

RōCoil™

Flexible CTs

The DENT RōCoil™ Current Sensors have been designed for accurate non-intrusive measurement of AC current, pulsed DC or distorted waveforms where conventional rigid core sensors 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 Available	40 cm (16"), 60 cm (24"), 90 cm (35"), 120 cm (47")
Window Sizes Available	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

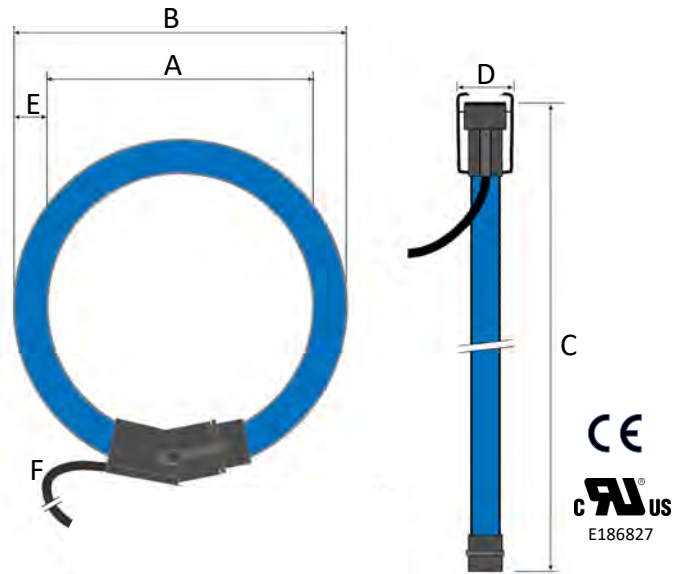
Coil Materials	Blue thermoplastic rubber, flame retardant UL 94 V-0 rated
Coupling Materials	PA6 UL 94 V-0 rated
Shielding	100% transducer, 100% output lead
Working Temp	-20 °C to +70 °C (-4° to +158 °F)

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

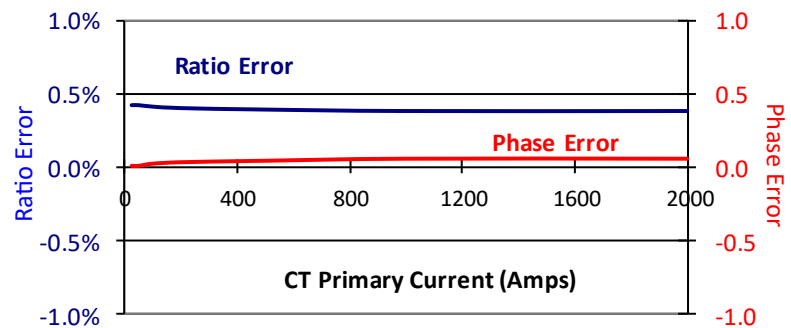
*Depending on meter compatibility. RōCoil CTs UL Rated to 100KA AC.

**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.



DIMENSIONS

	R16 40 cm (16")	R24 60 cm (24")	R36 90 cm (35")	R47 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 Sensor Coil O.D.	13.9 cm (5.5")	20.3 cm (8.0")	29.9 cm (11.8")	39.4 cm (15.5")
C Sensor 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 (0.78")			
E Sensor Coil Diameter	1.2 cm (0.47")			
F Wire Lead Total Length	3 m (118") Standard (See Part Numbers below for other lengths.)			



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

RōCoil™ PART NUMBERS

	3 M Leads	7 M Leads	15 M Leads†
40 cm (16") RōCoil™	CT-R16-A4-U	CT-R16-A4-U-7M	CT-R16-A4-U-15M
60 cm (24") RōCoil™	CT-R24-A4-U	CT-R24-A4-U-7M	CT-R24-A4-U-15M
90 cm (35") RōCoil™	CT-R36-A4-U	CT-R36-A4-U-7M	CT-R36-A4-U-15M
120 cm (47") RōCoil™	CT-R47-A4-U	N/A	N/A

†Special order. Contact factory for details.

CONTACT US

DENT Instruments, Inc.
Energy & Power Measurement Solutions