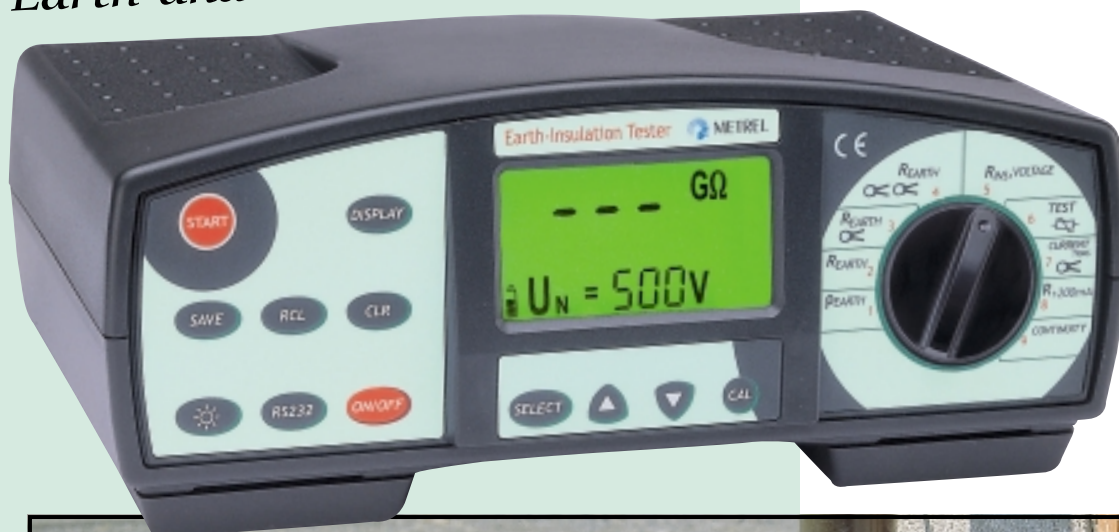


Earth-Insulation Tester

*Ultimate Instruments for Testing
Earth and Insulation Resistance*



No. 118740

VDE 0100
BS 7671
CEI 64.8
HD 384

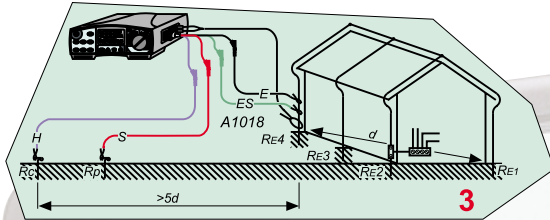
EN 61557
VDE 0413

EN 61010-1
EN 50081-1
EN 50082-1

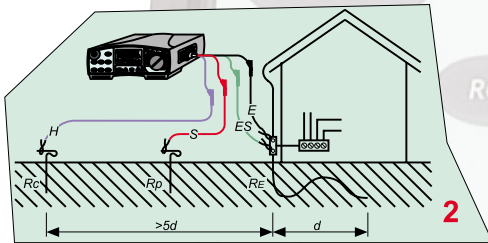
Not only Earth and Insulation Resistance, a wide range of additional measurements is available



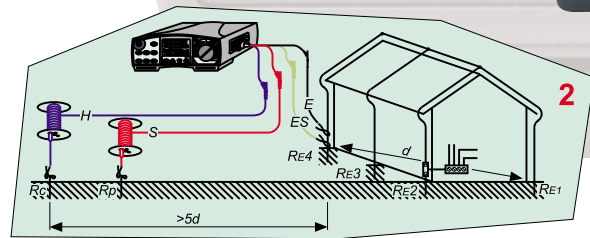
No. 118740



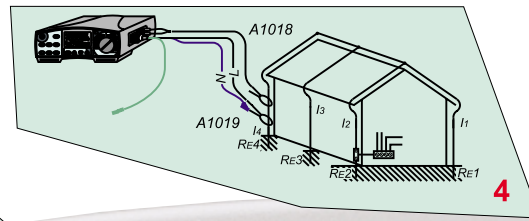
Particular Earth Resistance - one clamp
(No opening of rusty junctions)



