

8-channel Current Input Module

## Features

- I-7017RC and M-7017RC
  - ±200 VDC Common Voltage Protection
  - Supports Fast and Normal Mode
- I-7017FC
  - Supports Fast and Normal Mode
- Current Input Only
- Built-in Resistor to simplify Current measurement
- Open Wire Detection for 4 ~ 20 mA input



## Introduction

The I-7017C is an 8-channel current input module that is specifically designed to measure current only. Its user-friendly design saves both time and effort when measuring a current thanks to a built-in resistor, meaning that you can now measure current directly. The I-7017RC is an upgraded version of the I-7017C, with the only difference being that the I-7017RC is much more suitable for critically harsh environments. The I-7017RC also has 4 kV ESD protection and +/- 200 VDC common voltage as current input protection, and also features 3000 VDC intra-module isolation and open wire detection for 4 ~ 20 mA input. The sampling rate of the I-7017RC and I-7017FC is adjustable, meaning that either fast mode or normal mode can be selected. The M-7017C and M-7017RC has the same specifications as the I-7017C and M-7017RC, but provides additional support for the Modbus RTU protocol as well as the DCON protocol.

## System Specifications

Model	I-7017C	I-7017RC	I-7017FC
	M-7017C	M-7017RC	
<b>CPU Module</b>			
Watchdog Timer	Yes, Module (1.6 Seconds), Communication (Programmable)		
<b>Isolation</b>			
Intra-module Isolation	3000 VDC		
<b>EMS Protection</b>			
EFT (IEC 61000-4-4)	±4 kV to Power Line		
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal		
Surge (IEC 61000-4-5)	±0.5 kV for Power Line		
<b>LED Indicators</b>			
Status	1 x Power and Communication		
<b>COM Ports</b>			
Ports	1 x RS-485		
Baud Rate	1200 ~ 115200 bps		
Data Format	(N, 8, 1), (N, 8, 2), (E, 8, 1), or (E, 8, 2)		
Protocol	DCON		
<b>Power</b>			
Reverse Polarity Protection	Yes		
Input Range	+10 ~ +30 VDC		
Consumption	1.3 W		
<b>Mechanical</b>			
Dimensions (mm)	123 x 72 x 35 (W x L x H)		
Installation	DIN-Rail		
<b>Environment</b>			
Operating Temperature	-25 ~ +75 °C		
Storage Temperature	-40 ~ +85 °C		
Humidity	10 ~ 95% RH, Non-condensing		

## Applications

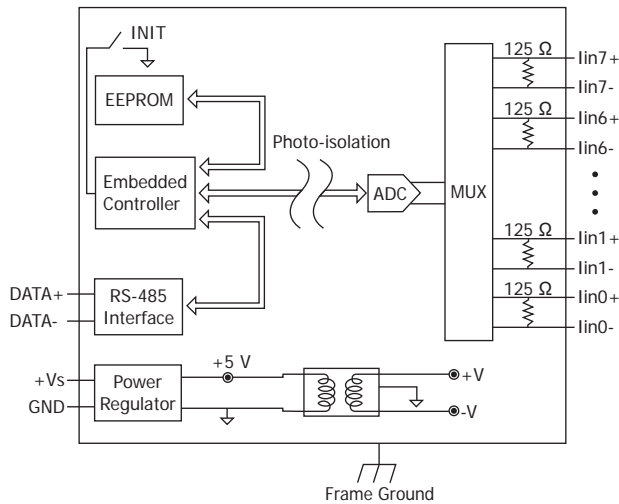
- Building Automation
- Machine Automation
- Remote Diagnosis
- Factory Automation
- Remote Maintenance
- Testing Equipment

