PHASE ANGLE



SELECTION GUIDE

M100-PA1	Single phase 4 quadrants
M100-PA2	3 phase 3 or 4 wire balanced 2 quadrants
M100-PA3	<i>3 phase 3 or 4 wire balanced 4 quadrants</i>
M100-PV1	Single phase 4 quadrants phase angle
	between two voltages

TYPICAL APPLICATIONS

The M100-PA series of phase angle transducers measure the phase angle between current and voltage. They can be used on single and 3 phase 3 or 4 wire balanced systems. Ideal for optimising power factor correction. The M100-PV2 measures the phase angle between two voltage supplies and provides a D.C. Output signal

proportional to the phase angle between the voltages.

CONNECTION DIAGRAMS







M100-PA1

M100-PA2

TECHNICAL SPECIFICATION

INPUT Rated value In

Rated value Un Power consumption

Working range

Measuring range

Rated Frequency Frequency influence **Overload** continuous Overload for 1 sec. ACCURACY OUTPUT Rated value mA Rated Value Volts ADJUSTMENT Zero Span AUXILIARY A.C. Voltage

115 / 230 / 400 V (± 25% / 45-65 Hz / < 2VA) 24 / 48 / 110 V (± 20% galvanically isolated / < 3W) Approx. 0.6 kg. 100mm case

WEIGHT & CASE SIZE

ORDERING INFORMATION

Product code I/P In Un O/P Range Aux. Freq.Opt. M100-PA2 5Amp 400V $\pm 45^{\circ}$ 120V 60Hz

 $\pm 2\%$

 $\pm 10\%$

OPTIONS

D.C. Voltage

1. Non standard inputs / outputs only as far as technically acceptable.

- 2. A.C. Auxiliary in range 57.7 to 450 volts
- 3. Calibration at nominal Hz 35.....450Hz
- 4. Calibration at temperature other than 23°C

CONNECTION DIAGRAMS



M100-PA3

<1 VA voltage (aux powered) <2.5 VA voltage (self powered) <0.2 VA current 15-125% Un auxiliary powered 75-125% Un self powered 10-150% In ± 45 / 60 / 90 / 180° M100-PA1 $\pm 45 / 60^{\circ} M100-PA2$ ± 90 / 180° M100-PA3 50 / 60 / 400 Hz 0.005 % / Hz 4 x In 1.5 x Un 50 x In 2 x Un ± 1 Degree 0-1/5/10/20 & 4-20mA 0-5 / 10 & 1-5 V

1 or 5 Amp C.T. connected 0.5-10 Amp direct connected

57.8 < 600 volt