



I-7017

I-7017F
8-ch AI Module

M-7017

Features

- M-7017
 - 8 Differential Analog Inputs
- I-7017 and I-7017F
 - 8 Differential, or 6 Differential and 2 Single-ended Analog Inputs
- Voltage and Current Inputs
- High Resolution: 16-bit
- Open Wire Detection for 4 ~ 20 mA
- Built-in Dual Watchdog



Introduction

The I-7017 and I-7017F are analog input modules that provide either 8 differential input channels, or 6 differential input channels and 2 single-ended input channels, selectable via a jumper. The input type includes both voltage and current, and all channels are available for the same input range. An optional external 125 Ω resistor is required for current input. The modules also feature 3000 VDC intra-module isolation, as well as ±35 VDC overvoltage protection. The sampling rate for the I-7017F is adjustable, meaning that either fast mode or normal mode can be selected. The M-7017 supports both the Modbus RTU and DCON protocols, which can be configured via software, and provides 8 differential analog input channels. Other hardware specifications are the same as the I-7017.

System Specifications

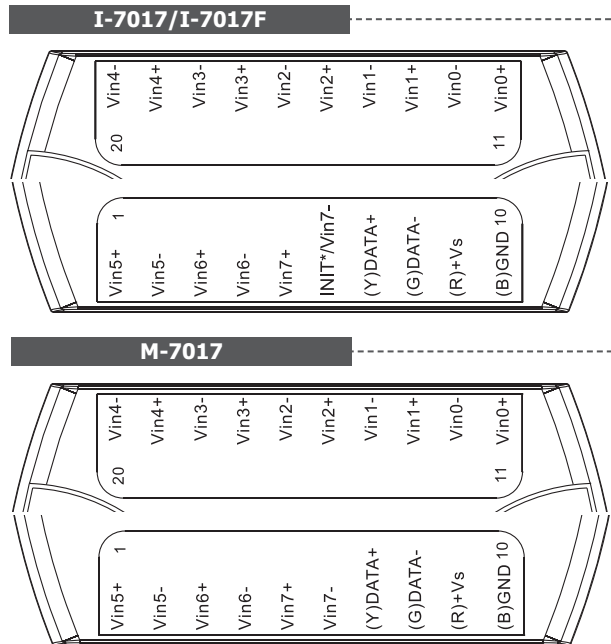
Model	I-7017	I-7017F	M-7017
CPU Module			
Watchdog Timer	Module, Communication (Programmable)		
Isolation			
Intra-module Isolation	3000 VDC		
EMS Protection			
ESD (IEC 61000-4-2)	±2 kV Contact for Each Terminal		
RS Immunity (IEC 61000-4-3)	±4 kV for Power		
LED Indicators			
Status	1 x Power and Communication		
Analog Input			
Channels	8 Differential		
	6 Differential and 2 Single-ended		-
Type	Voltage, Current		
Range	±150 mV, ±500 mV, ±1V, ±5 V, ±10 V, ±20 mA, 0 ~ 20 mA, 4 ~ 20 mA (requires optional external 125 Ω resistor)		
Resolution	16-bit		
Accuracy	Normal Mode	±0.1% of FSR	
	Fast Mode	±0.5%	-
Sampling Rate	Normal Mode	10 Hz	
	Fast Mode	60 Hz	-
Input Impedance	20 MΩ		
Common Voltage Protection	±15 VDC		
Overvoltage Protection	±120 VDC		
COM Ports			
Ports	1 x RS-485		
Baud Rate	1200 ~ 115200 bps		
Data Format	(N, 8, 1)		
Protocol	DCON	Modbus RTU, DCON	
Power			
Reverse Polarity Protection	Yes		
Input Range	+10 ~ +30 VDC		
Consumption	1.3 W		

Mechanical	
Dimensions (mm)	72 x 123 x 35 (W x L x H)
Installation	DIN-Rail Mounting
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 95% RH, Non-condensing

Applications

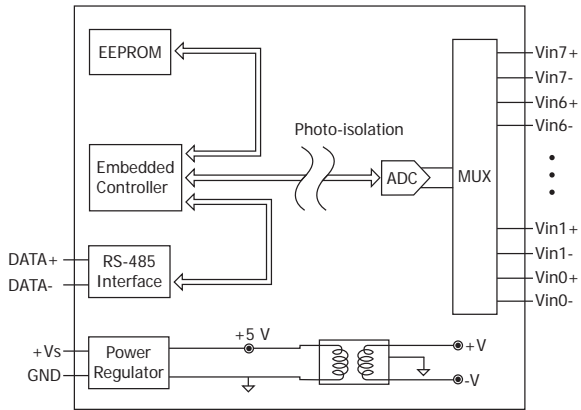
- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment

