

I-87017RCW

8-channel Current Input Module

Features

- 8 Current Input Channels
- ±200 VDC Common Voltage Protection
- Supports both Fast and Normal Mode Sampling Rates
- Overcurrent Protection
- Built-in Resistor to simplify Current Measurement
- Open Wire Detection for +4 ~ +20 mA input
- 3000 VDC Intra-module Isolation

Introduction

The I-87017RCW is an 8-channel current input module that is specifically designed to measure current only. Its user-friendly design saves both time and eff ort when measuring a current thanks to a built-in resistor, meaning that current can now be measured directly. The I-87017RCW is much more suitable for critically harsh environments since it also has 4 kV ESD protection and ±200 VDC common voltage as current input protection, and also features 3000 VDC intra-module isolation together with open wire detection for +4 to +20 mA input. The sampling rate for the I-87017RCW is adjustable, meaning that either fast mode or normal mode can be selected.

System Specifications

COM Port	
Ports	RS-485
Data Format	N, 8, 1
Baud Rate	1200 ~ 115200 bps
Protocol	DCON
CPU Module	
Dual Watchdog Timer	Module (1.6 Seconds), Communication (Programmable)
LED Indicators	
System LED Indicator	1 LED as Power Indicator
I/O LED Indicator	16 as High/Low Alarm Signals
Isolation	
Intra-module Isolation, Field-to-Logic	3000 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for Each port, ±8 kV Air for Random Poin
Power	
Consumption	1.3 W Max.
Mechanical	
Dimensions (W x L x H)	30 mm x 115 mm x 102 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 95 % RH, Non-condensing

I/O Specifications

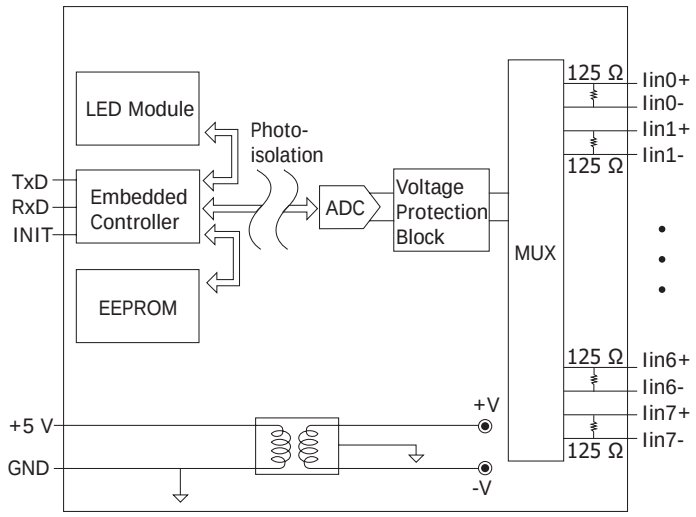
Analog Input		
Channels		8
Wiring		Differential
Range		±20 mA ,0 ~ +20 mA, +4 ~ +20 mA (No external resistor required)
Resolution		16-bit
Accuracy	Normal Mode	±0.1 % of FSR
	Fast Mode	±0.5 % of FSR
Sampling Rate	Normal Mode	10 Hz (Total)
	Fast Mode	60 Hz (Total)
-3dB Bandwidth		15.7 Hz
Zero Drift		±20 μV/°C
Span Drift		±25 ppm/°C
Common Mode Rejection		86 dB
Normal Mode Rejection		100 dB
Input Impedance		125 Ω
Overvoltage Protection		±200 VDC
Open Wire Detection		+4 ~ +20 mA
Overcurrent Protection		50 mA at 100 VDC

Applications

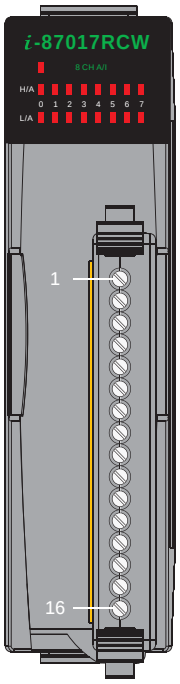
- Current Measurement
- Voltage Measurement
- Environment Monitoring
- Tunnel Monitoring
- Building Monitoring

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Internal I/O Structure



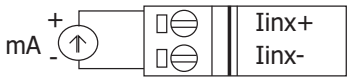
Pin Assignments



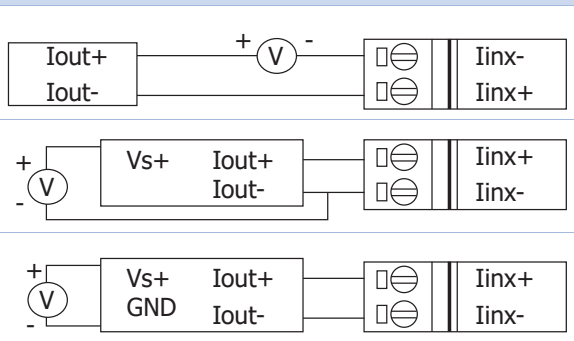
Terminal No.	Pin Assignment
01	Iin0+
02	Iin0-
03	Iin1+
04	Iin1-
05	Iin2+
06	Iin2-
07	Iin3+
08	Iin3-
09	Iin4+
10	Iin4-
11	Iin5+
12	Iin5-
13	Iin6+
14	Iin6-
15	Iin7+
16	Iin7-

Wire Connections

Current Input

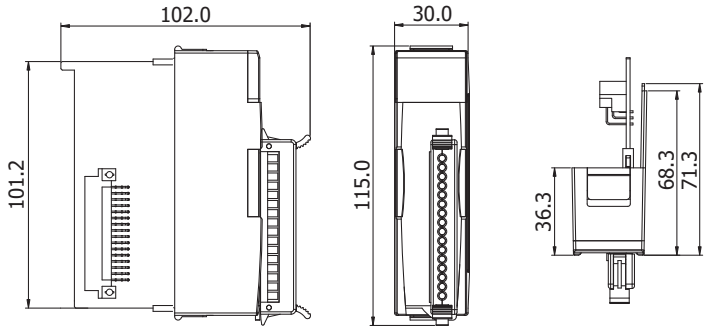


Transmitter Input



Type	0D	07	1A
Signal	±20 mA	+4 ~ +20 mA	0 ~ +20 mA

Dimensions (Unit: mm)



Left View | Front View | Top View

Accessories

 **DN-843V-600V CR**	3-channel 600 V Voltage Attenuator (RoHS)
 **DN-848VI-80V CR**	8-channel 80 V Voltage Attenuator (RoHS)
 **DN-848VI-150V CR**	8-channel 150 V Voltage Attenuator (RoHS)
 **DN-843I-CT-1 CR**	3-channel 1 A Current Transformer (RoHS)
 **DN-843I-CT-50 CR**	3-channel 50 A Current Transformer (RoHS)

SG-770 CR



7/14-channel Differential/Single-ended Surge Protector (RoHS)

SG-3000 Series



Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Input Transformers

Ordering Information

I-87017RCW-G CR	8-channel Current Input Module with Overcurrent Protection using the DCON Protocol (RoHS)

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