

### Features

- I-7017R and M-7017R
  - 240 Vrms Overvoltage Protection
  - Voltage and Current Input
- I-7017R-A5 and M-7017R-A5
  - High Voltage Input
- Adjustable Sampling Rate
- 4 kV ESD Protection
- 3000 Vdc Intra-module Isolation
- Dual Watchdog
- RoHS Compliance
- Wide Operating Temperature Range: -25 ~ +75°C



### Introduction

The I-7017R is an 8-channel analog input module with an extremely high quality protection mechanism where the overvoltage protection is 240 Vrms. The input type includes both voltage and current. The I-7017R is an upgraded version of the I-7017, with the only difference being that the I-7017R is much more suitable for critically harsh environments. The sampling rate of the I-7017R is adjustable, meaning that either fast mode or normal mode can be selected. The I-7017R also has 4 kV ESD protection as well as 3000 VDC intra-module isolation. The I-7017R-A5 is an 8-channel analog input module that is especially designed for high voltage input, and has an input range of between -50 V ~ +50 V or -150 V ~ +150 V. The M-7017R and M-7017R-A5 has the same specifications as the I-7017R and I-7017R-A5, but provides additional support for the Modbus RTU protocol as well as the DCON protocol.

### System Specifications

Model	I-7017R	I-7017R-A5
	M-7017R	M-7017R-A5
<b>Communication</b>		
Interface	RS-485	
Format	(N, 8, 1)	
Baud Rate	1200 ~ 115200 bps	
Protocol	DCON	
	Modbus RTU, DCON	
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)	
<b>LED Indicators/Display</b>		
System LED Indicator	Yes, 1 LED as Power/Communication Indicator	
I/O LED Indicators	-	
7-Segment LED Display	-	
<b>Isolation</b>		
Intra-module Isolation, Field-to-Logic	3000 Vdc	
<b>EMS Protection</b>		
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal	
EFT (IEC 61000-4-4)	±4 kV for Power Line	
Surge (IEC 61000-4-5)	±0.5 kV for Power Line	
<b>Power</b>		
Reverse Polarity Protection	Yes	
Input Range	10 ~ 30 Vdc	
Consumption	1.3 W	1.6 W
<b>Mechanical</b>		
Dimensions (W x L x H)	72 mm x 123 mm x 35 mm	
Installation	DIN-Rail or Wall Mounting	
<b>Environment</b>		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-40 ~ +85°C	
Humidity	10 ~ 95% RH, Non-condensing	

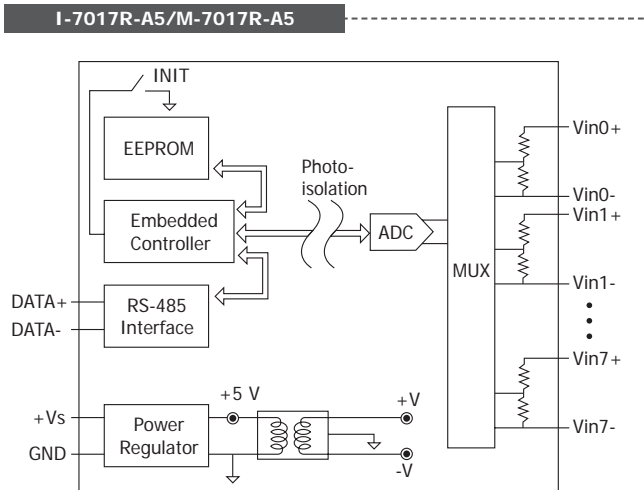
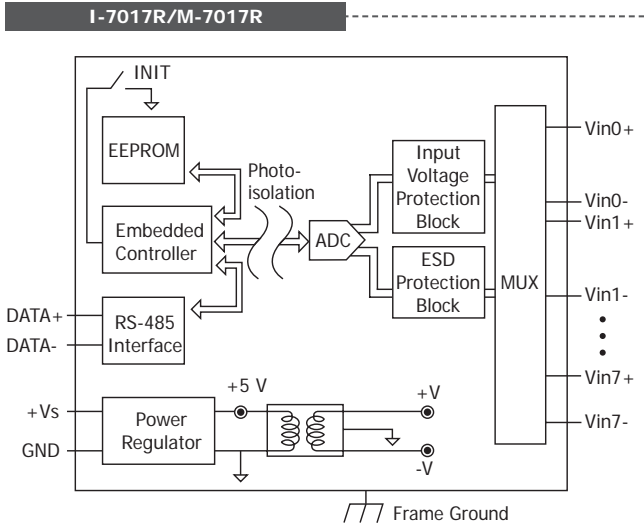
### Applications

