

RōCoil™

Flexible CTs



The DENT RōCoil™ Current Transformers have been designed for accurate non-intrusive measurement of AC current, pulsed DC or distorted waveforms where conventional rigid core CTs are unsuitable. This type of sensor may be used to measure AC current over a wide dynamic range and from 20 Hz to 5 kHz. Note: Some applications may require use of integrator/amplifier. See also RōCoil mV™.

KEY SPECIFICATIONS

| | |
|---------------------------|--|
| Four Lengths | 40 cm (16"), 60 cm (24"), 90 cm (35"), 120 cm (47") |
| Window Size | 11.5 cm (4.5"), 17.9 cm (7.0"), 27.5 cm (10.8"), 37 cm (14.6") |
| Output Signal (di/dt) | 131 mVAC/1000A @ 60 Hz 109.2 mV/1000A @ 50 Hz |
| Current Range | 5 - 5000A AC* |
| Accuracy (typical) | < 0.6%** |

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 Brown = (-) negative Bare wire = shield |
| Phasing | Arrow Points Towards Load |
| Phase Shift | < 0.2° at 50/60 Hz |
| Frequency Range | 20 Hz to 5 kHz* |
| Useful Current Range | 5 - 5000A AC* |
| Linearity | ± 0.2% |
| Temperature Sensitivity | 0.07% per °C |

MECHANICAL

| | |
|--------------------|--|
| Coil Materials | Blue thermoplastic rubber, flame retardant UL 94 V-0 rated |
| Coupling Materials | PA6 UL 94 V-0 rated |
| Shielding | 100% transducer, 100% output lead |
| Working Temp | -20 °C to +70 °C (-4° to +158 °F) |

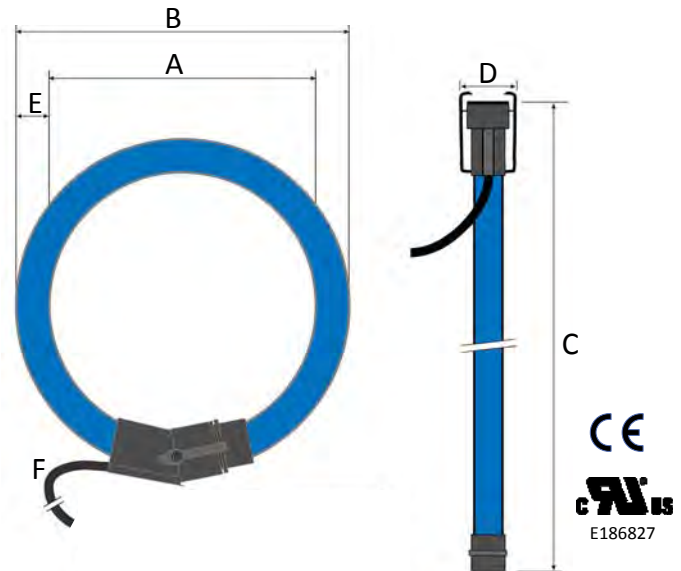
SAFETY

| | |
|---------------------|--|
| Working Voltage | 1000 Vrms maximum |
| Dielectric Strength | 7400 VAC around coil 1000 VAC rated leads |
| Certifications | Conforms to UL STD 61010-1 Certified to CAN/CSA STD C22.2 No. 61010 |

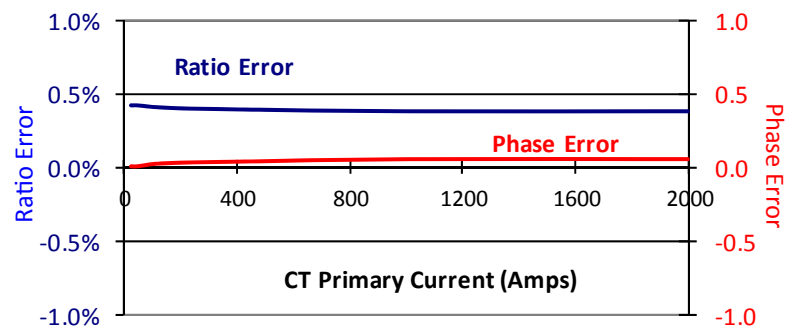
*Depending on meter compatibility, RōCoil CTs UL Rated to 100KA AC. ELITEpro SP/XC (v. 212 or newer firmware) and PowerScout™ 3 and 24 (v. 3.16 or newer firmware) rated for 5-5000A. Meters with earlier firmware versions rated from 50-5000A AC. PowerScout™ 18 rated for 50-3500A.

**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. RōCoil have been 100% verified to meet the C57.13-2008 Class 1.2 Standard.

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| DIMENSIONS | | R16 | R24 | R36 | R47 |
|------------|---------------------------|----------------|----------------|-----------------|-----------------|
| | | 40 cm (16") | 60 cm (24") | 90 cm (35") | 120 cm (47") |
| A | Window Size | 11.5 cm (4.5") | 17.9 cm (7.0") | 27.5 cm (10.8") | 37 cm (14.6") |
| B | Transformer Coil O.D. | 13.9 cm (5.5") | 20.3 cm (8.0") | 29.9 cm (11.8") | 39.4 cm (15.5") |
| C | Transformer Length | 40 cm (15.8") | 60 cm (23.6") | 90 cm (35.4") | 120 cm (47.2") |
| D | Locking Connector O.D. | 2.0 cm (0.8") | | | |
| E | Transformer Coil Diameter | 1.2 cm (0.5") | | | |
| F | Wire Lead Total Length | 2 m (80") | | | |



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

RōCoil™ PART NUMBERS

| | |
|----------------------|-------------|
| 40 cm (16") RōCoil™ | CT-R16-A4-U |
| 60 cm (24") RōCoil™ | CT-R24-A4-U |
| 90 cm (35") RōCoil™ | CT-R36-A4-U |
| 120 cm (47") RōCoil™ | CT-R47-A4-U |

CONTACT US

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