

## FQ-RCT01

### Flexible Rogowski Type Clamp On Ac Measurement Current Probe

*The GFUVE FQ-RCT01 Flexible AC Current Probe is composed of a flexible sensor and an electronic module. The flexible sensor probe permits measurements on conductors where standard clamp-on probes cannot be used. In particular, it can be installed in tight spaces, around cable bundles, around wide or large bus bars, or even wrapped around irregular shapes. The Shape Memory feature enables the user to pre-shape the sensor probe before inserting it between or around conductors. This feature facilitates positioning the sensor around the conductor, enhances user safety, and alleviates the drooping effect associated with other flexible sensors. This Flexible AC Current Probe is lightweight and does not use magnetic cores like standard transformers. The transformation principle is based on air core. It presents virtually no load to the system under test, has a low phase shift and excellent frequency response, and cannot be damaged by current overloads. The sensor assembly is waterproof and insulated for 1000V working voltage. Conforms to EN 61010, 1000V CAT III with CE marked.*

### Features

1. CNAS, UL, CE mark;
2. Frequency 0.1Hz-2MHz Bandwidth;
3. High times harmonic measurement;
4. 100mV/kA or 85mV/kA output signal;
5. Conforms to EN 61010, 1000V CAT III;
6. Measurement range of 1A to 10KA AC;
7. Low phase shift for power measurement;
8. High permeability magnetic material core;
9. No danger from open-circuited secondary;
10. No core saturation or damage if overloaded;
11. Improved ergonomic design & easy operation;
12. Holding wire diameter:  $\phi$ 55mm/80mm/105mm;
13. Excellent linearity 0.2% for current measurement;
14. Designed for DMMs, oscilloscopes, recorders, power and harmonic meters;



### General Data

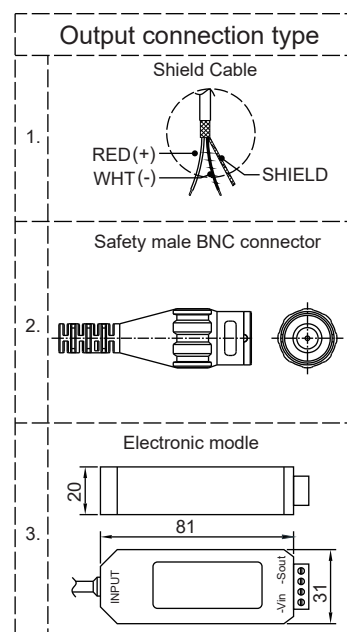
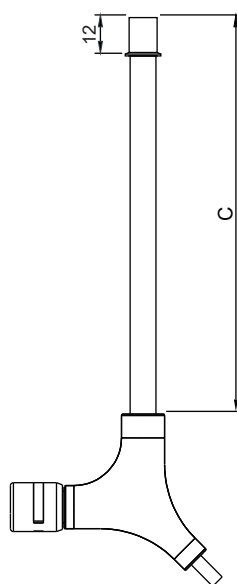
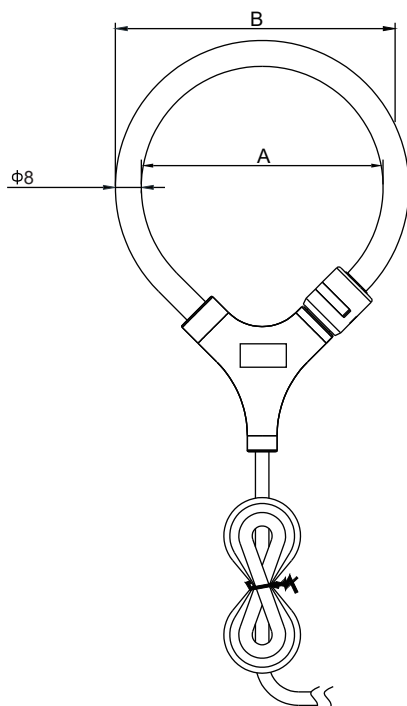
1. Ambient storage temperature: -25~+75°C;
2. Ambient operating temperature: -20~+70°C;
3. Standards safety: IEC 61010-1:2001, 600 V CAT III.

