

## 1 INTRODUCTION

FLEXII.xxx.100.ACxx.xMS shielded coil have been designed for accurate non-intrusive measurement of AC, pulsed DC or complex waveforms This type of transducer may be used to measure all AC current from low frequencies to 5 kHz. FLEXII.xxx.100.ACxx.xMS transducers are manufactured in different length for diameters of current conductors from 90mm to 270 mm.

## 2 SPECIFICATION

### 2.1 General data

#### Dimensions

	METRIC	INC
Transducer O.D. (coil cross section)	15.5mm	0.7inch
Transducer length (standard)	see attached	see attached
Cap coupling O.D. (max)	23mm	0.9inch
Max diameter of conductor or bus bar	see attached	see attached

#### Materials

Transducer & cable	Thermoplastic RUBBER, flame retardant UL 94 V-O rated
Couplings	Polypropylene UL 94 V-O rated
Colour (transducer)	Blue or Red (others on required)
Cable and couplings	Black
Cable:	1000V UL STYLE 20940; Diameter 5,5mm – wires 2x24AWG
Shielded:	85% Coil , 100% output cable

#### Environmental conditions

Working temperature	-20°C to 70°C
Relative humidity	85% (without condensation)
Pollution degree	2
Maximum altitude	2000m

#### Electrical data

Maximum measurable current:	100kA at 50/60 Hz.
Internal Resistance:	30 Ohms/ 400 mm. ; 30 Ohms/1ft and 4inc transducer length $\pm 10\%$
<b>Accuracy:</b>	<b><math>\pm 10\%</math> (calibrated with amplifier/integrator load impedance)</b>
Linearity:	$\pm 0.2$ (with opportunity integrator)
Output signal (sinusoidal waveform )	100mV/1000A @ 50 Hz ; 120mV/1000A @ 60Hz; (* rated at 1000A 50Hz)
Frequency range	20Hz - 5 kHz

° All accuracies specified at 20°C ( $\pm 2^\circ\text{C}$ ) with transducer centred on bus

#### Position sensitivity

Measured bus	$\pm 2\%$ maximum
Ext. field influence	$\pm 0,5\%$ maximum
Temperature sensitivity (max)	$\pm 0.07\%$ per °C

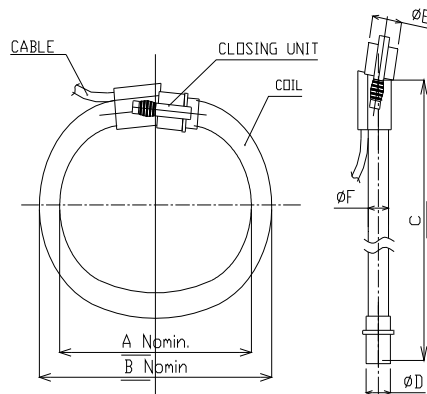
#### Safety

Working voltage (max)	1000V @ 50/60Hz.	600V@ 50/60Hz.
Over Voltage Category (IEC 61010-1)	CAT III	CAT IV
Hi Pot Test (transducer & output cable)	7400Vac @ 50/60Hz. for one minute	



## Type FLEXII xxx. 100.AC xx . xMS

Operating Instruction



### STANDARD DIMENSION

- A Coil diameter (mm)
- B Coil external diameter (mm)
- C Coil length
- D Cap coupling cross section = 18mm
- E Cap coupling cross section = 23mm
- F Coil cross section= 15.5mm

### DESCRIPTION:

Rogowski flexible coil length 350mm ; Output 100mV/kA @ 50 Hz Accuracy +/-10% Cable length= 2m.

### OUR PART NUMBER

TYPE	COIL LENGTH	OUTPUT at 50 Hz	ACCURACY	CABLE LENGTH
FLEXII	XXX	100mV	10,00%	2MS

### EXAMPLE

FLEXII	350	100	AC10	2MS
--------	-----	-----	------	-----

Type	Coil diameter A		Coil external diameter (mm) B		Coil Length (mm) C	
	mm	inch	mm	inch	mm	inch
FLEXII350.100.AC10.2MS	90	3.54	121	47.64	350	13.78
FLEXII400.100.AC10.2MS	105	3.94	136	53.54	400	15.75
FLEXII500.100.AC10.2MS	140	5.51	171	67.32	500	19.68
FLEXII600.100.AC10.2MS	170	6.70	201	79.13	600	23.62
FLEXII700.100.AC10.2MS	202	7.90	233	91.73	700	27.56
FLEXII800.100.AC10.2MS	235	9.10	266	104.72	800	31.50
FLEXII900.100.AC10.2MS	270	10.60	301	118.50	900	35.43
FLEXII1000.100.AC10.2MS	300	11.80	331	130.31	1000	39.37
FLEXII1100.100.AC10.2MS	330	12.99	361	142.13	1100	43.31
FLEXII1200.100.AC10.2MS	360	14.17	391	153.93	1200	47.24
FLEXII1300.100.AC10.2MS	393	15.35	424	166.93	1300	51.18
FLEXII1400.100.AC10.2MS	430	16.93	461	181.49	1400	55.12
FLEXII1500.100.AC10.2MS	460	18.11	491	193.31	1500	59.05
FLEXII1600.100.AC10.2MS	490	19.29	521	205.12	1600	62.99
FLEXII1700.100.AC10.2MS	520	20.47	551	216.93	1700	66.93
FLEXII1800.100.AC10.2MS	550	21.65	581	228.74	1800	70.87
FLEXII1900.100.AC10.2MS	580	22.83	611	240.55	1900	74.80
FLEXII2000.100.AC10.2MS	615	24.40	646	254.33	2000	78.74
FLEXII2100.100.AC10.2MS	650	25.29	681	268.11	2100	82.68
FLEXII2200.100.AC10.2MS	680	26.77	711	279.92	2200	86.61
FLEXII2300.100.AC10.2MS	710	27.95	741	291.73	2300	90.55
FLEXII2400.100.AC10.2MS	748	29.53	779	306.69	2400	94.49
FLEXII2500.100.AC10.2MS	780	30.71	811	319.29	2500	98.43
FLEXII2700.100.AC10.2MS	840	33.07	851	335.04	2700	106.30

If you have any queries regarding the FLEXII or require specification outside our standard ranges please do not hesitate to contact us