



# Flexeclamp

## Flexible AC Current Transducer with AC voltage or DC voltage output

Flexeclamps cover a wide range of sizes, current ranges and output levels to standard or OEM specifications. Sinergy pioneered the development of air cored clip-on and flexible Rogowski CTs and have been in volume production since 1986. Superior construction techniques ensure wide dynamic range and bandwidth. Very low phase errors with true rms output facilitates accurate kWh measurement.

Flexeclamps have many advantages over their iron cored counterparts, they have minimal weight and mass, plus the ability to clip round all styles of conductors. Standard Sinergy Flexeclamps are unique in having a hybrid integrator/buffer embedded in the clip assembly. This is digitally calibrated and requires a supply of less than 1mA, which can often be derived from the power supply of its host. Flexeclamps with output voltages over 1.5V or with dc outputs use the inline integrator.

At an operational level the absence of an iron core means that the Flexeclamp does not store any energy, has no hysteresis or turns ratio errors and cannot saturate. A Flexeclamp cannot be damaged by overload and does not generate an open circuit secondary shock potential.

### Flexeclamp works perfectly with

- portable energy monitors
- sub-metering systems
- harmonic analysers
- benchtop instrumentation



e-Tracker energy monitor



KLIK meter pulse output submeter

Oscilloscope, meters & recorders

The length of a Flexclamp should be chosen to match, as far as is practical, the circumference or the periphery of the conductor.

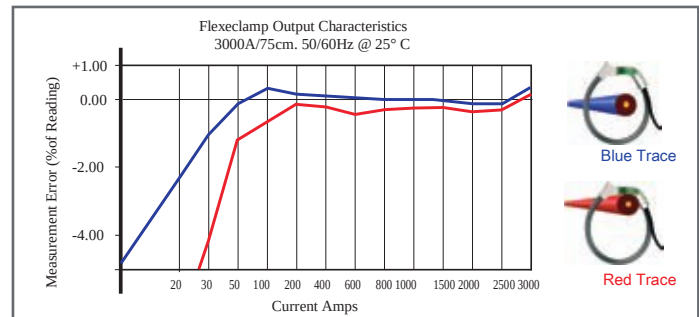
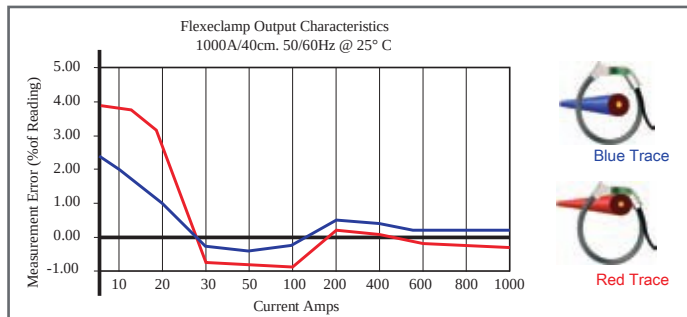
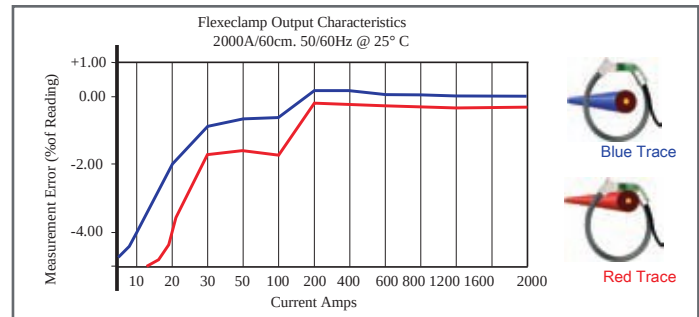
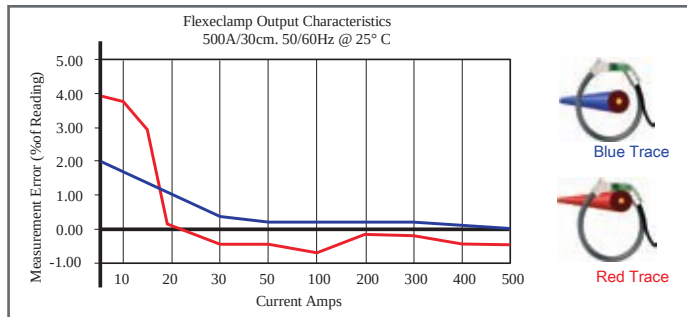
This ensures that the conductor occupies the most favourable position centred within the loop of the coil, see Blue Trace.

Excessive coil length can be a safety hazard in confined areas. Stretching or twisting can cause coil damage. IP rating should be chosen to match the maximum current expected.

## Flexclamp Operational Specifications

CONSTRUCTION	To BSEN61010-2-032
Mouldings: polycarbonate	UL94-Vo
Coil Former/sleeve	HPDF/PVC
Coil Sheath Diameter	11mm. Plug width 14mm
Bend Radius	30mm min. No. of loops, see table below
Operational Temp.	- 20°C -+ 85°C to 90% RH (NC)
Weight, inc. 2m lead	Fx30-120g . – Fxx100-250g

<b>ELECTRICAL</b>	
Current Range	100 Amps full scale - 3000 Amps full scale, 3kA-10kA (extended range)
Std output, true rms	0.5mV/A, 1.0mV/A, higher outputs, consult factory
Output DC	0-10v
Coil only output insulation, coil closed	0.21 mV/A typ. (NB. 90° out of phase) 5kVrms for 1min. Pulse 6.5KV
External Power Source	5v/1mA regulated, 6,9,12 unregulated
Output lead	Screened 3 core x 2m., extendable to 15m. Coding; Red +v. supply, Yell-signal, Blue-0v
<b>MEASUREMENT</b>	
Accuracy	@ 25°C. @ 10%-100% FS rating, 50/60Hz < ±1% of FS.; < +2.5% of reading
Position Sensitivity	< ±2% change, Bus bar centre to periphery
Phase Shift	Max 1°, typical < 0.5° at 50 Hz
External Field Effect	Full rejection adjacent bus > 1 diameter away
Frequency Bandwidth	25Hz – 5kHz, + -2dB Max. Typ -1dB



## Flexclamp - Externally powered units 5, 9, 12, 24vdc supply

CT Style	CT Part Number	Size Length	Nominal Ip Amps range Full Scale	Accuracy PF-0.6 to unity temp 25°C 50/60Hz	Max Overall Cable Diameter	Max No. of loops	Outlines
Flexclamp	FL300	300mm	Up to 1000A	2.0%	85mm	1	
Clip Round	FL400	400mm	Up to 1000A	2.0%	110mm	1	
	FL500	500mm	Up to 2000A	2.0%	140mm	1	
Other ranges available please contact us for more information	FL600	600mm	Up to 2000A	2.5%	170mm	2	
	FL700	700mm	Up to 3000A	3.0%	200mm	2	
	FL1000	1000mm	Up to 3000A	3.0%	300mm	3	
Output Selection Type Number/Suffix	V.rms/ Max Amp Ip /05=500mV,		/1=1v, >5	/2=2v, >6	/3=3v. 9		10v.dc FSD /10v.dc 24 In-Line
External dc Supply Integrator	5 Embedded						

Other Amp ranges are available. Please contact the Technical Team for further details.

In pursuance of our policy of continued improvement Sinergy Meters reserve the right to change the design or specification of its products without notification



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