Leading edge Sensors for measuring electrical parameters

SURETECH Split Flex Rogowski Current Sensors

SURETECH Split Flex Rogowski Current Sensors are available in various sizes and configurations. The sensors use Rogowski coil technology to measure AC currents. Rogowski technology does not respond to DC (zero output at zero frequency input), however the sensors can be used to measure the AC components on a DC line. Users can specify, current, coil length, measurement type, bandwidth, power supply type. A range of SURETECH signal-processing instruments are available for your application. Standard output is 4-20mA, and 5V instantaneous.

General RCS family

features:

- Various lengths available for different shapes of bus-bars and cables
- Ultra linear measurement circuits for measuring wide dynamic ranges
- ✓ For use on 50/60Hz and wide bandwidth systems
- Electro static screening for high dv/dt immunity
- Rogowski signal conditioners are available for a range of different applications
- Filters can be included to control low and high frequency response
- True RMS measurements can be specified
- Sensor connector blocks are machined from nylon for long life, and stability
- Temperature range: -10 to +60 degrC
- Withstands very high impulse levels
- Smart Load Processor (SLP) is available to perform various functions such as load logging, protection, indication, control etc. including RS232 outputs
- Transient suppression on input and outputs
- Wide selection of input and output options including relay, opto-isolated, analogue and RS232
- ✓ PC software for Windows with GUI available
- ✓ Wide selection of auxiliary power supply options
- ✓ Galvanic isolation from source
- Engineering backup to provide you support for design, applications information, installation & calibration, maintenance
- Patents pending

User to specify:

- Coil length is either 260mm, 500mm or 1m, and all come standard with 2m tails with integrator
- Band Width is generally 30Hz to 10kHz OR 5kHz to 1MHz [Enquire for other bandwidth requirements]
- Single and Multi-Channel Current processors available, or VI sensors for load measurements with loggers [Enquire]

Characteristics & further ratings

- Insulation rating 500V, sleeving can increase voltage rating, or enquire for use on MV / HV
- Sensor accuracy after calibration: <0.5%
- Various output options are available: instantaneous, precision rectified, 4-20mA, +/-5Vdc, relay, RS232 etc ENQ



Configuration options:

Туре	Peak Current [Amps]	Sensitiviy [mV/Amp]	di/dt Peak [A/us]
RCS50k / length / BW	50000A	100uV	10k
RCS20k / length / BW	20000A	250uV	10k
RCS10k / length / BW	10000A	500uV	10k
RCS5k / length / BW	5000A	1mV	5k
RCS2k / length / BW	2000A	2.5 mV	2k
RCS1k / length / BW	1000A	5 mV	1k
RCS500 / length / BW	500A	10 mV	500
RCS200 / length / BW	200A	25 mV	200
RCS100 / length / BW	100A	50 mV	100
RCS50 / length / BW	50A	100 mV	50

Simple installation and connections:



Portable RCS with Ultra-Flexible coil (RCS-PUF):

- Drive your favourite multi-meter directly for True RMS measurements
- Input to oscilloscope for harmonic analysis
- Input current: 100AmpS RMS and 1kAmp RMS (OR user can specify others)
- Input current: 1kAmp RMS and 10kAmp RMS
- Output: 1Volt RMS
- Calibration accuracy: 0.2%
- Direct readout scaling from your multi-meter
- Length of ultra-flexible RC coil: 650mm
- Coax tail cable length: 2m
- BNC connector for direct connection to Multi-meter or Oscilloscope
- Toggle switch to turn RCS-PUF on / off
- Battery powered by 9V PP3 Alkaline cell.





SURE Engineering CC

PO Box 63, Steenberg, Cape Town 7947 South Africa Reg CK 87/11172/23 Website: <u>http://www.suretech.co.za</u> email: <u>info@suretech.co.za</u> Tel:+27-21-701-8529 Fax:+27-21-701-9183 Cell: +27-83-555-0149