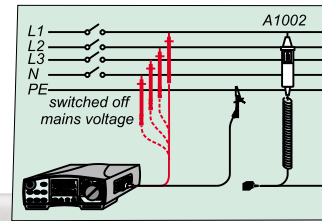
Earth Resistance EN 61557-5



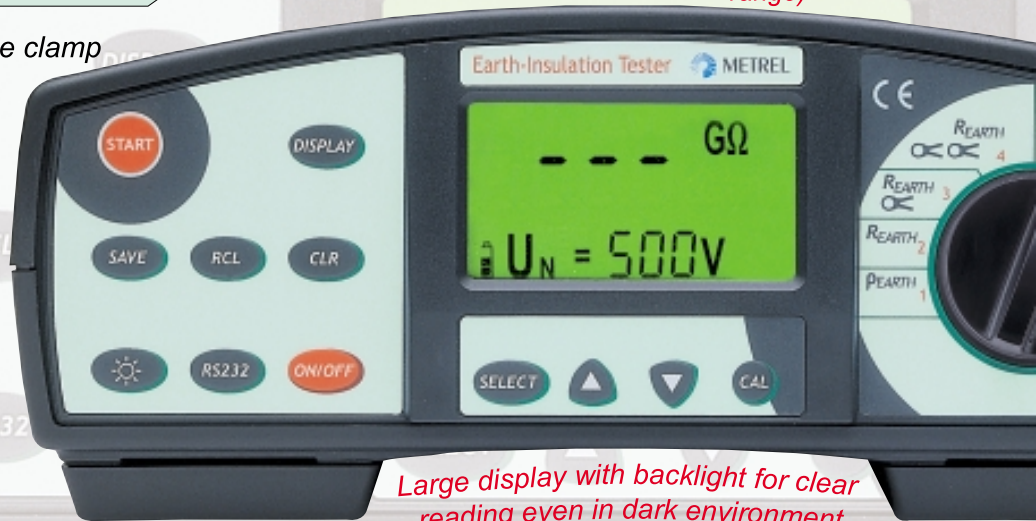
Earth Resistance EN 61557-5
(Huge and complex objects)



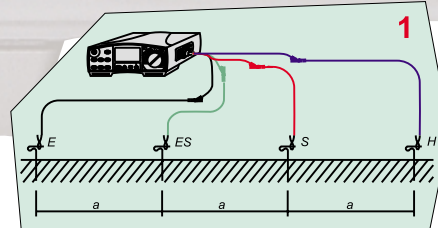
Earth Resistance - two clamps
(Rodless method for urban environment)



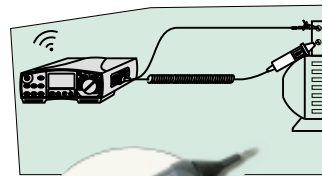
Insulation Resistance EN 61557-2
(Extremely high meas. range)



Large display with backlight for clear reading even in dark environment



Specific Earth Resistance EN 61557-5



Tip Commander for one-hand operation

Measurement per each set:

- Earth-Insulation Set 20 m
- Earth-Insulation Set 50 m
- Insulation Set

TECHNICAL SPECIFICATION

Insulation Resistance ● ● ●	
Display range Riso (Un ≥ 250V)	0 – 000 M ÷ 29.9 GΩ
Display range Riso (Un < 250V)	0 – 000 M ÷ 199.9 MΩ
Resolution	0.001; 0.01; 0.1; 1; 10; 100 MΩ
Accuracy	±(2 % + 2 D)... (0 ÷ 199.9 MΩ)
Nominal test voltage	50 ÷ 1000 V in steps of 10 V
Generator current capability	>1 mA at Unom.
Display range (test voltage)	0 ÷ 1200 V
Continuity of Protection Conductors (single measurement) ● ● ●	
Display range	0.00 ÷ 19.99 20.0 ÷ 199.9 200 ÷ 1999 Ω
Accuracy	±(2 % + 2 D) ±(3 %)
Test current	>200 mA
Compensation of test leads (up to 5 Ω)	yes
Automatic polarity exchange	yes
Continuity (continuous measurement) ● ● ●	
Display range	0.0 ÷ 199.9 Ω 200 ÷ 1999 Ω

