

Multifunctional electrical installation tester MI 3152H EurotestXC 2,5 kV



MI 3152H EurotestXC 2,5 kV 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 and TT earthing systems expanded with insulation resistance measurement with the test voltage up to 2,5 kV 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 with 3 wire and 2 clamps method and illuminance measurement, TRMS current measurement up to RCD tests, line and loop impedance tests as well as diagnostic test enabled by PI and DAR indexes calculation.



MEASURING FUNCTIONS

- Insulation resistance with **DC voltage from 50 V to 2500 V** and **PI, DAR calculation**;
- **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, **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);
- Illumination (option);
- High resolution Loop impedance (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, Zln, Zs, Uc);
Auto TN/RCD (U, Zln, Zs, Rpe);
Auto TN (U, Zln, Zlpe, Rpe).
- **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 and TN supply systems;
- Testing of single and multiphase systems;
- Initial and periodic testing of domestic and industrial installations;
- Lightning installations;
- Observation of insulation trends;
- 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

TECHNICAL SPECIFICATION

Function		Measuring range	Resolution	Accuracy
CONTINUITY	Test Current 7 mA 2-wire	0.00 Ω ... 19.99 Ω	0.1 Ω	±(5 % of r. + 3 digits)
		20.0 Ω ... 1999 Ω	1 Ω	
	Test Current 200 mA 2-wire	0.00 Ω ... 19.99 Ω	0.01 Ω	±(3 % of r. + 3 digits)
INSULATION RESISTANCE	Test Voltage 50/100/250 V	20.0 Ω ... 199.9 Ω	0.1 Ω	±(5 % of r.)
		200.0 Ω ... 1999 Ω	1 Ω	±(5 % of r.)
		0.00 MΩ ... 19.99 MΩ	0.01 MΩ	±(5 % of r. + 3 digits)
	Test Voltage 500/1000 V	20.0 MΩ ... 99.9 MΩ	0.1 MΩ	±(10 % of r.)
		100.0 MΩ ... 199.9 MΩ	0.1 MΩ	±(5 % of r.)
		200 MΩ ... 999 MΩ	1 MΩ	±(10 % of r.)
Test Voltage 2500 V	0.00 MΩ ... 19.99 MΩ	0.01 MΩ	±(5 % of r. + 3 digits)	
	20.0 MΩ ... 199.9 MΩ	0.1 MΩ	±(5 % of r.)	
	200 MΩ ... 999 MΩ	1 MΩ	±(10 % of r.)	
INSULATION ANALAYSING	Calculation of PI, DAR, DD Only for test voltage 500/1000/2500 V	1.00 GΩ ... 19.99 GΩ	0.01 GΩ	±(10 % of r.)
		10.0 MΩ ... 100 MΩ	0.1 MΩ	±(5 % of r.)
RCD	RCD Uc	0.00 V ... 19.99 V	0.1 V	(-0%/+15%) of r. ± 10 digits
	RCD (t), 0.0 V ... max.time	20.0 V ... 99.9 V	0.1 V	(-0%/+15%) of r.
	RCD I Ramp	0.00 ms ... 40.0 ms	0.1 ms	±1 ms
IMPEDANCE	Zline L-L, L-N Ipfc	0.00 Ω ... 9.99 Ω	0.01 Ω	±(5 % of r. + 5 digits)
		10.0 Ω ... 99.9 Ω	0.1 Ω	
		100 Ω ... 999 Ω	1 Ω	
	Zloop L-PE, Ipfc	1.00 kΩ ... 9.99 kΩ	10 Ω	±(10 % of r.)
		0.00 Ω ... 9.99 Ω	0.01 Ω	±(5 % of r. + 5 digits)
		10.0 Ω ... 99.9 Ω	0.1 Ω	
100 Ω ... 999 Ω	1 Ω			
VOLTAGE	TRMS	0 ... 550 V	1 V	±(2 % of r. + 2 digits)
	Frequency	0.00 Hz ... 9.99 Hz	0.01 Hz	±(0.2 % of r. + 1 digits)
CURRENT	TRMS, AC with A 1018	10.0 Hz ... 499.9 Hz	0.1 Hz	
		0.0 mA ... 99.9 mA	0.1 mA	±(5 % of r. + 5 digits)
		100 mA ... 999 mA	1 mA	±(3 % of r. + 3 digits)
	TRMS, AC with A 1019	1.00 A ... 19.99 A	0.01 A	±(3 % of r.)
		0.0 mA ... 99.9 mA	0.1 mA	Indicative ±(5 % of r.)
		100 mA ... 999 mA	1 mA	
	1.00 A ... 19.99 A	0.01 A		
	TRMS, AC/DC with A 1391, range=40 A	0.00 A ... 1.99 A	0.01 A	±(3 % of r. + 3 digits)
2.00 A ... 19.99 A		0.01 A		
20.0 A ... 39.9 A		0.1 A		
TRMS, AC/DC with A 1391, range = 300 A	0.00 A ... 19.99 A	0.01 A	Indicative	
	20.0 A ... 39.9 A	0.1 A		
	40.0 A ... 299.9 A	0.1 A		
EARTH RESISTANCE	3 wire	0.00 Ω ... 19.99 Ω	0.01 Ω	±(5 % of r. + 5 digits)
		20.0 Ω ... 199.9 Ω	0.1 Ω	
		200.0 Ω ... 9999 Ω	1 Ω	
	2 clamp	0.00 Ω ... 19.99 Ω	0.01 Ω	±(10 % of r. + 10 digits)
		20.0 Ω ... 30.0 Ω	0.1 Ω	
		30.1 Ω ... 39.9 Ω	0.1 Ω	
Specific earth resistance	0.0 Ωm ... 99.9 Ωm	0.1 Ωm	±(5 % of r.) for Re 1 Ω ... 1999kΩ	
	100 Ωm ... 999 Ωm	1 Ωm		
	1.00 kΩm ... 9.99 kΩm	0.01 kΩm		±(10 % of r.) for Re 2 kΩ ... 19.99kΩ
	10.0 kΩm ... 99.9 kΩm	0.1 kΩm		±(20 % of r.) for Re > 20 kΩ
	100 kΩm ... 9999 kΩm	1 kΩm		
	ILLUMINANCE	Type B		
Type C	20.0 lux ... 199.9 lux	0.1 lux	±(5 % of r.)	
	200 lux ... 1999 lux	1 lux		
	2.00 klux ... 19.99 klux	10 lux		
	0.01 lux ... 19.99 lux	0.01 lux		±(10 % of r. + 3 digits)
20.0 lux ... 199.9 lux	0.1 lux			
200 lux ... 1999 lux	1 lux			
2.00 klux ... 19.99 klux	10 lux			
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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ORDERING INFORMATION



Standard set MI 3152H

- Instrument MI 3152H EurotestXC
- Plug commander, 1.5 m
- 2.5 kV test lead, 2 x 1.5 m
- Test lead, 3 x 1.5 m
- Power supply adapter + 6 NiMH rechargeable batteries, type AA
- Test probe, 4 pcs (blue, black, green, red)
- Crocodile clip, 4 pcs (blue, black, green, red)
- 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

*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

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