

Product News 2025

Test and
Measurement
Equipment





NEW

MI 3116 PV Analyser



The **MI 3116 PV AnalyserXA** is an advanced photovoltaic and electrical installation tester designed for maximum efficiency and precision. It combines insulation and **I/U measurements of 1500 V PV systems** in a single device while ensuring accurate testing of high-efficiency PV modules. A **wireless (Wi-Fi) remote unit** enables real-time measurement and logging of irradiation and cell temperature, enhancing data collection. The **Auto Test function** for Category 1 tests streamlines operation, while the innovative correction feature allows users to adjust previously incorrect parameters on completed measurements or entire test groups, ensuring greater accuracy and reliability in PV system diagnostics.



APPLICATION

- **Testing of large 1500 V PV plants**
- First inspection testing
- Periodic testing
- Maintenance testing
- Evaluation and troubleshooting
- Report generation

STANDARDS

Functionality

- EN 62446
- EN 61557

Electromagnetic compatibility

- EN 61326-1

Safety

- EN 61010-1
- EN 61010-2-30
- EN 61010-031

KEY FEATURES

- Supports both **category 1** and **category 2** tests and measurements of **1500 V PV systems** with harness sub array (HAS) current up to **40 A**.
- The capacitive method enables efficient and reliable measurement of I/U characteristics of **high-efficiency PV modules** that require more complex measurement procedures.
- Support for **bifacial modules**.
- **Wireless (Wi-Fi)** remote unit for measuring and logging irradiation and cell temperature of PV modules.
- **Auto test for category 1 tests.**
- Calculation of STC values and comparison with nominal data.
- **Correction** of previously incorrectly entered parameters on already executed **measurement** or a group of measurements.
- The instrument is controlled via a **colour touch screen display** through which the user can prepare and start the selected test or measurement, store results, and review them in a numerical and graphical form.
- Memory organizer, **operations on a single or a group of measurements**, search functionality.
- **PV modules database handler.**
- AUTOSEQUENCE.
- The SW 1201 Metrel Electrical Safety Manager (MESM) is a powerful software

solution designed to streamline electrical safety testing. It allows users to predefine measurement structures, upload or download test data, and efficiently review results. With advanced features such as I/U curve analysis, a PV module database explorer, and professional report generation, MESM enhances workflow efficiency and ensures precise data management.



NEW

MI 3115 PV Analyser



Experience seamless testing of 1500 V photovoltaic systems with the **MI 3115 PV Analyser**. Designed to meet the **IEC 62446 standard**, this device supports both **category 1** and **category 2 tests**, including insulation resistance measurements of PV strings, **I-V characteristic measurements**, and the **conversion of data to STC values** for easy comparison with the nominal values provided by PV module manufacturers. With its **wireless remote unit**, the MI 3115 measures **irradiation and cell temperature in real-time**, ensuring precise and efficient testing. The analyser also features an automatic test function for category 1 tests, allowing users to perform multiple tests with a single press of the start button.



Electromagnetic compatibility

- EN 61326-1

Safety

- EN 61010-1
- EN 61010-2-30
- EN 61010-031

KEY FEATURES

- Supports both **category 1** and **category 2** tests and measurements of **1500 V PV systems** with harness sub array (HAS) current up to **20 A**.
- The capacitive method enables efficient and reliable measurement of I/U characteristics of **high-efficiency PV modules** that require more complex measurement procedures.
- **Wireless (Wi-Fi)** remote unit for measuring and logging of irradiation and cell temperature of PV modules.
- **Auto test for category 1 tests.**
- **Calculation of STC values and comparison with nominal data.**
- Correction of previously wrong entered parameters on already executed measurement or group of measurements.
- The instrument is controlled via a large colour touch screen display from which the user can prepare and start the selected test or measurement, store results, and review them in numerical and graphical form.
- Memory organizer, operations on single or group of measurements, search functionality.
- **PV modules database** handler.