## I/O Specifications

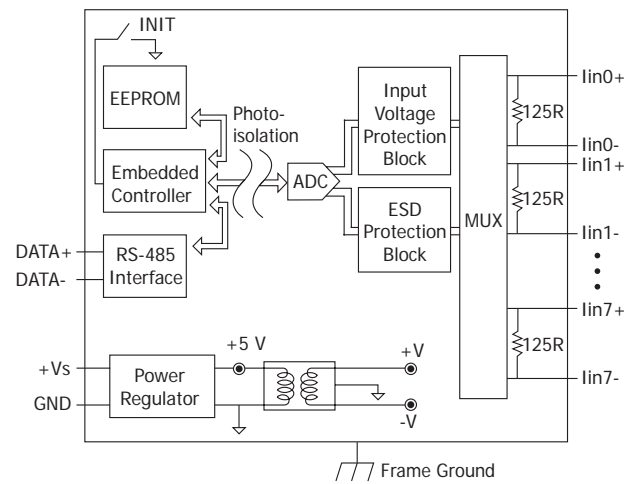
Model	I-7017C	I-7017RC	I-7017FC
	M-7017C	M-7017RC	
<b>Analog Input</b>			
Channels	8 Differential		
Type	Current		
Range	±20 mA, 0 ~ 20 mA, 4 ~ 20 mA		
Resolution	16-bit		
Accuracy	Normal Mode	0.1 %	
	Fast Mode	-	0.5 %
Sampling Rate	Normal Mode	10 Hz	
	Fast Mode	-	60 Hz
Input Impedance	Current	125 Ω	
Common Voltage Protection	±15 VDC	±200 VDC	±15 VDC
Overcurrent Protection	Yes, 50 mA at 110 VDC		
Virtual Channel to Channel Isolation	-	Yes, 400 VDC	-
Open Wire Detection	Yes		

## Internal I/O Structure

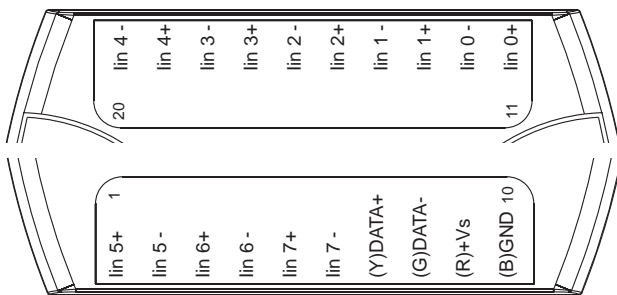
I-7017C/M-7017C/I-7017FC



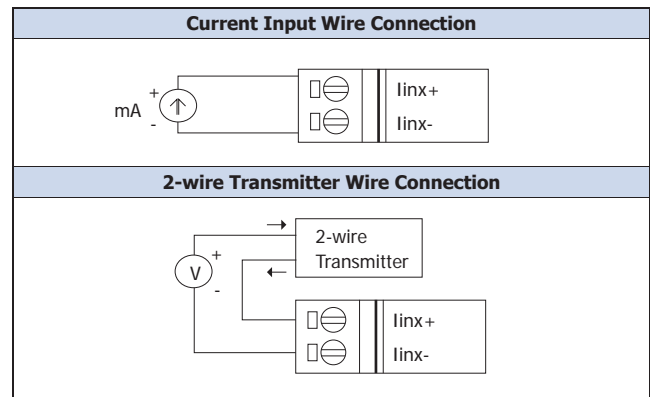
I-7017RC/M-7017RC



## Pin Assignments



## Wire Connections



## Ordering Information

<b>I-7017C CR</b>	8-ch Current Input Module using DCON Protocol (Blue Cover) (RoHS)
<b>M-7017C-G CR</b>	8-ch Current Input Module using DCON and Modbus Protocol (Gray Cover) (RoHS)
<b>I-7017FC CR</b>	8-ch Current Input Module (Fast Sampling Version) using DCON Protocol (Blue Cover) (RoHS)
<b>I-7017FC-G CR</b>	8-ch Current Input Module (Fast Sampling Version) using DCON Protocol (Gray Cover) (RoHS)
<b>I-7017RC CR</b>	8-ch Current Input Module with High Voltage Protection using DCON Protocol (Blue Cover) (RoHS)
<b>I-7017RC-G CR</b>	8-ch Current Input Module with High Voltage Protection using DCON Protocol (Gray Cover) (RoHS)
<b>M-7017RC-G CR</b>	8-ch Current Input Module with High Voltage Protection using DCON and Modbus Protocols (Gray Cover) (RoHS)

## Accessories

<b>tm-7520U CR</b>	Tiny Isolated RS-232 to RS-485 Converter (RoHS)
<b>tm-7561 CR</b>	Tiny USB to Isolated RS-485 Converter with CA-USB18 Cable (RoHS)
<b>tm-SG4 CR</b>	RS-485 Pull-high/Pull-low and Termination Resistor Module (RoHS)

<b>I-7514U CR</b>	Isolated 4-channel RS-485 Repeater/Hub/Splitter (Gray Cover) (RoHS)
<b>SG-770 CR</b>	7/14 channel Surge Protector (RoHS)
<b>SG-3000 Series</b>	Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Input Transformers