

RōCOIL SERIES

ROGOWSKI COIL FLEXIBLE CURRENT SENSORS

The DENT RōCoil Current Sensors, known as "Flexible Ropes", have been designed for accurate, non-intrusive measurement of AC current, where conventional rigid core sensors are unsuitable. This type of sensor may be used to measure AC current over a wide dynamic range. Note: Some applications may require use of integrator/amplifier.

KEY SPECIFICATIONS

| Length Options | 16" (40cm) | 24" (60cm) | 36" (90cm) | 47" (120cm) |
|--------------------|--|---------------|---------------|----------------|
| Current Range | 5-1800A | 5-4000A | | |
| Output | 131 mVAC/1000A @ 60 Hz 109.2 mV/1000A @ 50 Hz | | | |
| Accuracy (typical) | < 0.6%* | | | |
| Accuracy Class | Class 0.5-A1 according to IEC 61869-10 | | | |

ELECTRICAL

All accuracies specified at 20°C (±2°C) with RōCoil™ centered on conductor.

| | |
|-------------------------|--|
| Output Signal | 131 mV/1000A @ 60 Hz 109.2 mV/1000A @ 50 Hz |
| Wire Colors | White = (+) positive Black = (-) negative Bare wire = shield |
| Phase Shift | < 0.2° at 50/60 Hz |
| Frequency Range | 50/60 Hz |
| Linearity | ± 0.2% |
| Temperature Sensitivity | 0.07% per °C |

MECHANICAL

| | |
|----------------|---|
| Coil Materials | Blue thermoplastic rubber, flame retardant UL 94 V-0 rated |
| Shielding | 100% transducer, 100% output lead |
| Operating Temp | -35°C to +75 °C (-31° to +167 °F) up to 1800A -35°C to +60 °C (-31° to +140 °F) 1800A to 4000A |

SAFETY

| | |
|---------------------|---|
| Working Voltage | 600V CATIV : 1000V CATIII |
| Dielectric Strength | 7400 VAC around coil 1000 VAC rated leads |
| Certifications | ANSI/CAN/UL 2808 CSA C22.2 No. 61010-1-12 IEC 61010-2-032 IEC 61010-1 Ed3 IEC 60529 |

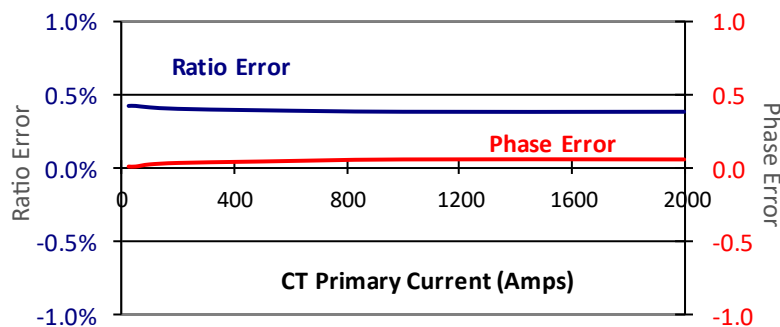


*Installed using best practices with conductor centered in the CT window and ensure any external conductors are a minimum distance of > 2X the diameter of the RōCoil. Accuracy below 20A rated at 1.5% +/- 0.5A when used with DENT ELITEpro/PowerScout meters.



DIMENSIONS

| | CTRCFX Model | | | |
|------------------------|---|----------------|-----------------|-----------------|
| | 16" | 24" | 36" | 47" |
| Window Size | 12.7 cm (5.0") | 19.1 cm (7.5") | 28.7 cm (11.3") | 38.2 cm (15.1") |
| Sensor Length | 40 cm (15.8") | 60 cm (23.6") | 90 cm (35.4") | 120 cm (47.2") |
| Locking Connector O.D. | 3.5 cm (1.38") | | | |
| Sensor Coil Diameter | 8.3mm (0.33") | | | |
| Wire Lead Total Length | 3 m (118") Standard (See Part Numbers below for other lengths.) | | | |



CT testing performed with 16"RoCoil. Conductor used filled 90% of RoCoil window.

RōCoil PART NUMBERS

| | 3 M Leads | 7 M Leads | 15 M Leads† |
|--------------------|----------------------|----------------------|-----------------------|
| 40cm (16") RōCoil | CTRCFX16L1800A3MSTV1 | CTRCFX16L1800A7MSTV1 | CTRCFX16L1800A15MSTV1 |
| 60cm (24") RōCoil | CTRCFX24L4000A3MSTV1 | CTRCFX24L4000A7MSTV1 | CTRCFX24L4000A15MSTV1 |
| 90cm (36") RōCoil | CTRCFX36L4000A3MSTV1 | CTRCFX36L4000A7MSTV1 | CTRCFX36L4000A15MSTV1 |
| 120cm (47") RōCoil | CTRCFX47L4000A3MSTV1 | N/A | N/A |