impact of destruction moment. So we recommend to choose digital force gauge.

Test

Please tightly hold gauge by hands or put it on appropriate stands to make a test. When testing, please adjust tested object and gauge on the same straight line, if they are not, we will not get the right value of load.



Change of knob and movement of needle

1.Change of load testing

When the knob turns to the [TRACK], the needle moves in accordance with the change of force.

2.Load value testing of unitary peak

When changing knob is placed in [PEAK] and the load value reaches, needle will stands still indicating peak force, If unchain the needle, please press changing knob, then needle will return to the place [0].

3.Load value testing of plural peak-1

At the beginning, there is a small peak, and then a bigger peak, when do this testing put knob in the place of [PEAK] first and then begin to test. When load reaches a definite value and doesn't change, the load value is the first peak. Till to finish the test, the last peak value is the second one.

4.Load value testing of plural peak-2

When there is a big testing peak at the beginning, please make the following two step to test:

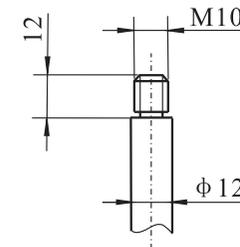
- ①When changing knob is always in the place of [PEAK], the load value will be always the first peak.
- ②Put changing knob in the place of [TRACK] firstly, when load rises again, put changing knob in the place of [PEAK], you can get the litter peak value.

5.When dimness of peak is singular or plural

- ①Using the method (1) to confirm the change of force.
- ②After confirming the change of (1), and then choose do which testing method fits tested object among (2), (3), (4) in the test and then make a test.

Others

In order to make gage have a right and stable tested value, please make full use of clamps attached. If your company wants to manufacture clamps, please refer to the connected size of central stick shown below.



Maintenance

- 1. The clamp made for testing must be able to support the load value of the gage. When load capacity is not enough, it will damage the instrument or endanger the safe of testing people;
- 2. When installed on the other stands to use, please use four M6 screws to fix and install on the gage. Installation dimension (check page 2);
- 3. Please don't apply load exceeding the max test range of gage to avoid damaging instrument and causing trouble;
- 4. Don't store or use gage in the place of low or high temperature and humidity;
- 5. Please store the gage in the place of solid and level, if you put it in the unstable place, gage is easily fallen to damaged;
- 6. If there's something wrong with it, please contact with original sales department or our company.