APPLICATION

- Testing of big **1500 V PV plants**
- First inspection testing
- Periodic testing
- Maintenance testing
- Evaluation and troubleshooting
- Report generation

STANDARDS

Functionality

- EN 62446-1
- EN 62446-2
- EN 61557

- Programmable **Auto Sequence®**.
- PC SW Metrel ES Manager enables pre-preparation of measurement structure and measurements, upload or download that structure and then reviews the results, enables advanced **analysis of the I/U curve**, **PV modules DB explorer** and generation of professional report.



NEW

MI 3114 PV Tester



The **MI 3114 PV Tester** is a versatile tool for testing photovoltaic (PV) systems with a maximum system **voltage of up to 1500 V** and a short circuit **current of up to 40 A**. It complies with the **IEC 62446-1 standard** and covers all **category 1 test procedures**. These include essential PV-specific measurements such as insulation resistance of PV strings, short-circuit current (Isc) and open-circuit voltage (Uoc), as well as the **calculation of results to STC values** for comparison with the nominal values provided by the PV module manufacturer. The tester features a **wireless remote unit** that measures **irradiation and cell temperature in real-time** for accurate data collection. For added convenience, all category 1 tests can be performed automatically with a single press of the start button, streamlining the testing process.



APPLICATION

- Testing of big **1500 V PV plants**
- First inspection testing
- Periodic testing
- Maintenance testing
- Evaluation and troubleshooting
- Report generation

STANDARDS

Functionality

- EN 62446-1
- EN 62446-2

Electromagnetic compatibility

- EN 61326-1

Safety

- EN 61010-1
- EN 61010-2-30
- EN 61010-031

KEY FEATURES

- Auto test for **Category 1** tests.
- Measurement of **high efficiency PV modules**.
- **Calculation of STC values and comparison with nominal data.**
- Correction of previously wrong entered parameters on already executed measurement or group of measurements.
- Memory organizer, operations on single or group of measurements, search functionality, **PV modules database handler**.
- Wireless (Wi-Fi) remote unit for measuring of irradiation and cell temperature.
- Programmable **Auto Sequence®**.

- PC SW Metrel ES Manager to prepare measurement structure and measurements in advance, upload or download that structure and then reviews the results, **PV modules DB** explorer and as final act, the generation of professional report.



NEW

MI 3215 TeraOhmHP 15 kV



The **MI 3215 TeraOhmHP 15 kV** is a powerful, portable insulation resistance tester, capable of using **high DC test voltages up to 15 kV**. It can be powered by battery or mains and features excellent IP65 protection, making it durable and suitable for tough industrial environments. With a robust design (CAT IV measuring category) and **high immunity to electromagnetic interference**, it's ideal for demanding conditions. The device offers easy operation through a responsive touchscreen or keypad, with a menu-driven LCD for simple navigation and data entry. The newly designed test leads feature **coded banana connectors that ensure proper connection and prevent accidental disconnection**, providing enhanced safety during use.



APPLICATION

- Power transformers.
- Measuring transducers in distribution networks.
- Testing insulation resistances of rotating machinery and cables.
- Production line periodic testing and maintenance.
- Troubleshooting and analysis of all kinds of insulation problems.
- High voltage generators.
- Surge arrestors.

STANDARDS

Electromagnetic compatibility

- EN 61326-1

Safety

- EN 61010-1 (instrument);
- EN 61010-2-030;
- EN 61010-2-034;
- EN 61010-031 (accessories).

KEY FEATURES

- Insulation resistance measurements of **up to 35 TΩ**.
- Safety rated category up to **CAT IV 1000 V to 3000 m**.
- Dual-case design.
- **Coded banana connectors with locking feature**.
- **Newly designed HV crocodiles with a better grip**.
- Li-ion battery 4400 mAh.
- **Adjustable test voltage (50 V...15 kV)** in 50 V and 100 V steps.
- Maximum short circuit/charge current: **>6mA**.
- Charging rate for capacitive load **<4s / μF** at 15 kV (mains supply); **6.3s / μF** (battery supply).
- Discharging rate for capacitive load **<1.6s / μF at 15 kV**.
- **8 GB memory SD card** for data saving.
- **Burn or breakdown mode**.
- Programmable timers.
- Automatic discharge of test object after finished measurement.
- **Live voltage detection > 30 V**
- IP65 case rating.

