



Programmable Isolating Signal Converter MicroDIN

Function: Isolating signal converter which will convert a range of process signals into standard transmission voltage or current signals. The MicroDIN is a microprocessor based signal converter that can carry out: signal conversion; thermocouple linearisation; special functions, such as Square Root Extraction, etc. Both the input and the output stages of the instruments are powered from separate secondaries of the transformer thus maintaining 3 port isolation. The MicroDIN is programmable with the programming function resident in memory. To programme the MicroDIN you need to connect it to a terminal/PC via a Lee-Dickens MicroLEAD. The MicroLEAD is a TTL to RS232 converter and comes with a software package that will make your PC emulate a terminal. With the Lee-Dickens MicroLEAD you can programme the input and output type and range and the function required.

SPECIFICATIONS

INPUTS:

DC Current

Between -100mA and +100mA
Minimum input span 0.5mA
Input can be offset from 0mA
Input impedance 10 ohms

DC Voltage

Between -100V and +100V
Minimum voltage span 1V
Input Impedance > 100K ohms

DC m Volts

Range between -1V and +1V
Minimum voltage span 4mV
Input Impedance > 1M ohm

2 Wire Slidewire Resistance

Between 0 and 10K ohms
Minimum span 100 ohms

3 Wire Potentiometers

Between 0 and 10K ohms
Minimum span 100 ohms

Resistance Thermometers (RTDs, PT100s)

2 or 3 wire, 100 ohms at 0°C.
Temperature ranges between -200 and +1000°C.
Minimum temperature span 10°C

Thermocouples (Linearised)

Type B, E, J, K, N, R, S & T
Automatic Cold Junction Compensation: On or Off
Burnout Protection: Upscale, Downscale or Off.

Type	Range	MinTemp	Change
B	600to1800°C	400°C	
E	-260to1000°C	65°C	
J	-200to1200°C	80°C	
K	-260to1370°C	100°C	
N	0to1300°C	150°C	
R	50to1760°C	400°C	
S	80to1760°C	400°C	
T	-260to 400°C	100°C	

SPECIAL FUNCTIONS:

Square Root Extraction
Square Law
3/2 Rectangular Weir
5/2 V-Notch Weir
Straight Line Approximation
Enter up to 99 points on X-Y curve

OUTPUTS:

DC Current

Between 0 and 20mA
Minimum span 1mA
20mA into 10 to 1000 ohms
10mA into 10 to 2000 ohms

DC Voltage

Between 0 and 10 Volts
into 1K ohms minimum
Minimum span 1 Volt

Input/Output/Supply Isolation

600 Volts > 20M ohms

SUPPLY:

Power Supply Voltage

User selectable
115 Volt AC ±15% 50/60 Hz
230 Volt AC ±15% 50/60 Hz
or 18 to 30 Volt DC with converter to maintain signal to power supply isolation.

Power Required

3VA Maximum

Pilot Light

Red LED shows Power ON

GENERAL:

Linearity Error

Proportional to input ±0.1% of span

Temperature Coefficient

±0.1% of span/ Δ 10°C

Operating Temperature Range

0 to +50°C

Storage Temperature Range

-20 to +60°C

Operating Humidity Range

0 to 95% RH non-condensing

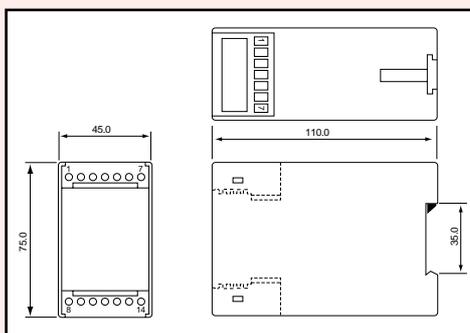
Storage Humidity Range

0 to 95% RH non-condensing

Weight

MicroDIN 310 gms
MicroLEAD 65 gms

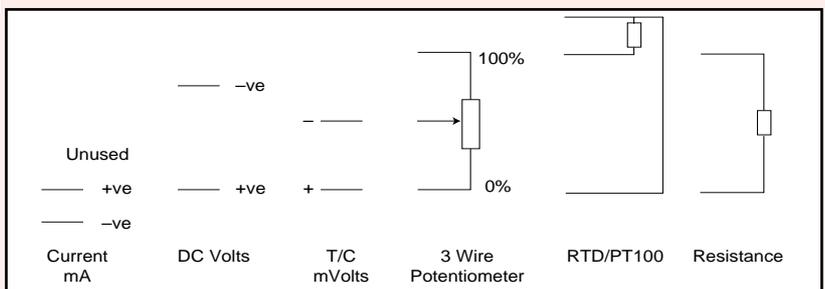
MECHANICAL DETAILS



TERMINATION DETAILS

Terminal

1
2
3
4
5
6
7



Terminal

8 Output -ve
9 Output +ve
10 Unused

Terminal

11 Unused
12 230 Volt ±15% 50/60 Hz or 24 Volt DC +ve
13 115 Volt ±15% 50/60 Hz
14 Neutral 24 Volt DC -ve

ORDERING DETAILS

- a) Give identification code, i.e. MicroDIN
- b) Give power supply voltage, i.e. 240 Volt 60 Hz
- c) Give details of input signal, i.e. Input type (as listed above) and range.
If thermocouple input please specify Upscale or Downscale Burnout protection
- d) Give details of output required, both type and range, i.e. 4 to 20mA
- e) If programming yourself then please just specify items (a) and (b), and, if programming for the first time, please specify a MicroLEAD.