

# TE'S Raychem FLEXIBLE ROGOWSKI COILS (RFRC) LOW-POWER PASSIVE CURRENT SENSORS FOR MEDIUM VOLTAGE NETWORK

## **KEY FEATURES**

- High accuracy class suitable for measuring and signaling tasks
- Tested according to the latest IEC-61869-10
- Split-core Rogowski coils
- No need for auxiliary power supply
- Can be used for both measurement and protection
- High safety due to low power and output voltage
- Quick and easy installation suitable for retrofit on medium voltage network

TE's Raychem Flexible Rogowski Coils RFRC are low-power passive current sensors based on Rogowski coil technology. They require no external power supply or battery and have no ferro resonance.

TE's RFRC are very compact, light weight and cost effective. They are suitable for both new installation and retrofit solution in medium voltage network.

TE's Rogowski coils have linear volt-current characteristics because the wire is wraped around a nonmagnetic core. They achieve high accuracy and the same sensors can be used for both protection and measuring. They can produce an output voltage that is a scaled time derivative di(t)/dt of the primary current.

TE's Rogowski coils have a very wide range of applications than conventional current sensors because of their linear characteristics and they do not saturate. They can be applied in systems with high fault currents.

TE's current sensors are suitable for measurement and protection applications. They are calibrated in the factory and have no need for any further adjustment on site.

Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.



KEY PRODUCT SPECIFICATIONS	REQUIREMENTS		
General Data			
Thermoplastic Rubber, Flame Retardant	UL 94 V-O rated*		
Environmental Conditions			
Working Temperature	-20°C to 70°C		
Relative Humidity	85% without condensation		
International Protection Coding	IP 67		
Pollution Degree	2		
Maximum Altitude	2000 m		
Electrical Data			
Maximum Measurable Current	100 kA** @ 50/60 Hz		
Internal Resistance	30 Ohms/400 mm		
Accuracy	±0.5%		
Linearity	±0.2		
Output Signal (Sinusoidal Waveform)	100mV/1000A @ 50 Hz; 120mV/1000A @ 60 Hz***		
Frequency Range	20 Hz - 5 kHz		
Temperature Sensitivity	±0.1% from -20°C to 70°C		
Safety			
Over Voltage Category (IEC 61010-1)	CAT III		
Operating Voltage (max.)	1000V @ 50/60 Hz		
Hi Pot Test (Transducer & Output Cable)	7400Vac @ 50/60 Hz for one minute		

\* Coil and output cable are shielded. \*\* Other values on request.

\*\*\* Rated at 1000A @ 50 Hz.

ORDER INFORM	ATION			
Product Description	Product Number	Max. Coil Diameter (mm) A	Coil External Diameter (mm) B	Coil Length (mm) C
RFRC-68-0.5-2MS	EN5998-000	68	92	250

Description: TE's Raychem Flexible Rogowski Coil RFRC; Output 100mV/kA @ 50 Hz; Accuracy  $\pm 0.5\%$ ; Cable Length = 2 m.

Note: Other dimensions are available on request.

## te.com/energy

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**RSTI with Capacitive Voltage Sensor and** Rogowski Current Sensor



### **Standard Dimensions**

- A = Coil diameter (mm)
- B = Coil external diameter (mm)
- C = Coil length (mm)

- D = Cap coupling cross section = 17 mm
- E = Cap coupling cross section = 20 mm
- F = Coil cross section = 12 mm

#### FOR MORE INFORMATION: **TE Technical Support Centers**

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