Multifunctional electrical installation tester
MI 3152 EurotestXC

Electrical Installation Safety



MI 3152 EurotestXC is an instrument from the new generation of Metrel's multifunctional measuring instruments. The already well known functions like complete installation safety testing according to IEC/EN 61557 and AUTO SEQUENCE testing of TN, TT and IT earthing systems are managed by a completely new user interface based on large colour touch screen display. A wide range of functions is included: from on-line voltage monitoring, phase sequence testing, varistor testing, earth resistance measurement, illuminance measurement and TRMS current measurement up to RCD tests, line and loop impedance tests, specific earth resistance measurements as well as ISFL measurements and the IMD tests.

MEASURING FUNCTIONS

- Insulation resistance with DC voltage from 50 V to 1000 V;
- **Varistor test**;
- 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 combined also in one function **Z AUTO**;
- Loop impedance with Trip Lock RCD function;
- TRMS voltage and frequency measurements;
- Phase sequence;
- Power and THD measurement (up to the 12th harmonic);
- RCD testing (general and selective, type AC, A, F, B, B+, **MI RCD**, **EV RCD**, PRCD, PRCD-K, PRCD-S);
- 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);
- High resolution Loop impendance (mΩ) (option);
- **EVSE AUTO SEQUENCEs and function inspections**.
- Determining location of cables (option);
- QR and/or barcode scanner support (option).

KEY FEATURES

- **Predefined profile dependent AUTO SEQUENCEs**.
- Predefined **Automatic tests**:
  Auto TT (U, ZIn, Zs, Uc);
  Auto TN/RCD (U, ZIn, Zs, Rpe);
  Auto TN (U, ZIn, ZIpe, 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.
- Automated RCD testing procedure.
- **Automated Impedance** testing procedure **(Z AUTO)**.
- **Functional inspections**.
- **Measurement filtering according to the selected area group**.
- Built-in charger and rechargeable batteries as standard accessory.
- **BT communication with PC, Android tablets and smart phones** via built-in BT.
- PC SW **Metrel ES Manager** (structure and report creation, data upload/download).
- Optional **aMESM Android APP** (structure and report creation, data upload/download).

APPLICATION

- Testing of TT, TN and IT systems;
- Testing of single and multiphase systems;
- Initial and periodic testing of domestic installations;
- Maintenance;
- Lightning installations;
- Medical installation testing;
- Fire brigades, military and police vehicles;
- Construction sites;
- Mobile Video/Audio, Concert Halls, Fair Playground;
- Electrical Vehicle Supply Equipment (EVSE) testing.

STANDARDS

Functionality
- EN 61557; DIN 5032

Other reference standards for testing:
- IEC/EN/HD 60364-4-41; IEC/EN 61008; IEC/EN 61009; BS 7671; AS/NZ 3017

Electromagnetic compatibility (EMC):
- IEC/EN 61326-1

Safety
- IEC/EN 61010-1; IEC/EN 61010-031; IEC/EN 61010-2-030; IEC/EN 61010-2-032;

METREL®

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	±(5 % of r. + 3 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 50/100/250 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.)
RCD	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	0.2xIΔN ... 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 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, Ipfc	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.)
VOLTAGE	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)
CURRENT	TRMS, AC with A 1018	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 A 1019	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 A 1391, range=40 A	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 A 1391, range = 300 A	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 Indicative ±(3 % of r. + 5 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	±(5 % of r. + 5 digits)
	2 clamp	0.00 Ω ... 19.99 Ω 20.0 Ω ... 30.0 Ω 30.1 Ω ... 39.9 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 kΩm ... 9.99 kΩm 10.0 kΩm ... 99.9 kΩm 100 kΩm ... 9999 kΩm	0.1 Ωm 1 Ωm 0.01 kΩm 0.1 kΩm 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
FIRST FAULT LEAKAGE CURRENT		0.0 mA ... 19.9 mA	0.1 mA	±(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 (6x1.5 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		

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

ORDERING INFORMATION



Standard set MI 3152 ST
- Instrument MI 3152 EurotestXC
- Plug commander, 1.5 m
- Test lead, 3 x 1.5 m
- Power supply adapter + 6 NiMH rechargeable batteries, type AA
- Test probe, 3 pcs (blue, black, green)
- Crocodile clip, 3 pcs (blue, black, green)
- Earth set 20 m
- RS232 - PS/2 cable
- USB cable
- Soft carrying bag
- Soft carrying neck belt
- Metrel ES Manager BASIC license*
- Short instruction manual

Euro set MI 3152 EU
Instrument MI 3152 EurotestXC (set ST)
- Current clamp A 1018 (low range, leakage)
- Current clamp A 1019
- Metrel ES Manager PRO license*

*Metrel ES Manager can be downloaded free of charge from Metrel Web server.

OPTIONAL ACCESSORIES

Photo	Order No.	Acc. decription
	A 1143	Euro Z 290 A
	A 1199	Ro-adapter
	A 1191	Receiver R10K
	A 1018	Current clamp (low range, leakage)
	A 1019	Current clamp
	A 1110	Three phase adapter
	A 1111	Three phase adapter with switch
	A 1314 BLK	Plug commander
	A 1401 BLK	Tip commander
	A 1172	Luxmeter sensor, type B (PS/2)
	A 1173	Luxmeter sensor, type C (PS/2)
	A 1105	Barcode scanner
	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
	P 1101	BASIC to PRO licence key upgrade for Metrel ES Manager