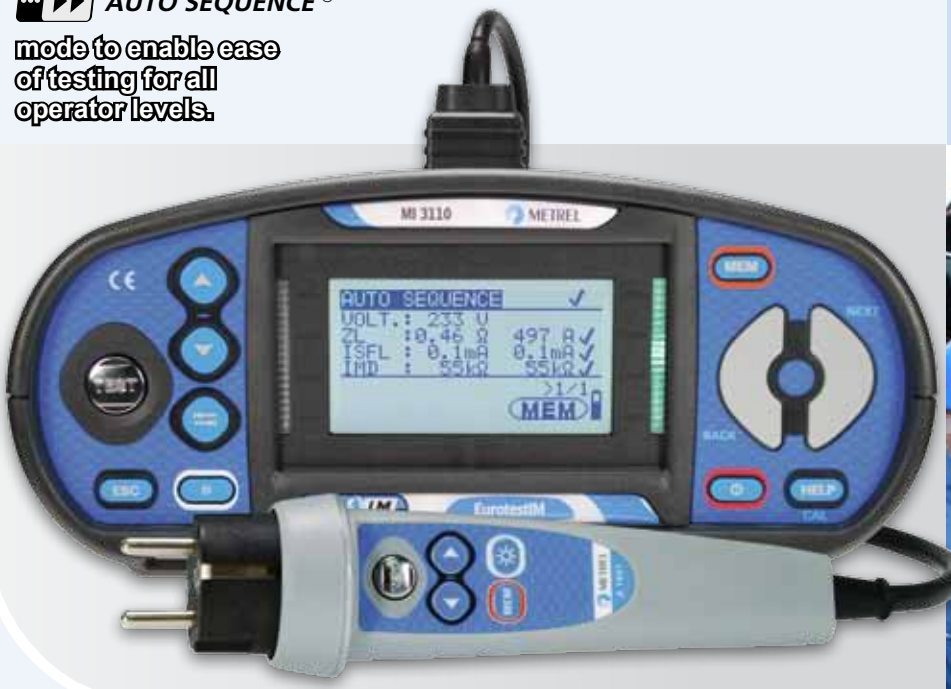
MI 3110 Eurotest IM

The WORLDS first instrument designed with a *AUTO SEQUENCE*® mode to enable ease of testing for all operator levels.



NEW
Mobile Generators/Vehicles/Machines
Installation IT Systems Safety Tester

Safety evaluation with minimization of Human Error Factor!

The MI 3110 EurotestIM is a perfect tool for testing permanent Integrated or mobile IT Earthing Systems with Low Voltage Electrical Installation's Power Supply from Generator or Transformer.

Designed for testing Safety of Integrated IT Earthing System with LV Power Generator or Transformer! One single ***AUTO SEQUENCE*®** with programmable limits and sub-tests ensuring Safety on all PASS barrier parameters.

APPLICATIONS:
- Safety and functionality on IT installations in industry, in hospitals;
- Marines and ships;
- Mines, other special locations;
- Connection of portable power generators;
- Construction sites and Road maintenance;
- Fire fighting mobile equipment, generators and pumps;
- Military vehicles and generators;
- SAT and radio / TV broadcasting mobile equipment;
- Police vehicles and generators;
- Safety and functionality on IT installations on the airports, concert halls, fair locations with generators;
- Adjustment and calibrations of IMD devices.

STANDARDS:

Safety
- IEC/EN 61010 -1; EMC IEC/EN 61326

Measurements
- IEC/EN 61557
- Parts 1 to 7 and 10: Equipment for testing, measuring and monitoring of protective measures.
- Part 8: Insulation monitoring devices for IT systems
- Part 9: Equipment for insulation fault location for IT systems

Functionality
- IEC/EN 60364 - 4 - 41/42/43, Protection for safety
- IEC/EN 60364-6, Verification, testing and reporting
- IEC/EN 60364-7, Requirements for special installations or locations
- IEC / EN 60364-7-717, Mobile and transportable units
- IEC 60364-7-710, Medical locations and associated areas
- IEC 61892-6, Mobile and fixed offshore units - Electrical installations, Installation
- IEC 60364-7-711, Electrical installations in exhibitions, shows, stands, and fun fairs
- IEC 60364-7-708, Electrical installations in marinas and pleasure crafts.

KEY FEATURES:
- IT System recognizing, Voltage Range and Voltage Balance,
- ISFL Single Fault Leakage current from Phase 1 and Phase 2 to PE,
- Fuse Trip-out Ability Evaluation, Line Impedance and Ipsc Prospective Short Circuit Current,
- IMD Insulation / ELM Earth Leakage / RCM Residual Current Monitor Devices Control,
- Alarm Trigger or Trip-Out Check and Adjust.

DISPLAYED RESULTS *AUTO SEQUENCE*®

"Functional Safety of Electrical / Electronic / Programmable Electronic Safety related Systems" EN 61508 defining the human error as "human action or inaction that can produce an unintended result".

