

METRAOHM 413 Article: M630A

Digital Low-Resistance Measuring Instrument for Measuring Protective Conductors, Equipotential Bonding and Much More

- Two measuring ranges from 0.01 to 1999 kΩ, zero balancing for measurement cables
- Indication of interference voltage

- Compact and rugged – for service calls and laboratory use
- Overvoltage protection – protects the instrument in the event of inadvertent connection to mains power
- Measuring category: CAT III 300 V / CAT II 600 V
- IP 65 protection

Scope of delivery:

- Plug-in measurement cable
- 9V Battery



i More information at:
www.gossenmetrawatt.com

METRISO C Article: M541A



Battery Powered Insulation Resistance Tester for Measurements in Systems with Nominal Voltages of up to 1000V

- Measurement of insulation resistance and high value ohmic resistance with display of the measured value and the actual measuring voltage
- Measurements at bonding and protective conductors with low-resistance measurement
- Measurement of touch current
- Voltage and frequency measurement
- Optional temperature measurement, measurement of relative humidity
- All measurements are in compliance with the following regulations:
**DIN VDE 0100, part 600,
DIN VDE 0701-0702,
EN 344, EN 1081 - insulation measurement only!**
- Unambiguous limit value and Go/No-Go indication by means of LEDs, and display of useful information
- All measurement values are stored to memory with reference to their respective electrical circuit designations
- Rugged 2-component housing for everyday use

Scope of delivery:

- Measurement cables

Please refer to the data sheet for further technical specifications.



Incl. Factory Calibration Certificate

Function	Measuring Range	Measuring Voltage	Nominal Current
Insulation resistance R_{ISO}	0.00 kΩ ... 99.9 GΩ	50 V ... 1000 V	1 mA ($R = 1 \text{ k}\Omega/\text{V}$)
Resistance R_{LO}	0.00 Ω ... 99.9 Ω	4.5 V (U_0)	$\geq 200 \text{ mA}$ ($R < 10 \Omega$)
Voltage U_{ISO} / U_{\sim}	0 V ... 1200 V	—	—
Touch current I_B	0.00 mA ... 9.99 mA	—	—

METRISO® 1000A



Insulation Measuring Instrument for Electrical Systems with Warning in Case of Dangerous Touch Voltage



METRISO 1000A

Metriso 1000 A	
Display	Analog
Insulation measuring voltage	50–100–250–500–1000V
Insulation measuring range	400 MΩ
R _{L0} measuring ranges	4 Ω
Limit value signals	Indicator lamp
Article	M540C

Please refer to the data sheet for further technical specifications.

METRISO® G500MM / G500 / G1000 / G1000+



Insulation and Low Resistance Measuring Instruments



METRISO G500MM



METRISO G1000A

Please refer to the data sheets for further technical specifications.



METRISO G500



METRISO G1000



METRISO G1000+

Type	Metriso G500MM	Metriso G500	Metriso G1000	Metriso G1000+	Metriso G1000A
Display	LCD	LCD	LCD	LCD	Analog
Measuring voltage	50 to 500 V (50, 100, 250, 500)	50 to 500 V (50, 100, 250, 500)	50 to 1000 V (50, 100, 250, 500, 1000)	50 to 1000 V (50, 100, 250, 500, 1000)	50 to 1000 V (50, 100, 250, 500, 1000)
Measuring range	10 kΩ ... 100 GΩ	10 kΩ ... 100 GΩ	10 kΩ ... 200 GΩ	10 kΩ ... 1 TΩ	10 kΩ ... 1 TΩ
Polarization index, PI/DAR	—	—	—	■	—
Low-resistance measurement	—	0.17 Ω ... 10 Ω	0.17 Ω ... 10 Ω	0.17 Ω ... 10 Ω	0.20 Ω ... 5 Ω
Voltage measurement	10 V ... 500 V	10 V ... 500 V	10 V ... 1000 V	10 V ... 1000 V	10 V ... 1000 V
Article number	M550E	M550D	M550C	M550B	M542A



Set	Article	Metriso G500MM Set	Metriso G500 Set	Metriso G1000 Set	Metriso G1000+ Set	Metriso G1000A Set
		M550J	M550H	M550G	M550F	M542B

Accessories						
Test probe for remote triggering METRISO G	Z550A	■	■	■	■	■
Ever-ready case METRISO G	Z550C	■	■	■	■	■



