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METREL test and measurement accessories

Burn Link Adapter

A 1560

Instruction manual

Version 1.1.3., Code no. 20 752 614

METREL®

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CE Mark on your equipment certifies that this equipment meets the requirements of the all applicable EU (European Union) regulations

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1 Preface

Congratulations for purchasing and using METREL A 1560 Burn Link Adapter accessory with METREL test and measuring instruments. The A 1560 is extension of a.c. voltage withstanding voltage testers with burn test function intended for searching weak locations that failed during withstanding voltage test.

A 1560 Burn Link Adapter is special accessory intended for using only with METREL withstanding voltage testers like MI 3394.

2 Safety and operational considerations

2.1 Warnings and note

In order to reach high level of operator's safety during application of the A 1560 Burn Link adapter as well as to keep the test accessory and equipment undamaged, it is necessary to consider the following general warnings:

- ⚠ **Read this user manual carefully, otherwise use of the A 1560 may be dangerous for the operator, for test equipment or for the tested object!**
- **If the A 1560 is used in a manner not specified in this user manual or the manual of target test equipment, the protection provided by the A 1560 and equipment may be impaired!**
- **Consider all generally known precautions in order to avoid risk of electric shock while dealing with hazardous voltages!**
- ⚠ **The A 1560 is intended for connection to secondary voltages based on 300 V CAT II overvoltage category of supply voltage of master instrument!**
- **Never use the A 1560 with voltages higher than rated!**
- **Service intervention is allowed to be carried out only by a competent authorized person!**
- **Do not use the A 1560 if any damage is noticed!**
- **Only adequately trained and competent persons may operate the equipment.**
- **Eyes protection glasses required: open electric arch could emit high energy spectrum above visible!**
- **Liberated gases: electric arch on insulation material will generate unpredictable liberated gasses, test area shall be proper vented and/or liberated gases exhausted.**
- **A 1560 is intended for intermittent operation, any overloading would lead to impaired safety!**

Note:

- The A 1560 Burn Test Adapter is passive type device, there is no active component inside.

2.2 Markings on the A 1560

Symbol	Description
	**Read the Instruction manual with special care to safety operation«. The symbol requires an action!**
	**The symbol on the adapter means "Hazardous voltage may be present at the test terminals!".**
	**Product is protected by Double/Reinforced insulation.**
	**Mark on your equipment certifies that it meets European Union requirements for EMC, LVD, and ROHS regulations.**
	**This equipment should be recycled as electronic waste.**

2.3 Standards applied

The A 1560 Burn Link Adapter is manufactured and tested according to the following standards, listed below.

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

Note about EN and IEC standards:
Text of this manual contains references to European standards. All standards of EN 6xxxx (e.g. EN 61010) series are equivalent to IEC standards with the same number (e.g. IEC 61010) and differ only in amended parts required by European harmonization procedure.