Accuracy	±(3 % + 3 D)
Short-circuit test current	<7 mA

Earth Resistance (four-lead method) ● ●

Display range	0 ÷ 19.99 kΩ
Resolution	0.01; 0.1; 1; 10 Ω
Basic accuracy	±(2 % + 3 D)... (0 ÷ 2 kΩ)
Test voltage	<40 V / 125 Hz / sine wave
Short-circuit test current	<20 mA
High noise rejection	yes
Aut. potential and current probe res. test	yes

Earth Resistance (four-lead method + clamp) + ● ● ● ●

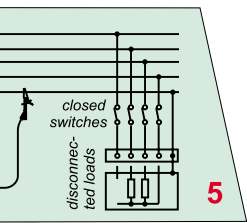
Display range	0 ÷ 1.99 kΩ
Other characteristics see under four-lead method	

Earth Resistance (two test clamps) A1018+A1019

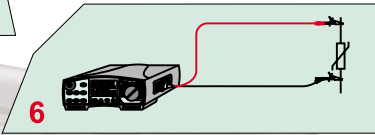
Display range	0 ÷ 19.99 Ω	20.0 ÷ 100.0 Ω
Basic accuracy	±(10 % + 2 D)	±(20 %)

Either Two Top Instruments in One

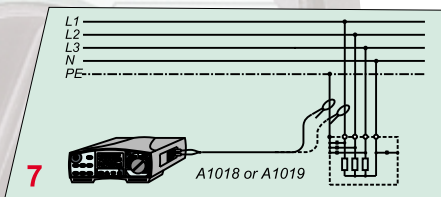
Insulation or Earth Resistance function gratis!



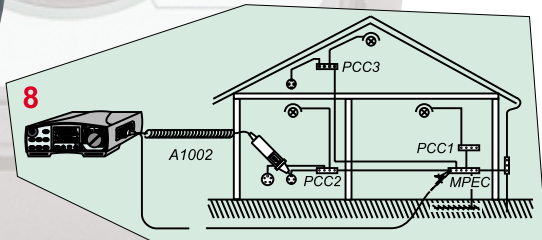
5



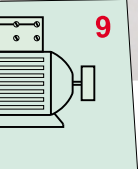
6
Varistor Overvoltage Protection Devices



7
Current (True RMS)
(0.1mA up to 200A)



8
Continuity of Protection Conductors EN 61557-4
(One-hand operation, remote commands)

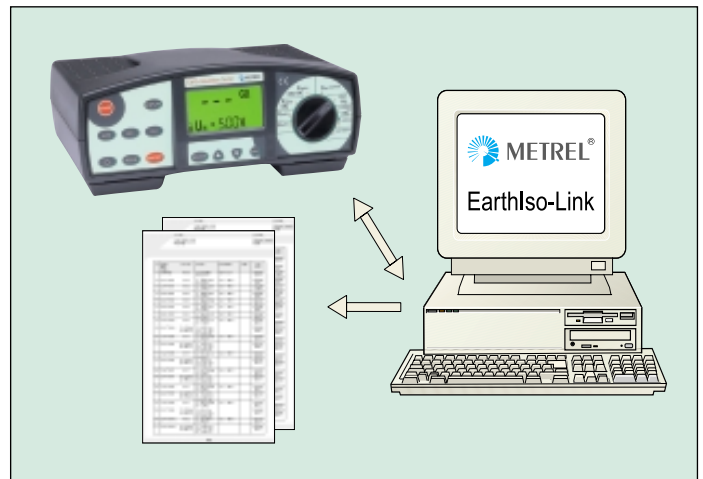


9
Continuity
(Continuous function for quick tests)

Tip commander enables one-hand operations

Outstanding features even in presence of mains interferences and high probe resistance