- User-friendly and intuitive operation.
- High voltage breakdown detection.
- Programmable **Auto Sequence®**.
- Auto adjustment function.
- Measurement results in numerical and graphical form.
- PC software MESM for downloading and analysing test results and for test report printing.
- Isolated RS-232 and **USB communication ports, Bluetooth interface**.
- **High quality accessories, including shielded test leads**.
- **High EM interferences protection: Input AC current noise rejection 8 mA, input AC voltage noise rejection 1.5 kV**.
- **Averaging of results (Off, 5, 10, 30, 60, 100, 200)**.
- Mains and rechargeable battery power supply.



NEW

MI 3211 TeraOhmHP 10 kV



The **MI 3211 TeraOhmHP 10 kV** is a powerful, portable insulation resistance tester that operates on battery or mains power and offers excellent IP65 protection. Designed for high-demand industrial environments, it uses **high DC test voltages of up to 10 kV** to analyze insulation resistance. Its robust construction (CAT IV measuring category) and **strong resistance to electromagnetic interference** make it ideal for challenging conditions. The device is user-friendly, with an easy-to-navigate touchscreen or keypad and a menu-driven LCD for simple selection of measurement methods and data entry. The newly designed test leads feature **coded banana connectors, ensuring secure connections and preventing accidental disconnections** for added safety.



APPLICATION

- Power transformers.
- Measuring transducers in distribution networks.
- Testing insulation resistances of rotating machinery and cables.
- Production line periodic testing and maintenance;
- Troubleshooting and analysis of all kinds of insulation problems.
- High voltage generators.
- Surge arrestors.

STANDARDS

Electromagnetic compatibility

- EN 61326-1

Safety

- EN 61010-1 (instrument);
- EN 61010-2-030;
- EN 61010-2-034;
- EN 61010-031 (accessories).

KEY FEATURES

- Insulation resistance measurements of **up to 35 TΩ**.
- Safety rated category up to CAT IV 600 V to 3000 m.
- Dual-case design.
- **Coded banana connectors with locking feature.**
- **Newly designed HV crocodiles with a better grip.**
- Li-ion battery 4400 mAh.
- **Adjustable test voltage (50 V...10 kV)** 50 V and 100 V step.
- Maximum short circuit/charge current: **>6mA**.
- Charging rate for capacitive load **<2.7s / μ F** at 10 kV (mains supply); **4.2s / μ F** at 10 kV (battery supply).
- Discharging rate for capacitive load **< 0.24 s / μ F at 10 kV**.
- **8 GB memory SD card** for data saving.
- **Burn or breakdown mode.**
- Programmable timers.
- Automatic discharge of test object after finished measurement.
- **Live voltage detection > 30 V.**
- IP65 case rating.

- User-friendly and intuitive operation.
- High voltage breakdown detection.
- Programmable **Auto Sequence®**.
- Auto adjustment function.
- Measurement results in numerical and graphical form.
- PC software MESM for downloading and analysing test results and for test report printing.
- Isolated RS-232 and **USB communication ports, Bluetooth interface.**
- **High quality accessories, including shielded test leads.**
- **High EM interferences protection: Input AC current noise rejection 8 mA, input AC voltage noise rejection 1.5 kV.**
- **Averaging of results (Off, 5, 10, 30, 60, 100, 200).**
- Mains and rechargeable battery power supply.



FEATURED

MI 3365 OmegaEE XD



The upgraded **OmegaEE XD series** offers four models designed for professional use in the most demanding applications. Each model supports multiple user accounts, allowing several electricians to share one device. The models cover a range of testing needs, including portable appliances, welding equipment, medical devices, professional testing of PRCD devices, and EV charging cables (mode 2 and mode 3). All instruments feature an advanced user interface, allowing for the execution of both pre-defined and user-created **Auto Sequence®**. With a large memory capacity (8 GB microSD card), they provide long-term data storage and archiving. Specifically designed for extended testing, the memory system allows easy navigation through the device archive and quick re-execution of periodic tests.



