

Technical Data:

Power supply:	4 1.5 V minion cells or rechargeable cells or external with 6 V transformer (see accessories)
Display:	LED, 3½ decimal places, 26 mm high
Accuracy:	± 1,5 %
Toggle switch:	ON/OFF
DIN receptacle:	For connecting axial or tangential probes
Rotary knob:	For correcting the zero value
2,5 mm DC receptacle:	For external power supply
Case:	Plastic, ABS
Dimensions:	approx. 160 x 120 x 45 mm
Weight:	approx. 400 g

Recommended Accessory:

P3120-6N 6 V Transformer for powering the box-teslameter from 230 V~/50 - 60 Hz mains

Do not drop the instrument. Should this occur, have the instrument checked and, if necessary, repaired by authorized service personnel.

In the event that unexpected problems arise during installation or use, turn the instrument off and contact an authorized dealer.

Do not expose the instrument to water drops or spray.

Use only fuses of the type and nominal amperage indicated.

This instrument contains no parts that need to be serviced by the user (except for changing batteries).

This device is only to be operated by qualified persons and by others duly instructed by such persons.

FRUHMANN GmbH - NTL-Export 7372 Karl, Austria



Box-Teslameter, magnetic DE722-1M

This device serves to measure the density of magnetic flux up to a force of ± 200 milliteslas.

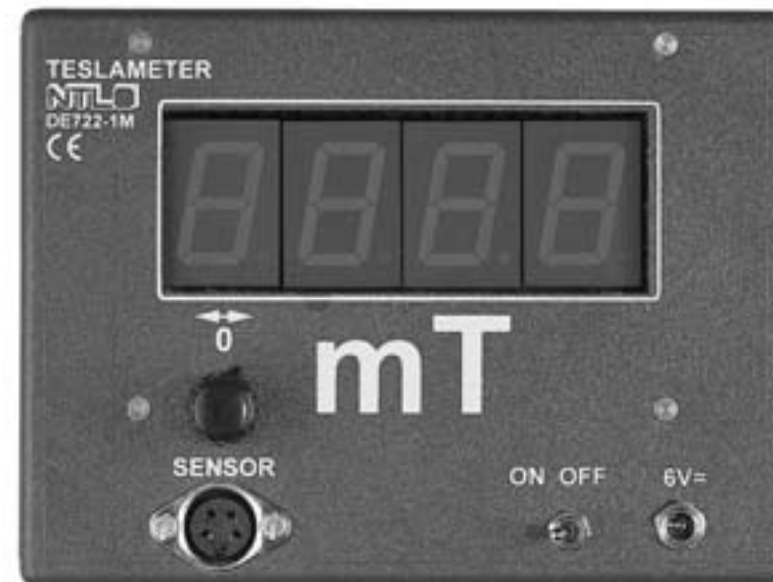
Either axial or tangential probes can be connected to the device without changing settings.

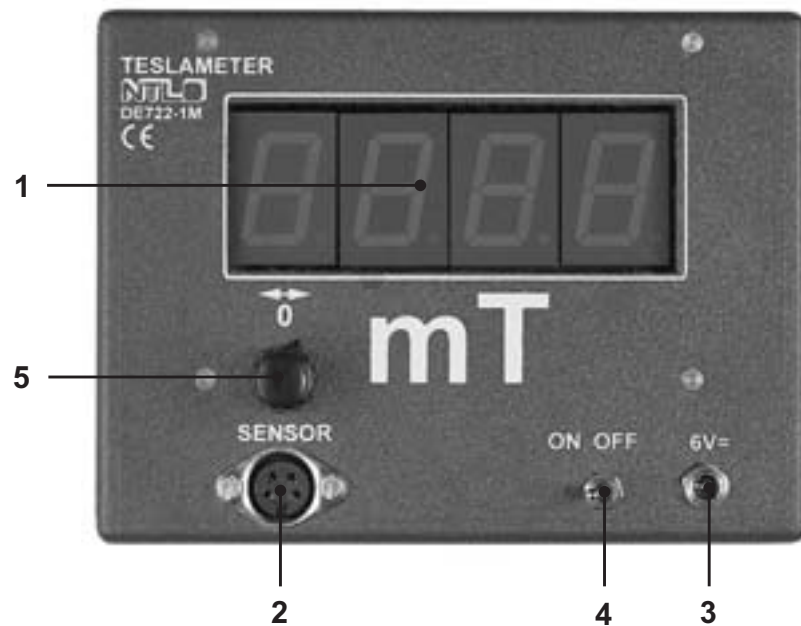
The value measured is displayed by an LED display readable from a distance.

Necessary Accessories:

DE222-2A Magnetic field probe, axial

DE222-2T Magnetic field probe, tangential





- 1 LED display with 3½ decimal places, 26 mm high
- 2 Receptacle for connecting axial and tangential probes
- 3 2.5 mm input receptacle for external 6 V power supply
- 4 ON/OFF switch
- 5 Rotary knob for setting zero value
- 6 4 magnets on the reverse side
- 7 Magnetic field probe, axial
- 8 Magnetic field probe, tangential

NTL
INNO SYSTEM

Operation:

The box-teslameter is easy and safe to use and can be operated using either axial or tangential probes.

Depending on the requirements of the experiment, connect the proper magnetic field probe (6, 7) to the DIN receptacle (2) and turn the ON/OFF switch (4) to the ON position. The value is measured is shown on the LED display (1).

When measuring the magnetic field within strongly non-homogenous fields, for example on the surface of permanent magnets, as much care must be given to the geometrical position of the sensor as to the sensor's distance from the magnet's surface. In such cases measurement errors can occur, since the active area of the sensor is not at the midpoint of its thickest part but rather somewhat above it. The measurement range of the device is ± 200 mT. Stronger magnetic fields do not damage the sensor.

Caution: the sensor element is mounted on a ceramic holder and is therefore sensitive to mechanical movements!

The zero value is set using the rotary knob (5). This adjustment ought to be made in the event of large temperature changes, when another sensor is connected or when working in another magnetic environment (stray fields!). The range for adjustment is at least ± 3 mT.

The total accuracy of the measurement system is $\pm 1,5$ %. This provides for sample distribution, non-linearity, temperature error and linearity error. It is, however, assumed that the zero value is always set beforehand.

The box-teslameter is supplied by four built-in minion cells. If the most modern batteries with a capacity of about 3 Ah are used, the batteries should suffice for about 20 hours of operation. Should the device not be used for several months at a time, the batteries should be removed so that no damage occurs to the device in the case of seepage.

The box-teslameter can also be powered by a transformer (suitable for a load of at least 200 mA), for example by the 6 v mains transformer P3120-6N.

The power supply is connected to the input receptacle (3) using DC wires and a 2.5 mm DC plug. The outer contact is the negative terminal and the inner tube is the positive one. Reversing the poles or applying too much voltage do not harm the device up to ± 25 V. When the DC plug is connected mechanically, the battery is disconnected. Faulty batteries or an inappropriate transformer result in the display appearing faint or showing the wrong value.

As long as the display glows it shows the correct value. This is the reason the device has no "LowBatt" display.