A3pci2615
6-ch Pt100 Measurement Board

Features

1) 6-channel platinum resistance thermometer (Pt100) measurement is possible. As soon as the power is turned on and/or as soon as the hardware is reset, default settings start temperature measurement.
2) Because a terminal block type two-piece connector is used, it is possible to remove just the terminal block and change the board without removing each of the thermocouple screw clamps from the terminal block. The terminal block does not prevent the removal of the adjacent board.
3) Can be set to take the moving average of the last four lots of A/D conversion values and calculate the temperature conversion values. Because it is the moving average, the most recent temperature conversion values, averaged for each sampling, can be obtained.
4) Disconnection of cables including thermocouples can be detected for each input channel. When disconnection is detected, an interrupt can be issued to the CompactPCI bus.

Specifications

Measurement method : 3 wire system

Connectable resistance thermometer : Pt100

Temperature input range : -50°C to +100°C

Temperature conversion values :
16-bit code binary format (minus numbers: two's complement)
-500 to +1000 (value to first decimal place x 10)

Resolution : 0.1°C

Overall accuracy : ±0.75°C *1

Input bandwidth : Approx. 25Hz (-3dB)

Conversion rate : Approx. 100Hz for each channel

Sampling rate : Approx. 100Hz for all channels *2

No. of temperature input points : 6 points

Pt100 sense current : 1mA

Isolation method :
Between Pt100 input and CompactPCI bus system : Photo-coupler isolation
Between Pt100 input channels : No isolation

Disconnection detection : Yes (independent for each channel)

Connection terminal : 6-point terminal block

Recommended wire size : 1.5mm2 or less

Power requirements : DC5V ±5%, Typ. 0.62A

Board size : Single height (3U), Single width (4HP)

Weight : 160g

Environmental specifications :
Operating temperature range: 0 to 50°C
Storage temperature range: -10 to 60°C
Operating humidity range: 10 to 90% RH (non- condensing)
Storage humidity range: 10 to 90% RH (non- condensing)
Operating atmosphere: Minimum dust, must be free of corrosive gases

*1: Accuracy does not include accuracy and temperature characteristics for external components (platinum resistance thermometer, etc.) not included on this board.
*2: Equipped with one A/D converter for all Pt100 input channels.

CompactPCI bus specifications

CompactPCI Standards
PCI Local Bus Specification Revision 2.3 compliant
PICMG2.0 R3.0 Compact PCI Specification compliant
PICMG2.1 R2.0 Compact PCI Hot Swap Specification

Full HotSwap support

Signaling level : 3.3/5 V(TTL)

Bit width : 32 Bits

Address width : 32 Bits

Clock : 33 MHz

Note: The following specifications and product appearance are subject to change for enhancement without notice.

Advanet Inc.
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