

LP-1W3 THREE PHASE WATT TRANSDUCER



The LP-1W3 three phase Watt transducer converts ac current and voltage signals into a load independent bidirectional dc signal proportional to the active 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-1W3H 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 1000W)

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

Frequency (60Hz), Class (0.2) Options:

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

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

<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 : <±0.5% 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

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

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

Isolation Galvanic isolation between inputs, output circuits and supply

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

Temperature Operating : 0°C to +23°C 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

Standard Transducer Inputs/Outputs Inputs 110V 400/415V 1A 200 Watt 700 Watt 5Α 1000 Watt 3500 Watt

CARREL ELECTRADE LTD

MANUFACTURERS, IMPORTERS AND DISTRIBUTORS OF ELECTRICAL ENGINEERING PRODUCTS POSTAL ADDRESS: P O BOX 11078, ELLERSLIE 1542, AUCKLAND NEW ZEALAND FACTORY AND OFFICE: 661 GREAT SOUTH ROAD, PENROSE 1061 TELEPHONE: +64-9-525 1753 FACSIMILE: +64-9-525 1756 CHRISTCHURCH BRANCH: 73B BRISBANE STREET, SYDENHAM TELEPHONE: 03-366 1242 FACSIMILE: 03-379 1991 EMAIL: sales@ carrel-electrade.co.nz WEB: www.carrel-electrade.co.nz



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