



I-87018PW

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8-channel Thermocouple Input Module High Over Voltage Protection

Introduction

I-87018PW is a serial interface and 8-channel thermocouple input module. The analog input range is software selectable and supports +/-15 mV, +/-100 mV, +/-500 mV, +/-1 V, +/-2.5 V, +/-20 mA, and thermocouple of type J, K, T, E, R, S, B, N, C, L, M, and LDIM43710.

Features

- 8-channel Thermocouple Input
- Individual Channel Configuration
- Open Thermocouple Detection
- Temperature Outputs Consistency
- Stable Temperature Output in the Field
- 4 kV ESD Protection
- Dual Watchdog
- 3000 VDC Intra-Module Isolation, Field to Logic
- Wide Range Operating Temperature: -25 °C~ 75 °C
- RoHS Compliance

Specifications

| Analog Input | |
|---|--|
| Input Channels | 8 Differential |
| Input Type | +/- 15mV, +/- 50mV, +/- 100mV, +/- 500mV, +/- 1V, +/- 2.5V +/-20 mA, 0~20 mA, 4~20 mA (Requires Optional External 125 Ohm Resistor) Thermocouple Type (J, K, T, E, R, S, B, N, C, L, M, LDIN43710) |
| Resolution | 16-bit |
| Sampling Rate | 10 Samples/ sec (Total) |
| Accuracy | +/- 0.1% |
| -3dB BandWidth | 15.7Hz |
| Zero Drift | +/- 0.5µV °C |
| Span Drift | +/- 25 µV/ °C |
| Common Mode Rejection | 150 dB |
| Normal Mode Rejection | 100 dB |
| Input Impedance | >400k Ohms |
| Open Thermocouple Detection | Yes |
| Overvoltage Protection | 240 Vrms |
| Individual Channel Configuration | Yes |
| Temperature Outputs Consistency | Yes |
| Stable Temperature Output in the Field | Yes |
| ESD Protection | 4kV Contact for each terminal. |
| Intra-module Isolation, Field to Logic | 3000VDC |
| Interface | |
| Interface | RS-485 |
| Format | N, 8, 1 |
| Baud Rate | 1200 ~ 115200bps |
| CN-1824 | |
| Wire Strip Length | 4 ~ 5 mm |
| Wire Range | 16 ~ 24 AWG |
| Watchdog | |
| Dual Watchdog | Yes, Module(1.6 sec) and Communication(Programable) |
| LED Display | |
| 1 LED as Power/ Communication Indicator | |

Power

| | |
|-------------------|------|
| Power Consumption | 0.7W |
|-------------------|------|

Environment

| | |
|-----------------------|--------------|
| Operating Temperature | -25 to 75 °C |
|-----------------------|--------------|

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|---------------------|--------------|
| Storage Temperature | -40 to 85 °C |
|---------------------|--------------|

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|----------|---------------------------|
| Humidity | 10 to 95%, Non-condensing |
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Dimensions

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|---------------------------|
| 30 x 85 x 115 (W x D x H) |
|---------------------------|

RTD Temperature Range

| Type | Range°C |
|--------------|--------------|
| J | -210 ~ +760 |
| K | -270 ~ +1372 |
| T | -270 ~ +400 |
| E | -270 ~ +1000 |
| R | 0 ~ +1768 |
| S | 0 ~ +1768 |
| B | 0 ~ +1820 |
| N | -270 ~ 1300 |
| C | 0 ~ 2320 |
| L | -200 ~ +800 |
| M | -200 ~ +100 |
| L (DIN43710) | -200 ~ +900 |

Ordering information**I-87018PW-G/S CR**

8-channel Thermocouple Input Module (Gray Cover) (RoHS)
Include I-87018PW module and CN-1824 daughter board