

## FL 100.02

### Tension bar, copper



#### Learning objectives/experiments

- with FL 100 Strain gauge training system: determination of the modulus of elasticity from the measuring data of a tensile test

#### Specification

- [1] copper test specimen for tensile test
- [2] test specimen with strain gauge measuring points in full bridge circuit
- [3] determination of modulus of elasticity of material copper
- [4] accessory for FL 100 Strain gauge training system

#### Technical data

##### Tension bar

- measuring length: 50mm
- cross-section:  $2 \times 10 \text{ mm}^2$
- modulus of elasticity:  $123000 \text{ N/mm}^2$
- Poisson's ratio: 0,33
- strain gauge measuring point: full bridge,  $350 \Omega$

LxWxH: 150x60x60mm

Weight: approx. 0,5kg

#### Scope of delivery

- 1 strain gauge test specimen

#### Description

##### ■ determination of the modulus of elasticity from the measuring data of a tensile test

This test specimens for tension is available as accessory for FL 100 Strain gauge training system. The tension bar is fitted with four strain gauge measuring points. The strain gauges are wired in the full bridge with two gauges each for linear and transverse strain. The specimen is loaded incrementally allowing for the strain reading to be sequentially monitored.

The test specimen can be inserted quickly and precisely into the frame of FL 100. Both ends of the tension bar are provided with hooks for introduction of the tensile forces. The strain gauge measuring range is protected by a Plexiglas cover, which also makes it clearly visible for inspection purposes.

Two additional tension bars are available as accessories, in brass (FL 100.01) and aluminium (FL 100.03), enabling the modulus of elasticity to be ascertained in experiments.

## **FL 100.02**

### **Tension bar, copper**

Required accessories

FL 100                      Strain gauge training system