

# Appliance / Machine / Switchboard safety

## MI 3325 MultiServicerXD



The MI 3325 MultiServicerXD is a top-of-the-line multifunctional instrument covering diverse industrial applications, where ruggedness and reliability are a must. In Metrel range of the instruments it is introduced as a successor of MI 3321 MultiServicerXA. The new platform integrated in the MI 3325 MultiServicerXD features support for colour touch screen technology, advanced memory organizer including large SD card storage media and state of the art AUTOSEQUENCE<sup>®</sup>s.

### MEASURING FUNCTIONS

- Continuity (2-wire & 4-wire), 0.2 A, 4 A, 10 A, 25 A + voltage drop @ 10 A;
- HV AC, HV AC programmable 100 V - 5100 V;
- Insulation resistance (Riso, Riso-S) 50 V, 100 V, 250 V, 500 V, 1000 V (DC);
- Sub-leakage current, (Isub, Isub-S) 110 V a.c., 230 V a.c.;
- Z loop - fault loop impedance and prospective fault current (Ipsc, Ulpe, Uc(P));
- Zs rcd - fault loop impedance and prospective fault current in system with RCD (Ipsc, pe, Uc(P));
- Z line - line impedance and prospective short-circuit current (Ipsc, Ul<sub>n</sub>);
- Functional test (power P/S/Q, voltage, current, cos φ, frequency, ThdU, ThdI, PF);
- Touch leakage current;
- RCD testing (RCD Uc, RCD t, RCD I);
- Differential leakage current;
- PE leakage current;
- Polarity;
- Clamp current;
- Voltage, Frequency, phase rotation;
- Varistor test;
- Voltage drop;
- Discharging time.

### KEY FEATURES

- 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.
- Pre-defined AUTOSEQUENCE<sup>®</sup>s: enable the user simple and quick execution of test sequence for the chosen device.
- Support for RCD testing: A, AC, B, B+ and F RCDs.
- Testing of welding equipment (only in combination with A 1422): MultiServicerXD support testing of welding equipment in accordance with IEC/EN 60974-4.
- Functional inspections.
- Visual inspections.
- Custom inspections (visual and functional).
- Built-in help screens for referencing on site.
- Built-in fuse tables for automatic evaluation of the line / loop impedance result.
- Monitoring of all 3 voltages in real-time.
- Hi-pot: high voltage AC (5.1 kV @ 250 VA).
- Continuity: 4 - wire continuity test with selectable test current (0.2 A, 4 A, 10 A, 25 A) enabling precise measurements.
- Communication: 4 RS232, USB, Ethernet and Bluetooth communication ports enabling

downloading, uploading and remote control over instrument.

- Multi-system testing: the instrument can be used on TT, TN, IT and 115 V supply systems.
- Automated RCD testing procedure (RCD AUTO).
- Automated impedance testing procedure (Z AUTO).
- Measurement filtering according to the selected area group.
- 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 AUTOSEQUENCE<sup>®</sup>s, professional test reports and data transfer for archiving.

## APPLICATIONS

- Factory machinery safety testing,
- Industrial safety testing,
- Periodic safety testing,
- Production line safety testing,
- Portable appliances safety testing,
- Arc welding equipment safety testing,
- Switchgear/control gear safety testing.

## THE INDUSTRIAL APPLICATIONS COVERED BY THE INSTRUMENT ARE THE FOLLOWING:

- Safety of machinery (in compliance with IEC/EN 60204 Ed.6),
- Safety of low-voltage switchgear and control gear testing (in compliance with IEC/EN 61439-1 Ed.2),
- Safety of portable appliances (in compliance to VDE 0701-0702, AS/NZS 3760, Code of Practice),
- Safety of arc welding equipment (in compliance with IEC/EN 60974-4 Ed.2).



Mains supply connector

ON / OFF switch

Communication ports:  
USB, Ethernet, Bluetooth

MicroSD card up to 32 GB

F1, F2 fuses (F3 15 A/250 V)

IEC test socket

P/S (probe) connector

## STANDARDS

### Functionality:

- VDE 0701-702, Code of Practice, AS/NZS 3760, IEC/EN 61439, IEC/EN 60204, IEC/EN 60974-4, EN 50191.

### Safety:

- EN 61010-1, EN 61010-2-030, EN 61010-031, EN 61010-2-032, EN 61557.

### EMC

- EN 61326-1.

