

# 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, 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.

### KEY SPECIFICATIONS

Length Options	16" (40cm)	24" (60cm)	36" (90cm)	47" (120cm)
Current Range	5-5000A*			
Window Size	4.5" (11.5cm)	7.0" (17.9cm)	10.8" (27.5cm)	14.6" (37cm)
Output	131 mVAC/1000A @ 60 Hz 109.2 mV/1000A @ 50 Hz			
Accuracy (typical)	< 0.6%**			
Accuracy Class	IEEE C57.13 Class 1.2			

### 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
Phase Shift	< 0.2° at 50/60 Hz
Frequency Range	20 Hz to 5 kHz*
Linearity	± 0.2%
Temperature Sensitivity	0.07% per °C

### MECHANICAL

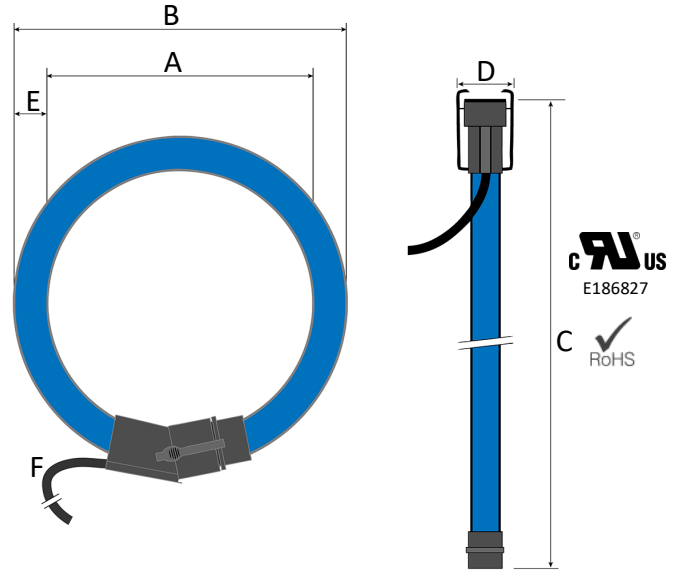
Coil Materials	Blue thermoplastic rubber, flame retardant UL 94 V-0 rated
Coupling Materials	PA6 UL 94 V-0 rated
Shielding	100% transducer, 100% output lead
Operating Temp	-20 °C to +70 °C (-4° to +158 °F)

### SAFETY

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

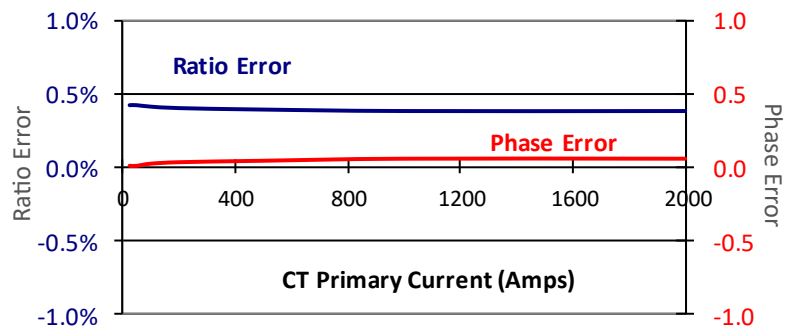
\*Depending on meter compatibility. RōCoil CTs UL Rated to 100KA AC.

\*\*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.



### 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"RoCoil. Conductor used filled 90% of RoCoil 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  
An ISO 9001:2008 Certified Company