

ECCT-RC-B Series

- High linearity from 1A to 100kA
- Wide dynamic range
- Very useful with large size or awkward shaped cond
- No danger from open-circuited secondary
- Not damaged by large overloads
- Non-intrusive, no power drawn from the main
- Measurement uniformity at any position of the cond
- Excellent degree of rejection to the external current

Description

ESCT-RC series are flexible current transducer based on Rogowski principle, particularly suitable for measurement in combination with portable devices. ESCT-RC coils are available in different sizes and can be supplied according to customer's design, therefore they can be used in all those applications, in which traditional transducers are not fitting due to its size and/or weight. Due to its specific features, flexible Rogowski coil is an extremely comfortable solution for current measurement and can be used in a number of cases where traditional current transducer is not the adequate solution.

ESCT-RC series provided with a shield against the influence of external magnetic fields, therefore it grants a stable measurement from low currents to hundreds of kA. The Rogowski coils must be connected to an electronic integrator for 90° phase shift compensation and frequency equalization. Our portable and panel meters can interface Rogowski coils directly without the need of the external integrators. This is an advantage because there is no external boxes or any power supply with consequent ease of use. The particular features of the Rogowski coils combined with the extremely flexible input programming of our portable meters, allow to carry out measurement by all applications.

Specification

| Transducer | |
|---------------|---------------------|
| Coil length | From 20cm to 1000cm |
| Coil diameter | 8.3±0.2mm |
| Fastening | Bayonet holder |
| Weight | 150g |

| Electrical Characteristics | |
|----------------------------|-------------------------------|
| Output level(RMS) | 50mV/kA@50Hz 80mV/kA@50Hz |
| | 85mV/kA@50Hz 100mV/kA@50Hz |
| Coil resistance | from 100 to 250 Ω |
| Positioning error | $\pm 1\%$ maximum |
| Frequency range | approx 40 Hz to 20kHz |
| Working voltage | 1000 V _{RMS} CAT III |
| | 600 V _{RMS} CAT IV |
| | Pollution degree 2 |
| Test voltage | 7400 V _{RMS} / 1 min |

| Connection Cable | |
|------------------|------------------|
| Type | 2x0.15mm +shield |
| Length | On request |

| Environmental Conditions | |
|--------------------------|---------------|
| Operating temperature | -30°C to 80°C |
| Storage temperature | -40°C to 80°C |
| Protection degree | IP67 |

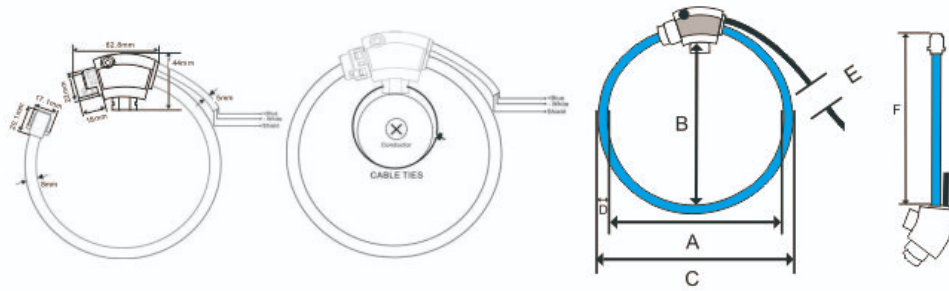
| Standards Compliance | |
|----------------------|----------------------------------|
| Safety | EN 61010-1, EN 61010-031 |
| | EN 61010--2-031,EN 61010--2-032, |



| Conductor Position | Typical Error(%) |
|-------------------------------------------|------------------|
| ● Central in the rogowski loop | 0.2% |
| ● Adjacent to the inside coil edge | <0.8% |
| ● Adjacent to the clip together mechanism | <1% |

Wiring and dimension

Ⓟ Dimensions



| Type B : | RC100 | RC150 | RC200 |
|---------------------------|-----------------------------------------|-------|-------|
| A.Windows Size A | 135 | 165 | 210 |
| B.Windows Size B | 100 | 150 | 200 |
| C.Coil O.D. | 151 | 181 | 226 |
| D.Coil Section | 8 | | |
| E.Lead Cable Total Length | 2000 | | |
| F.Coil Length | 395 | 525 | 665 |
| Ratio (Calibrated) | 80mV/KA@50Hz;85mV/KA@50Hz;100mV/KA@50Hz | | |

Dimensions tolerance
A,B,C,F: ±5mm, D: ±0.2mm, E:±10mm