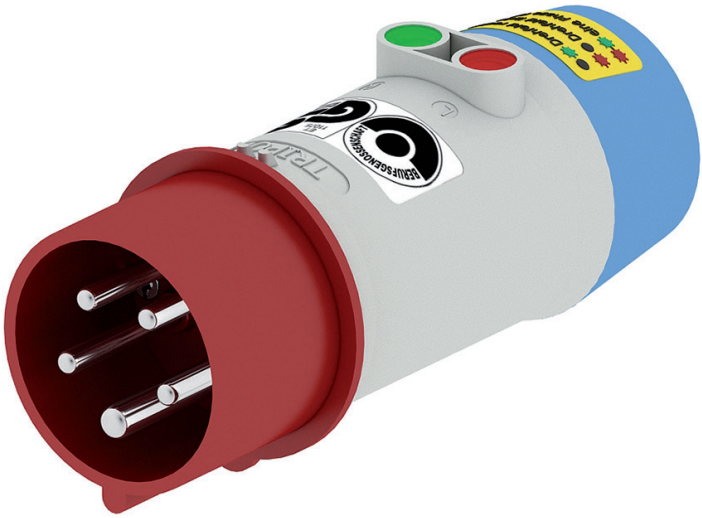
EN

Operating instructions “TRIPOL” phase sequence indicator



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Simply. Well. Connected.

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1 About this manual

This manual

- describes the operation of the TRIPOL phase sequence indicator from Bals Elektrotechnik GmbH & Co. KG
- is an integral part of the product and must be kept in safe custody during the product service life
- must be read carefully and understood before use and any work.

2 Intended use

The TRIPOL phase sequence indicators are designed for professional use and are intended solely to indicate phase sequences.
The 230 V connection must only be used for testing purposes.

Any use going beyond the intended use is considered to be improper. The manufacturer is not liable for damages resulting from improper use. Any such risk shall be borne solely by the user.

In case of unauthorised modifications or conversions, the CE conformity becomes null and void, and thus, also all claims for warranty. Modifications may lead to risks for life and limb as well as damage to the plugs and sockets or loads connected.

Factory-fitted labels and markings on the products should not be removed, modified or blurred.

Protect against foreign bodies and impact of weather

The product complies with protection degree IP44 according to **DIN EN 60529** (VDE 0470-1). In this context this means:

- Protection degree IP44:
  - Protected against solid bodies with a diameter beyond 1.0 mm, e.g. a wire
  - Protection against water sprayed from all sides

Environment

The following operating conditions apply for the safe operation of the product:

Size	Value
Temperature	–25 °C … +40 °C
Humidity	10 %rH … 90 %rH

3 General safety instructions

- Safe use is ensured only if this manual is followed completely.
- Before installation, commissioning or operation, read this manual thoroughly.
- The product must be installed, maintained and put into operation properly by qualified experts in accordance with the laws, ordinances and standards.
- Keep easily combustible and explosive materials away from the product.
- Handle the cables with care,
  - by always pulling at the plug and not the cable when unplugging,
  - by preventing the cable from getting damaged mechanically,
  - by keeping intense heat away.
- Never use faulty products or products with dirty, scratched or damage contacts.
- Keep the contacts on the product clean.
- Avoid tripping hazards.

4 Packaging, transport and storage

4.1 Packaging

Packaging materials are valuable raw materials and can be reused. The packaging materials should therefore be brought to an appropriate recycling facility. If this is not possible, dispose of the packaging materials according to the locally applicable regulations.

4.2 Transport

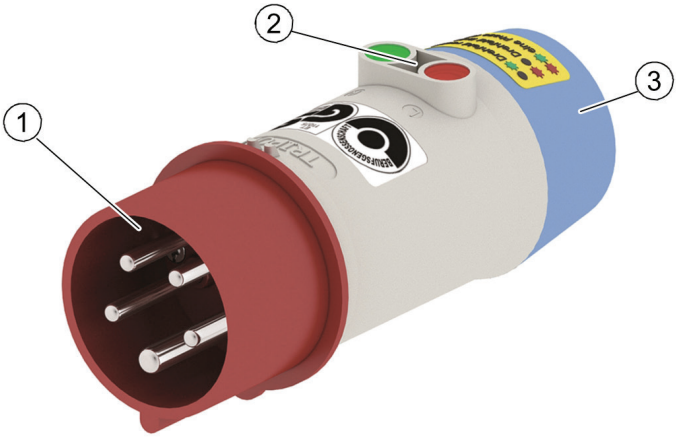
Check the delivery for completeness and integrity. If you identify transit damage or if the delivery is incomplete, notify your dealer or supplier immediately.

4.3 Storage

The product must be stored in clean condition and protected from dust and humidity. The original packaging is best suited for this purpose.

5 Design

The figure below shows the main components of the TRIPOL phase sequence indicator.



1	400V connector for testing the phase sequence
2	Display elements for the phase sequence
3	230V plug connection for testing purposes

The TRIPOL phase sequence indicator is available in 16A, 32A and 63A versions.

Technical specifications

You will find the specific technical details in our catalogue or on our website *http://www.bals.com*.

6 Operation

The TRIPOL phase sequence indicator has two LEDs to show the phase sequence.

Green LED glowing	Indicates right phase sequence
Red LED glowing	Indicates left phase sequence
Both LEDs glowing	Indicates no phase

To check the phase sequence, proceed as follows:

1. Connect the 400V plug to the socket to be tested.
2. Note the signals from the integrated LED.

7 Faults and their rectification

To protect the electronics system, the 32A and 63A designs are equipped with a fine-wire fuse. If this fuse burns through, it should be replaced with a fuse of the same type. To do this, disconnect the product from the mains, open the fuse holder on the side of the product and replace the faulty fuse.

If the fuse burns through again, remove the product from use and notify a qualified electrician.

Fuse types

Design	Fuse type
32A	5 × 20 mm, 6.3 A, slow-blow
63A	5 × 20 mm, 6.3 A, slow-blow

8 Cleaning and care

It is recommended to clean the device as required. Use a dry cloth to clean the device. Use a wet cloth if the device is very dirty.

⚠ DANGER

Electrical voltage

The device contains parts that carry hazardous voltage that may be fatal.

1. Pull out the plugs to the loads before cleaning them.
2. Make sure that the plug covers are closed.
3. Never use steam or water jet cleaners.

NOTICE

Damage to the plastic parts.

Corrosive cleaning agents may attack or destroy the plastic parts.

Use only a cloth moistened with water for cleaning.

9 Decommissioning and disposal

Send the worn-out product for recycling or for proper disposal. Always make sure to observe and follow the local regulations.

The product should not be disposed of in household waste. Environmental damage and risk to personal health are avoided with proper disposal.

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