

LP-1V3 THREE PHASE VAR TRANSDUCER



The LP-1V3 three phase var transducer converts ac current and voltage signals into a load independent bidirectional dc signal proportional to the reactive power flowing in the system. The transducer is designed for 3 phase 3 wire systems with a balanced supply and a balanced load.

Note. The pulse output version LP-1V3H is no longer available.

Whilst it is possible to calibrate the output to any reasonable power level, users are recommended to adhere to the standard values. The rated power inputs relate to the actual input to the transducer. Any CT or VT employed will have the effect of multiplying the rated power by the ratio of the transformers used.

Ordering information: Voltage inputs, VT ratio (i.e. 110V, 400V, 11kV/110V)

Current input, CT ratio (i.e. 1A, 5A, 1000/5A)

Output, output scale (i.e. 4-20mA, 0-10mA equals 0 to 1000var)

Supply (i.e. 110Vac, 230Vac, 110Vdc)

Options: Frequency (60Hz)

Specifications

Input AC current and voltage, 3 phase 3 wire balanced load

Current : 0 -1A or 0 - 5A (others on request)

Current burden : < 0.1VA

Voltage : All ac system voltages to 440V

Voltage burden : 1mA Frequency : 50Hz, 60Hz

Outputs Analogue : Load independent dc current or voltage

: -10 to 0 to +10mA dc <1500 Ohms load : -20 to 0 to +20mA dc < 750 Ohms load : 4 to 20mA dc < 750 Ohms load : -5V to 0 to +5V dc > 2k Ohms load : -10V to 0 to +10V dc > 2k Ohms load

Response time : <250ms 0 - 90% at full output

: <500ms 0 - 99%

Ripple : <1% pk to pk (of full output span)

Load influence : <0.25% of full span for specific load range

Accuracy Class 0.5 to IEC 60688 : ±0.5% of full output span

Accurate range : 0 - 120%

Drift : $<\pm0.5\%$ over the range 0°C to ±23 °C to ±60 °C

Overload Current input : 2 x nominal continuous, 20 x nominal for 3 seconds

Voltage inputs : 1.2 x nominal continuous, 1.5 x nominal for 10 seconds

S/C output : continuous

O/C output : continuous, Vo/c <30V Maximum output : <2 x nominal output

Supply : 24V, 110V, 230-240V, 400-415V ac ±20%, 1.5VA

: 24Vdc ±20% 2W or 110V/125V dc (88V-138V) 2W

Isolation Galvanic isolation between inputs, output circuits and supply

Test voltage : 4kV rms 50Hz for 1 minute Impulse : 5kV 1.2/50µsec waveform

Operating : 0°C to +23°C to +60°C

Temperature Operating : 0°C to <u>+23°C</u> to +60°C Storage : -25°C to +70°C long term

: -55°C to +85°C short term

EMC Compliance : AS/NZS 61000.6.3:2012



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