Main test socket

Control keypad

Control inputs & outputs +two multipurpose RS-232 ports



Connection ports for A 1579 Leakage current clamp

Multifunctional test terminal

4-wire continuity test terminals

The instrument features a strong data management facility enabling the user to create custom auto-tests with predefined limits for pass/fail evaluation, import predefined structure including test sequences or complete projects created in MESM. The Metrel Electrical Safety Manager (MESM) PC software enables upload of automated test sequences, projects, downloading of test results, automatic data storage into a file and printing of professional test reports specially designed for specific applications. Due to selected test functions, durable construction and accompanying PC SW package MI 3325 MultiServicerXD is the perfect instrument for electrical safety testing in the most demanding industrial environments and automated production lines or specialized workshops.

High voltage test terminals

## OPTIONAL ACCESSORIES

Photo	Part No.	Description	Photo	Part No.	Description	Photo	Part No.	Description
	MI 3144	Euro Z 800 V		A 1317	3-phase adapter (32 A CEE-Schuko)		A 1496	Warning lamp / 2-LED signal tower HV
	MI 3143	Euro Z 440 V		A 1388	Adapter Schuko / Schuko		A 1496 MAG	Warning lamp / 2-LED signal tower HV ready for magnetic mounting
	A 1632	eMobility Analyser		A 1389	Adapter CEE 5-P 16 A / CEE 5-P 16 A		A 1499	External power supply 24 V
	A 1322	Active 3-phase Adapter		A 1390	Adapter CEE 5-P 32 A / CEE 5-P 32 A		A 1060	Power splitter for discharge time measurement
	A 1422	Active 3-phase Adapter Plus		A 1579	Leakage current clamp		A 1598	Residual Voltage Adapter
	A 1143	Euro Z 290 A		S 2062	BT label printer set, (mains operated)		A 1599	Residual voltage cable
	A 1460 XD	CE Adapter		A 1450	Spare label roll for S 2062		A 1494	HV test pistol with 2 m cable, blue
	A 1495	Remote control pedal		A 1652	Barcode scanner (Bluetooth)		A 1486	HV test pistol with 2 m cable, red
	A 1585	Rack mount adapter for MI 3325 MultiServicerXD		A 1653	QR / Barcode scanner (Bluetooth)		S 2073	HV test lead 5 m, without pistols
	A 1586	Rack mount adapter for A 1460 CE Adapter		A 1105	Barcode scanner		S 1058	Continuity test lead, 2 x 10 m, 2 pcs
	A 1511 2M5	Tip Commander 2,5 m		A 1105 2D	Barcode scanner 2D RS-232 connection		S 1072	Continuity test lead with crocodile clip, 2 x 2.5 m, 2 pcs
	A 1511 5M	Tip Commander 5 m		A 1571	NFC reader / writer		S 2012	Continuity test lead, 10 m, 2 pcs (red, black)
	A 1207	Three phase adapter		A 1572	NFC tags, fi 34 mm self-stick, 50 pcs		P 1101	BASIC to PRO licence key upgrade for Metrel ES Manager
	A 1110	Three phase adapter		A 1573	NFC labels, fi 29 mm self-stick, 50 pcs		A 1578	RS-232 to USB adapter for external USB keyboard
	A 1111	Three phase adapter with switch		A 1574	NFC cable-tie, L 130 mm, 50 pcs		A 1458	MicroSD card reader
	A 1316	3-phase adapter (16 A CEE-Schuko)		A 1497	Warning lamp / 4 LED's signal tower with buzzer		A 1017	Communication cable RS-232

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## ORDERING INFORMATION



### Standard set MI 3325

- Instrument MultiServicerXD
- HV test lead with test probe
- HV test lead with crocodile
- Mains cable
- IEC test cable
- Residual voltage test cable
- Plug test cable
- 3-wire test lead, 3 m
- Continuity test lead, 2.5 m, 2 pcs
- Test lead, red, 1.5 m
- Test probe, 4 pcs (black, red, green, blue)
- Crocodile clip, green
- Crocodile clip, blue
- Crocodile clip, black, 3 pcs
- Crocodile clip, red, 3 pcs
- Calibration certificate
- RS-232 cable
- USB cable
- Short instruction manual
- CD with instruction manual (full version)
- PC SW Metrel ES Manager BASIC \*
- Protective bag for accessories \*\*

\* Metrel ES Manager can be downloaded free of charge from Metrel Web server.

\*\* Mounted on the case.