

OmegaPAT*Plus*
BetaPAT*Plus*

MI 3305
MI 3304

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*Plus* 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. **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 50 x 30 mm can be printed and posted on tested appliance immediately after test is finished. Metal holder delivered with printer enables fast mounting on outer side of OmegaPAT*Plus* or BetaPAT*Plus* instrument cover – simple and effective solution for unlimited freedom when test site needs to be changed frequently.

Professional PC SW PAT Link 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, 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 applied

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 0.00 Ω ÷ 1.99 Ω 2.00 Ω ÷ 19.99 Ω	Accuracy ±(5 % of reading + 3 digits) ±10 %
Earth bond resistance readout (200 mA)	0.00 Ω ÷ 19.9 Ω	±10 %
Insulation resistance readout	0.000 MΩ ÷ 0.500 MΩ 0.501 MΩ ÷ 199.9 MΩ	±(10 % of reading + 5 digits) ±(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	
Trip out times:	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	
Polarity test	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 PAT Link PRO for upload and download of results.

Ordering information

Standard set

MI 3304, MI 3305



Instrument OmegaPATPlus MI 3305 or BetaPATPlus MI 3304
Earth Bond Clip
PRCD test probe
Flash Test Probe (only for MI 3305)
PC SW PAT Link with RS232 and USB cable
Instruction manual
Product verification data

Optional Accessories

Photo	Order No.	Description
	A 1103	Printer
	A 1226	RS 232 cable 9/25 pin for printer
	A 1104	110/230 V adapter
	A 1106	Bar code labels
	A 1018	Current clamp (low range, leakage)
	A 1105	Bar code scanner
	A 1276	Label printer with power and data cable
	A 1277	Spare label roll, size 50 x 30 mm



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

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