

# Multifunctional installation testers

## MI 3125BT EurotestCOMBO



The MI 3125BT EurotestCOMBO performs all the necessary tests for installation safety testing on TT and TN systems. The large graphic display with backlight offers easy reading of results, indications, measurement parameters and messages. Two LED Pass/Fail indicators are placed on both sides of the LCD. MI 3125BT EurotestCOMBO contains integrated characteristics of fuses and RCDs (including B type) for the evaluation of test results. Each test has its own individual help screen describing how to connect the instrument into the installation and how to perform a measurement. 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. MI 3125BT EurotestCOMBO performs continuity, insulation, RCD, loop, line, voltage, frequency, earth resistance testing and phase sequence tests required by the EN 61557 standard.

### MEASURING FUNCTIONS

- Insulation resistance with DC voltage;
- Continuity of PE conductors with 200 mA test current with polarity change;
- Continuity of PE conductors with 7 mA test current (continuous measurement) without RCD tripping;
- Line impedance;
- Loop impedance;
- Loop impedance with Trip Lock RCD function;
- TRMS voltage and frequency;
- Phase sequence;
- RCD testing (general and selective, type AC, A, F, B, B+ and EV RCD);
- Earth resistance (3-wire method).

### KEY FEATURES

- **LED Pass/Fail indicators:** two LED indicators for PASS / FAIL evaluation of test results are placed on both sides of the LCD
- **Help screens:** instrument comes complete with built-in help screens for referencing on site.
- **Earth resistance measurement:** instrument performs 3-wire earth resistance testing with two additional rods.
- **Built-in fuse tables:** this unique feature allows automatic evaluation of the line / loop impedance compared to the regulations.
- **Online voltage monitoring:** monitors all 3

voltages in real-time.

- **Upgradeable:** if changes occur to the regulations, upgrades can be made to the firmware to keep the instrument up to date.
- **Polarity swap:** automatic polarity reversal on continuity test.
- **Insulation range:** wide range of insulation test voltages from 50 V to 1000 V, reading up to 1000 M $\Omega$ .
- **Trip Lock function:** Zs (RCD) function performs a loop impedance test without tripping the (EV) RCD.
- **Multi-system testing:** tests on single and multiphase TT and TN systems.
- **Built-in charger & rechargeable batteries:** unit has a built-in charging circuit and comes complete with a set of rechargeable NiMH batteries.
- **RCD auto:** automated RCD testing procedure significantly reduces test time.
- **B type RCD and EV RCD testing** are supported.
- **BT connectivity:** it enables BT communication with Android tablets and smart phones via built-in BT.
- **PC SW EuroLink PRO** included in the standard set enables downloading of test results and parameters and creation of test reports.
- **Compatible with PC SW MESM** (Metrel ES Manager).

### APPLICATION

- Initial and periodic testing of domestic and industrial installations;
- Testing of single and multiphase systems;
- Testing of TT and TN systems.

### STANDARDS

#### Functionality:

- IEC/EN 61557

#### Other reference standards for testing:

- VDE 0413;
- IEC/EN 61008;
- IEC/EN 61009;
- IEC/EN/HD 60364;
- HD 384; BS 7671;
- IEC/TR 60755;
- CEI 64.8;
- AS/NZ 3760;
- AS/NZ 3018

