# LPI-CT AC Current Transmitter.

Isolating AC Current Input to 4~20mA Output Loop Powered Transmitter.

Other LPI- models include:

LPI-D :DC; LPI-K :Resistance;

LPI-B :Bridge / Straingauge;

LPI-N :Differential Pt100 RTD;

LPI-DO2 :DO2, LCD Display; LPI-ORP :ORP, LCD Display;

LPI-pH :pH, LCD Display.

LPI-P :Potentiometer; LPI-pH :pH Levels, IP67 Encl;

LPI-R :Pt100 RTD; LPI-T :Thermocouple;

Intech INSTRUMENTS LTD.

LPI Series

### Features.

- Programmable 1A or 5A AC.
- Mains Isolated.
- High Accuracy.
- 40~200mV Output Test Signal.
- LED Indication of Loop Current.
- Low Cost.
- Easy to Install.
- Compact DIN Rail Mount Enclosure.
- Wide P/S Range.
- Reverse Polarity Protection.

### Ordering Information.

**LPI-CT-5** Standard Calibration. 0~5A Input Range.

LPI-CT-1 Special Calibration. 0~1A Input Range.

#### Ordering Example.

LPI-CT-1 LPI-CT; 0~1A Input Range; Loop Powered 4~20mA Output.

### LPI-CT Specifications.

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Input	-Current	0~1Aac or 0~5Aac; 50/60Hz.
	<ul> <li>Input DC Resistance</li> </ul>	0.01Ω Maximum
	-Maximum Over-range	10Aac Continuous.
Output	-mA	2 wire 4~20mA. (Loop Powered.)
	-mV	$40$ ~200mV $\propto$ 4~20mA. (Indicative Test Signal Only.)
		Other Output Voltages Available. eg 1~5V.
Power Supply		9~40Vdc.
Supply Voltage Sensitivity		<±0.01%/V FSO.
Output Load Resistance		750Ω @ 24Vdc. (50Ω/V Above 9Vdc.)
Maximum Output Current		Limited to <30mA.
Linearity and Accurate to		<±0.5% FSO Typical.
Repeatability		<±0.1% FSO Typical.
Ambient Drift		<±0.02%/C FSO Typical.
R.F. Immunity		<1% Effect FSO Typical.
Isolation Voltage		Meets or Exceeds Requirements of EN60950 ITE Safety Standard.
Response Time		2sec Typical.
Operating Temperature		0~70C.
Storage Temperature		-20~80C.
Operating Humidity		90%RH Max. Non-Condensing.
Construction		6.6 Polyamide Thermoplastic Rail Mount Enclosure.

Note 1. Specifications based on standard 0~5A calibration.

Note 2. Due to ongoing research and development, designs, specifications, and documentation are subject to change without notification. No liability will be accepted for errors, omissions or amendments to this specification.



# Quality Assurance Programme.

The modern technology and strict procedures of the ISO9001 Quality Assurance Programme applied during design, development, production and final inspection grant long term reliability of the instrument. This instrument has been designed and built to comply with EMC and Safety Standards requirements.

# Plan View of LPI-CT Adjustments





Note: Do not adjust H2 'CAL'



# The Proper Installation & Maintenance of LPI-CT.

# MOUNTING.

- (1) Mount in a clean environment in an electrical cabinet on DIN or EN mounting rail.
- (2) Do not subject to vibration or excess temperature or humidity variations.
- (3) Avoid mounting in cabinets with power control equipment.
- (4) To maintain compliance with the EMC Directives the LPI-CT is to be mounted in a fully enclosed steel cabinet. The cabinet must be properly earthed, with appropriate input / output entry points and cabling.

# INPUT WIRING.

- (1) Use mains rated cable capable of carrying a minimum of 10A continuously, at the operating temperature.
- (2) Keep the mains power cables a minimum distance of 300mm from any signal cables.
- (3) Refer to diagrams for connection information.

# OUTPUT WIRING.

- (1) All cables should be good quality overall screened INSTRUMENTATION CABLE with the screen earthed at one end only.
- (2) Signal cables should be laid a minimum distance of 300mm from any power cables.
- (3) For 2 wire current loops and 2 wire voltage signals or 2 wire current signals, Austral Standard Cables B5102ES is recommended. For 3 wire transmitters Austral Standard Cables B5103ES is recommended.
- (4) It is recommended that you do not ground current loops and use power supplies with ungrounded outputs.
- (5) Lightning arrestors should be used when there is a danger from this source.
- (6) Refer to diagrams for connection information.

# COMMISSIONING.

- (1) Once all the above conditions have been carried out and the wiring checked apply power to the LPI-CT loop and allow five minutes for it to stabilize.
- (2) Take a low (approx. 10%) and high (approx. 90%) reading of the variable being measured by the transducer supplying the signal to the LPI-CT, and ensure that this agrees with the level being indicated by the PLC or indicator, etc, that the LPI-CT is connected into. Adjust for any difference using the Zero & Span trimpots in the top of the LPI-CT enclosure with a small screw driver, until the two levels agree. (Clockwise to increase the output reading and anti-clockwise to decrease the output reading.)

# MAINTENANCE.

- (1) Repeat (2) of Commissioning.
- (2) Do it regularly at least once every 12 months.



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