## Applications

1. Multimeter;
2. Oscilloscope;
3. Power meter;
4. Power recorders;
5. Energy sub-meters;
6. Power quality meter;
7. Power load monitoring;
8. Data logging/recording;
9. Power quality analyzer;
10. Energy meter calibrator;
11. Power monitoring device;
12. Power and harmonic meters;
13. Lightning current measurement;
14. Measuring around cable bundles;
15. Distributed measurement systems;

## Dimension

Dimensions(mm)	FQ-RCT02-55	FQ-RCT02-80	FQ-RCT02-105
Window A	55	80	105
Coil OD B	71	96	121
Coil Length C	200	280	350
Output connection	1. UL2586-ESB 2x24AWG L=150cm (as required) 2. Coax terminated with safety male BNC connector L=250cm (as required) 3. UL2586-ESB 2x24AWG L=150cm (as required) with integrator		

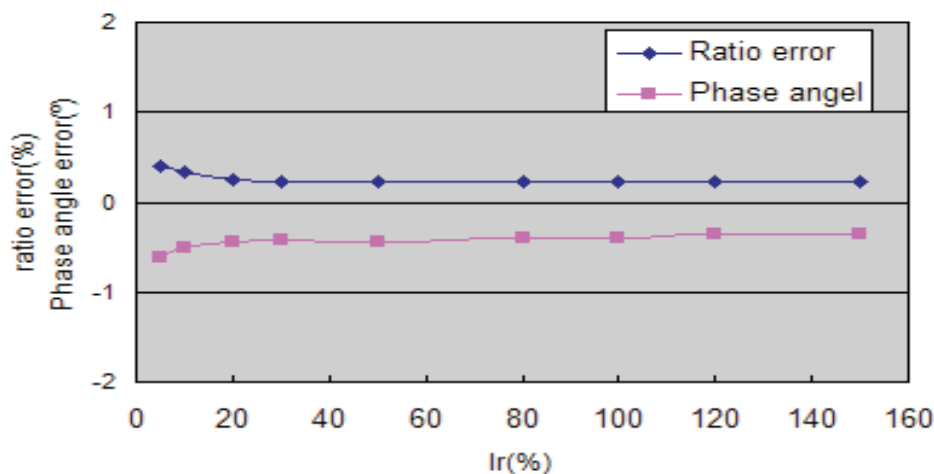


## Parameter

Electrical parameters							
Model		FQ-RCT01-55	FQ-RCT01-80		FQ-RCTA01-55	FQ-RCTA01-80	FQ-RCTA01-105
Current Range		10A~10kA			10A~6000A		
Frequency		25Hz~20kHz			45Hz~600Hz		
Output voltage	Rated current	500A	1000A	2000A	250A, 500A, 800A, 1000A	1000A, 1500A, 2000A, 2500A	1000A, 2000A, 2500A, 3000A
	50Hz		100mV AC	200mV AC	333mV 1mV/A		50mV AC
Max output		/			3.0V AC max		
Accuracy		<1% @25°C (45-65Hz)			<1% @25°C (45-65Hz)		
Phase error		<60' @25°C (45-65Hz)			<60' @25°C (45-65Hz)		
Output sensitivity		±2% Max (No Calibration) ±0.5% @25°C (With Calibration)			1%		
Linearity error		±0.2% (10%-100%I <sub>n</sub> )			±0.2%		
Position sensitivity		±2%			±2%		
External influence		±2% Max			±1.5% Max		
Power supply		/			10-30VDC,30mA Max.		


## Linearity & Phase Angle Error Graph

Linearity & Phase angle error graph



Current range 10~ 1000A @ 25°C

## Position Sensitivity

	Bus bar Position		Window A of coil ( $\Phi$ mm)			Position error
			55	80	105	
$\Phi$ (mm)	●	<12.5	<20	<35	<0.5%	
Angel (°)	●	90°~270°			<1%	
Radius(mm)	r	<10	<15	<25	<2%	

## Usage Instruction

