



I-87018 **I-87018-G**
8-ch Thermocouple Input Module

Features

- 8-channel Analog Input
- Current Input, Voltage Input and Thermocouple Input
- High Resolution: 16-bit
- 3000 V_{DC} Intra-module Isolation
- 35 V_{DC} Overvoltage Protection



Introduction

The I-87018 is an 8-channel analog input module that provides current input and voltage input, as well as thermocouple input. The input type can be set to either current or voltage, as well as thermocouple. The I-87018 also features 3000 V_{DC} intra-module isolation.

Applications

- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment

System Specifications

CPU Module	
Watchdog Timer	Yes, Module (1.6 Seconds), Communication (Programmable)
Isolation	
Intra-module Isolation	3000 V _{DC}
LED Indicators/Display	
Status	1 x Power and Communication
COM Ports	
Baud Rate	115200 bps
Data Format	N, 8, 1
Protocol	DCON
Power	
Power Consumption	1.1 W Max.
Mechanical	
Dimensions (W x L x H)	31 mm x 116 mm x 88 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-30 ~ +75 °C
Humidity	5 ~ 95% RH, Non-condensing

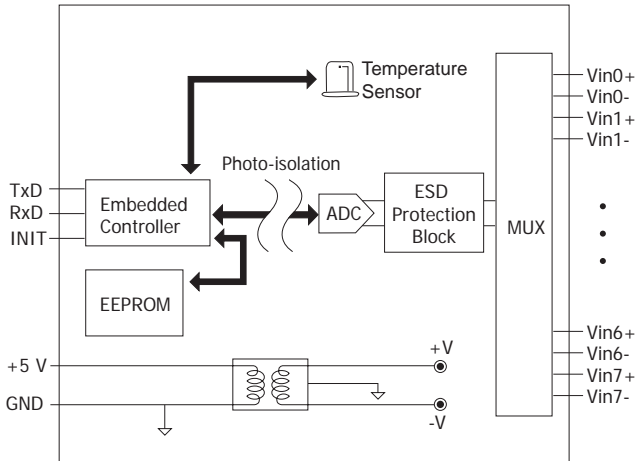
I/O Specifications

Analog Input	
Channels	8
Type	Voltage, Current, Thermocouple
Sensor Type	Thermocouple (J, K, T, E, R, S, B, N, C, L, M, LDIN43710)
Resolution	16-bit
Accuracy	±0.1% of FSR
Sampling Rate	10 Hz (Total)
-3dB Bandwidth	15.7 Hz
Input Impedance	>400 kΩ
Common Mode Rejection	150 dB
Normal Mode Rejection	100 dB
Overvoltage Protection	-35 V _{DC} ~ +35 V _{DC}

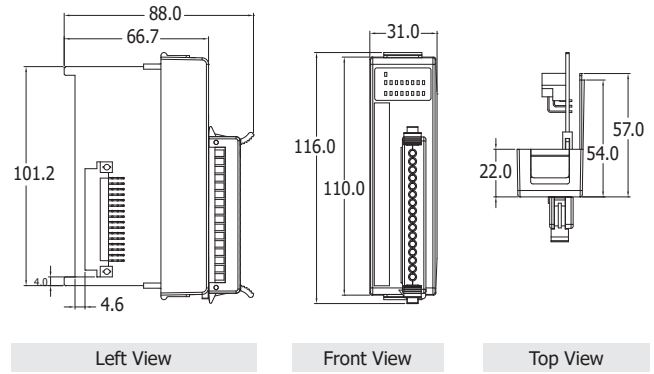
Thermocouple Type

Type	Temperature Range
J	-210 ~ +760 °C
K	-270 ~ +1372 °C
T	-270 ~ +400 °C
E	-270 ~ +1000 °C
R	0 ~ +1768 °C
S	0 ~ +1768 °C
B	0 ~ +1820 °C
N	-270 ~ 1300 °C
C	0 ~ 2320 °C
L	-200 ~ +800 °C
M	-200 ~ +100 °C
LDIN43710	-200 ~ +900 °C

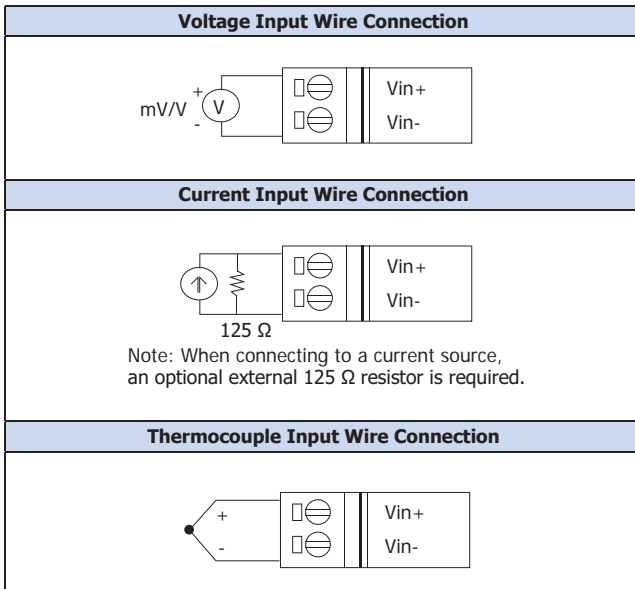
Internal I/O Structure



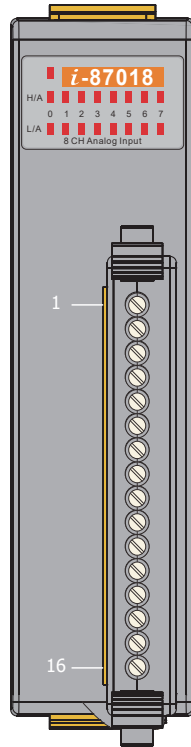
Dimensions (Units: mm)



Wire Connections



Pin Assignments



Terminal No.	Pin Assignment
01	Vin0+
02	Vin0-
03	Vin1+
04	Vin1-
05	Vin2+
06	Vin2-
07	Vin3+
08	Vin3-
09	Vin4+
10	Vin4-
11	Vin5+
12	Vin5-
13	Vin6+
14	Vin6-
15	Vin7+
16	Vin7-

Ordering Information

I-87018 CR	8-ch Thermocouple Input Module (Blue Cover) (RoHS)
I-87018-G CR	8-ch Thermocouple Input Module (Gray Cover) (RoHS)

Accessories

	2AB125R	125 Ω, 0.1% DIP Resistor used for Current Type Input Modules
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