



I-7017

I-7017F

M-7017

8-channel Analog Input Module

Features

- M-7017
 - 8-channel Differential Analog Input
- I-7017 and I-7017F
 - 8-channel Differential or 6-channel Differential and 2-channel Single-ended Analog Input
- Voltage and Current Input
- High Resolution: 16-bit
- Open Wire Detection for 4 ~ 20 mA
- 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	Yes, Module (1.6 Seconds), 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		
COM Ports			
Ports	1 x RS-485		
Baud Rate	1200 ~ 115200 bps		
Data Format	(N, 8, 1)		
Protocol	DCON		
Power			
Reverse Polarity Protection	Yes		
Input Range	+10 ~ +30 VDC		
Consumption	1.3 W		
Mechanical			
Dimensions (mm)	123 x 72 x 35 (W x L x H)		
Installation	DIN-Rail		
Environment			
Operating Temperature	-25 ~ +75 °C		
Storage Temperature	-40 ~ +85 °C		
Humidity	10 ~ 95% RH, Non-condensing		

Applications

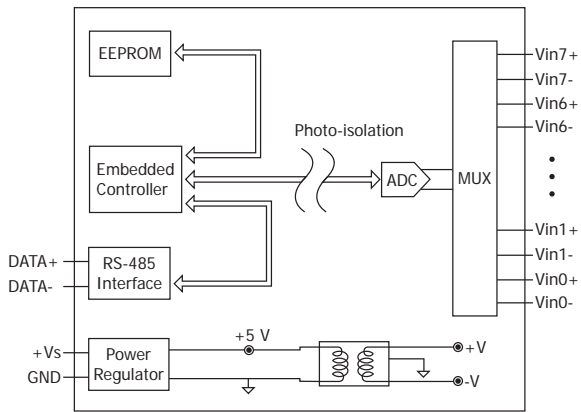
- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment

I/O Specifications

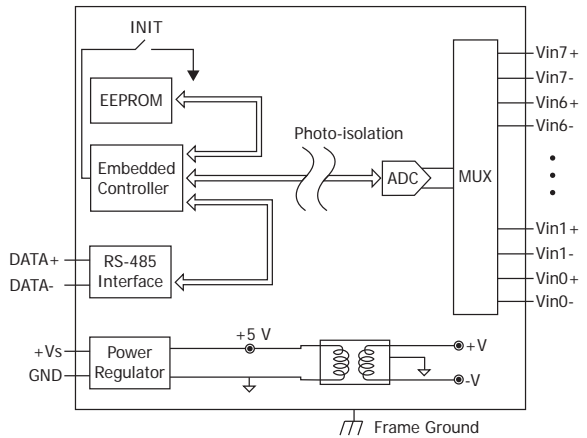
Model	I-7017	I-7017F	M-7017
Analog Input			
Channels	6-channel Differential and 2-channel Single-ended, or 8-channel Differential		
Type	Voltage Current		
Range	±150 mV, ±500 mV, ±1V, ±5 V, ±10 V, ±20 mA, 0 ~ 20 mA, 4 ~ 20 mA (requires optional external 125 Ω resistor)		
Resolution	16-bit		
Accuracy	Normal Mode: 0.1%		
	-	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		

Internal I/O Structure

I-7017/I-7017F

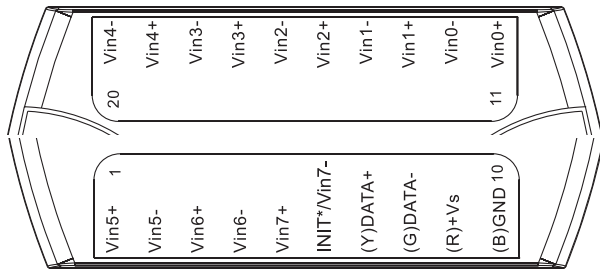


M-7017

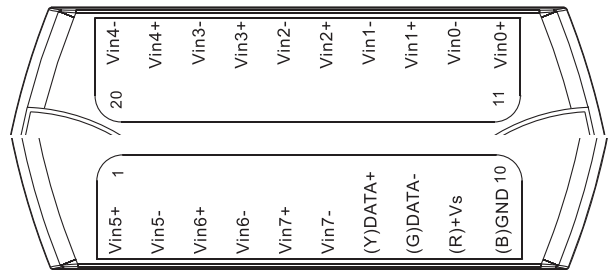


Pin Assignments

I-7017/I-7017F



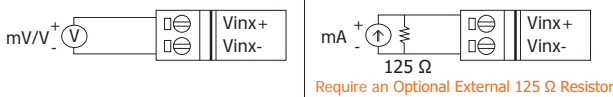
M-7017



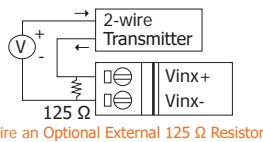
Wire Connections

I-7017/I-7017F

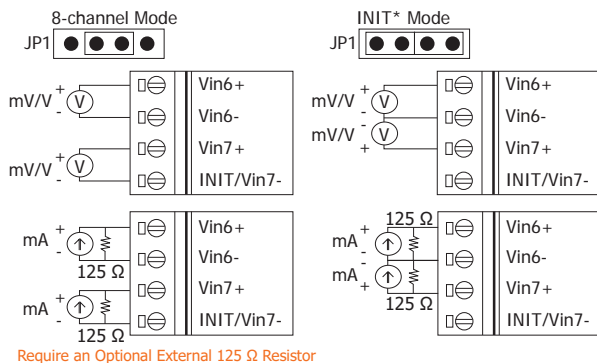
Analog Input for Wire Connection Channels 0 to 5



2-wire Transmitter Wire Connection

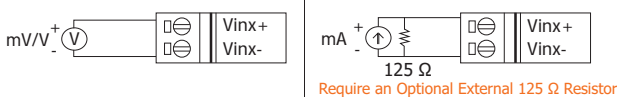


Analog Input for Digital Wire Connection Channels 6 and 7



M-7017

Analog Input Wire Connection



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)