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

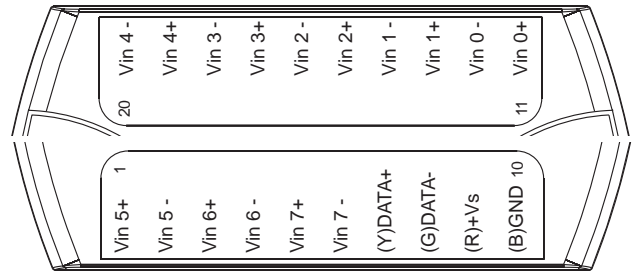
### I/O Specifications

Model	I-7017R	I-7017R-A5	
	M-7017R	M-7017R-A5	
<b>Analog Input</b>			
Channels	8		
Wiring	Differential		
Input Range	±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±20 mA, 0 ~ 20 mA, 4 ~ 20 mA (requires an optional external 125 Ω resistor)	±50 V, ±150 V	
Resolution	16-bit		
Accuracy	Normal Mode	0.1 %	
	Fast Mode	0.5 %	
Sampling Rate	Normal Mode	10 Hz	
	Fast Mode	60 Hz	50 Hz
Input Impedance	Voltage	20 MΩ	290 kΩ
	Current	-	
Common Voltage Protection	±200 Vdc		
Individual Channel Configuration	-		
Overvoltage Protection	240 Vrms	±200 Vdc	
Overcurrent Protection	-		
Virtual Channel to Channel Isolation	Yes, 400 Vdc		
Open Wire Detection for 4 ~ 20 mA	Yes		

### Internal I/O Structure



### Pin Assignments



### Wire Connections

**I-7017R/M-7017R**

**Voltage Input Wire Connection**

**Current Input Wire Connection**

**I-7017R-A5/M-7017R-A5**

**Voltage Input Wire Connection**

TYPE	SIGNAL
1B	±150 V
1C	±50 V

### Ordering Information

<b>I-7017R CR</b>	8-channel Analog Input Module using the DCON Protocol (Blue Cover) (RoHS)
<b>I-7017R-G CR</b>	8-channel Analog Input Module using the DCON Protocol (Gray Cover) (RoHS)
<b>M-7017R-G CR</b>	8-channel Analog Input Module using the DCON and Modbus RTU Protocol (Gray Cover) (RoHS)
<b>I-7017R-A5-G CR</b>	8-channel Analog Input Module using the DCON Protocol (Gray Cover) (RoHS)
<b>M-7017R-A5-G CR</b>	8-channel Analog Input Module using the DCON and Modbus RTU Protocol (Gray Cover) (RoHS)

### Accessories

	tM-7520U CR	RS-232 to RS-485 Converter (RoHS)
	tM-7561 CR	USB to RS-485 Converter (RoHS)
	tM-SG4 CR	RS-485 Bias and Termination Resistor Module (RoHS)

	I-7514U CR	4-channel RS-485 Hub (RoHS)
	SG-770 CR	7-channel Differential or 14-channel Single-ended Surge Protector (RoHS)
	125 Ohm, 0.1% DIP Resistors	For Use with the current type of I-7011/I-7012/I-7017/I-7018 series modules

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RS-485 Remote I/O Modules

I-7017R/I-7017R-A5/M-7017R/M-7017R-A5