

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

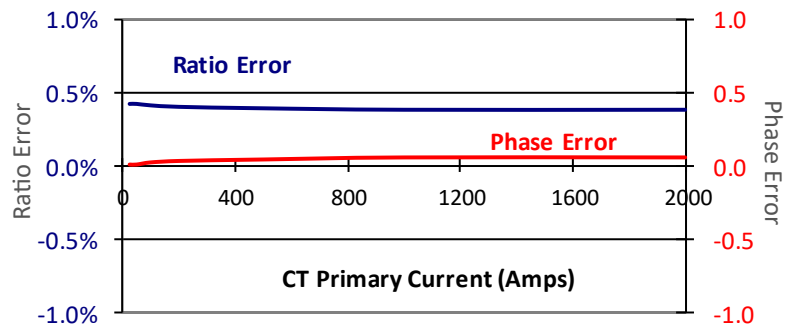
Working Voltage	600V CATIV : 1000V CATIII
Dielectric Strength	7400 VAC around coil 1000 VAC rated leads
Certifications	ANSI/CAN/UL 2808 CSA C22.2 No. 61010-1-12 IEC 61010-2-032 IEC 61010-1 Ed3 IEC 60529



*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

†Special order. Contact factory for details.

CONTACT US

DENT Instruments, Inc.
Energy & Power Measurement Solutions
An ISO 9001:2015 Certified Company

925 SW EMKAY DRIVE
BEND, OREGON 97702 USA
541.388.4774 | 800.388.0770
WWW.DENTINSTRUMENTS.COM