

MI 3102 BT EurotestXE



AUTO SEQUENCE®

**tester with
TN, TT and IT earthing
systems support**

NEW
Multifunctional electrical
installation tester



MI 3102 BT EurotestXE is a multifunctional measuring instrument which performs a complete set of installation safety tests according to IEC/EN 61557. It supports **AUTO SEQUENCE®** testing of the TN, TT and IT earthing systems. ISFL measurements and the IMD tests can be performed. Besides, the MI 3102 BT EurotestXE enables on-line voltage monitoring, phase sequence testing, earth resistance measurement, illuminance measurement and TRMS current measurement. EurotestXE 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 from 50 V to 1000 V;
- Continuity of PE conductors with 200 mA DC test current with polarity change;
- Continuity of PE conductors with 7 mA test current without RCD tripping;
- Line/Loop impedance;
- Loop impedance with Trip Lock RCD function;
- TRMS voltage and frequency;
- Phase sequence;
- Power and harmonics;
- RCD testing (general and selective, type AC, A, F, B, B+);
- Earth resistance (3-wire and 2-clamps method);
- Specific earth resistance with Ro-adaptor (option);
- TRMS leakage and load currents (option);
- First fault leakage current (ISFL);
- Testing of Insulation Monitoring Devices (IMDs);
- Illumination (option).

Key features:

- Predefined mini AUTOSEQUENCES:
Auto TT (U, Zln, Zs, Uc);
Auto TN/RCD (U, Zln, Zs, Rpe);
Auto TN (U, Zln, Zlpe, Rpe);
Auto IT (U, Zln, Isc, Isfl, IMD).
- Power measurements and harmonics analysis
- 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.
- BT communication with PC, Android tablets and smart phones via built-in BT.
- PC SW EuroLink PRO for downloading of test results and report creation.
- EuroLink Android APP, data management tool (option).

APPLICATION

- Initial and periodic testing of domestic and industrial installations.
- Testing of single and multiphase systems.
- Testing of TT, TN and IT earthing systems.
- Medical installation testing.

STANDARDS

- Functionality:
 EN 61557
 DIN 5032
- Other reference standards for testing:
 IEC/EN 60364-4-41;
 EN 61008;
 EN 61009;
 BS 7671;
 AS/NZ 3017;
 CEI 64.8;
 HD 384;
 VDE 413
- Electromagnetic compatibility (EMC):
 EN 61326
- Safety (LVD):
 EN 61010-1;
 EN 61010-031
 EN 31010-2-030
 EN 31010-2-032