STANDARDS

- EN 50699 Recurrent Tests of Electrical Equipment;
- EN 50678 Verification of Electrical Equipment After Repair;
- IEC 62368-1 Audio/video, information and communication technology equipment;
- IEC 62353 Recurrent test and test after repair of medical electrical equipment;
- IEC 60601 Medical electrical equipment¹;
- IEC IEC 60974-4 Arc welding equipment – Periodic inspection and testing²;
- IEC 62752 In-cable control and protection device for mode 2 charging of electric road vehicles (IC – CPD).

APPLICATION

- General electrical equipment testing.
- Medical electrical equipment testing.
- Arc welding equipment testing.
- Mode 2 EV, emergency charging cables testing³.
- Mode 3 EV, charging cables testing⁴.
- P-RCD testing (PRCD, PRCD-K, PRCD-S, PRCD-S pro, 2-pole, 3-pole).
- Mobile power distribution boxes testing.
- Testing devices with floating inputs (unique measuring function).
- Three-phase equipment testing.

¹Partially covered / ²In combination with A 1422 / ³In combination with A 1632 or A 1532 / ⁴In combination with A 1832

KEY FEATURES

- Pre-defined AUTOSEQUENCE®s, according to: **EN 50678, EN 50699, EV-Cables, P-RCDs, Floating inputs, EN 62368-1, EN 60974-4, EN 62353.**
- Read the code and test: QR and barcode system of labelling in combination with **Auto Sequence®** enables the user quick and simple testing of electrical devices.
- Testing groups: the instruments have **built-in filters** in accordance with their area of application, which enables the user simple choice of needed test sequences.

- Support for **IC-CPD** testing: support for testing **Mode 2** and **Mode 3 EV cables** in combination with supported adapters.
- Support for PRCD testing: support for all types of PRCDs, including 2-pole, 3-pole, K/Di (varistor), S (3 pole) and testing with the PE probe.
- Fuse testing: the instrument has a special, integrated testing module for quick testing of all types of fuses.
- High-voltage testing (only MI 3365 F): the instrument enables insulation resistance measurement that has to be performed after repairs or maintenance of electrical devices.
- Testing of medical devices (only MI 3365 M): the instrument enables testing of medical devices in accordance with IEC/EN 62353 extended to tests in acc. with IEC 60601.
- Simulation of Single fault conditions enables testing of Audio/video, information and communication technology equipment IEC/EN 62368.
- Testing of welding equipment (only in combination with A 1422): all models of OmegaEE XD support testing of welding equipment in accordance with IEC/EN 60974-4.
- Hard-wired devices: the instruments have integrated additional test terminals that enable the user simple testing of hard-

wired devices.

- Large memory: support for microSD memory cards, 8 GB card already integrated in the instrument, although that can be expanded to 32 GB.
- PC SW Metrel ES Manager: enables creation of test structures, user-defined **Auto Sequence®**, professional test reports and data transfer for archiving.
- Touch screen: high resolution colour touch screen, 4.3" TFT.
- Double manipulation: keyboard and touch screen enable the user to control the instrument in any manner they like.
- aMESM Android SW: enables QR code scanning, and uploading of pre-prepared user-defined AUTOSEQUENCE®s.



SELECTION GUIDE FOR ELECTRICAL EQUIPMENT TESTERS

MEASURING FUNCTION	MI 3365	MI 3365 25A	MI 3365 M	MI 3365 F
Visual inspections (EN 50678, EN 50699, EN 62353, EN 60974-4, General)	•	•	•	•
Continuity // Protective earth resistance, 200mA, 10A, 25A	• / - / -	• / • / •	• / • / •	• / • / •
Insulation Resistance (Riso, Riso-S)	•	•	•	•
Protective conductor current, (Alternative, Residual, Direct)	•	•	•	•
Touch leakage current, (Direct, Alternative)	•	•	•	•
Leakage current produced by a floating input, PE current (Direct, Residual)	•	•	•	•
Leakage current produced by a floating input, Touch current (Direct)	•	•	•	•
Polarity / Active polarity test	•	•	•	•
Power (P, S, Q, PF, THDu, THDi, CosØ, I, U)	•	•	•	•
P-RCD / RCD test, (2 pole, 3 pole, K/ Di (varistor), S (3-pole))	•	•	•	•
IC-CPD, EV-RCD, (PE conductor, Trip current, Trip time)	•	•	•	•
USELV/PELV	•	•	•	•
EVSED Diagnostic test	•	•	•	•
Flash test, (1.5 kV, 3.0 kV)	•	•	•	•
Equipment leakage (direct, differential, alternative), IEC/EN 62353	•	Optional	•	•
Applied part leakage (direct, alternative), IEC/EN 62353	•	Optional	•	•
Patient leakage (Ip ME), IEC/EN 62353, IEC 60601	•	Optional	•	•
Welding circuit leakage (optional A 1422), IEC/EN 60974-4	•	•	•	•
Primary leakage (optional A 1422), IEC/EN 60974-4	•	•	•	•
No-load voltage (optional A 1422), IEC/EN 60974-4	•	•	•	•
Clamp current (with optional A 1283)	•	•	•	•
Fuse test	•	•	•	•
Functional inspections (EN 50678, EN 50699, EN 62353, EN 60974-4, General)	•	•	•	•