3 A 1560 description

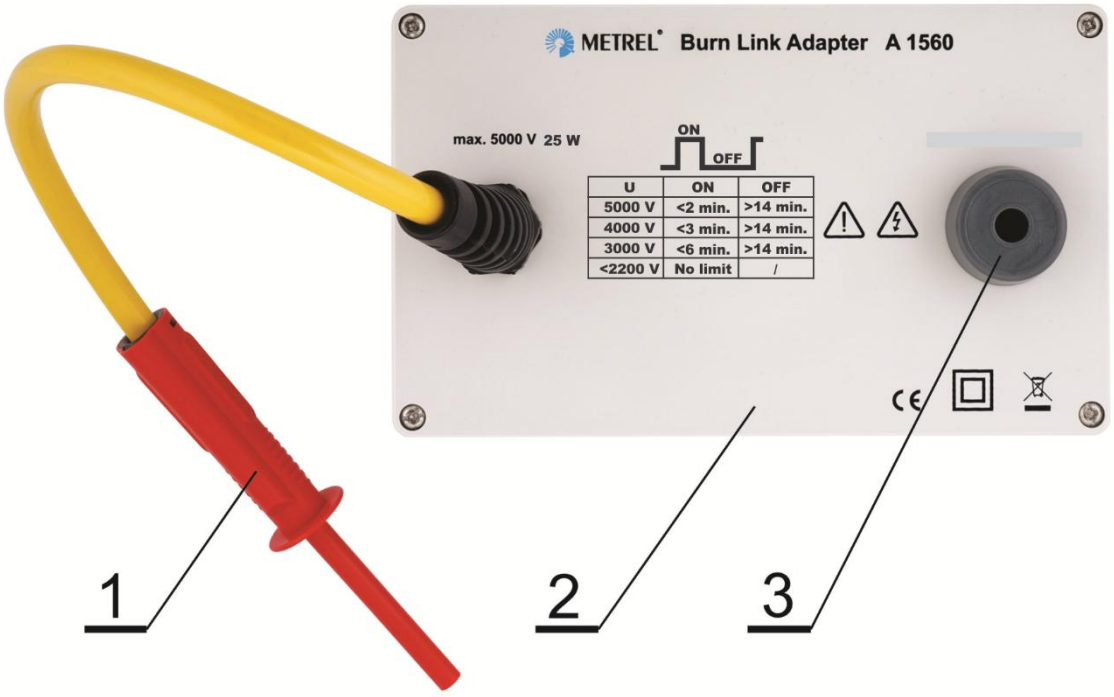

Figure 3.1: A 1560 parts

Legend:

1	High voltage plug connector for connection on withstanding voltage tester.
2	Burn Link Adapter case.
3	Burn Link socket connector for standard METREL withstanding voltage test probe, supplied by master instrument.
4	Intermittent operation requirements.

Warnings!

- ⚠ **Maximum rated voltage to ground is 5000 V, secondary type!**
- **Never exceed maximum ON (burn test) times as are defined for intermittent operation!**

4 A 1560 operation

- Connect the A 1560 Burn Link Adapter plug connector (1) to the master instrument HV output.
- Connect HV test probe to A 1560 Burn Link Adapter socket connector (3)**.**
- On the master instrument select withstanding voltage test function.
- Set the following test parameters:
  - Withstanding voltage test level: as required by requested withstanding test procedure,
  - Trip-out current limit: **100 mA,**
  - Test duration: **see technical specifications.**
- **2-hand operation of test probes must be applied or proper safe test connection prior start of withstanding voltage test!**
- **Keep proper safety distance to tested object!**
- Start the withstanding voltage test on the master instrument.
- Attach HV test probes to observed insulation (if hand operated).
- Stop withstanding voltage test immediately after the breakdown location is observed (visible electrical arch) and remind the breakdown location.

Warnings:

- **Eyes protection glasses required: open electric arch could emit high-energy spectrum above visible!**
- **Liberated gases: electric arch on insulation material will generate unpredictable liberated gases, test area shall be proper vented and/or liberated gases exhausted.**
- **A 1560 is intended for intermittent operation, any overloading would lead to impaired safety!**

5 Maintenance

Unauthorized persons are not allowed to open the A 1560 Burn Test Adapter. There are no user replaceable components inside the A 1560 Burn Test Adapter.

5.1 Cleaning

No special maintenance is required for the housing. To clean the surface of the A 1560 Burn Test Adapter use a soft cloth slightly moistened with soapy water or alcohol. Then leave the A 1560 to dry totally before use.

Warnings:

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

5.2 Service

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

6 Technical specifications

6.1 General data

Rated input voltage..... 5000 V
Output short circuit current ..... 30 mA typ. at 5000 V
Rated continuous power dissipation . 25 W

Loading requirements:

Intermittent operation is required with test voltages higher than 2200 V.

Test voltage [V]	Max. test duration [min.] (ON)	Cooling time [min.]
5000 V	2	14
4000 V	3	14
3000 V	6	14
≤2200 V	Continuous	n.a.

Resistance:..... 182 kΩ ±10 %

Protection classification ..... double insulation
Pollution degree..... 2
Protection degree ..... IP 54

Overvoltage category..... 5000 V secondary voltage
generated on 300 V CAT II

Dimensions (w × h × l) ..... 120 mm × 90 mm × 200 mm
Test lead(s) length..... 0.5 m
Weight ..... 0.69 kg

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

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