

# MI 3102 BT EurotestXE



**NEW**  
 Multifunctional 17<sup>th</sup> Edition  
 electrical installation tester

**AUTO SEQUENCE®**  
 tester with  
**TN, TT and IT earthing  
 systems support**



MI 3102 BT EurotestXE is a multifunctional measuring instrument which performs a complete set of installation safety tests according to IEC/EN 61557 and BS 7671 17<sup>th</sup> Edition. 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 and is ready for automatic R1 + R2 testing. 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;
- R1 + R2 impedance;
- 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-adapter (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.
- Fast testing of ring circuits with optional A 1214 EASI Switch.
- 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	
<b>CONTINUITY, RING CONTINUITY</b>	Test Current 7 mA 2-wire	0.00 Ω ... 19.99 Ω 20.0 Ω ... 1999 Ω	0.1 Ω 1 Ω	±(5 % of r. + 5 digits)
	Test Current 200 mA 2-wire	0.00 Ω ... 19.99 Ω 20.0 Ω ... 99.9 Ω 100.0 Ω ... 1999 Ω	0.01 Ω 0.1 Ω 1 Ω	±(3 % of r. + 3 digits) ±(5 % of r.) ±(5 % of r.)
<b>INSULATION RESISTANCE</b>	Test Voltage 50/100/250 V	0.00 MΩ ... 19.99 MΩ 20.0 MΩ ... 99.9 MΩ 100.0 MΩ ... 199.9 MΩ	0.01 MΩ 0.1 MΩ	±(5 % of r. + 3 digits) ±(10 % of r.) ±(20 % of r.)
	Test Voltage 500/1000 V	0.00 MΩ ... 19.99 MΩ 20.0 MΩ ... 199.9 MΩ 200 MΩ ... 999 MΩ	0.01 MΩ 0.1 MΩ 1 MΩ	±(5 % of r. + 3 digits) ±(5 % of r.) ±(10 % of r.)
<b>RCD</b>	RCD Uc	0.00 V ... 19.99 V 20.0 V ... 99.9 V	0.1 V	(-0%/±15 %) of r. ± 10 digits (-0%/±15 %) of r.
	RCD (t)	0.00 ms ... 40.0 ms 0.0 V ... max.time	0.1 ms	±1 ms ±3 ms
	RCD I Ramp	0.2xI <sub>AN</sub> ... 1.1xI <sub>AN</sub> (AC) 0.2xI <sub>AN</sub> ... 1.5xI <sub>AN</sub> (A), I <sub>AN</sub> >30 mA) 0.2xI <sub>AN</sub> ... 2.2xI <sub>AN</sub> (A), I <sub>AN</sub> <30 mA) 0.2xI <sub>AN</sub> ... 2.2xI <sub>AN</sub> (B)	0.05xI <sub>AN</sub>	±0.1xI <sub>AN</sub>
<b>IMPEDANCE</b>	Zline L-L, L-N Ipsc	0.00 Ω ... 9.99 Ω 10.0 Ω ... 99.9 Ω 100 Ω ... 999 Ω 1.00 kΩ ... 9.99 kΩ	0.01 Ω 0.1 Ω 1 Ω 10 Ω	" ±(5 % of r. + 5 digits) ±(10 % of r.)"
	Zloop L-PE, Ipf	0.00 Ω ... 9.99 Ω 10.0 Ω ... 99.9 Ω 100 Ω ... 999 Ω 1.00 kΩ ... 9.99 kΩ	0.01 Ω 0.1 Ω 1 Ω 10 Ω	±(5 % of r. + 5 digits) ±(10 % of r.)
<b>VOLTAGE</b>	TRMS	0 ... 550 V	1 V	±(2 % of r. + 2 digits)
	Frequency	0.00 Hz ... 9.99 Hz 10.0 Hz ... 499.9 Hz	0.01 Hz 0.1 Hz	±(0.2 % of r. + 1 digits)
<b>CURRENT</b>	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	±(5 % of r. + 5 digits) ±(3 % of r. + 3 digits) ±(3 % 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 ±(5 % of r.) ±(3 % 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	±(3 % of r. + 3 digits) ±(3 % of r.) ±(3 % 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 ±(3 % of r. + 5 digits)
<b>EARTH RESISTANCE</b>	3 wire	0.00 MΩ ... 19.99 Ω 20.0 MΩ ... 199.9 Ω 200.0 MΩ ... 9999 Ω	0.01 Ω 0.1 Ω 1 Ω	±(5 % of r. + 5 digits)
	2 clamp	0.00 MΩ ... 19.99 Ω 20.0 MΩ ... 30.0 Ω 30.1 MΩ ... 99.9 Ω	0.01 Ω 0.1 Ω 0.1 Ω	±(10 % of r. + 10 digits) ±(20 % of r.) ±(30 % of r.)
	Specific earth resistance	0.0 Ωm ... 99.9 Ωm 100 Ωm ... 999 Ωm 1.00 Ωmk ... 9.99 kΩm 10.0 Ωmk ... 99.9 kΩm	0.1 Ωm 1 Ωm 0.01 kΩm 0.1 kΩm	±(5 % of r.) for Re 1 Ω ... 1999kΩ ±(10 % of r.) for Re 2 kΩ ... 19.99kΩ ±(20 % of r.) for Re > 20 kΩ
<b>FIRST FAULT LEAKAGE CURRENT</b>		0.0 mA ... 19.9 mA	0.1 mA	±(5 % of r. + 3 digits)
<b>IMD TEST</b>	Threshold indicative insulation resistance	5 ... 640 kΩ	5 kΩ	Indicative values, up to 128 steps
<b>ILLUMINANCE</b>	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	±(5 % of r. + 2 digits) ±(5 % 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	±(10 % of r. + 3 digits) ±(10 % of r.)
<b>GENERAL</b>	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
- Tip commander, 1.5 m
- Mains plug
- Test lead, 3 x 1.5 m
- Power supply adapter + 6 NiMH rechargeable batteries, size AA
- PC Software EuroLink PRO
- Test probe, 3 pcs (blue, brown, green)
- Crocodile clip, 3 pcs (blue, brown, green)
- Earth spike kit (20 m brown, green, 4.5 m blue, 2 spikes)
- 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
		Plug commander (UK)
	A 1214	EASI Switch
	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 1456	Test lead, brown, 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
	A 1199	Ro-adapter
	S 2027 - UK1	Earth test set, 3-wire, 50 m

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



Metrel UK Ltd.

Unit 1, Hopton House, Ripley Drive,  
Normanton, West Yorkshire, WF6 1QT  
Tel.: 01924 245 000  
Web: www.metrel.co.uk  
E-mail: info@metrel.co.uk