Can be used together with
A 1832 Mode 3 Charging Cable Adapter



The **A 1832 Mode 3 Charging Cable Adapter** is designed to verify the electrical safety of **Mode 3 EV charging cables with Type 2 connectors**, in combination with compatible METREL or third-party testers. When used with Metrel's **AUTOSEQUENCE®** feature, available in newer multifunction testers, it allows for a complete and automated testing of the EV charging cable with just one button press. Additionally, professional reports can be generated using MESM software for thorough documentation.



NEW

MI 3340 AlphaEE XA



The new **MI 3340 AlphaEE XA** sets a new standard for ease and comfort in electrical equipment testing with its innovative, ergonomic design. Built for durability and balance, this cutting-edge instrument allows effortless one-handed operation, making it a must-have for professionals on the move. Its user-friendly interface offers both touchscreen and function key options, allowing you to choose the method that best suits your needs, whether performing routine checks or detailed diagnostics. Tailored for service organizations, the **AlphaEE XA** features specialized measuring functions suitable for a variety of applications. It supports periodic testing, post-repair testing, and on-the-spot servicing with pre-defined **Auto Sequence®**, and single measurements, offering unmatched versatility. Combining advanced functionality with convenience and exceptional performance, the **AlphaEE XA** is designed to enhance the future of electrical equipment testing in a sleek, user-focused package.



- EN 50678 Verification of Electrical Equipment After Repair
- IEC 62368-11 Audio/video, information and communication technology equipment
- IEC 62752 2 In-cable control and protection device for mode 2 charging of electric road vehicles (IC - CPD)

¹In combination with A 1789 / ²In combination with A 1532 XA or A 1632

KEY FEATURES

- **Ergonomic housing:** Experience ultimate convenience with our ergonomic housing, designed for effortless single-handed operation.
- **Li-Ion battery:** Enjoy extended use and rapid recharging with Li-Ion battery, leveraging advanced Li-Ion technology for longer operation times and quicker charge cycles.
- **Pre-defined Auto Sequence®:** According to: **EN 50678, EN 50699, EV-Cables, P-RCDs**, Devices with **Floating inputs**, Audio/video, information and communication technology **EN 62368-1**.
- **Insulation resistance test (50V, 100V):** Lower test voltages at insulation resistance tests make it easy to safely evaluate charging stations for e-bikes and other electric transportation devices.
- **IC-CPD:** Easily test Mode 2 and Mode 3 EV cables with the help of supported compatible adapters.
- **Active polarity test:** Ensure flawless functionality with our active polarity test, designed to verify devices requiring mains

voltage for operation, including P-RCD switches, smart extension leads, and electric vehicle charging cables.

- **Colour touch screen:** Offers users a quick overview and effortless parameter adjustment, enhancing both efficiency and user experience.
- **Auto Continuity:** The **Auto start** feature enables a rapid and efficient assessment of devices with a larger number of metal parts that require inspection.
- **Socket test:** a socket test function empowers users to troubleshoot connection points effectively. With this feature, you can verify mains voltage, and the integrity of "L / N / PE" wiring, ensuring reliable and accurate confirmation.
- **Standby power:** Testing of Standby power (Commission regulation No 2023/826).
- **Support for PRCD testing:** Support for all types of PRCDs, including 2-pole, 3-pole, K/Di (varistor), S (3 pole) and testing with the PE probe.
- **BlackBox protocol:** The primary purpose of the Black Box protocol is to enable execution of Single tests and AutoSequences via remote applications.
- **PC SW Metrel ES Manager:** Enables creation of test structures, user-defined **AUTO SEQUENCES**, professional test reports and data transfer for archiving.
- **aMESM Android SW:** Enables QR code scanning, and uploading of pre-prepared user-defined **Auto Sequence®**.

