

I-7017R



M-7017R



I-7017R-A5



M-7017R-A5

8-ch AI Module with High Voltage Protection

Features

- I-7017R and M-7017R
  - Voltage and Current Inputs
- I-7017R-A5 and M-7017R-A5
  - High Voltage Input
- High Over-voltage Input Protection
- High Common Voltage Protection
- Adjustable Sampling Rate (Fast/Normal Mode)
- Built-in Dual Watchdog

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 M-7017R	I-7017R-A5 M-7017R-A5
CPU Module		
Watchdog Timer	Module, Communication (Programmable)	
Isolation		
Intra-module Isolation	3000 VDC	
EMS Protection		
EFT (IEC 61000-4-4)	±4 kV for Power Line	
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal	
Surge (IEC 61000-4-5)	±0.5 kV for Power Line	
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	
	Modbus RTU, DCON	
Power		
Reverse Polarity Protection	Yes	
Input Range	+10 ~ +30 VDC	
Consumption	1.3 W	1.6 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

I/O Specifications

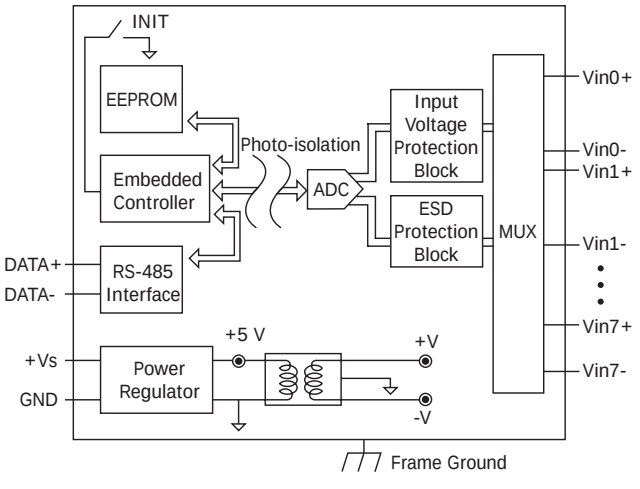
Model		I-7017R M-7017R	I-7017R-A5 M-7017R-A5
Analog Input			
Channels		8 Differential	
Type		Voltage, Current	Voltage
Range		**I-7017R,M-7017R:** ±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V, ±20 mA, 0 ~ 20 mA, 4 ~ 20 mA (requires an optional external 125 Ω resistor) **I-7017R-A5,M-7017R-A5:** ±50 V, ±150 V	
Resolution		16-bit	
Accuracy	Normal Mode	±0.1% of FSR	
	Fast Mode	±0.5% of FSR	
Sampling Rate	Normal Mode	10 Hz	
	Fast Mode	60 Hz	50 Hz
Input Impedance	Voltage	2 MΩ	290 kΩ
Common Voltage Protection		±200 VDC	
Overvoltage Protection		240 Vrms	±200 VDC
Individual Channel Configuration		Yes (*Note1)	-
Open Wire Detection (For 4 ~ 20 mA Only)		Yes	-

Note1: Firmware version B3.9 or later

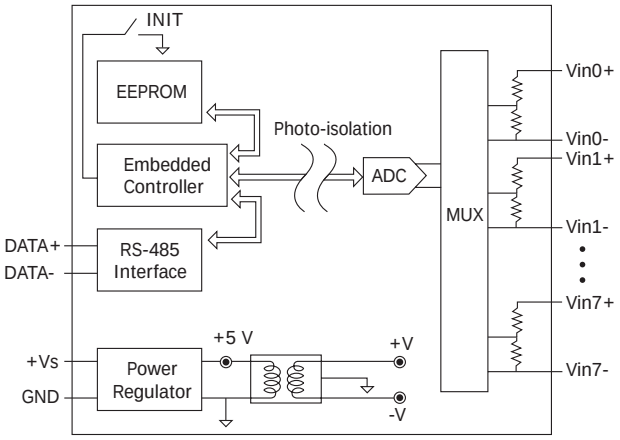
Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Internal I/O Structure

I-7017R/M-7017R



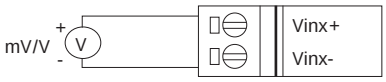
I-7017R-A5/M-7017R-A5



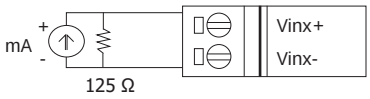
Wire Connections

I-7017R/M-7017R

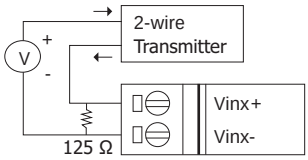
Voltage Input



Current Input

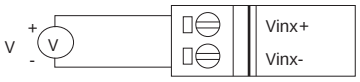


Require an Optional External 125 Ω Resistor



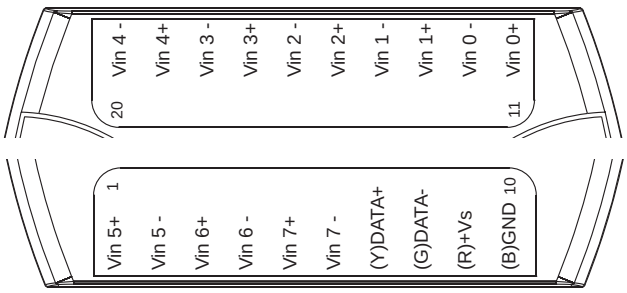
I-7017R-A5/M-7017R-A5

Voltage Input



TYPE	SIGNAL
1B	±150 V
1C	±50 V

Pin Assignments



Ordering Information

I-7017R CR	8-ch AI Module with High Voltage Protection using DCON Protocol (Blue Cover) (RoHS)
I-7017R-G CR	8-ch AI Module with High Voltage Protection using DCON Protocol (Gray Cover) (RoHS)
M-7017R-G CR	8-ch AI Module with High Voltage Protection using DCON and Modbus Protocols (Gray Cover) (RoHS)
I-7017R-A5-G CR	8-ch High Voltage (±50 V, ±150 V) AI Module with High Voltage Protection using DCON Protocol (Gray Cover) (RoHS)
M-7017R-A5-G CR	8-ch High Voltage (±50 V, ±150 V) AI Module with High Voltage Protection using DCON and Modbus Protocols (Gray Cover) (RoHS)

Accessories

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

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000