

USB-4718

8-channel Thermocouple Input USB Module

NEW



Features

- Supports USB 2.0
- Support voltage, current, and thermocouple inputs
- No need for the external power
- 8 thermocouple input channels
- 2,500 V_{DC} isolation
- Supports 4~20 mA
- Wiring terminal on modules
- 8-ch isolated DI and 8-ch isolated DO

Introduction

The USB-4700 series consists of true Plug & Play data acquisition devices. No more opening up your computer chassis to install boards—just plug in the module, then get the data. It's easy and efficient. USB4718 offers 8 thermocouple inputs with 16-bit resolution, up to 0.1% input range accuracy, or 4~20 mA inputs.

Reliable and rugged enough for industrial applications, yet inexpensive enough for home projects, the USB-4718 is the perfect way to add measurement and control capability to any USB capable computer. The USB-4718 is fully USB plug and play and easy to use. It obtains all required power from the USB port, so no external power connection is ever required.

Specifications

Analog Input

- **Accuracy** $\pm 0.1\%$ for voltage input
- **Bandwidth** 13.1 Hz @ 50 Hz,
15.72 Hz @ 60 Hz
- **Channels** Eight differential
- **Ch. Independent Conf.** Yes
- **CMR @ 50/60 Hz** 92 dB min.
- **Resolution** 16 bits
- **Input Impedance** 20 M Ω
- **Input Range** 0~15 mV, 0~50 mV, 0~100 mV, 0~500 mV,
0~1 V, 0~2.5 V, 0~20 mA, 4~20 mA
- **Input Types** Thermocouple, mV, V, mA
- **Sampling Rate** 10 samples/sec. (total)
- **Span Drift** ± 25 ppm/ $^{\circ}$ C
- **T/C Type and Temperature Ranges**

J	0 ~ 760 $^{\circ}$ C	R	500 ~ 1750 $^{\circ}$ C
K	0 ~ 1370 $^{\circ}$ C	S	500 ~ 1750 $^{\circ}$ C
T	-100 ~ 400 $^{\circ}$ C	B	500 ~ 1800 $^{\circ}$ C
E	0 ~ 1000 $^{\circ}$ C		

- **TVS/ESD Protection** Built-in
- **Zero Drift** ± 3 μ V/ $^{\circ}$ C

Isolated Digital Input

- **Channels** 8
- **Input Voltage** Logic 0: 2 V max.
Logic 1: 5 V min. (30 V max.)
- **Isolation Protection** 2,500 V_{DC}
- **Opto-Isolator Response** 25 μ s

Isolated Digital Output

- **Channels** 8
- **Output Type** Sink (NPN)
- **Isolation Protection** 2,500 V_{DC}
- **Output Voltage** 5 ~ 30 V_{DC}; 1.1 A max./total
- **Sink Current** 200 mA max./channel
- **Opto-isolator Response** 25 μ s

General

- **Bus Type** USB 2.0
- **I/O Connector** On board screw terminal
- **Dimensions (LxWxH):** 132 x 80 x 32 mm
- **Power Consumption** 0.1 A @ 5 V
- **Power Input** 5 V from USB line
- **Watchdog Timer** 1.6 sec. (system)
- **Operating Temperature** 0 ~ 60 $^{\circ}$ C (32 ~ 140 $^{\circ}$ F) (refer to IEC 68-2-1, 2)
- **Storing Temperature** -20 ~ 70 $^{\circ}$ C (-4 ~ 158 $^{\circ}$ F)
- **Storing Humidity** 5 ~ 95% RH non-condensing (refer to IEC 68-2-3)

Ordering Information

- **USB-4718** 8-channel Thermocouple Input USB Module, CD, manual and one 1.8m USB 2.0 cable included