

METREL test and measurement accessories:



Mode 3 Charging Cable Adapter A 1832

Instruction manual

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Table of contents

1	Preface	4
2	Safety and operational considerations	5
2.1	Warnings and notes	5
2.2	Markings on the adapter.....	5
2.3	Standards applied	6
3	A 1832 standard set and accessories	7
4	Adapter description	8
5	A 1832 operation	9
6	Maintenance	9
6.1	Cleaning	9
6.2	Service	9
7	Technical specifications	10
7.1	General data.....	10


1 Preface

The A 1832 is intended for testing Mode 3 EV charging cables with type 2 connector. Different tests can be carried out in combination with Metrel safety testers.

2 Safety and operational considerations

2.1 Warnings and notes

In order to maintain the highest level of operator safety while carrying out various tests and measurements METREL recommends keeping your **Mode 3 Charging Cable Adapter** in good condition and undamaged. When using the adapter, consider the following general warnings:

-  **Warning on the A 1832 means »Read the Instruction manual with special care for safe operation«. The symbol requires an action!**
- **If the A 1832 is used in a manner not specified in this Instruction manual or the Instruction manual of target test equipment, the protection provided by the A 1832 and test equipment may be impaired!**
- **Do not use the A 1832 if any damage is noticed!**
- **Test input is intended to connection to mains test socket of electrical equipment testers only.**
- **Banana sockets are intended for test purposes only.**
- **Do not connect the adapter to mains voltage.**
- **Do not connect the carry out tests with mains voltage applied to the adapter!**
- **All normal safety precautions have to be taken in order to avoid risk of electric shock!**
- **Service intervention is allowed to be carried out only by a competent authorized personel!**

2.2 Markings on the adapter



»Warning »Read the Instruction manual with special care to safety operation«.



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This equipment should be recycled as electronic waste.

2.3 Standards applied

The A 1832 adapter is manufactured and tested in accordance with the following regulations:

Safety (LVD)

EN 61010 - 1	Safety requirements for electrical equipment for measurement, control and laboratory use – Part 1: General requirements
EN 61010 - 2 - 030	Safety requirements for electrical equipment for measurement, control and laboratory use – Part 2-030: Particular requirements for testing and measuring circuits
EN 61010 - 031	Safety requirements for electrical equipment for measurement, control and laboratory use – Part 031: Safety requirements for hand-held probe assemblies for electrical measurement and test

Functional

EN IEC 61851 - 1	Electric vehicle conductive charging system Part 1: General requirements
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3 A 1832 standard set and accessories

- Mode 3 Charging Cable Adapter (A 1832)
- Test instrument connection cable, 3 x 0.75 mm², 1.5 m
- Instruction manual

4 Adapter description

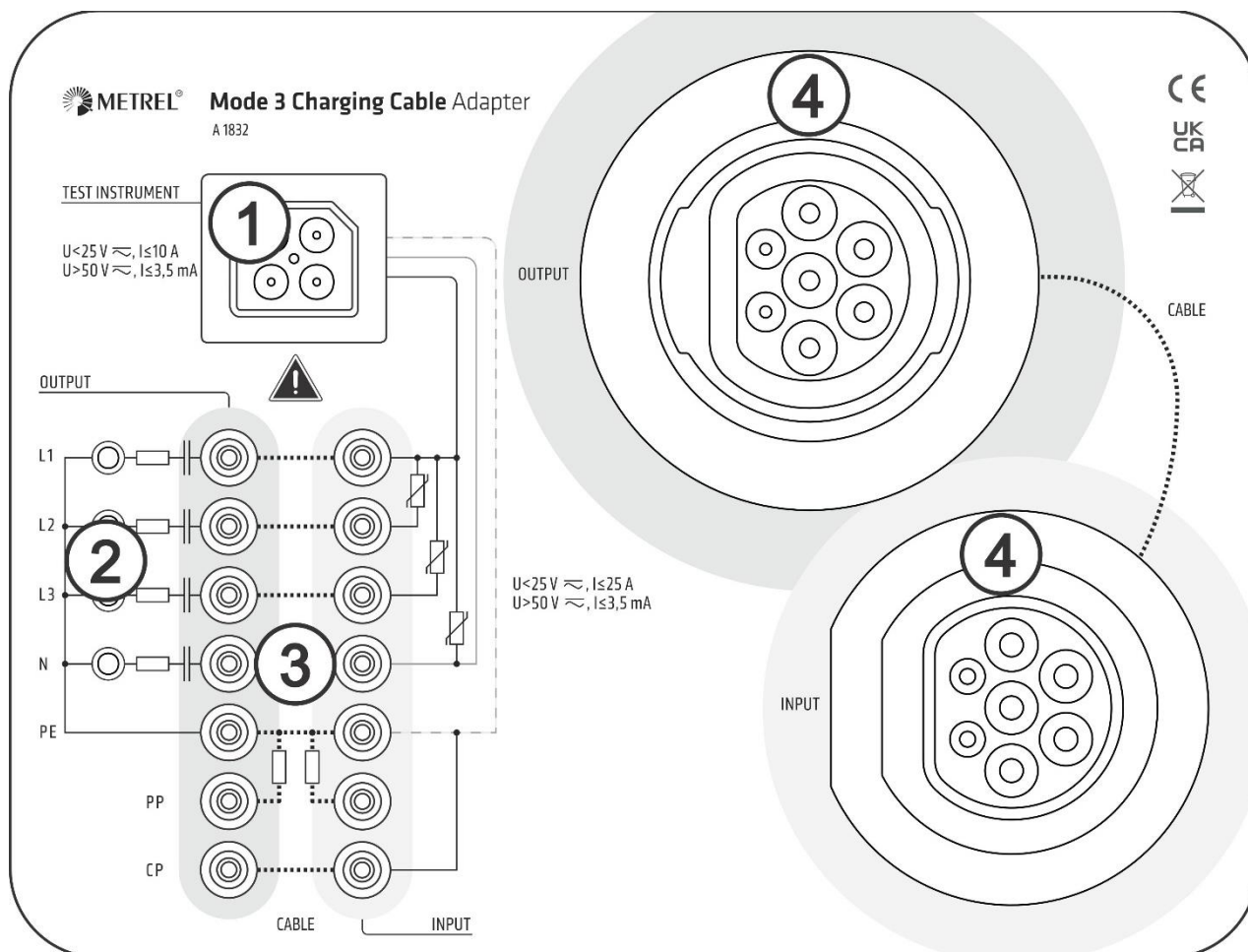


Figure 4.1: A 1832 front panel

Legend:

- | | |
|---|------------------------------------------------------------------------------------------------------------------------------|
| 1 | Test input for connection of test instrument to the charging cable's input side |
| 2 | LEDs for indication of continuity of phase and neutral conductors (L1, L2, L3, N) |
| 3 | Banana sockets for connection of test instrument and to the tested charging cable (all connections on input and output side) |
| 4 | Connectors for Mode 3 charging cable |

5 A 1832 operation

In combination with Metrel safety testers, the adapter enables to carry out different safety tests, for example:

- ❑ Continuity of PE conductor
- ❑ Continuity of L1, L2, L3, N conductors
- ❑ Continuity of CP conductor
- ❑ Resistance of PP coding resistors
- ❑ Fast continuity check of L1, L2, L3, N conductors with LEDs, by using Sub Leakage test
- ❑ Insulation of phase conductors to earth

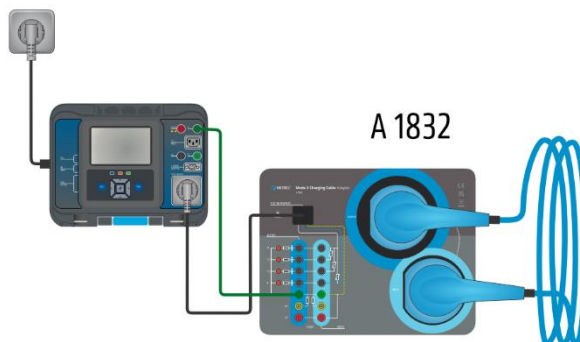


Figure 5.1: Application example using MI 3365 and A 1832 (Continuity of PE conductor)

Note

- ❑ For more information about carrying out other tests with A 1832, refer to Metrel's MI 3365 Application notes, and test instruments user manuals.

6 Maintenance

Unauthorized person is not allowed to open the A 1832 Mode 3 Charging Cable Adapter. There are no user replaceable components inside the adapter.

6.1 Cleaning

No special maintenance is required for the housing. To clean the surface of the adapter, use a soft cloth slightly moistened with soapy water or alcohol. Then leave the A 1832 to dry totally before use.

Warnings:

- ❑ Do not use liquids based on petrol or hydrocarbons!
- ❑ Do not spill cleaning liquid over the adapter!

6.2 Service

For repairs under warranty, or at any other time, please contact your distributor.

7 Technical specifications

7.1 General data

Charging cable connectors.....	Type 2
Maximum test current	10 A on test connector / 25 A on banana sockets
Measuring category	50 V no CAT, max. transient overvoltage 1100 V
Protection classification	double insulation
Altitude	≤2000 m
Pollution degree.....	2
Protection degree	IP 40

Dimensions (w × h × l)	30 cm × 15 cm × 34 cm
Weight	3.16 kg

Operation conditions

Working temperature range	0 °C ... 40 °C
Maximum relative humidity	95 %RH (0 °C ... 40 °C), non-condensing
Operation.....	Outdoor use

Storage conditions

Temperature range.....	-10 °C ... +70 °C
Maximum relative humidity	90 %RH (-10 °C ... +40 °C) 80 %RH (40 °C ... 60 °C)