



LP-CDU DC SIGNAL CONVERTER AND ISOLATOR



The LP-CDU converts a unipolar or bipolar dc voltage or current input into a proportional unipolar or bipolar dc transducer signal. The fast linear response of this unit makes it suitable for applications involving control loops and the recording of transient phenomena.

Galvanic isolation between the input, output and the auxiliary supply enables the LP-CDU to protect measuring equipment from excessive common mode voltages and from damage due to external over voltage conditions. The simultaneous use of suitable surge diversion devices will provide almost complete protection for sensitive equipment.

A special version of the LP-CDU can be supplied with a Hall effect sensor (DC current transformer) to enable dc currents to be measured without using a shunt.

Ordering information: Input, voltage or current (i.e. 0-10Vdc, 4-20mA, -5 to 0 to +5Vdc)
Output (i.e. 4-20mA, 0-10mA, -10 to 0 to +10V)
Aux. supply (i.e. 110Vac, 230Vac, 110Vdc)

Specifications

Input	Polarity	: unipolar or bipolar(+/-)
	Voltage	: 0 - 50mV to 0 - 500V dc at <0.1mA burden
	Current	: 0 - 1mA to 0 - 1A dc at <100mV burden
	Hall effect sensor	: up to 1000A
Output	Load independent unipolar or bipolar(+/-) dc signal	
	Standard nominal outputs	: 0-10 mA dc <1500 Ohms
	(others on request)	: 0-20mA dc <750 Ohms : 4-20mA dc <750 Ohms : 0-5V dc > 2k Ohms : 0-10V dc >2k Ohms
	Response time	: 0.25ms 0 - 90%
	Frequency response	: 1500Hz -3dB
	Load influence	: <0.25% of full span for specific load range
	Ripple	: <1% peak to peak of full output span
Accuracy	Class 0.5 to IEC 60688	: $\pm 0.5\%$ of nominal output for specified range
	Range	: 0 to 120%
	Drift	: $\pm 0.5\%$ over the range 0°C to <u>$\pm 23^\circ\text{C}$</u> to $+60^\circ\text{C}$
		: $+0.1\%$ per annum non cumulative
Overload	Input voltage	: 1.2 x nominal continuous : 1.5 x nominal for 10 seconds
	Input current	: 2 x nominal continuous : 10 x nominal for 3 seconds
	O/C output	: continuous, Vo/c <30V
	Maximum output	: <2 x nominal output
Aux. Supply		: 24V, 110V, 230V or 240V ac $\pm 20\%$, 1.5VA
		: 24Vdc $\pm 20\%$ or 110V/125V dc (88V-138V) 2W
Isolation	Galvanic isolation between input, output circuits and auxiliary supply	
	Test voltage	: 4kV rms 50Hz for 1 minute
	Impulse	: 5kV 1.2/50µsec waveform
Temperature	Operating	: 0°C to <u>$\pm 23^\circ\text{C}$</u> to $+60^\circ\text{C}$
	Storage	: -25°C to $+70^\circ\text{C}$ long term : -55°C to $+85^\circ\text{C}$ short term
EMC Approvals		: AS/NZS 61000.6.3:2012

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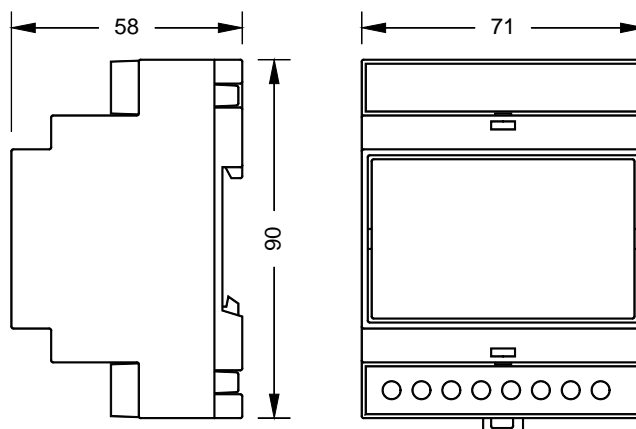
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Dimensions



LP-CDU Connections