Due to unique single and clear AUTO SEQUENCE ® procedure the Human Error Factor in Functional Safety IEC / EN 61508 is minimized Regardless of Operator competence level.

METREL®

Tehnical specifications

Voltage and

Measuring range (V)	Resolution (V)	Accuracy
0 V ÷ 550 V	1 V	± (2 % of reading + 2 digits)

Phase rotation

Measuring range (V)	Reasult displayed
100 V ÷ 550 V	1.2.3 or 3.2.1

Frequency

Measuring range (Hz)	Resolution (Hz)	Accuracy
10.0 Hz ÷ 500.0 Hz	0.1 Hz	± (0.2 % of reading + 1 digit)

Line impedance (EN 61557-3)

Measuring range (Ω)	Resolution (Ω)	Accuracy
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)

Voltage drop

Measuring range (%)	Resolution (%)	Accuracy
0.0 ÷ 99.9	0.1 V	Consider accuracy of line impedance measurement(s)*

First fault leakage current (ISFL)

Measuring range (mA)	Resolution (mA)	Accuracy
0.0 mA ÷ 19.9 mA	0.1 mA	± (5 % of reading + 3 digits)

Measuring resistance 390 Ω
Nominal voltage ranges 93 V ≤ UL1-L2 < 134 V / 185 V ≤ UL1-L2 < 266 V

IMD test current

Measuring range (mA)	Resolution (mA)	Accuracy
0.0 mA ÷ 19.9 mA	0.1 mA	calculated value

IMD test insulation resistance

Measuring range (kΩ)	Resolution (kΩ)	Accuracy
5 kΩ ÷ 640 kΩ	5 kΩ	Indicative values Up to 128 steps

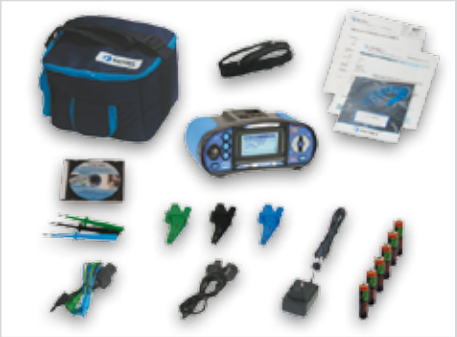
Nominal voltage ranges 93 V ≤ UL1-L2 < 134 V / 185 V ≤ UL1-L2 < 266 V

General data

Power supply voltage:	9 VDC (6x1.5 V battery or accu, size AA)
Operation:	20 h
Working temperature range:	0 °C ÷ 40 °C
Maximum relative humidity:	95 % RH (0 °C ÷ 40 °C), non-condensing
Display:	128 x 64 dots matrix display with backlight
Communication port:	RS232 (PS/2 connector, female), USB (connector Typ B)
Overvoltage category:	CAT III / 600 V; CAT IV / 300 V
Protection classification:	Double insulation
Protection degree:	case IP 40
Dimensions (w x h x d):	230 mm x 103 mm x 115 mm
Weight:	1.1 kg

Ordering information:

Standard Set **Part No.: 3110**

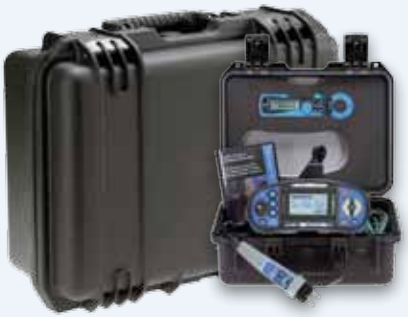


- Instrument MI 3110 EurotestIM
- Soft carrying bag
- Mains cable
- Test lead, 1.5 m
- Crocodile clip, black, green, brown
- Test probe, black, green, brown
- NiMH rechargeable batteries, type AA, 6 pcs
- PC software EuroLink PRO
- USB and RS232 cable
- Instruction manual
- Calibration certificate

Optional accessories

- A 1314 Plug commander
- A 1272 Plug commander
- A 1401 Tip commander
- A 1270 Tip commander
- A 1012 Test lead, green, 4 m
- A 1292 Upgrade code EuroLink PRO to EuroLink PRO Plus
- A 1160 Fast charger for 8 AA batteries with a set of 8 NiMH bateries, type AA

Ordering information:



Kit Set **IM/PAT PRO**
- MI 3110 EurotestIM
- A 1314 Plug Commander
- MI 3309 DeltaGT
- MD 9270 Leakage CLAMP with POWER
- P67 Portable Case

Kit Set **IM/PAT EU**
- MI 3110 EurotestIM
- MI 3311 GammaGT
- IP67 Portable Case

Kit Set **IM/2A EU**
- MI 3110 EurotestIM
- A 1314 Plug Commander
- MI 3242 MicroOhm 2A
- IP67 Portable Case

Alternative IM/10A PRO:
- MI 3250 MicroOhm 10A

Kit Set **IM PRO**
- MI 3110 EurotestIM
- MD 9270 Leakage CLAMP with POWER
- IP67 Portable Case

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

METREL®
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