

MODEL 1120DC SIGNAL ISOLATOR

- ! Made in South Africa
- ! Sink or Source
- ! On Board PSU
- ! Compact Size
- ! Low Cost
- ! Plug In

The model 1120DC is a signal isolator designed to eliminate ground loop problems in 4-20mA control loops, however it can also be used in other applications where galvanic isolation is required.

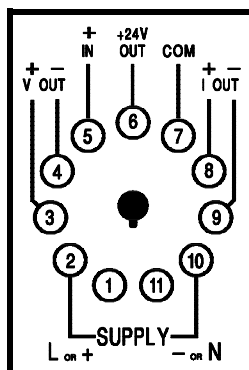
The unit is a compact, mains powered 11 pin plug-in module containing the electronics and two isolated 24V DC power supplies for input and output loops. This enables the model 1120DC to be used with both mains and/or loop powered transmit and receive instruments without the necessity of adding extra power supplies. Input and output power supplies are both current limited at 30mA.

Isolation is achieved by the use of a high linearity dual optocoupler current mirror circuit with a breakdown voltage of 5000 volts RMS. Two separate mains transformers are used to ensure maximum isolation between input and output.

In normal operation the transmitting instrument is connected to the input and the receiving instrument is connected to the current output. In this configuration the output current tracks the input current with an accuracy of better than 0.5%. A voltage output (normally 1-5V DC) is also available which tracks the current output. This voltage can be used with high impedance instruments where a voltage signal is required. This voltage is derived from a 250Ω resistor in the current output circuit. Connecting a load of less than 10KΩ across this output will degrade the performance of the current output.



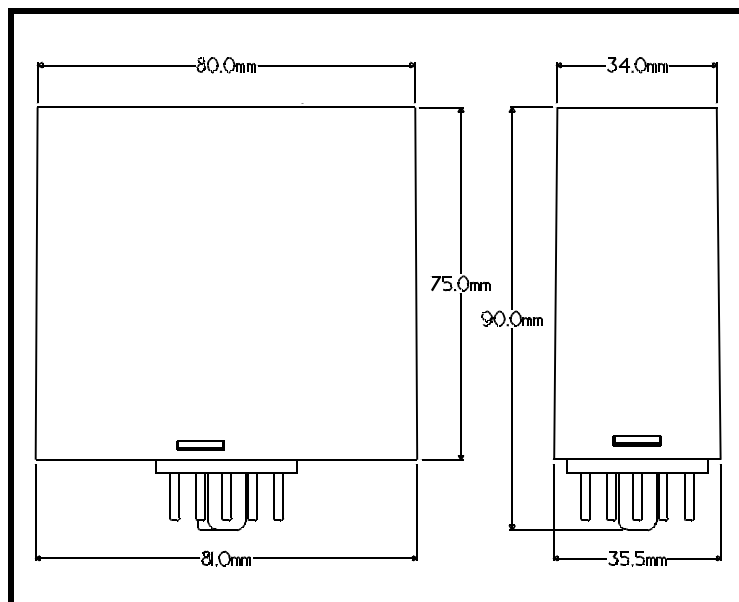
CONNECTIONS



SPECIFICATIONS

INPUT SIGNAL Options	mV Volts mA To customer order
OUTPUT SIGNAL Options	0-1mA, 0-10mA, 4-20mA, 0-20mA, 0-5V 1-5V, 0-10V To customer order
POWER SUPPLY Options	115V 50/60 Hz 230V 50/60 Hz
POWER CONSUMPTION	6VA max
INPUT IMPEDANCE	10ohm for 20mA 39ohm for 5mA >100K for voltage
OUTPUT DRIVE IMPEDANCE	950ohm for 20mA/5V 700ohm for 20mA/10V
TRACKING ACCURACY	< 0.5% FS
ISOLATION VOLTAGE	300V RMS max. continuous

DIMENSIONS



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