

Programmable Analogue to Frequency Converter MicroFREQ A-F

Function: Isolating signal converter, which will convert from a selectable analogue input to a frequency output. The MicroFREQ A-F is a microprocessor based signal converter and can therefore be programmed by the user to specify the input and output type and ranges. Both the input and the output stages of the instruments are powered from separate secondaries of the transformer thus maintaining 3 port isolation. The MicroFREQ A-F has the programming function resident in memory. Connect the MicroFREQ A-F to a terminal or PC via a Lee-Dickens MicroLEAD and change the input and output ranges as required.



AlphaDIN
CONVERTERS

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 mVolts

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	600 to 1800°C	400°C	
E	-260 to 1000°C	65°C	
J	-200 to 1200°C	80°C	
K	-260 to 1370°C	100°C	
N	0 to 1300°C	150°C	
R	50 to 1760°C	400°C	
S	80 to 1760°C	400°C	
T	-260 to 400°C	100°C	

OUTPUTS:

Frequency

Between 0 and 1,000 Hz
Minimum Span: 1 Hz

Type of Outputs

(Select one of the following)

- 1) 24 Volt DC pulse
- 2) Opto-Coupler rated at 30V 5mA,
- 3) 5V TTL pulse

Shape of Output

(Select one of the following)

- 1) Even Mark / Space ratio
- 2) Fixed pulse width (Please specify)

Input/Output/Supply Isolation

600 Volts > 20M ohms

SUPPLY:

Power Supply Voltage

- 1) User selectable
115 Volt AC $\pm 15\%$ 50/60 Hz
230 Volt AC $\pm 15\%$ 50/60 Hz or
- 2) 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:

Resolution

Minimum 1 count per 1000

Operating Temperature Range

0 to +45°C

Storage Temperature Range

-20 to +60°C

Operating Humidity Range

0 to 95% RH non-condensing

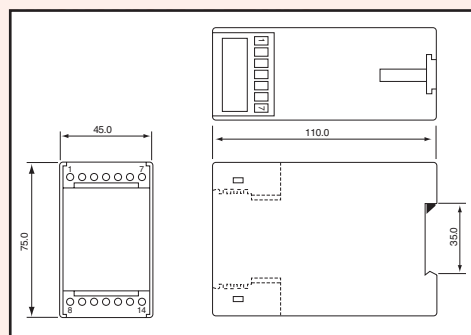
Storage Humidity Range

0 to 95% RH non-condensing

Weight

MicroFREQ A-F 310 gms
MicroLEAD 65 gms

MECHANICAL DETAILS



TERMINATION DETAILS

Terminal

1	Unused	11	Unused
2	Current mA	12	230 Volt $\pm 15\%$ 50/60 Hz
3	DC Volts	13	115 Volt $\pm 15\%$ 50/60 Hz or
4	T/C mVolts	14	Neutral
5	3 Wire Potentiometer		24 Volt DC +ve
6	RTD/PT100		24 Volt DC -ve
7	Resistance		
8	Output -ve		
9	Output +ve		
10	Unused		

ORDERING DETAILS

- a) Give identification code, i.e. MicroFREQ A-F
- b) Give power supply voltage, i.e. 240 Volt 60 Hz
- c) Give details of input signal, both type and range, i.e. 0 to 100 mV.

- d) Give details of output signal, both type and range, i.e. 0 to 50 Hz, Even Mark/Space ratio, 5V TTL pulse
- e) If programming yourself then please just specify items (a) and (b), and, if programming for the first time, please order a MicroLEAD



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