

# MI3102BT EUROTESTXE

## - MULTIFUNCTIONAL ELECTRICAL INSTALLATION TESTER



MI3102BT EurotestXE is a multifunctional measuring instrument which performs a complete set of installation safety tests according to IEC/EN 61557. It supports AUTO SEQUENCE<sup>®</sup> testing of TN, TT and IT earthing systems. ISFL measurements and the IMD tests can be performed. The MI3102BT 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 results can be quickly saved and referenced on the instrument, then downloaded via the EuroLink PRO software (included in the standard set) to a 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
- Earth Loop impedance testing without tripping RCD, incl. 6 mA DC EV RCD
- TRMS voltage and frequency
- Phase sequence
- RCD testing (general and selective, type AC, A, F, B, B+, MI RCD, 6 mA DC EV RCD)
- 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, Zin, Zs, Uc);**  
**Auto TN/RCD (U, Zin, Zs, Rpe);**  
**Auto TN (U, Zin, Zlpe, Rpe);**  
**Auto IT (U, Zin, Isc, Isfl, IMD)**
- **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 & multiphase systems
- Testing of TT, TN & IT earthing systems
- Medical installation testing.

### STANDARDS:

- Functionality:  
– EN 61557  
– DIN 5032
- Other reference standards for testing:  
– IEC/E N 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



# MI3102BT

## TECHNICAL SPECIFICATIONS



	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	±(5% of r. + 5 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	±(3% of r. + 3 digits) ±(5% of r.) ±(5% of r.)
INSULATION RESISTANCE	Test Voltage 50/100/250V	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	±(5% of r. + 3 digits) ±(10% of r.) ±(20% of r.)
	Test Voltage 500/1000V	0.00 M Ω ... 19.99 M Ω 20.0 M Ω ... 199.9 M Ω 200 M Ω ... 999 M Ω	0.01 M Ω 0.1 M Ω 1 M Ω	±(5% of r. + 3 digits) ±(5% of r.) ±(10% of r.)
RCD	RCD Uc	0.00V ... 19.99V 20.0V ... 99.9V	0.1V	(-0%/±15%) of r. ± 10 digits (-0%/±15%) of r.
	RCD (t),	0.00ms ... 40.0ms 0.0V ... max. time	0.1ms	±1ms ±3ms
	RCD I Ramp	0.2xIΔN ... 1.1xIΔN (AC) 0.2xIΔN ... 1.5xIΔN (A), IΔN ≥ 30 mA) 0.2xIΔN ... 2.2xIΔN (A), IΔN < 30 mA) 0.2xIΔN ... 2.2xIΔN (B)	0.05xIΔN	±0.1xIΔN
IMPEDANCE	Zline, L-L, L-N Ipsc	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	±(5% of r. + 5 digits) ±(10% 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	±(5% of r. + 5 digits) ±(10% of r.)
VOLTAGE	TRMS	0 ... 550V	1V	±(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 digit)
CURRENT	TRMS, AC with A1018	0.0mA ... 99.9mA 100mA ... 999mA 1.00A ... 19.99A	0.1mA 1mA 0.01A	±(5% of r. + 5 digits) ±(3% of r. + 3 digits) ±(3% of r.)
	TRMS, AC with A1019	0.0mA ... 99.9mA 100mA ... 999mA 1.00A ... 19.99A	0.1mA 1mA 0.01A	indicative ±(5% of r.) ±(3% of r.)
	TRMS, AC/DC with A1391, range=40A	0.00A ... 1.99A 2.00A ... 19.9A 20.0A ... 39.9A	0.01A 0.01A 0.1A	±(3% of r. + 3 digits) ±(3% of r.) ±(3% of r.)
	TRMS, AC/DC with A1391, range=300A	0.00A ... 19.99A 20.0A ... 39.9A 40.00A ... 299.9A	0.01A 0.1A 0.1A	indicative ±(3% of r. + 5 digits)
EARTH RESISTANCE	3 wire	0.00 Ω ... 19.99 Ω 20.0 Ω ... 199.99 Ω 200.0 Ω ... 9999 Ω	0.01 Ω 0.1 Ω 1 Ω	±(5% of r. + 5 digits)
	2 clamp	0.00 Ω ... 19.99 Ω 20 Ω ... 30.0 Ω 30.1 Ω ... 99.9 Ω	0.01 Ω 0.1 Ω 0.1 Ω	±(10% of r. + 10 digits) ±(20% of r.) ±(30% of r.)
FIRST FAULT LEAKAGE CURRENT	Specific earth resistance	0.00 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
	Threshold indicative insulation resistance	0.0mA ... 19.9mA	0.1mA	±(5% of r. + 3 digits)
IMD TEST	Threshold indicative insulation resistance	5 ... 640 kΩ	5 kΩ	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	±(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.)
GENERAL	Power supply	9 VDC (6x1.5V battery or accu, size AA)		
	Overvoltage category	1000V DC CAT II; 600V CAT III; 300V CAT IV		
	Protection class	Double insulation		
	COM port	BT, USB, RS232		
	Weight	1.3kg		
	Size (L x H x W)	230x103x115mm		

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

### ORDERING INFORMATION - Standard set



- Instrument EurotestXE
- Tip commander
- 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
	A1018	Current clamp (low range, leakage)
	A1019	Current clamp
	A1391	AC/DC current clamp
	A1201	Insulated rod for CONTINUITY measurement
	A1202	Additional extension part for A1201
	A1153	Test lead, black, 20m
	A1292	Upgrade code EuroLink PRO to EuroLink PRO Plus
	A1431	EuroLink Android APP
	S2027	Earth test set, 3-wire, 50m
	A1199	Ro-adaptor