

MI 3102H CL EurotestXE 2,5 kV



**Insulation
resistance
measurement
with up to 2,5 kV**

NEW
Multifunctional electrical
installation tester



MI 3102H CL EurotestXE 2,5 kV is the multifunctional measuring instrument which apart from all the necessary functions for complete installation safety testing according to IEC/EN 61557 performs insulation resistance measurement with the test voltage up to 2.5 kV (measuring range is up to 10 G) and enables diagnostic test by PI and DAR indexes calculation. Besides, the MI 3102H CL EurotestXE 2,5 kV enables online volt-amp monitoring, phase sequence testing, earth resistance measurement (3-wire and two current clamps method), illuminance measurement and TRMS current measurement. EurotestXE 2,5 kV is equipped with integrated characteristics of fuses and RCDs for PASS / FAIL evaluation of test results. All the results can be quickly saved and referenced on the instrument and then downloaded via the EuroLink PRO software, included in the standard set, to the computer for evaluation and report generation after testing.

Measuring functions:

- Insulation resistance with DC voltage
- PI, DAR calculation
- Continuity of PE conductors with 200 mA test current with polarity change
- Continuity of PE conductors with 7 mA test current (continuous measurement) without RCD tripping
- Line impedance
- Loop impedance
- Loop impedance with Trip Lock RCD function
- TRMS voltage and frequency
- Phase sequence
- RCD testing (general and selective, type AC, A)
- Earth resistance (3-wire and 2 clamps method)
- TRMS leakage and load currents (option)
- Illuminance (option)

Key features:

- Wide range of insulation test voltages from 100 V to 2500 V, reading up to 10 GΩ.
- Insulation diagnostics: Polarisation Index (PI) and Dielectric Absorption Ratio (DAR) calculation.
- Built-in help screens for referencing on site.
- Built-in fuse tables for automatic evaluation of the line / loop impedance result.
- Monitoring of all 3 voltages in real-time.
- Automatic polarity reversal on continuity test.
- Loop impedance test without tripping the RCD.
- Built-in charger and rechargeable batteries as standard accessory.
- Automated RCD testing procedure.
- PC SW EuroLink PRO for downloading of test results and report creation.

APPLICATION

- Initial and periodic testing of domestic and industrial installations.
- Testing of Insulation resistance of transformers, motors, cables, machines, etc.
- Observation of insulation trends.
- Testing of single and multiphase systems.
- Testing of TT and TN supply systems.

STANDARDS

- Functionality:
EN 61557
- Other reference standards for testing:
IEC/EN 60364;
EN 61008;
EN 61009;
EN 60755;
BS 7671;
AS/NZ 3760;
CEI 64.8;
HD 384;
VDE 413
- Electromagnetic compatibility (EMC):
EN 61326
- Safety (LVD):
EN 61010-1;
EN 61010-031

