

Technical Specifications

Norms and standards

Directive	LV directive 2014/35/EU RoHS directive (EU) 2015/863 WEEE directive 2012/19/EU
Standard	EN 61010-2-032:2012 IEC 61869-10:2017

This product is designed to be safe under the following conditions:

Location	Indoor use
Altitude	Max. 2000m above sea-level
Ambient temperature	-5° C to +55° C
Storage temperature	-35° C to +60° C
Pollution degree	3
Degree of protection	IP41

The Rogowski Coil is only suitable for insulated primary conductors.

Specifications

Ratio	1000 A /100 mV @ 50 Hz
Coil internal diameter	70 mm
Accuracy Class	1-A1 @ 50 Hz
Frequency range	10–10000 Hz
Rated continuous thermal current	3000 A
Rated insulation level	0,72/3/- kV
Overvoltage category	1000 V CAT III, 600 V CAT IV

Please be aware, product liability, fulfilment to requirements and warranty are all expired when modifications on the product are made. Printing and typographical reserved.

ELEQ reserves the right to carry out modifications on its products, in order to improve them, without prior notice.

Safety instruction

All activities for installation, commissioning and maintenance of this Rogowski Coil must be performed by qualified personnel that have the knowledge of applicable safety precautions. This guide assumes that the reader of this document has sufficient electro-technical knowledge to understand the content of this document.

General

The Rogowski Coil is a low power current transformer (LPCT), and can only be used for measuring alternating currents. The Rogowski Coil is suitable only for mounting on insulated primary conductors in a weather protected and dry location.

Explanation of symbols



This product is designed according to the norms and standards and therefore this product meets the requirements of the Low Voltage Directive 2014/35/EU.



Do not apply around or remove from UNINSULATED HAZARDOUS LIVE conductors, which may render electric shock, electric burn, or arc flash.



Read the installation guide before mounting the product. Unprofessional work activities on electrical installations may result in a threat of danger to the life and health of human beings and livestock!



RoHS Directive (EU) 2015/863

ELEQ states that they only uses qualified components in their products from manufacturers, whose specifications meet or exceed the requirements of the European Directive for the Restriction of use of certain Hazardous Substances.



WEEE Directive 2012/19/EU

The 'crossed out wheeled bin' symbol indicates that the equipment should not be disposed as unsorted municipal waste. Contact a qualified recycler for disposal.



Rogowski Coil Current Transformer Installation Guide



6C4C10F

Read this installation guide before installing the product

Always avoid working on live parts of an installation.

Mounting instruction

The Rogowski Coil is a sensor to measure alternating current, it must be handled with care. No special tools are required to install a Rogowski Coil (LPCT). To connect the LPCT to the meter correctly, please consult the installation guide of the meter. Before use, read the following instructions carefully.

- Do not use the product if damaged.
- Always wear protective clothing and gloves when required.
- Avoid to strongly twist, blow or to perform tensile load on the product, the measurement accuracy may be reduced.
- Do not put metallic labels or other objects on the product: the insulation may be weakened.
- It is prohibited to use the product in any way different from the manufacturer specifications.

Assembly

1. Ensure a safe working area during assembly, maintenance and inspection. Disconnect the power of the primary circuit and make sure it cannot be enabled unintentionally.
2. Find the primary direction of the cable you want to measure. It is recommended to mount the P1 side to power source and the P2 side to power consumer. If the LPCT is installed like this, the arrow on the LPCT will indicate the direction of the power flow.

For mounting the Rogowski Coil

Attention:

Make sure the Rogowski Coil is properly installed: a bad locking can affect measurement accuracy and the coil can become sensitive to adjacent conductors or other sources of electromagnetic fields.

3. Connect the secondary leads (S1, S2) to the voltage input of the measurement instrument (e.g., a voltage meter or voltage input of a kWh-meter).

4. Fit the Rogowski around the cable and bring the ends together, so that the coil makes an approx. circle.



5. Click the end to the housing. The Rogowski Coil is properly closed when you hear a 'click'.



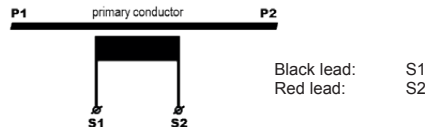
6. Ensure that the primary cable is positioned at the centre of the coil, to ensure the accuracy class. We strongly recommend using the included spacer in conjunction to the coil, as shown in the picture, when the primary cable has a thickness less than 40 mm.



7. Check whether the LPCT is mounted and closed properly. Check whether the secondary leads are connected properly and firmly.
8. Enable the primary circuit if necessary.

Wiring Diagram

The Rogowski Coil has an arrow on the housing indicating the load side.



Maintenance and inspection

- Check whether the secondary leads are connected firmly.
- Check whether the LPCT is closed properly.
- Check whether the LPCT is mounted firmly.

Temporarily disconnecting the LPCT

There is no risk of high voltages on the secondary leads. It is still advised to work in a powerless situation.

Problem solving

- e.g. unexpected values, incorrect values or reversed power.
- Check the settings of the meter by using the installation guide of the meter.
 - Check whether the LPCT is mounted (firmly) on the intended cable in the right direction.
 - Check whether the LPCT is closed properly.
 - Check the value of the secondary burden (secondary leads length/diameter and meter impedance). See product/data sheet for the maximum burden value.

Attention

Always follow the disassembling instructions below when reversing the LPCT.

Disassembly instruction

Tools are required for removing the cable ties of the LPCT.

1. Ensure a safe working area during disassembling the LPCT. Disconnect the power of the primary circuit and make sure it cannot be enabled unintentionally.
2. Open the LPCT.
3. Disconnect the secondary leads from the measurement instrument.
4. (Remove the cable ties). Pay attention not to damage the insulation of the Rogowski Coil when removing the cable ties. Remove the LPCT.
5. Enable the primary circuit if necessary.

Recycling

When the product has reached 'end of life', it must be recycled. Do not dispose this product as unsorted municipal waste. Contact a qualified recycler for disposal.