Test probe for remote triggering

METRISO G ever-ready case

METRISO® 5024 Article: M540E

Analog Insulation Measuring Instrument, Low-Resistance Measuring Instrument and Voltmeter with Buzzer for Quick, Two-Hand Operation

- Ergonomic handling
- Illuminated scale
- Insulation measurement with 100, 250 and 500V measuring voltages

- Low-resistance measurements for protective conductor and equipotential bonding conductor resistance, and continuity
- Buzzer and blinking LED indicate alarm status for erroneous and implausible measurements
- Fluttering pointer as last-resort warning function

i More information at: www.gossenmetrawatt.com

- Scope of delivery:**
- Insulation measuring instrument, ohmmeter and voltmeter
 - Carrying pouch

Measuring Range	Intrinsic Uncertainty	Overload	Measuring Current	Short-Circuit Current
Insulation measurement, measuring voltage: 100 / 250 / 500 V				
0.1 ... 400 MΩ	2.5%	600V AC	> 1 mA	< 10 mA
Measuring error under reference conditions relative to scale length (l = 84.6 mm)				
Low resistance measurement, measuring voltage: 4.5 V				
0 ... 4 Ω	2.5%	250V DC	> 200mA	—
Measuring error under reference conditions relative to upper range value (l = 74.9 mm)				
Voltage measurement, DC / AC (40 ... 200 Hz)				
0 ... 500V	2.5%	600V AC	450 kΩ	—
Measuring error under reference conditions relative to scale length (l = 73.3 mm)				



Please refer to the data sheet for further technical specifications.

High-Voltage Insulation Measuring Instruments with Test Voltage of up to 5000 V DC

For non-destructive measurement of insulation resistance in electrical systems, as well as at machines, transformers, cables and electrical equipment utilized in, for example, locomotives, street cars and ocean going vessels, with selectable test voltages of up to 5 kV.

METRISO® 5000A/METRISO® 5000D-PI



METRISO® 5000 A Article: M580A

Analog High-Voltage Insulation Measuring Instrument with Permanently Connected Measurement Cables and Test Probes

METRISO 5000AK: The battery powered METRISO 5000 A is converted into the muscle powered METRISO 5000AK by replacing the battery module with a crank generator.

- Extensive measuring range: 10 kΩ ... 1 TΩ
- Measuring range: 100 kΩ ... 100 MΩ (1000 V)
- Measuring voltages: 100 V, 250 V, 500 V, 1000 V, 1500 V, 2000 V, 2500 V, 5000 V
- Measurements to 1000 V per **DIN VDE 0413**
- Voltage measurement to 1000 V
- Concise logarithmic display
- Guard terminal for the elimination of surface current

Scope of delivery:

METRISO 5000 A (580A)

- With battery module:

METRISO 5000 AK (580C)

- With crank generator

Both with 5 kV alligator clips KY 5000A

METRISO 5000 A-Set (M580S) /

METRISO 5000 AK-Set (M580T)

- KY 5000A
- GUARD 5000 A
- Universal carrying pouch F2000



ISO KALIBRATOR 1 Article: M662A



Test Adapter for Insulation Measuring Instruments and Ohmmeters

Adapter for rapid, efficient testing of the accuracy of measuring instruments for insulation resistance and low-value resistors. Insulation measuring instruments with nominal voltages of up to 1000 V can be tested with the ISO Calibrator 1.

- Test range: 100 kΩ to 100 MΩ
- Protection:
Housing: IP 50, sockets: IP 20

- Usable with following instruments:
Metriso Series,
Profitest Master Series

Please refer to the data sheet for further technical specifications.



METRISO® 5000 D-PI Article: M5810

Digital High-Voltage Insulation Measuring Instrument with Test Voltage of up to 5000V DC

Voltage measurement to 1000V

Testing for absence of voltage at the device under test in systems of up to 1 kV can be performed with the voltage measuring range.

Discharging Capacitive Devices Under Test

Capacitive devices under test such as cables and coils, which may be charged with test voltage, are discharged by the measuring instrument. The falling voltage value can be observed at the display.

Measurements in Accordance with EN 61557, DIN VDE 0413

Nominal current amounts to 1 mA at a test voltage of 100, 250, 500 or 1000V.

Highly Insulated Measuring Cables

The highly insulated measuring cables are permanently connected for safety reasons in order to avoid danger resulting from an inadvertently disconnected cable.