APPLICATION

- Electrical equipment testing, general,
- Mode 2 EV, Emergency charging cables testing¹,
- Mode 3 EV, Charging cables testing²,
- P-RCD Testing (PRCD, PRCD-S, PRCD-S pro, 2-pole, 3-pole),
- Testing devices with floating inputs (unique measuring function),
- 3-Phase equipment testing³.

¹In combination with A 1532 XA or A 1632 / ²In combination with A 1832 / ³In combination with A 1830

STANDARDS

- EN 50699 Recurrent Tests of Electrical Equipment

NEW

A 1830 Active 3-phase adapter



The **A 1830 3-phase Active Leakage Adapter** is designed for testing, devices which are equipped with a **CEE 3-PH/16A** 5 pin or **CEE 3-PH/32A** 5 pin plug. It enables quick and efficient active leakage testing using test instruments primarily designed for testing single phase electrical equipment. If used together with Metrel **AUTOSEQUENCES®**, prebuilt in the newer multifunctional testers, the complete 3-phase electrical device can be tested with a push of a button. It is possible to create a professional report with **MESM SW**.



STANDARDS

Safety

- EN 61010-1
- EN 61010 - 2 - 030

Functionality

- EN 50678 / VDE 0701
- EN 50699 / VDE 0702

APPLICATION

The following tests can be performed on devices with CEE plugs with the help of the A 1830 3-Ph Active Leakage Adapter:

- Protective earth resistance
- Insulation resistance (Riso, Riso-S)
- Protective conductor current (Direct, Residual, Alternative);
- Touch leakage current (Direct, Alternative);
- Functional test.

KEY FEATURES

- Built-in CEE 3-PH/32A 5 pin and CEE 3-PH/16A 5 pin test sockets;
- Active testing on 3-phase electrical equipment can be carried out, including, earth continuity, insulation resistance and live leakage test;
- 3-Phase Equipment AUTO SEQUENCE® support;
- MESM report creation.

SUPPORTED TEST INSTRUMENTS

- MI 3360 Series
- MI 3365 Series
- MI 3340 Series



FEATURED

MI 3132 EV Tester



The **MI 3132 EV Tester** is a portable, battery-powered instrument designed specifically for electric vehicle testing. It complies with the latest **UN ECE R100 Annex 4A** and **4B standards**, which are used to measure the insulation resistance of electric vehicles. Featuring an ergonomic design and intuitive user interface, the tester includes a memory organizer and **fully programmable Auto Sequence®**. In addition to its core functions, the instrument supports a wide range of tests, such as 2 A micro-ohm measurement, online voltage monitoring, **insulation testing up to 1500 V**, as well as functional and visual inspections.



Electromagnetic compatibility

- EN 61326

Safety

- EN 61010 - 1
- EN 61010 - 2 - 030
- EN 61010 - 031
- EN 61557

KEY FEATURES

- Insulation resistance measuring according to UN ECE **R100** measuring using internal DC source.
- Performing accurate four wire measurements with **Kelvin clamps** and up to **2 A** measuring current.
- Settable duration and current direction (unidirectional or bidirectional) in the Micro Ohm measurement.
- Insulation range: wide range of insulation test voltages from 50 V to **1500 V**, resistance measuring range up to 3 GΩ.
- Overvoltage category 1000 V CAT III.
- 4.3" colour LCD display with touch screen.
- Programmable **Auto Sequence®**.
- High degree of protection for outdoor use and rough environment.
- DC resistance measurements.
- Support for single or automated measurements.
- Rechargeable Li-Ion batteries and built-in

charger as standard accessory.

