

algodue ELETTRONICA MFC190 Flexible Rogowski Coil



# algodue ELETTRONICA MFC190 Flexible Rogowski Coil User Manual

[Home](#) » [algodue ELETTRONICA](#) » algodue ELETTRONICA MFC190 Flexible Rogowski Coil User Manual 

## Contents

- 1 [algodue ELETTRONICA MFC190 Flexible Rogowski Coil](#)
- 2 [Product Usage Instructions](#)
- 3 [INTRODUCTION](#)
- 4 [SAFETY INSTRUCTIONS](#)
- 5 [MOUNTING](#)
  - 5.1 [CONNECTIONS](#)
  - 5.2 [MAINTENANCE](#)
  - 5.3 [TECHNICAL FEATURES](#)
  - 5.4 [FAQ](#)
- 6 [Documents / Resources](#)
  - 6.1 [References](#)



algodue ELETTRONICA MFC190 Flexible Rogowski Coil



### Specifications:

- **Model:** MPIC00322R04-Ed2401
- **Product Name:** MFC190
- **Compliance:** UL 61010-1 and UL 610102-032 standards
- **Insulation:** Double insulation or reinforced insulation
- **Recognized Component:** Underwriters' Laboratory Inc.

### Product Usage Instructions

#### Safety Instructions:

The Rogowski coil must be installed in an environment that meets the maximum operational conditions of the coil.

**WARNING!** Connection and installation of the Rogowski coil should only be done by qualified technicians who are aware of the risks associated with voltage and current presence.

Before any operation, ensure that bare conductor wires are not powered and there are no neighboring bare conductors powered.

**NOTE:** The Rogowski coil complies with UL 61010-1 and UL 610102-032 standards. Installation should follow current standards, user manual instructions, and coil insulation values to prevent any hazards.

The Rogowski coil is a sensor for accurate measurement and should be handled with care. Read all instructions carefully before use.

#### Mounting:

- **WARNING!** Before installing the coil around an uninsulated conductor, ensure it is not powered, or switch off the circuit.
- **WARNING!** Verify proper installation of the coil to avoid measurement inaccuracies. Poor locking can affect accuracy and sensitivity to adjacent conductors or electromagnetic fields.

### INTRODUCTION

The manual is intended only for qualified, professional and skilled technicians, authorised to act in accordance with the safety standards provided for the electrical installations. This person must have appropriate training and wear suitable Personal Protective Equipment.

**WARNING!** It is strictly forbidden for anyone who does not have the above-mentioned requires to install or use the coil.

It is forbidden to use the coil for purposes other than intended ones, specified in this manual.

**The symbols on the product are following described:**



**Attention! Refer to the user manual.**



**Protected throughout by DOUBLE INSULATION or REINFORCED INSULATION.**



**Do not apply around or remove from HAZARDOUS LIVE conductors without additional protective means.**



**Complies with the relevant European standards.**



**Underwriters' Laboratory Inc. recognized component.**

## **SAFETY INSTRUCTIONS**

The Rogowski coil must be installed in an environment which are according to the max operation conditions of the coil itself. **WARNING!** The connection and installation of the Rogowski coil must be carried out only by qualified technicians aware of the risks involved to the presence of voltage and current.

**Before carrying out an operation, check if:**

1. bare conductor wires are not powered,
2. there are no neighbour bare conductors not powered

**NOTE:** The Rogowski coil complies with UL 61010-1 and UL 61010-2-032 standards and following amendments. The installation must be carried out in accordance with the standards in force, the instructions of this user manual and the coil insulation value in order to avoid any danger for people.

- The Rogowski coil is a sensor for accurate measurement so it must be handled with care. 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 and to perform pulling load on the product: the measurement accuracy may be impaired.
- Do not paint the product.
- Do not put metallic labels or other objects on the product: the insulation may be impaired.
- It is forbidden any use of the product different from the manufacturer specifications.

## MOUNTING

### WARNING

- Before installing the coil round a conductor not insulated, check that it is not powered otherwise switch the circuit OFF.
- **Check if the coil is properly installed:** a bad locking can affect measurement accuracy and the coil will become sensitive to adjacent conductors or other sources of electromagnetic fields.

**NOTE:** Coil must not fit tightly round the conductor, therefore its internal diameter must exceed that of the conductor.

