

# Patrol Flex Rogowski Coil

Offered in 12", 24" and 36" lengths, the Patrol Flex is the most accurate Rogowski coil in submetering. Rogowski coils offer significant installation advantages over split-core CT's because of their light weight, wide current range (5-5,000 Amps), mechanical flexibility for mounting in tight quarters and easy placement around cable bundles or large busbars. The Patrol Flex leads can be extended up to 150 feet without degrading the accuracy of the unit and up to 300 feet with only 0.08% error.

#### ±0.5% FS Revenue Grade Accuracy

Setra partnered with Fluke to deliver the Patrol Flex CT; the highest performance Rogowski coil in submetering. The Patrol Flex Rogowski Coil is calibrated to better than  $\pm 0.5\%$  FS accuracy for use in revenue grade (tenant billing) applications.

## Save Money on Installation

Installers can save significant time and labor using the Patrol Flex due to its flexibility and ease of surrounding conductors of all sizes. Selecting a Rogowski coil instead of a conventional split-core CT can save the installer over two hours per meter point in a challenging installation, which could be the difference between making and losing money on a job.

#### Wide Current Range = Reduced Shipping Costs

A typical 100A CT weighs 2 lbs, however as the current range expands to 3,000A the average weight can increase from 2lbs to 20 lbs. Considering three CT's are required to monitor a 3-phase motor, certain applications could require up to 65lbs of shipping weight per meter point; a serious waste of shipping dollars. The Patrol Flex Rogowski Coil has a current range of 5-5,000 A, yet weighs less than 1/2 lb, drastically reducing freight costs.

#### **Best in Class Linearity**

Conventional CT's are wound over a magnetic iron core, which makes them more susceptible to saturation leading to linearity error. Engineers and contractors must adjust the phase shift of the meter to compensate in order to achieve an accurate reading. Rogowski coils are wound over a non-magnetic core, giving them perfect linearity and improved accuracy over wide current ranges.



- Revenue Grade Accuracy ±0.5% FS
- Best In Class Linearity
- No External Power Required

### **Patrol Flex Features:**

- High Accuracy: ±0.5% FS
- Lightweight: <0.5 lb
- Best in Class Position Sensitivity
- Extend up to 150 ft With No Impact to Accuracy; Extend up to 300 ft with only 0.08% error
- Minimal Linearity Effect ±0.2%

### Applications

- Measurement & Verification
- Demand Response
- Energy Cost Allocation
- Equipment Efficiency Tracking
- Preventative Maintenance
- Tenant Submetering
- Net Metering



## **ORDERING INFORMATION**

CT	– PF –				
	Model	Probe Length			
	PF=Patrol Flex	12 12" (≈3.5" inner diameter)			
		24	24" ( $\approx$ 7.5" inner diameter)		
		36	36" ( $\approx$ 11.5" inner diameter)		

Example: Part No. CT-PF-12 = Model Patrol Flex, 12" Probe Length.

Probe Window C

## **OPERATING INSTRUCTIONS**

1. Connect the Probe to the product terminal block.

2. Wear protective gloves or de-energize the circuit and place the coil around the conductor under test. Re-energize circuit.



3. Positive output indicates that the current flow is in the direction shown by the arrow on the Probe. (arrow toward electrical load)



 $\pm$  (1.25% of reading + 0.02% of range)

Probe Cable Length	610 mm	Accuracy	± 0.5% of reading (@ 25°C, 60 Hz)	
Probe Cable Diameter	12.4 mm	Linearity (10% to 100% of range)	$\pm$ 0.2% of reading	
Probe Cable Bend Radius	40 mm	Working Voltage (see Safety Stan- dards section)	1000 V AC RMS or DC (head) 30 V max. (output)	
Output Cable Length	2 meters shielded 2-wire cable	Safety Specifications		
Output Connector	Unterminated		-BS EN 61010-1 2001	
Operating Range	-20° to +70° C	Safety	-BS EN 61010-2-032 2002 -BS EN 61010-031 2002, 1000 VRMS, Category III, Pollution Degree 2 -Use of the probe on uninsulated conductors is limited to 1000 V ACRMS or DC and frequencies below 1 kHz.	
Storage Temperature	-40° to +80° C	Standards		
Operating Humidity	15% to 85% (non con- densing)			
Degree of Protection (Probe)	IP40			

<sup>1</sup>When used with Setra Power Patrol (Ranges vary when used with other meters)

**General Specifications** 

Probe and Cable

**Couplings Material** 

Material

TPE rubber, reinforced

UL94 V-0, Color: RED

Polypropylene, UL94 V-0

insulation

Munsell 7.5 R 1/14

# **GENERAL SPECIFICATIONS**

108 mV

5-5,000 A AC RMS

**Specifications** 

Voltage Output (@1000 ARMS,

Current Range<sup>1</sup>

60 Hz)