Polarization Index – PI

Polarization index testing is recommended for electrical machines. This procedure involves expanded testing of insulation resistance. DC measuring voltage from the METRISO 5000D-PI is applied to the insulation for a duration of 10 minutes. The measured value is documented after one minute, and after ten minutes. If the insulation is defective, the value measured after ten minutes is higher than the value measured after one minute. The relationship between the two measurement values is the polarization index. Charged material within the insulation is aligned due to the applica-

tion of measuring voltage over a long period of time, resulting in polarization. The polarization index indicates whether or not the charged material contained in the insulation can still be moved, thus allowing for polarization. This, in turn, is an indication of the condition of the insulation.

- Extensive measuring range: 0.4 MΩ ... 1 TΩ
- Variable test voltage, or in fixed steps: 100V, 250V, 500V, 1 kV, 1.5 kV, 2 kV, 2.5 kV, 5 kV
- Polarization index and absorption ratio
- Voltage measurement to 1000 V
- Frequency measurement: 15 Hz to 1 kHz
- Capacitance measurement: 0.1 ... 5 μF
- Measurement of electrical discharge
- Guard terminal for the elimination of surface current
- Supply power from mains, battery pack or external 12V power supply
- Backlit dot matrix display
- Digital display of measured values and limit values
- Timer function: 1 s ... 100 min.

Scope of delivery:

- Basic instrument with permanently connected measurement cables and test probes
- Alligator clips (5 kV version)
- Rechargeable battery (for M5810-0001 only) / mains power cable
- 5 m extension cable / interface cable

Please refer to the data sheet for further technical specifications.



Guard 5000 A, Leadex 5000

Guard 5000 A (Z580C)

(for the elimination of surface current): guard cable and 1 alligator clip

Leadex 5000 (Z580D): 5 m extension cable



KY 5000 A

Article: Z580B

Alligator clips, 5 kV version



Generator 5000 A

Article: Z580A

Crank Generator for Metriso 5000 A

The battery powered METRISO 5000A is converted into the muscle powered METRISO 5000 AK by replacing the battery pack with a crank generator.



More information at:
www.gossenmetrawatt.com

GEOHM C Article: M590A

Battery Powered Earth Tester – also for Measurement of Soil Resistivity

- Compact, menu-driven instrument for the measurement of earth resistance for 3 or 4-wire connection
- Continuous monitoring of interference voltage, as well as auxiliary earth electrode and probe resistance with indication if allowable limit values are violated
- Complete display of all required values at a large dot matrix display, or warning with 4 LEDs. Easy concise operation with only 4 keys.

- Measurement of earth resistance in 5 ranges to 50 k Ω
- Voltage measurement: 10 to 250 V
- Frequency measurement: 45 to 200 Hz
- Battery monitoring and self-test
- Integrated memory with IrDA interface
- Earth tester per **DIN VDE 0413**
- Extremely rugged 2-component housing

Please refer to the data sheet for further technical specifications.



GEOHM 5 Article: M591B



Earth Tester for All Known Measuring Methods

This battery powered measuring instrument can also be used to ascertain or measure soil resistivity and ohmic resistance in accordance with the current-voltage measuring method. Easy concise operation with only 4 keys.

- **Measurement of:**
 - ◆ Earth resistance
 - ◆ Selective earth resistance
 - ◆ Soil resistivity
 - ◆ Current (TRMS) via clamp meter (optional)
- Conventional 3 and 4-pole measurement
- Selective single-clamp measurement (optional)
- 2-clamp measurement (optional)
- Battery operation is possible (optional)
- Digital display
- Rugged housing
- No balancing required
- Continuous monitoring of interference voltage and auxiliary earth electrode resistance with indication when allowable limit values are exceeded
- Data storage for 250 measurements (1000 measured values)
- Data interface for transmission of measured values to a PC

Scope of delivery:

- Black test cable, 4.5 meters
- Green test cable, 4.5 meters
- Red test cable, 15 meters
- Blue test cable, 20 meters
- 4 earth spikes
- 4 batteries per LR14
- Carrying strap
- Stackable system case

Optional accessories:

- Battery charger with 4 batteries Z591C
- LINK-G software Z591D



i More information at:
www.gossenmetrawatt.com

Please refer to the data sheet for further technical specifications.

