

# Earth Tester as per IEC 61557-5

## NORMA HANDY GEO



### Beschreibung

### Technical Data

Display: 3½-digit (1999) 7 segment-liquid-crystal-Display, 16mm high, 16-division analog scale with Overload-, Underload and special symbols display, display-illumination switchable



|                                            |                                                                                              |
|--------------------------------------------|----------------------------------------------------------------------------------------------|
| Climate class:                             | KGW as per DIN VDE 40040                                                                     |
| Working temperature range:                 | -10° C ... +50° C                                                                            |
| Operatinh temp. range:                     | 0° C ... +30° C                                                                              |
| Reference temp. range:                     | 23° C (±2° C)                                                                                |
| Storage temp. range:                       | -20° C ... +60° C                                                                            |
| Safety class:                              | Complies with safety class II                                                                |
| Max. voltage relative to earth IEC 1010-1: | max. 600V specified to IEC 1010 part 1 (inst. CAT II, pollution degree 2)                    |
| Safety class:                              | IP 40 as per DIN VDE 40050                                                                   |
| Batterytype:                               | Alkaline 9V IEC 6LR61                                                                        |
| Indrinsic error:                           | refers to the reference temperature range and is guaranteed for 3 years                      |
| Operating measurement deviation:           | considers influence of operating temperature. Position and supply voltage have no influence. |

Dimensions: 113 (W) x 54 (D) x 216 (L) mm  
 Weight: Basic unit with accessories 990 Gramm

#### Measurement of earthing resistance ( $R_E$ 3-pole)

Measuring method: Current and voltage measurement as per IEC 61557-5

Open circuit voltage: <25 V AC

Short circuit current: >50 mA AC

Measuring frequency: 128 Hz, noise voltage suppression at  $16 \frac{2}{3}$  Hz, 50 Hz and 60 Hz >80 dB

| Range              | Resolution    | Display               | Intrinsic error               | Operat.meas.deviation         |
|--------------------|---------------|-----------------------|-------------------------------|-------------------------------|
| 0.15...20 $\Omega$ | 0.01 $\Omega$ | 0...19.99 $\Omega$    | $\pm(6\% \text{ of mv} + 5D)$ | $\pm(8\% \text{ of mv} + 5D)$ |
| 200 $\Omega$       | 0.1 $\Omega$  | 20,0...199.9 $\Omega$ |                               |                               |
| 2000 $\Omega$      | 1 $\Omega$    | 200...1999 $\Omega$   |                               |                               |

RH- and RS-measuring range fix 200 k $\Omega$ . Automatic switch-over of the resolution (display range), dependent on RH, automatic test of resistances probe with warning at measuring deviations >30%.

#### Measurement of resistance ( $R_E$ 2-pole)

Measuring method: Current and voltage measurement

Open circuit voltage: <25 V AC

Short circuit current: >50 mA AC

Measuring frequency: 128 Hz, noise voltage suppression at  $16 \frac{2}{3}$  Hz, 50 Hz und 60 Hz >80 dB

| Range              | Resolution    | Display               | Intrinsic error               | Operat.meas.deviation         |
|--------------------|---------------|-----------------------|-------------------------------|-------------------------------|
| 0.15...20 $\Omega$ | 0.01 $\Omega$ | 0...19.99 $\Omega$    | $\pm(6\% \text{ of mv} + 5D)$ | $\pm(8\% \text{ of mv} + 5D)$ |
| 200 $\Omega$       | 0.1 $\Omega$  | 20,0...199.9 $\Omega$ |                               |                               |
| 2000 $\Omega$      | 1 $\Omega$    | 200...1999 $\Omega$   |                               |                               |

#### Measurement noise voltage (AC / DC)

Mean value rectification at AC calibrated for RMS-display for sinuos, displayed is value for AC or DC whichever is greater.

| Range    | Resolution | Display    | Intrinsic error                |
|----------|------------|------------|--------------------------------|
| 1...30 V | 0.1 V      | 0...30.0 V | $\pm(10\% \text{ of mv} + 5D)$ |

$U_{\max}$ : 30 V<sub>eff</sub>

Max. overload: between earth, auxiliary earth and probe 250 V<sub>eff</sub>

Input resistance: approx. 1M $\Omega$

Common mode rejection/CMR: >80 dB at 50 Hz and 60 Hz

## Order Codes

| Description                                                                                                                                                                                                                                                                                                                         | Order No.       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Handy GEO (Basic Unit)</b><br>Accessories supplied:<br>1 protective cover + carrying belt + 2 hooks<br>1 Operating instruction Engl. / Germ. / French<br>1 Battery, Alkaline 9V IEC 6LR61                                                                                                                                        | A 1885 03110    |
| <b>Handy GEO (Set 1)</b><br>Accessories supplied:<br>1 protective cover + carrying belt + 2 hooks<br>1 Operating instruction Engl. / Germ. / French<br>1 Battery, Alkaline 9V IEC 6LR61<br>1 carrying case with<br>2 earth/ground spikes<br>1 reel (25 m lead) and 1 reel (50 m lead)<br>2 measuring leads 1.5 m; 2 alligator clips | A 1885 03111    |
| <b>Handy GEO with Interface (Set 2)</b><br>Accessories supplied:<br>1 protective cover + carrying belt + 2 hooks<br>1 Operating instruction Engl. / Germ. / French<br>1 Battery, Alkaline 9V IEC 6LR61 and<br>installed RS 232C Interface,<br>RS 232C cable for printer,<br>PC-Software "WIN VIEW" (3½" disk),<br>PC adapter        | A 1885 03112    |
| <b>Interface for Handy ISO / GEO</b><br>(built in by service centers only)<br>incl. cable for printer<br>PC-Software "WIN VIEW" (3½" disk),<br>PC adapter                                                                                                                                                                           | A 6412 03111    |
| <b>Accuset for Handy ISO / GEO</b><br>accu with plug in power supply                                                                                                                                                                                                                                                                | A 6403 03111/AT |
| <b>Carrying Case for Handy GEO</b><br>with 2 earth/ground spikes,<br>1 reel (25m lead), 1 reel (50m lead),<br>2 measuring leads 1.5m, 2 alligator clips                                                                                                                                                                             | A 6030 03100    |
| <b>Thermal printer RS 232C</b><br>Seiko DPU-201GS                                                                                                                                                                                                                                                                                   | A 6413 06111    |
| <b>Paper for Thermal Printer</b>                                                                                                                                                                                                                                                                                                    | A 6202 46111    |

Distributor



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