- **BT communication** with PC, via built-in BT module.
- **PC SW Metrel ES Manager** for measurement pre and post processing: preparation of the test structure, result download, tree-view, table view and graphical view, storing and printing.

APPLICATION

- Electric vehicle high voltage cables insulation and resistance test;
- Battery insulation check;
- EV chassis and components bonding test;
- EV safety tests;
- Mode 3 charging cables insulation and resistance test
- Electric vehicle after crash safety check;
- Electrical troubleshooting;
- For electric vehicle services, workshops and production facilities;
- Test at Periodic Technical Inspections

STANDARDS

Functionality

- UN ECE R100
- ISO 6469-3



NEW

A 1732 DC EVSE Adapter



The **A 1732 DC EVSE Adapter** is a specialized tool designed for electrical safety and functional testing of Electric Vehicle Supply Equipment in both **Mode 4** (DC EVSE) and **Mode 3** (AC EVSE) configurations. It supports a range of connector types, including CCS2, CHAdeMO, and Type 2 AC plugs, making it highly versatile. The A 1732 adapter enables initiation when paired with MI 3155 of communication protocols, such as **ISO 15118**, **DIN 70121**, **CHAdeMO**, and Low-level PWM, and it can also simulate errors on the Control Pilot (CP) signal and Protective Earth (PE) connections to assess EVSE response. When paired with the MI 3155 EurotestXD installation tester, the **A 1732 DC EVSE Adapter** can be used to log the charging protocol, perform measurements and testing required for EVSE commissioning and for periodic safety testing.



APPLICATION

- EVSE production for functional and electric tests;
- EVSE installation and commissioning;
- Periodic testing of EVSE;
- Troubleshooting problematic EVSE;

STANDARDS

Functionality

- EN 61851 - 1
- EN 61851 - 23
- ISO 15118-1
- DIN SPEC 70121

- CHAdeMO

Electromagnetic compatibility

- EN 61326 - 1

Safety

- EN 61010 - 1
- EN 61010 - 2 - 030
- EN 61010 - 031

KEY FEATURES

- Support for **CCS2**, **CHAdeMO** and **AC EVSE**;
- Functional test protocol for measuring voltages and current on the terminals;
- Fault simulation on CCS2 and Type 2 for **CP open**, **PE open** and **CP short**;
- Fault simulation on CHAdeMO for **CP3 open**, **PE open** and **CAN stop**;
- Banana test points for DC, AC and PE terminals;
- Double PE test terminals (PE(C) and PE(P)) for a **true 4-wire Rlow measurement**;
- Bluetooth communication with MI 3155 EurotestXD;
- Overvoltage category CAT III / 300 V;
- **CCS ISO 15118-1** or **DIN 70121** communication support;
- **CHAdeMO version 0.9.1** and higher communication support;
- **AC EN 61851-1** communication support;
- Simulated EV Battery of 300 V and 5 A.

USED TOGETHER WITH MI 3155

- Communication with A 1732 DC EVSE Adapter via Bluetooth;
- **Predefined test protocol for DC EVSE** in the memory structure;
- All measurement can be started and viewed on **MI 3155 EurotestXD**;
- Performing accurate 4-wire measurements with 200 mA measuring current;
- **Insulation resistance** with DC voltage up to 2500 V;
- Functional test with a **live view of charge protocol** and voltages and currents on the test terminals;
- Remote faults triggering and reaction time measuring;
- DC impedance measurement;
- Discharge time measurement;
- Asymmetric **IMD test** with a setupable fault resistance between 20 kΩ and 640 kΩ at 5 kΩ intervals;
- **Programmable AUTO SEQUENCES*** for customizing the test protocol;
- PC SW Metrel ES Manager for measurement pre and post processing: preparation of the test structure, result download, tree-view, table view and graphical view, storing and **printing the reports**.



METREL has a long and rich history of making innovative test and measurement solutions. It was established in 1957 as a factory for the production of test and measurement equipment for the domestic market. It quickly grew from there into a major international player in the field of testing.

All research and development of new products and their manufacturing takes place in a single location. This enables tighter control over quality, and faster responsiveness to market demands, which have shaped our product portfolio, consisting of multifunctional electrical safety testers for the electrical industry with a growing number of specialized solutions for renewables and e-mobility. In addition to an array of technological solutions for electrical safety testing of electrical installations and electrical safety and functional testing of electrical equipment.

