

Earth-Insulation Tester

*Ultimate Instruments for Testing
Earth and Insulation Resistance*



No. 118740

VDE 0100
BS 7671
CEI 64.8
HD 384

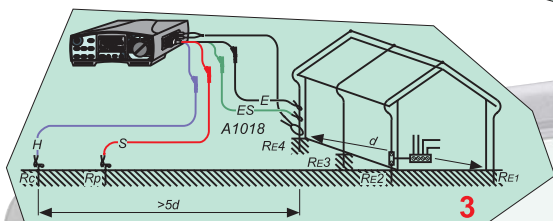
EN 61557
VDE 0413

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

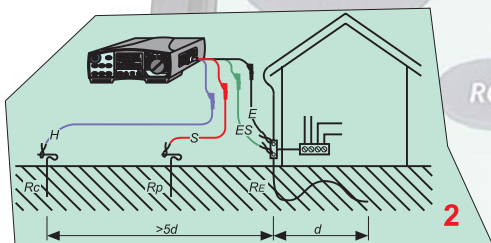
Not only Earth and Insulation Resistance, a wide range of additional measurements is available



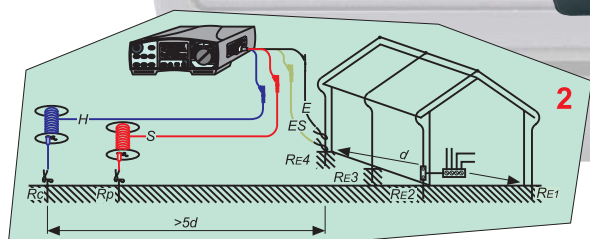
No. 118740



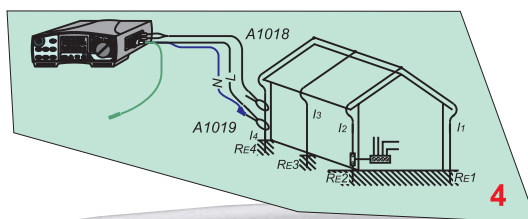
Particular Earth Resistance - one clamp
(No opening of rusty junctions)



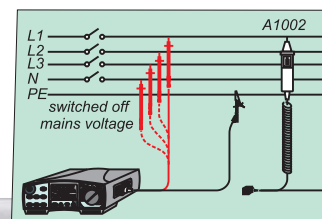
Earth Resistance EN 61557-5



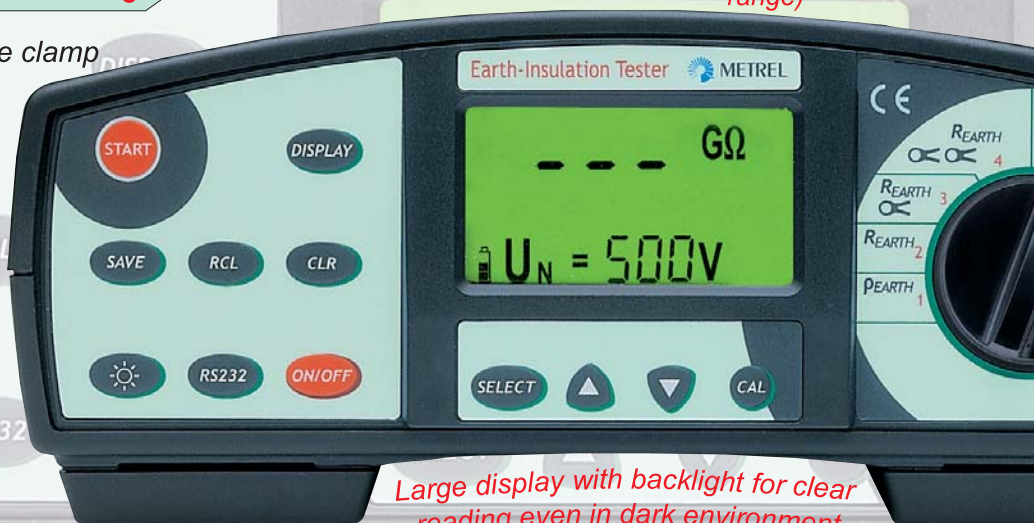
Earth Resistance EN 61557-5
(Huge and complex objects)