#### Electromagnetic compatibility:

- IEC/EN 61326-1;
- IEC/EN 61326-2-2

#### Safety:

- IEC/EN 61010-1;
- IEC/EN 61010-031

## TECHNICAL DATA

FUNCTION	Measuring range	Resolution	Accuracy
Insulation resistance (EN 61557-2)	U = 50, 100, 250 VDC:		
	R: 0.00 MΩ ... 19.99 MΩ	0.01 MΩ	±(5 % of reading + 3 digits)
	20.0 MΩ ... 99.9 MΩ	0.1 MΩ	±10 % of reading
	100.0 MΩ ... 199.9 MΩ	0.1 MΩ	±20 % of reading
	U = 500 VDC, 1 kVDC:		
	R: 0.00 MΩ ... 19.99 MΩ	0.01 MΩ	±(5 % of reading + 3 digits)
	20.0 MΩ ... 99.9 MΩ	0.1 MΩ	±5 % of reading
	200 MΩ ... 999 MΩ	1 MΩ	±10 % of reading
Continuity 200 mA of PE conductor with polarity change (EN 61557-4)	0.0 Ω ... 19.99 Ω	0.01 Ω	±(3 % of reading + 3 digits)
	20.0 Ω ... 199.9 Ω	0.1 Ω	±5 % of reading
	200 Ω ... 1999 Ω	1 Ω	±5 % of reading
Low resistance continuity measurement, test current 7 mA (Continuous measurement)	0.0 Ω ... 19.9 Ω	0.1 Ω	±(5 % of reading + 3 digits)
	20 Ω ... 1999 Ω	1 Ω	±(5 % of reading + 3 digits)
	0.00 Ω ... 9.99 Ω	0.01 Ω	±(5 % of reading + 5 digits)
	10.0 Ω ... 99.9 Ω	0.1 Ω	±(5 % of reading + 5 digits)
	100 Ω ... 999 Ω	1 Ω	±10 % of reading
	1.00 kΩ ... 9.99 kΩ	10 Ω	±10 % of reading
Line impedance (EN 61557-3)	0.00 Ω ... 9.99 Ω	0.01 Ω	±(5 % of reading + 5 digits)
	10.0 Ω ... 99.9 Ω	0.1 Ω	±(5 % of reading + 5 digits)
	100 Ω ... 999 Ω	1 Ω	±10 % of reading
	1.00 kΩ ... 9.99 kΩ	10 Ω	±10 % of reading
Voltage drop	0.0 % ... 99.9 %	0.1 %	Consider accuracy of line impedance
Voltage	0 V ... 550 V	1 V	±(2 % of reading + 2 digits)
Frequency	0.00 Hz ... 9.99 Hz	0.01 Hz	±(0.2 % of reading + 1 digits)
	10.0 Hz ... 499.9 Hz	0.1 Hz	
Phase sequence (EN 61557-7)	1.2.3 or 3.2.1		
RCD testing (EN 61557-6)	IΔN: 10 mA, 30 mA, 100 mA, 300 mA, 500 mA, 1 A		
- Contact voltage UC	0.0 V ... 19.9 V	0.1 V	(-0 % / +15 %) of reading ±10 digits
	20.0 V ... 99.9 V	0.1 V	(-0 % / +15 %) of reading
- Trip-out time	0 ms ... 40.0 ms	0.1 ms	±1 ms
	0 ms ... max. time	0.1 ms	±3 ms
- Trip-out current	0.2 x IΔN ... 1.1 x IΔN (AC type)	0.05 x IΔN	±0.1 x IΔN
	0.2 x IΔN ... 2.2 x IΔN (A, F types, IΔN < 30 mA)	0.05 x IΔN	±0.1 x IΔN
	0.2 x IΔN ... 1.5 x IΔN (A, F types, IΔN ≥ 30 mA)	0.05 x IΔN	±0.1 x IΔN
	0.2 x IΔN ... 2.2 x IΔN (B, B+ types)	0.05 x IΔN	±0.1 x IΔN
	0.2 x IΔN ... 1.0 x IΔN (EV RCD a.c. part)	0.05 x IΔN	±0.1 x IΔN
	0.2 x IΔN ... 1.0 x IΔN (EV RCD d.c. part)	0.05 x IΔN	±0.1 x IΔN
Earth resistance (EN 61557-5)	0.00 Ω ... 19.99 Ω	0.01 Ω	±(5 % of reading + 5 digits)
	20.0 Ω ... 199.9 Ω	0.1 Ω	±(5 % of reading + 5 digits)
	200 Ω ... 9999 Ω	1 Ω	±(5 % of reading + 5 digits)
Power supply	6 x 1.2 V rechargeable batteries, type AA		
Overvoltage category	CAT III / 600 V; CAT IV / 300 V		
Protection class	Double insulation		
COM port	RS232 and USB		
Dimensions	140 x 80 x 230 mm		
Weight	1.0 kg		

METREL d.d.  
 Measuring and Regulation Equipment Manufacturer  
 Ljubljanska 77, SI-1354 Horjul, Slovenia  
 T +386 (0)1 75 58 200, F +386 (0)1 75 49 226  
 info@metrel.si, www.metrel.si

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 3125BT)

- Instrument EurotestCOMBO
- Set of carrying straps
- Test lead, 3 x 1.5 m
- Schuko-plug test cable, 1.5 m
- Test probe, 3 pcs (blue, black, green)
- Crocodile clip, 3 pcs (blue, black, green)
- Power supply adapter + 6 NiMH rechargeable batteries, type AA
- USB and RS232 - PS/2 cable
- PC SW EuroLink PRO
- Short instruction manual
- Instruction manual and handbook on storage media
- Calibration certificate

### OPTIONAL ACCESSORIES

Photo	Part No.	Description
	A 1110	Three phase adapter
	A 1111	Three phase adapter with switch
	A 1153	Test lead, black, 20 m
	A 1154	Test lead, black, 4 m
	A 1314	Plug commander
	A 1401	Tip commander
	A 1303	Soft hand strap
	A 1289	Soft carrying bag
	A 1271	Small soft carrying bag
	A 1292	Upgrade code EuroLink PRO to EuroLink PRO Plus
	A 1431	EuroLink Android APP
	P 1102 AND	Metrel aMESM PRO License Key Upgrade (A 1522)
	P 1101	Metrel MESM BASIC to PRO licence key Upgrade
	S 2026	Earth test set, 3-wire, 20 m
	S 2027	Earth test set, 3-wire, 50 m