Pin Assignments

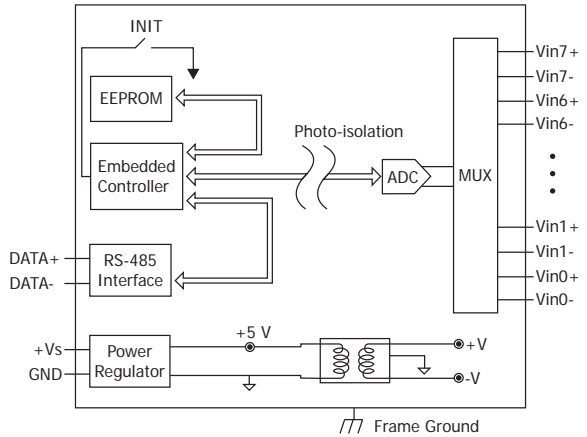


Internal I/O Structure

I-7017/I-7017F



M-7017



Wire Connections

I-7017/I-7017F	
Analog Input (Channels 0 to 5)	Analog Input (Channels 6 to 7)
<p>Require an Optional External 125 Ω Resistor</p>	<p>8-ch Diff. Mode JP1 INIT* Mode JP1</p> <p>Require an Optional External 125 Ω Resistor</p>
2-wire Transmitter	
<p>Require an Optional External 125 Ω Resistor</p>	

M-7017	
Analog Input	
<p>Require an Optional External 125 Ω Resistor</p>	<p>Require an Optional External 125 Ω Resistor</p>

Ordering Information

I-7017 CR	8-ch AI Module using DCON Protocol (Blue Cover) (RoHS)
I-7017-G CR	8-ch AI Module using DCON Protocol (Gray Cover) (RoHS)
M-7017-G CR	8-ch AI Module using DCON and Modbus Protocols (Gray Cover) (RoHS)
I-7017F CR	8-ch AI (Fast Sampling Version) Module using DCON Protocol (Blue Cover) (RoHS)
I-7017F-G CR	8-ch AI (Fast Sampling Version) Module using DCON Protocol (Gray Cover) (RoHS)

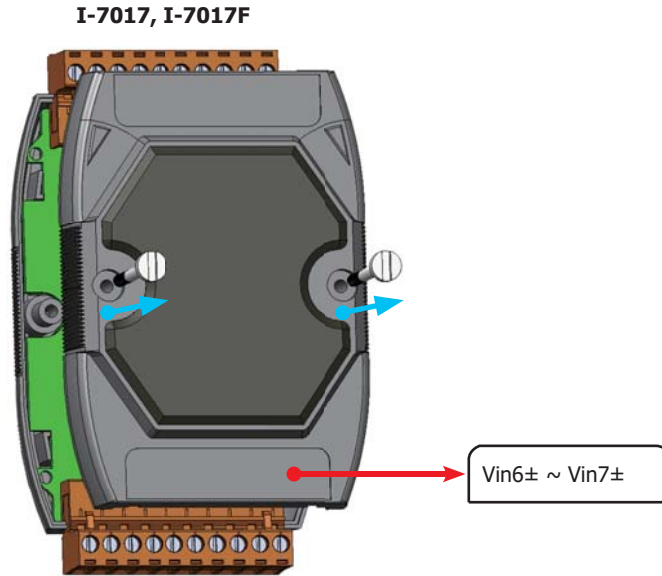
Accessories

tM-7520U CR		Tiny Isolated RS-232 to RS-485 Converter (RoHS)
tM-7561 CR		Tiny USB to Isolated RS-485 Converter with CA-USB18 Cable (RoHS)
tM-SG4 CR		RS-485 Pull-high/Pull-low and Termination Resistor Module (RoHS)
I-7514U CR		Isolated 4-channel RS-485 Repeater/Hub/Splitter (Gray Cover) (RoHS)
SG-770 CR		7/14 channel Surge Protector (RoHS)
2AB125R CR		DIP Resistor, 125 ohm, 0.1%, 1/4W, MF, 50 ppm/°C (1PCS) (RoHS)

Jumper

Notice:

1. Remove the top cover of the module before adjusting the jumper. Additionally, some modules may have two screws on the back cover.



2. Users can locate the Jx/JPx jumpers on the board by checking the I/O labels on the cover.

Channel	Vin6±	Vin7±
Jumper	JP1	

