

Multifunctional  
VDE 0701-0702 tester

# MI 3305 OmegaGT<sup>Plus</sup> (Flash test) MI 3304 BetaGT<sup>Plus</sup>



- 25 A Earth bond
- Professional test report

## The Most Complete Portable Appliance Tester



**Metrel's top of the range measuring instrument for electrical safety testing of a wide range of (portable) electrical appliances, IT equipment, IEC cords and portable RCDs with corresponding IEC/EN and VDE standards.**

New PAT<sup>Plus</sup> instruments are suitable for periodic testing, troubleshooting or as a tool for electrical safety in workshops. They can be connected to 115 V and 230 V mains supply voltage. Instruments are placed in robust, waterproof case.

Over 100 pre-programmed **auto test sequences** cover most of the test requirements. User can define up to 50 additional customized auto tests. **Barcode labels** and reader enable super fast auto-testing and appliance identification. **RFID** technology is supported as well **QWERTY keyboard** allows easy data entries. **Serial printer** can be connected to the instrument to print out selected test results. Immediate test result printout facility is enabled with special designed **mobile label printer** available as accessory. Labels can be printed and posted on tested appliance immediately after test is finished.

**Professional PC SW PATLink PRO** enables viewing and advanced analysing of measurement results (comparison/trends for selected appliance) including comparison, storing of results for documentation, printing of test reports.

### The following test are supported:

- Earth bond continuity test with currents up to 25 A
- Insulation resistance,
- Leakage current (differential, substitute and touch),
- Functional test,
- Dielectric withstanding test 1500 V and 3000 V AC (MI 3305 only),
- Polarity test of IEC cord,
- TRMS leakage and load current measurement using clamp current adapter and
- Trip-out time measurement of portable RCDs.

### Features:

- User-friendly graphic user interface (GUI),
- instrument personalization to user needs,
- barcode reader and serial printer support,
- RFID technology for fast identification and storage of test results,
- saving auto test results with important information,
- quickly searching of test results using special filters,
- downloading/uploading auto test results to/from PC,
- test results comparison/trends and label printing.

### Application:

Periodical testing  
Electrical service interventions  
Control testing

### Standards:

Measurements:  
IEC 60335-1, IEC 60598-1,  
IEC 60745, IEC 60950,  
VDE 701 T1, VDE 702 T2, BS 89

Safety and EMC:  
EN 61010-1, IEC 61326

### General data:

Rated supply voltage: 230 V AC ( $\pm 10\%$ , 50/60 Hz)  
Maximum appliance current: 16 A  
Overvoltage category: CAT II / 300 V  
Protection classification: I  
Pollution degree: 2  
Degree of protection: IP 50  
(closed and locked cover)  
Case: shock proof plastic / portable  
Display: 240x128 dots graphic matrix display with backlight  
Memory: 6800 memory locations  
Interfaces: RS232 and USB

Dimensions (w x h x d):  
33.5 cm x 16.0 cm x 33.5 cm  
Weight (with standard accessories):  
8.4 kg



## Technical specification

Earth bond resistance readout (4 A, 10 A, 25 A)	Range	Accuracy	
	0.00 Ω ÷ 1.99 Ω	±(5 % of reading + 3 digits)	
	2.00 Ω ÷ 19.99 Ω	±10 %	
Earth bond resistance readout (200 mA)	0.00 Ω ÷ 19.9 Ω	±10 %	
Insulation resistance readout	0.000 MΩ ÷ 0.500 MΩ	±(10 % of reading + 5 digits)	
	0.501 MΩ ÷ 199.9 MΩ	±(5 % of reading + 3 digits)	
Substitute leakage current readout	0.00 mA ÷ 19.99 mA	±(5 % of reading + 5 digits)	
Touch leakage current readout	0.00 mA ÷ 1.99 mA	±(10 % of reading + 5 digits)	
Differential leakage current readout	0.00 mA ÷ 9.99 mA	±(5 % of reading + 5 digits)	
Apparent power readout	0.00 kVA ÷ 4.00 kVA	±(5 % of reading + 3 digits)	
Clamp current	0.00 mA ÷ 24.9 A	±(5 % of reading + 5 digits)	
Flash current readout (OmegaPAT only)	0.00 ÷ 2.50 mA	±(5 % of reading + 5 digit)	
Portable RCD trip-out time readout	0 ms ÷ 1999 ms (½xIΔN) ±3 ms		
Test currents (IΔN) 10 mA, 15 mA, 30 mA	0 ms ÷ 300 ms (IΔN) ±3 ms		
Test current multipliers ½, 1, 2 and 5xIΔN	0 ms ÷ 150 ms (2xIΔN) ±3 ms		
Test modes: single, autotest	0 ms ÷ 40 ms (5xIΔN) ±3 ms		
<b>Trip out times:</b>	½xIΔN	1xIΔN	5xIΔN
according to EN 61008/EN 61009	tΔ > 300 ms	tΔ < 300 ms	tΔ < 40 ms
according to BS 7671 (UK, Aus/NZ models)	tΔ > 1999 ms	tΔ < 300 ms	tΔ < 40 ms
<b>Polarity test</b>	Test voltage < 50 V AC		

## Key Features



Bar code support for test data and tested appliance name entering.



Immediate printing of labels after test is completed.



Large LCD with backlight and QWERTY keyboard.



Connector panel - test ports for fixed installed appliances.



Multiple input/output ports.



Professional PC SW PATLink PRO for upload and download of results.

## Ordering information

### Standard set

MI 3304, MI 3305



Instrument OmegaGTPlus MI 3305 or BetaGTPlus MI 3304  
Continuity / Leakage cable  
PRCD cable  
Test probe, green  
Test probe, black  
Test lead, green 1.5 m  
Test lead, black 1.5 m  
Crocodile clip, green  
Crocodile clip, black  
Flash cable (only for MI 3305)  
PC SW PATLink PRO  
RS232 cable  
USB cable  
Instruction manual  
Calibration certificate

### Optional Accessories

Photo	Order No.	Description
	A 1103	Receipt printer
	A 1226	Communication cable for printer A 1103.
	A 1106	Barcode labels, 1000 pcs
	A 1105	Barcode scanner
	A 1276	Label printer with power and data cables
	A 1295	Spare label roll for A 1276
	A 1203	Upgrade code PATLink PRO to PATLink PRO Plus
	A 1283	Shielded leakage current clamp
	A 1107	RFID reader / writer
	A 1108	RFID tags, 50 pcs
	A 1207	Three phase adapter

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



Measuring and Regulation Equipment Manufacturer

METREL d.d.  
Ljubljanska 77  
SI-1354 Horjul  
Tel: + 386 (0)1 75 58 200  
Fax: + 386 (0)1 75 49 226  
E-mail: metrel@metrel.si  
http://www.metrel.si