Technical specification

Function	Measuring range	Resolution	Accuracy	
Insulation resistance (EN 61557-2)	U = 100, 250 V _{DC} ... R: 0.000 MΩ ... 1.999 MΩ 2.00 MΩ ... 99.99 MΩ 100.0 MΩ ... 199.9 MΩ	0.001 MΩ 0.01 MΩ 0.1 MΩ	±(5 % of r. + 3 digits) ±(5 % of r. + 3 digits) ±(5 % of r. + 3 digits)	
	U = 500 V _{DC} , 1 kV _{DC} ... R: 0.000 MΩ ... 1.999 MΩ 2.00 MΩ ... 99.99 MΩ 100.0 MΩ ... 199.9 MΩ 200 MΩ ... 999 MΩ	0.001 MΩ 0.01 MΩ 0.1 MΩ 1 MΩ	±(2 % of r. + 3 digits) ±(2 % of r. + 3 digits) ±(2 % of r. + 3 digits) ±10 % of r.	
	U = 2.5 kV _{DC} ... R: 0.000 MΩ ... 1.999 MΩ 2.00 MΩ ... 99.99 MΩ 100.0 MΩ ... 199.9 MΩ 200 MΩ ... 1999 MΩ 2.00 GΩ ... 9.99 GΩ	0.001 MΩ 0.01 MΩ 0.1 MΩ 1 MΩ 10 MΩ	±(2 % of r. + 3 digits) ±(2 % of r. + 3 digits) ±(2 % of r. + 3 digits) ±10 % of r. ±10 % of r.	
	DAR, PI (U _{test} : 500 V; 1 kV; 2.5 kV)	0.01 ... 9.99 10.0 ... 100.0	0.01 0.1	±(5 % of r. + 2 digits) ±5 digits
	Continuity 200 mA with polarity change (EN 61557-4)	0.00 Ω ... 19.99 Ω 20.0 Ω ... 99.9 Ω 100 Ω ... 1999 Ω	0.01 Ω 0.1 Ω 1 Ω	±(3 % of r. + 3 digits) ±5 % of r. ±5 % of r.
	Continuity 7 mA	0.0 Ω ... 99.9 Ω 100 Ω ... 1999 Ω	0.1 Ω 1 Ω	±(5 % of r. + 3 digits) ±(5 % of r. + 3 digits)
	Loop impedance (EN 61557-3)	0.00 Ω ... 19.99 Ω 20.0 Ω ... 99.9 Ω 100 Ω ... 1999 Ω	0.01 Ω 0.1 Ω 1 Ω	±(5 % of r. + 5 digits)
	Line impedance (EN 61557-3)	0.00 Ω ... 19.99 Ω 20.0 Ω ... 99.9 Ω 100 Ω ... 1999 Ω	0.01 Ω 0.1 Ω 1 Ω	±(5 % of r. + 5 digits)
	Voltage	0 V ... 500 V	1 V	±(2 % of r. + 2 digits)
	Frequency	45.0 Hz ... 65.0 Hz	0.1 Hz	±2 digits
Phase sequence (EN 61557-7)	1.2.3 or 2.1.3			
RCD testing (EN 61557-6)	I _{ΔN} : 10 mA, 30 mA, 100 mA, 300 mA, 500 mA, 1 A			
- Contact voltage U _c	0.0 V ... 9.9 V 10.0 V ... 99.9 V	0.1 V 0.1 V	(-0 % / +10 %) of r. (-0 % / +10 %) of r.	
- Trip-out time	0 ms ... 300 ms (1/2 x I _{ΔN} , I _{ΔN}) 0 ms ... 150 ms (2 x I _{ΔN}) 0 ms ... 40 ms (5 x I _{ΔN})	1 ms 1 ms 1 ms	±3 ms ±3 ms ±3 ms	
- Trip-out current	0.2 x I _{ΔN} ... 1.1 x I _{ΔN} (AC type, I _{ΔN} =10 mA) 0.2 x I _{ΔN} ... 2.2 x I _{ΔN} (A type, I _{ΔN} =10 mA) 0.2 x I _{ΔN} ... 1.1 x I _{ΔN} (AC type, I _{ΔN} ≥ 30 mA) 0.2 x I _{ΔN} ... 1.5 x I _{ΔN} (A type, I _{ΔN} ≥ 30 mA)	0.05 x I _{ΔN} 0.05 x I _{ΔN} 0.05 x I _{ΔN} 0.05 x I _{ΔN}	±0.1 x I _{ΔN} ±0.1 x I _{ΔN} ±0.1 x I _{ΔN} ±0.1 x I _{ΔN}	
Earth resistance (EN 61557-5)	0.00 Ω ... 19.99 Ω 20.0 Ω ... 99.9 Ω 100 Ω ... 1999 Ω	0.01 Ω 0.1 Ω 1 Ω	±(2 % of r. + 3 digits) ±(2 % of r. + 3 digits) ±(2 % of r. + 3 digits)	
Earth resistance (two clamps method)	0.00 Ω ... 9.99 Ω 10.0 Ω ... 19.9 Ω 20.0 Ω ... 29.9 Ω 30.0 Ω ... 39.9 Ω	0.01 Ω 0.1 Ω 0.1 Ω 0.1 Ω	±(10 % of r. + 10 digits) ±(10 % of r.) ±(20 % of r.) ±(30 % of r.)	
TRMS Current	0.0 mA ... 99.9 mA 100 mA ... 999 mA 1.00 A ... 19.99 A	0.1 mA 1 mA 0.01 mA	±(5 % of r. + 3 digits) ±5 % of r. ±5 % of r.	
Illuminance (Type B)	0.01 lux ... 19.99 lux	0.01 lux	±(5 % of r. + 2 digits)	
	20.0 lux ... 199.9 lux	0.1 lux	±5 % of r.	
	200 lux ... 1999 lux	1 lux	±5 % of r.	
	2.00 klux ... 19.99 klux	10 lux	±5 % of r.	
Power supply	6 x 1.5 V AA alkaline or 6 x 1.2 V rechargeable batteries, size AA			
Overvoltage category	600 V / CAT III; 300 V / CAT IV			
Protection class	double insulation			
COM port	RS232 and USB			
Dimensions	230 x 103 x 115 mm			
Weight	1.3 kg			

Ordering information

Standard set

MI 3102H CL



- Instrument EurotestXE 2,5 kV
- Tip commander, 1.5 m
- Schuko-plug test cable
- 2.5 kV test lead, 2 x 1.5 m
- Test lead, 3 x 1.5 m
- Earth test set, 3-wire, 20 m (test lead, 4 m; 2 x test lead, 20 m; 2 x test rod)
- Power supply adapter + 6 NiMH rechargeable batteries, size AA
- PC Software EuroLink PRO
- Test probe, 3 pcs (blue, black, green)
- Crocodile clip, 3 pcs (blue, black, green)
- RS232 - PS/2 cable
- USB cable
- Soft carrying neck belt
- Soft carrying bag
- Short instruction manual
- Instruction manual on CD
- Handbook on CD
- Calibration certificate

Optional accessories

Photo	Order No.	Description
	A 1170	Plug commander
	A 1018	Current clamp (low range, leakage)
	A 1019	Current clamp
	A 1074	Mini current clamp 200 A / 0.2 A
	A 1110	Three phase adapter
	A 1111	Three phase adapter with switch
	A 1201	Insulated rod for CONTINUITY measurement
	A 1202	Additional extension part for A 1201
	A 1172	Luxmeter sensor, type B (PS/2)
	A 1173	Luxmeter sensor, type C (PS/2)
	A 1153	Test lead, black, 20 m
	A 1154	Test lead, black, 4 m
	A 1198	Magnetic contact probe
	A 1160	Fast charger for 8 AA batteries with a set of 6 NiMH bat., type AA
	S 2027	Earth test set, 3-wire, 50 m



Measuring and Regulation Equipment Manufacturer

METREL d.d.
Ljubljanska 77
SI-1354 Horjul
Tel: + 386 (0)1 75 58 200
Fax: + 386 (0)1 75 49 226
E-mail: metrel@metrel.si
http://www.metrel.si

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