## Ideal for Desktop/Laptop use













## **DESCRIPTION**

The MicroDAQ USB-73-T is a data acquisition product for thermocouple temperature measurement. The unit is available with 8, 16 or 32 analog thermocouple inputs and has a 14-bit resolution.

All standard type J / K / E / T / R / S / B / C / N thermocouples are supported, providing a temperature accuracy of better than 1 degree. Onboard programmable digital inputs and outputs allow for control of relays or external contacts in case of an event or alarm.

A special cold-junction compensation module is provided with each unit to ensure accurate temperature measurements. This plugs into the USB-73-T's DB-25 connector(s) and has screw terminals fitted for easily interfacing thermocouple wires.

The USB-73-R for use with RTD PT100 or PT1000 sensors is available upon request. Please contact us for more information.

The USB-73 is the perfect measurement tool for customers who wish to do temperature measurement, but do not want the hassle or investment of PLC or SCADA systems. Typical applications include monitoring of furnaces, cold storage, computer server rooms and environmental monitoring to name but a few.

## **FEATURES**

- USB Interface
- Stable Thermocouple measurements
- Thermocouple Inputs: 8, 16 or 32 Inputs
- Thermocouple Accuracy: I degree
- Thermocouples Supported: Type J, K, E, T, R, S, B, C, N
- Resolution: I4-Bit A/D
- Digital I/O Lines: 24 (3x8-bits ports)
- O/S Support for Windows 98/ME/XP/2000 & Linux
- Power: 9VDC @ 500mA (Typ)
- Supplied with a Universal Input 9VDC PSU
- Dimensions: 45 (H) x 80 (W) x 148 (L) mm (USB-73-T8 & USB-73-T16)
  65(H) x 80(W) x 148(L) mm (USB-73-T32)

## Ordering Information

Supplied with EDR Enhanced Software, 1.8Mtr USB Cable, Universal Switch					
Mode 9V PSU & CJC Screw Terminal Adaptor					
USB-73T8	USB 8 Channel 14-bit Thermocouple Input Unit, 24 DIO				
USB-73T16	USB 16 Channel 14-bit Thermocouple Input Unit, 24 DIO				
USB-73T32	USB 32 Channel 14-bit Thermocouple Input Unit, 24 DIO				
USB-73R	Available on request				

<b>Specifications</b>						
Temperature Inputs (TC)						
Input Channels:	8 / 16 / 32 (Model Dependent)					
TC Range:	± 75mV					
Gain:	Hardware TC or RTD					
Resolution:	14-bit					
Input Coupling:	DC					
Input Impedance:	1M Ohm					
System Noise:	1 LSB					
Digital I/O (DIO)						
No. of TTL Lines:	24					
Logic Levels:						
Input Low Voltage:	-0.5V to 0.8V					
Input High Voltage:	2.0V to 5.0V					
Output High Voltage Min:	2.4V					
Output Low Voltage Max:	0.45V					
Maximum Output Current:	2mA					



**Cold Junction Compensation Thermocouple Adapter** 

DB-25M			DB-25M				
8.4V	14	1	AGND	PA1	14	1	PA0
+15V	15	2	AGND	PA3	15	2	PA2
CJC	16	3	AGND	PA5	16	3	PA4
-15V	17	4	AGND	PA7	17	4	PA6
CH7-	18	5	AGND	PB1	18	5	PB0
CH6-	19	6	CH7+	PB3	19	6	PB2
CH5-	20	7	CH6+	PB5	20	7	PB4
CH4-	21	8	CH5+	PB7	21	8	PB6
CH3-	22	9	CH4+	PC1	22	9	PC0
CH2-	23	10	CH3+	PC3	23	10	PC2
CH1-	24	11	CH2+	PC5	24	11	PC4
CH0-	25	12	CH1+	PC7	25	12	PC6
		13	CH0+			13	DGND

Digital I/O

Thermocouple I/O