



# LP-CDU-BP-HALL DC CURRENT TRANSDUCER



The LP-CDU-BP-HALL is a special version of the LP-CDU transducer which converts the signal from a Hall effect sensor (DC current transformer) into a standard transducer output. It also supplies the  $\pm 15\text{Vdc}$  power supply for the Hall effect device.

Using a Hall effect sensor allows dc current to be measured without using a shunt thus avoiding the losses associated with such a device.

As there is no direct contact with the measured circuit dangerous common mode voltages are avoided.

The unit works with most common Hall effect sensors with  $\pm 15\text{Vdc}$  supply input and a  $\pm 4\text{Vdc}$  fullscale output signal.

The fast response of the Hall effect devices plus the fast response of the LP-CDU allows this combination to be used in control loops and for recording transient phenomena.

## Specifications

<b>Input</b>	Polarity	: bipolar(+/-)
	Voltage	: $\pm 4\text{V}$ from Hall effect sensor
<b>Output</b>	Hall effect sensors	: TR101-OCS 100A
	others on request	: TR201-OCS 200A
		: TR301-OCS 300A
		: TR401-OCS 400A
		: TR501-OCS 500A
<b>Accuracy</b>	Load independent unipolar or bipolar(+/-) dc signal	
	Standard nominal outputs (others on request)	: 0-10 mA dc <1500 Ohms
		: 0-20mA dc <750 Ohms
		: 4-12-20mA 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
<b>Overload</b>	Class 0.5 to IEC 60688	: $\pm 0.5\%$ of nominal output for specified range
	Range	: 0 to 120%
	Drift	: $\leq \pm 0.5\%$ over the range $0^\circ\text{C}$ to $+23^\circ\text{C}$ to $+60^\circ\text{C}$
		: $+0.1\%$ per annum non cumulative
<b>Aux. Supply</b>	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
<b>Isolation</b>	O/C output	: continuous, Vo/c <30V
	Maximum output	: <2 x nominal output
<b>Temperature</b>	Aux. Supply	: 24V, 110V, 230V or 240V ac $\pm 20\%$ , 1.5VA
		: 24V dc $\pm 20\%$ or 110V/125V dc (88V-138V) 2W
<b>EMC Compliance</b>	Galvanic isolation between input, output circuits and auxiliary supply	
	Test voltage	: 4kV rms 50Hz for 1 minute
	Impulse	: 5kV 1.2/50 $\mu\text{sec}$ waveform
<b>Temperature</b>	Operating	: $0^\circ\text{C}$ to $+23^\circ\text{C}$ to $+60^\circ\text{C}$
	Storage	: $-25^\circ\text{C}$ to $+70^\circ\text{C}$ long term
		: $-55^\circ\text{C}$ to $+85^\circ\text{C}$ short term
<b>EMC Compliance</b>		: AS/NZS 61000.6.3:2012



## CARREL ELECTRADE LTD

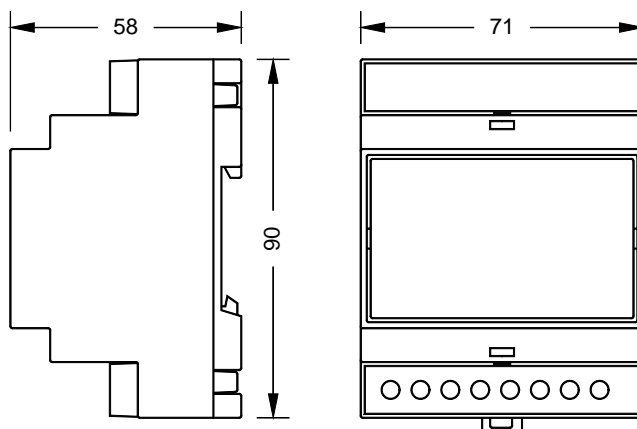
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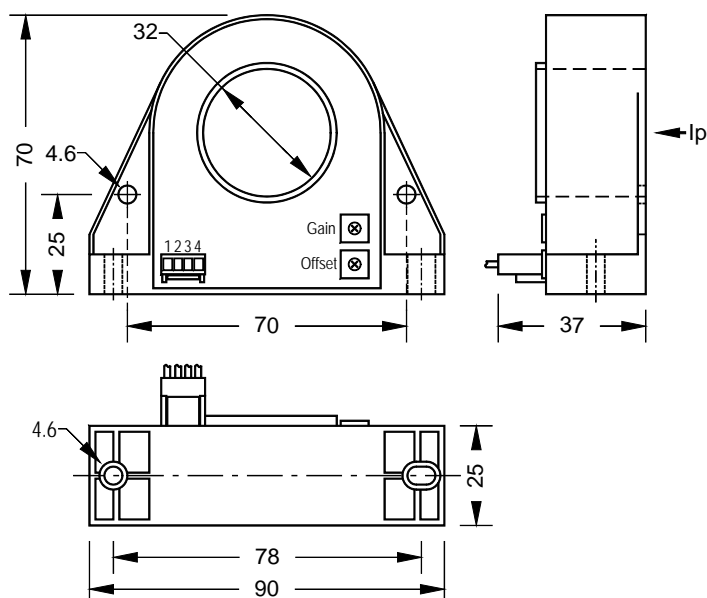


# LP-CDU DC SIGNAL CONVERTER AND ISOLATOR

## Dimensions

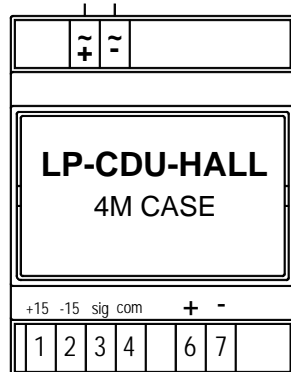


## Hall Effect TRx01-OCS Dimensions

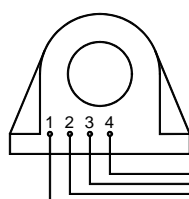


## LP-CDU-HALL Connections

### AUX. SUPPLY



### HALL SENSOR



### OUTPUT