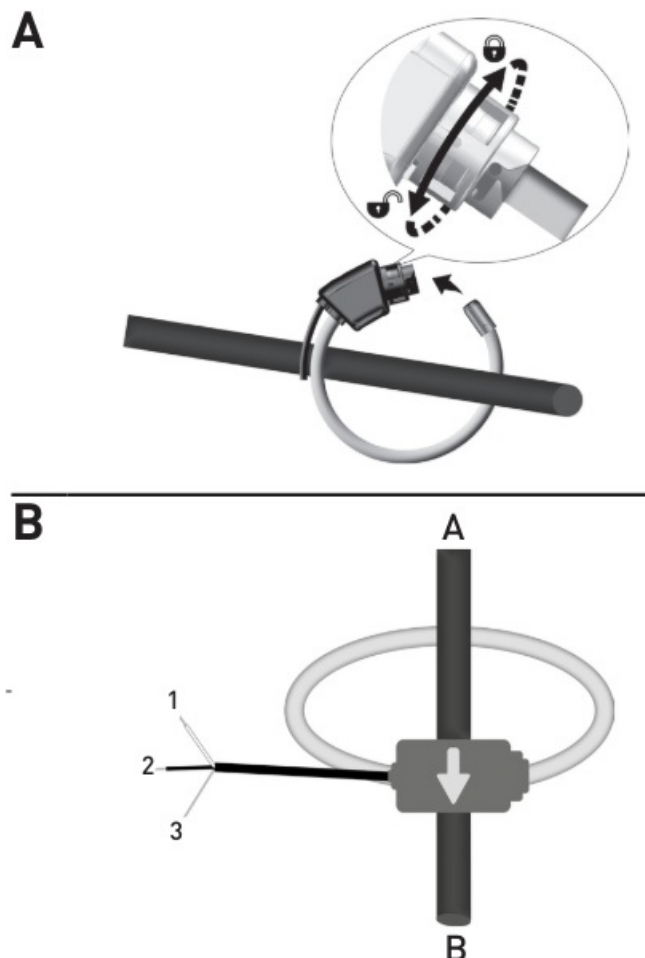
**To carry out the installation, proceed as follows:**

1. Fit the coil round the conductor, bringing the coil ends together.
2. Lock the coil by turning the ring as indicated in picture A.

### CONNECTIONS

The coil has an arrow indicating the load side.

**Refer to picture B:**



- A = SOURCE

- B = LOAD

1. WHITE wire, OUT+
2. BLUE wire, OUT-
3. SHIELD, connect to GND or OUT-

**If the cable is provided with crimp pins:**

- YELLOW crimp pin, OUT+
- WHITE crimp pin, OUT-

## **MAINTENANCE**

Refer to the following instructions carefully for the product maintenance.

- Keep the product clean and free of surface contamination.
- Clean the product with a soft cloth damp with a water and neutral soap. Avoid to use of corrosive chemical products, solvents or aggressive detergents.
- Make sure the product is dry before further use.
- Do not use or leave the product in particularly dirty or dusty environments.

## **TECHNICAL FEATURES**

**NOTE:** For any doubt on the installation procedure or on product application, please contact our technical services or our local distributor.

<b>COIL</b>	
Coil length	300 ... 3000 mm
Sensor internal diameter	83 ... 942 mm
Coil diameter	12.4 ±0.2 mm
Jacket material	Thermoplastic polyurethane UL94-V0
Fastening	Bayonet holder
Weight	150 ... 500 g
<b>ELECTRICAL CHARACTERISTICS</b>	
Nominal output rate	333 mV / kA @ 50 Hz (RMS values) Refer to the value indicated on the product label
Max measurable current	65 kA
Coil resistance	300 ... 2000 Ω
Accuracy	Class 1-A1 according to IEC 61869-10
Frequency	50/60 Hz
Overvoltage category	1000 V CAT III, 600 V CAT IV
Pollution degree	2
Insulation test voltage	7400 VRMS / 5 s
<b>CONNECTION CABLE</b>	
Type	3 x 22 AWG shielded
Length	3 m. Other lengths on request: 5, 7, 10, 15 m
<b>ENVIRONMENTAL CONDITIONS</b>	
Protection degree	IP67 or IP68 according to the model (not evaluated by UL)
Altitude	Up to 2000 m over sea-level
Operating temperature	-30 ... +80°C
Storage temperature	-40 ... +80°C
Relative humidity	0 ... 95%
Installation and use	Indoor
<b>STANDARD COMPLIANCE</b>	
IEC, UL standards	UL 61010-1 Ed3, UL 61010-2-032, CAN/CSA-C22.2 No. 61010-1, IEC 60529

## Algodue Elettronica Srl

- Via P. Gobetti, 16/F
- 28014 Maggiora (NO), ITALY
- **Tel.**
  - +39 0322 89864
  - +39 0322 89307
- [www.algodue.com](http://www.algodue.com)
- [support@algodue.it](mailto:support@algodue.it)

## FAQ

### Q: Who should install and use the Rogowski coil?


A: Only qualified, professional, and skilled technicians authorized to work with electrical installations should install and use the coil.

### Q: What safety standards should be followed?

A: The coil must comply with UL standards, and installations should adhere to current safety standards and insulation values to ensure user safety.

---

## Documents / Resources

	<p><a href="#">algodue ELETTRONICA MFC190 Flexible Rogowski Coil</a> [pdf] User Manual MFC190, MFC190 Flexible Rogowski Coil, Flexible Rogowski Coil, Rogowski Coil, Coil</p>
---	---

## References

- [User Manual](#)

### Manuals+. Privacy Policy

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.