Beyond providing top-tier test and measurement equipment, we offer comprehensive after-sales support to ensure you get the most out of our products. It all begins with Metrel Academy, where in-depth training courses and seminars equip users with the knowledge on how to use testers across various applications. Our technical support team is always on hand to answer any product-related questions, while our service department ensures

fast and efficient repairs. Additionally, we provide internationally accredited calibration through our in-house calibration laboratory, guaranteeing precision and reliability. Ultimately, everything revolves around the

users. From trainee electricians, who are making first steps in the field of electrical safety training, to experienced safety inspectors with many years of experience under their belts.



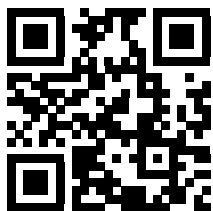
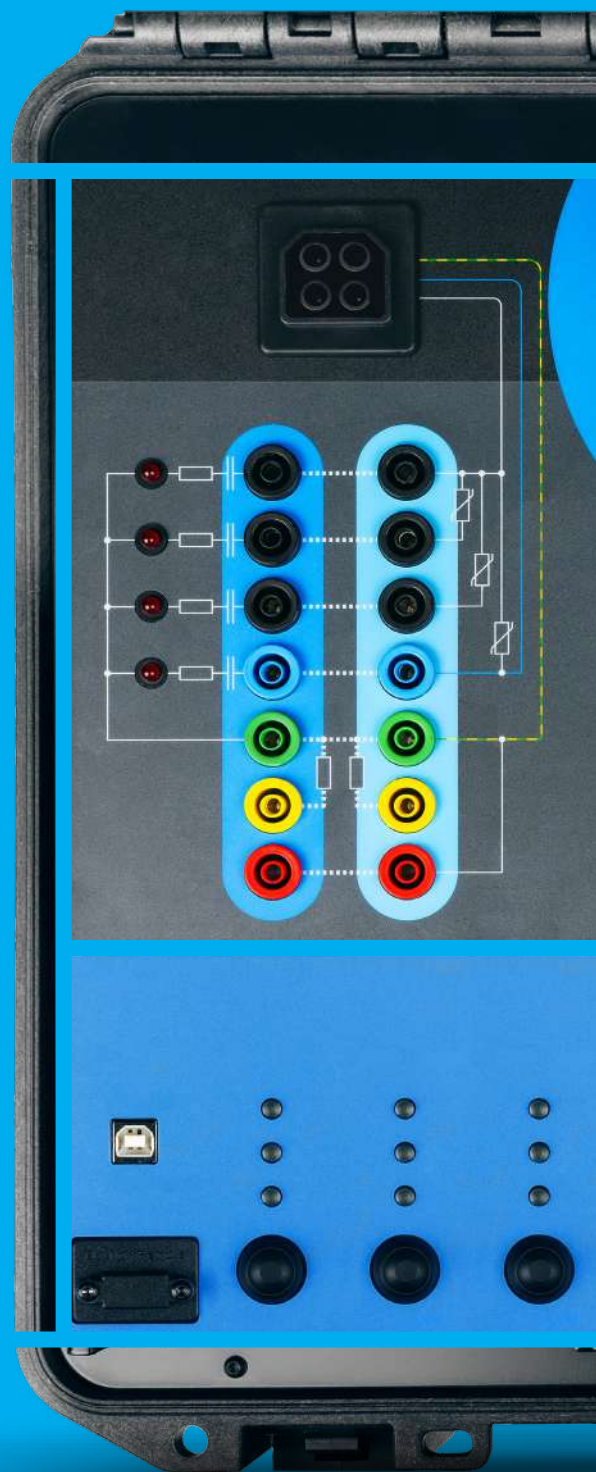


METREL d.o.o.
Test and Measurement Equipment
Ljubljanska 77, SI-1354 Horjul, Slovenia
T +386 (0)1 75 58 200
info@metrel.si
www.metrel.si

Distributor:



www.dspanalytic.com
dspa@dspanalytic.com
+34 624 03 68 66



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

NEWS_2025_Ang_March