PC SW EarthIso Link enables easy and fast arrangements of test results



Specific Earth Resistance ● ●

Display range 0 ÷ 1999 kΩm (kΩft)

Calculation $\rho = 2\pi a R_E$

Distance between test rods 1 ÷ 30 m (1 ÷ 90 ft)

Other characteristics see under **four-lead method**

Voltage a.c./d.c. ● ● ●

Display range 0 ÷ 600 V

Accuracy ±(2 % + 2 D)

Nominal frequency range 45 ÷ 65 Hz, d.c.

Current (True RMS) A1018, A1019

Measurement principle current clamp 1 A / 1 mA

Display range 0 ÷ 200 A

Resolution 0.1; 1 mA; 0.01; 0.1; 1 A

Basic accuracy ±(5 % + 5 D)... (0.5 mA ÷ 200 A)

Nominal frequency 50/60 Hz

Varistor Overvoltage Prot. Devices – Breakdown Voltage ● ● ●

Measurement principle d.c. voltage ramp (500 V/s)

Display range 50 ÷ 1000 V

Accuracy ±(5 % + 10 V)

Threshold current 1 mA

GENERAL CHARACTERISTICS

Power supply 6 V (4 × 1.5 V IEC LR14)

Visual and acoustic warnings yes

Display custom design LCD (with backlight)

Memories approx. 1000 measurements

Computer connection RS 232

Dimensions (w × h × d) 265 × 110 × 185 mm

Weight (without acces., with batteries) 1.7 kg

Protection classification double insulation

Overvoltage category CAT III/300V or CAT II/600 V

Pollution degree 2

Degree of protection IP 54

Working temperature range 0 ÷ 40 °C

Max. humidity 85 % RH (0 ÷ 40 °C)

Auto power OFF yes

ORDERING INFORMATION	Earth Insulation Tester		
	Earth-Insulation Set 20 m	Earth-Insulation Set 50 m	Insulation Set
Order No.	MI 2088-20	MI 2088-50	MI 2088
Scope of supply			
Universal test cable 2 x 1.5 m	✓	✓	✓
Earth test set – 20 m	✓		
Earth test set – 50 m		✓	
Alligator clip	✓	✓	✓
Test tip (red)	✓	✓	✓
Test tip (black)	✓	✓	✓
RS232 cable	✓	✓	✓
PC SW Earth Link (for Windows 95/98/2000/NT/XP)	✓	✓	✓
Soft carrying bag	✓	✓	✓
Instruction manual	✓	✓	✓
Handbook "Measurements on electric installations in theory and practice"	✓	✓	✓
Declaration of conformity	✓	✓	✓
Production verification data	✓	✓	✓
Declaration of warranty	✓	✓	✓

Optional accessories				
Tip commander	Order No. A 1002	✓	✓	✓
Earth test set – 20 m	Order No. S 2001			
General cable 4 x 1 m				
H test lead 20 m				
S test lead 20 m			✓	✓
ES test lead 4.5 m				
E test lead 4.5 m				
Earth test rod 4pcs				
Small soft carrying bag				
Earth test set – 50 m	Order No. S 2002			
General cable 4 x 1 m				
H test lead 50 m wound-up on spool support				
S test lead 50 m wound-up on spool support		✓		✓
ES test lead 4.5 m				
E test lead 4.5 m				
Earth test rod 4pcs				
Soft carrying bag – small				
Low-range clamp 0.5 mA up to 200 A	Order No. A 1018	✓	✓	✓
Standard-range clamp 10 mA up to 200 A	Order No. A 1019	✓	✓	✓
General cable 4 x 1 m	Order No. A 1021			✓



METREL® – Measuring and Regulating Equipment
Manufacturer, d.d.

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Internet: <http://www.metrel.si>; E-mail: metrel@metrel.si

Subject to technical change without notice!

Distributor: