METREL test and measurement accessories:

Mode 3 Charging Cable Adapter

A 1832

Instruction manual

Version 1.1.1, Code no. 20 753 362

METREL®

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CE Mark on your equipment certifies that it meets requirements of all subjected EU regulations.

Hereby, Metrel d.o.o. declares that the A 1832 is in compliance with subjected EU directive. The full text of the EU declaration of conformity is available at the following internet address https://www.metrel.si/DoC.

UKCA Mark on your equipment certifies that it meets requirements of all subjected UK regulations.

Hereby, Metrel d.o.o. declares that the A 1832 is in compliance with subjected UK regulations. The full text of the UK declaration of conformity is available at the following internet address https://www.metrel.si/UK-DoC.

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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«.

Mark on your equipment certifies that it meets requirements of all subjected EU regulations.

Mark on your equipment certifies that it meets requirements of all subjected UK regulations.

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

3 A 1832 standard set and accessories

- Mode 3 Charging Cable Adapter (A 1832)
- Test instrument connection cable, 3 x 0.75 mm^2, 1.5 m
- Instruction manual

4 Adapter description

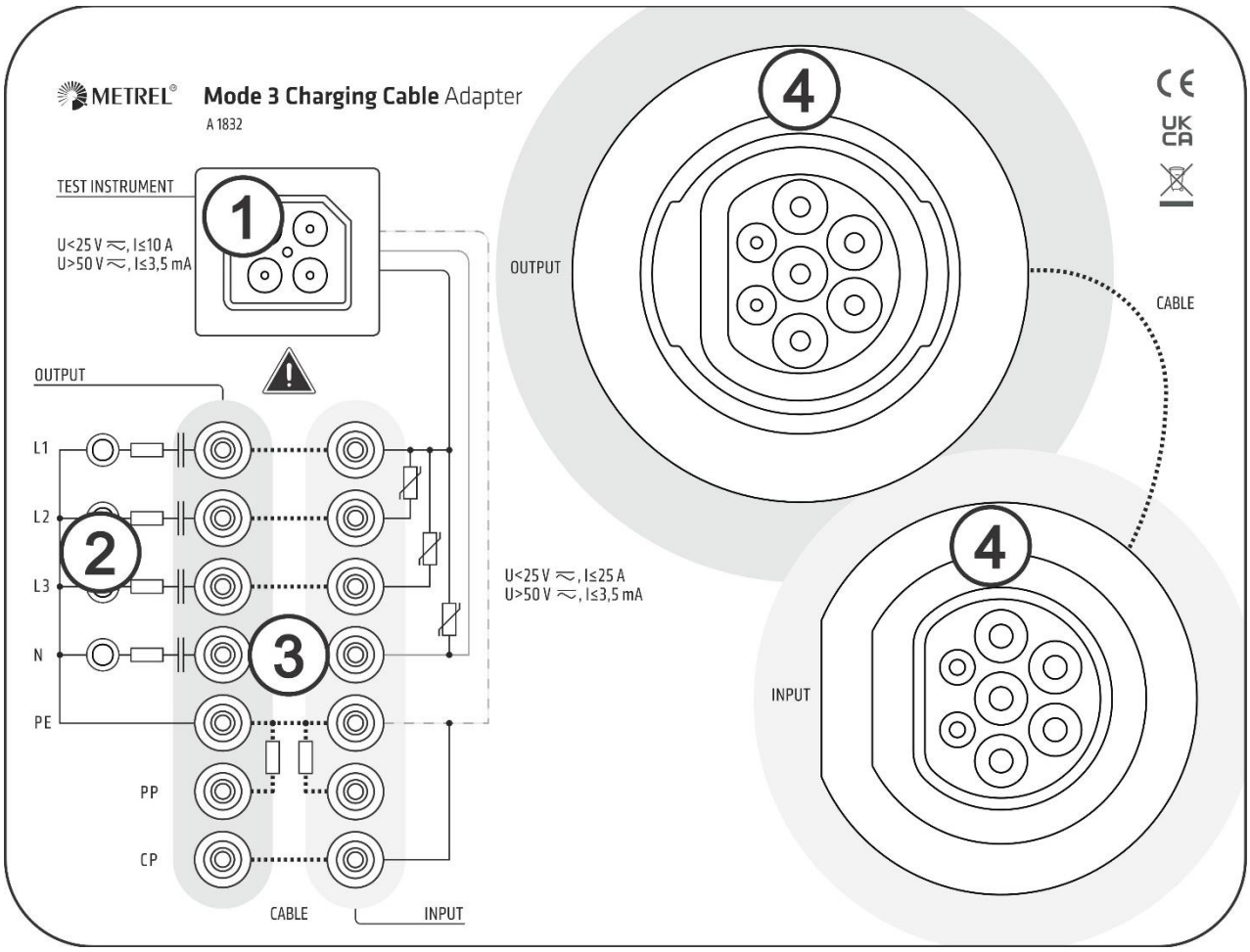

Figure 4.1: A 1832 front panel

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

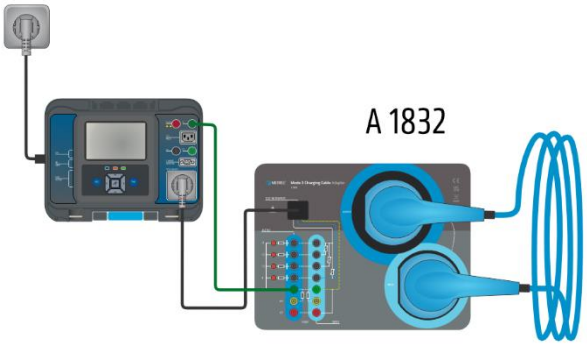

Figure 5.1: Application example using MI 3365 and A 1832 (Continuity of PE conductor)

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)