

ESG NT2

Digital earth fault locator



- **Highly sensitive**
- **Automatically adapts to voltage level**
- **Automatically filters out interfering signals**
- **Automatic zero calibration, no adjustments necessary**
- **History mode**
- **High-contrast color display**
- **Power frequency mode for pinpointing**

DESCRIPTION

Pinpointing means precisely locating faults in the cable sheath. These faults cause the measuring current to flow into the ground. When the measuring current exits the cable at the fault point, the current builds a voltage gradient which can be measured by earth rods and earth fault locators. The step voltage method accurately locates sheath faults: as it approaches the fault point, the step voltage potential increases. After it passes the fault, the potential decreases with reversed polarity. The change in polarity allows the fault to be located precisely.

The ESG NT2 earth fault locator measures the step voltage potential produced by underground test generators. Other existing underground distortions such as potential equalisation current, DC offset, 16 ²/₃ Hz or influences from cathodic protection systems are automatically detected and eliminated. The automatic zero calibration maintains the display calibration continuously at zero.

The ESG NT2 has a high-contrast color display on which the measured step voltage is displayed in two ways: as a bar graph (similar to a conventional pointer instrument), and as a continuous "history-display" which shows both the current process and the last 5 to 6 measurement records. In this way, changes are displayed clearly and continuously.

The deflection of the instrument always indicates the direction of the earth fault. Thanks to the easyGO principle, almost no operational steps are required. Basic settings can be made simply by using the rotary encoder.

The ESG NT2 automatically adapts to the input voltage level. Neither manual calibration of the display and zero point, nor the adaption of the measuring range is necessary. Moreover, the ESG NT2 has an automatic pulse detector, allowing it to work with almost any type of pulse generator.

In addition to the standard pinpointing mode, the ESG NT2 also has a power frequency detection mode. In this mode high-ohmic phase-to-ground faults on low voltage cables can easily be identified and pinpointed without the use of an additional signal generator. This is a useful, time and cost-saving function, especially where house connection boxes are not accessible and the normal procedure would be cutting the cable.

ALL ADVANTAGES AT A GLANCE

- Automatic suppression of external potentials
- Automatic adaption to the voltage level
- Automatic detection of the pulse rate
- Automatic zero adjustment
- Very high measuring sensitivity in the μV range
- Very easy operation
- Cable mounting at the dividable insulated earth rod
- Power frequency mode for pinpointing of high-ohmic phase-to-ground faults on low voltage cables



TECHNICAL DATA*

Display	High-contrast color TFT, 320 x 240 pixels
Detection modes	Standard and power frequency (50/60 Hz)
Sensitivity	5 μV
Suppression of disturbances	50/60 Hz, 16 $\frac{2}{3}$ Hz, KKS, DC
Zero adjustment	Automatically
Duty cycle recognition	Automatically
Power supply	6 x LR6 Alkali-Mangan (AA)
Operation time	> 20 hours
Protection class	IP 54
Dimensions receiver (H x B x D)	2.56 in. x 8.86 in. x 3.94 in. 65 x 225 x 100 mm
Weight receiver	0.9 kg / 1.98 lb.(including batteries)
Length earth rods	1 m / 39.37 in. (divisible and isolated)
Weight earth rods	0.8 kg / 1.76 lb. each
Length test leads	2 m / 78.74 in.

ORDERING INFORMATION

Product	Order no.
ESG NT2-VS, sales set Display unit, earth spike (2 pcs), test lead red, test lead black, contact sponge (2 pcs), soft carry bag with mold insert, batteries (6 pcs)	1014430
Options:	
Wall holder display unit	11 830 3215
Wall holder earth rods	89 872 2056
Ground holder earth rods	12 830 9944

* We reserve the right to make technical changes.