Technical specification

Function		Measuring range	Resolution	Accuracy
CONTINUITY	Test Current 7 mA 2-wire	0.00 Ω ... 19.99 Ω 20.0 Ω ... 1999 Ω	0.1 Ω 1 Ω	$\pm(5\% \text{ of } r. + 5 \text{ digits})$
	Test Current 200 mA 2-wire	0.00 Ω ... 19.99 Ω 20.0 Ω ... 199.9 Ω 200.0 Ω ... 1999 Ω	0.01 Ω 0.1 Ω 1 Ω	$\pm(3\% \text{ of } r. + 3 \text{ digits})$ $\pm(5\% \text{ of } r.)$ $\pm(5\% \text{ of } r.)$
INSULATION RESISTANCE	Test Voltage 50/100/250 V	0.00 M Ω ... 19.99 M Ω 20.0 M Ω ... 99.9 M Ω 100.0 M Ω ... 199.9 M Ω	0.01 M Ω 0.1 M Ω	$\pm(5\% \text{ of } r. + 3 \text{ digits})$ $\pm(10\% \text{ of } r.)$ $\pm(20\% \text{ of } r.)$
	Test Voltage 500/1000 V	0.00 M Ω ... 19.99 M Ω 20.0 M Ω ... 99.9 M Ω 200 M Ω ... 999 M Ω	0.01 M Ω 0.1 M Ω 1 M Ω	$\pm(5\% \text{ of } r. + 3 \text{ digits})$ $\pm(5\% \text{ of } r.)$ $\pm(10\% \text{ of } r.)$
RCD	RCD Uc	0.00 V ... 19.99 V 20.0 V ... 99.9 V	0.1 V	$(-0\%/\pm 15\%) \text{ of } r. \pm 10 \text{ digits}$ $(-0\%/\pm 15\%) \text{ of } r.$
	RCD (t),	0.0 ms ... 40.0 ms 0.0 ms ... max.time	0.1 ms	$\pm 1 \text{ ms}$ $\pm 3 \text{ ms}$
	RCD I Ramp	0.2xI _{AN} ... 1.1xI _{AN} (AC) 0.2xI _{AN} ... 1.5xI _{AN} (A), I _{AN} ≥ 30 mA) 0.2xI _{AN} ... 2.2xI _{AN} (A), I _{AN} <30 mA) 0.2xI _{AN} ... 2.2xI _{AN} (B)	0.05xI _{AN}	$\pm 0.1 \text{ xI}_{AN}$
IMPEDANCE	Zline L-L, L-N Ipse	0.00 Ω ... 9.99 Ω 10.0 Ω ... 99.9 Ω 100 Ω ... 999 Ω 1.00 k Ω ... 9.99 k Ω	0.01 Ω 0.1 Ω 1 Ω 10 Ω	$\pm(5\% \text{ of } r. + 5 \text{ digits})$ $\pm(10\% \text{ of } r.)$
	Zloop L-PE, Ipfc	0.00 Ω ... 9.99 Ω 10.0 Ω ... 99.9 Ω 100 Ω ... 999 Ω 1.00 k Ω ... 9.99 k Ω	0.01 Ω 0.1 Ω 1 Ω 10 Ω	$\pm(5\% \text{ of } r. + 5 \text{ digits})$ $\pm(10\% \text{ of } r.)$
VOLTAGE	TRMS	0 ... 550 V	1 V	$\pm(2\% \text{ of } r. + 2 \text{ digits})$
	Frequency	0.00 Hz ... 9.99 Hz 10.0 Hz ... 499.9 Hz	0.01 Hz 0.1 Hz	$\pm(0.2\% \text{ of } r. + 1 \text{ digits})$
CURRENT	TRMS, AC with A1018	0.0 mA ... 99.9 mA 100 mA ... 999 mA 1.00 A ... 19.99 A	0.1 mA 1 mA 0.01 A	$\pm(5\% \text{ of } r. + 5 \text{ digits})$ $\pm(3\% \text{ of } r. + 3 \text{ digits})$ $\pm(3\% \text{ of } r.)$
	TRMS, AC with A1019	0.0 mA ... 99.9 mA 100 mA ... 999 mA 1.00 A ... 19.99 A	0.1 mA 1 mA 0.01 A	indicative $\pm(5\% \text{ of } r.)$ $\pm(3\% \text{ of } r.)$
	TRMS, AC/DC with A1391, range=40A	0.00 A ... 1.99 A 2.00 A ... 19.99 A 20.0 A ... 39.9 A	0.01 A 0.01 A 0.1 A	$\pm(3\% \text{ of } r. + 3 \text{ digits})$ $\pm(3\% \text{ of } r.)$ $\pm(3\% \text{ of } r.)$
	TRMS, AC/DC with A1391, range = 300A	0.00 A ... 19.99 A 20.0 A ... 39.9 A 40.0 A ... 299.9 A	0.01 A 0.1 A 0.1 A	indicative $\pm(3\% \text{ of } r. + 5 \text{ digits})$
EARTH RESISTANCE	3 wire	0.00 Ω ... 19.99 Ω 20.0 Ω ... 199.9 Ω 200.0 Ω ... 9999 Ω	0.01 Ω 0.1 Ω 1 Ω	$\pm(5\% \text{ of } r. + 5 \text{ digits})$
	2 clamp	0.00 Ω ... 19.99 Ω 20.0 Ω ... 30.0 Ω 30.1 Ω ... 99.9 Ω	0.01 Ω 0.1 Ω 0.1 Ω	$\pm(10\% \text{ of } r. + 10 \text{ digits})$ $\pm(20\% \text{ of } r.)$ $\pm(30\% \text{ of } r.)$
	Specific earth resistance	0.0 Ω m ... 99.9 Ω m 100 Ω m ... 999 Ω m 1.00 Ω mk ... 9.99 k Ω m 10.0 Ω mk ... 99.9 k Ω m	0.1 Ω m 1 Ω m 0.01 k Ω m 0.1 k Ω m	$\pm(5\% \text{ of } r.) \text{ for } R_e 1 \Omega \dots 1999 \Omega$ $\pm(10\% \text{ of } r.) \text{ for } R_e 2 \text{ k}\Omega \dots 19.99 \text{ k}\Omega$ $\pm(20\% \text{ of } r.) \text{ for } R_e > 20 \text{ k}\Omega$
FIRST FAULT LEAKAGE CURRENT		0.0 mA ... 19.9 mA	0.1 mA	$\pm(5\% \text{ of } r. + 3 \text{ digits})$
IMD TEST	Threshold indicative insulation resistance	5 ... 640 k Ω	5 k Ω	Indicative values, up to 128 steps
ILLUMINANCE	Type B	0.01 lux ... 19.99 lux 20.0 lux ... 199.9 lux 200 lux ... 1999 lux 2.00 klux ... 19.99 klux	0.01 lux 0.1 lux 1 lux 10 lux	$\pm(5\% \text{ of } r. + 2 \text{ digits})$ $\pm(5\% \text{ of } r.)$
	Type C	0.01 lux ... 19.99 lux 20.0 lux ... 199.9 lux 200 lux ... 1999 lux 2.00 klux ... 19.99 klux	0.01 lux 0.1 lux 1 lux 10 lux	$\pm(10\% \text{ of } r. + 3 \text{ digits})$ $\pm(10\% \text{ of } r.)$
GENERAL	Power supply	9 VDC (6x1.5 V battery or accu, size AA)		
	Overvoltage category	1000 V DC CAT II; 600 V CAT III; 300 V CAT IV		
	Protection class	double insulation		
	COM port	BT, USB, RS232		
	Weight	1.3 kg		
	Size (l x h x w)	230 x 103 x 115 mm		

Ordering information

Standard set

MI 3102 BT



- Instrument EurotestXE
- Plug commander, 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 1401	Tip commander (3-wire)
	A 1018	Current clamp (low range, leakage)
	A 1019	Current clamp
	A 1391	AC/DC Current clamp
	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 1431	EuroLink Android APP
	A 1292	Upgrade code EuroLink PRO to EuroLink PRO Plus
	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
	A 1199	Ro-adapter

Note! Photographs in this catalogue may slightly differ from the instruments at the time of delivery. Subject to technical change without notice.



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