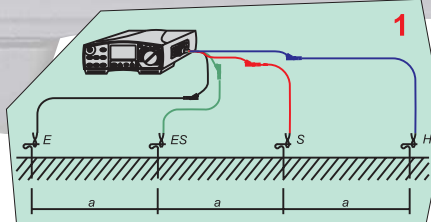
Earth Resistance - two clamps
(Rodless method for urban environment)



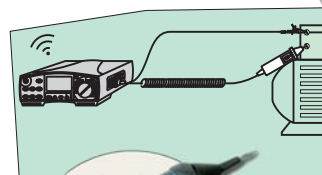
Insulation Resistance EN 61557-2
(Extremely high meas. range)



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
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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)

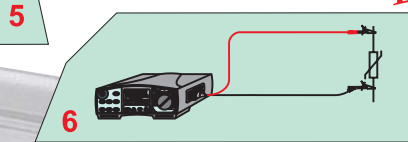
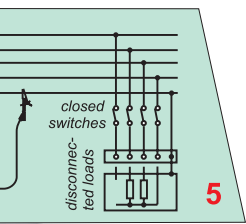
Display range	0 ÷ 1.99 kΩ
Other characteristics	see under four-lead method

Earth Resistance (two test clamps) A1018+A1019

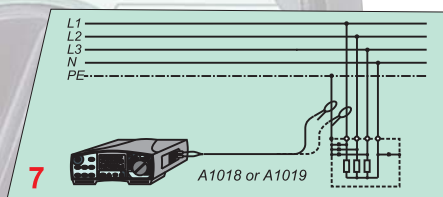
Display range	0 ÷ 19.99 Ω 20.0 ÷ 100.0 Ω
Basic accuracy	±(10 % + 2 D) ±(20 %)

Either
Insulation or
Earth Resistance
function
gratis!

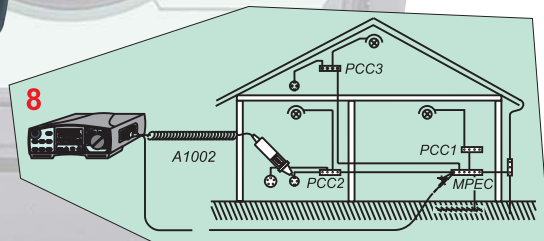
Two Top
Instruments
in One



Varistor Overvoltage
Protection Devices



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



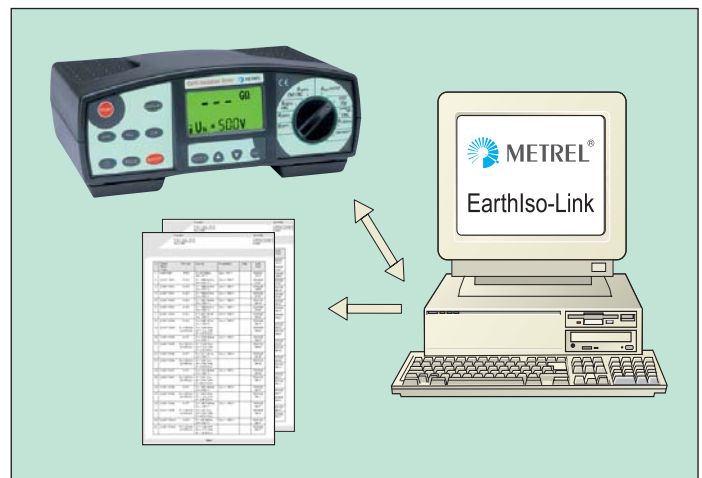
Continuity of Protection
Conductors EN 61557-4
(One-hand operation,
remote commands)

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)
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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 × 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 × 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 × 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 × 1 m	Order No. A 1021		✓

