

Features

- 8-channel Differential Analog Inputs for M-7018
- 8-channel Differential or 6-channel Differential and 2-channel Single Ended for I-7018
- Current/Voltage/Thermocouple Input
- High Resolution: 16-bit
- 3000 Vdc Intra-Module Isolation
- +/-35 Vdc Overvoltage Protection
- Dual Watchdog
- Wide Operating Temperature Range: -25 ~ +75°C



Introduction

I-7018 is an analog input module provides 8-channel differential or 6-channel differential and 2-channel single ended by jumper selection. Its input type includes voltage, current and thermocouple and all channels are available for the same type. It requires an optional external 125 Ω resistor for current input. It also features 3000 Vdc intra-module isolation as well as +/-35 Vdc overvoltage protection. M-7018 supports Modbus RTU and DCON protocols which can be configured via software and provide 8-channel differential analog inputs. Other hardware specifications are the same as I-7018.

Applications

Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote Diagnosis, Testing Equipment.

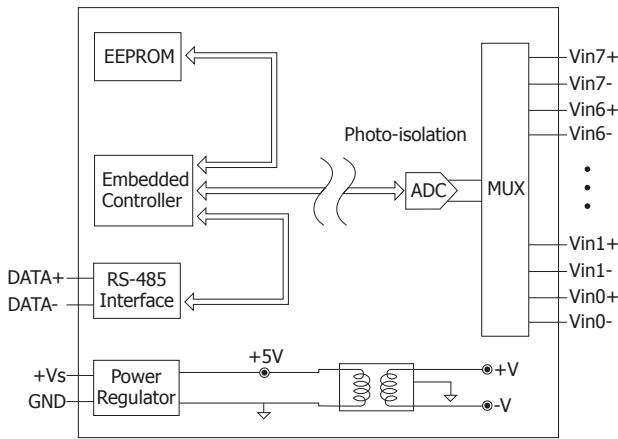
System Specifications

Models	I-7018BL	I-7018P
Communication		
Interface	RS-485	
Format	(N, 8, 1) (N, 8, 2) (E, 8, 1) (O, 8, 1)	
Baud Rate	1200 ~ 115200 bps	
Protocol	DCON	
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)	
LED Indicator/Display		
System LED Indicator	Yes, 1 LED as Power/Communication Indicator	
I/O LED Indicator	-	
7-Segment LED Display	-	
Isolation		
Intra-Module Isolation, Field-to-Logic	3000 Vdc	
EMS Protection		
ESD (IEC 61000-4-2)	-	
EFT (IEC 61000-4-4)	-	
Power		
Reverse Polarity Protection	Yes	
Input Range	10 ~ 30 Vdc	
Consumption	1.0 W	
Mechanical		
Dimensions (W x L x H)	72 mm x 123 mm x 35 mm	
Installation	DIN-Rail or Wall Mounting	
Environment		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-40 ~ +85°C	
Humidity	10 ~ 95% RH, Non-condensing	

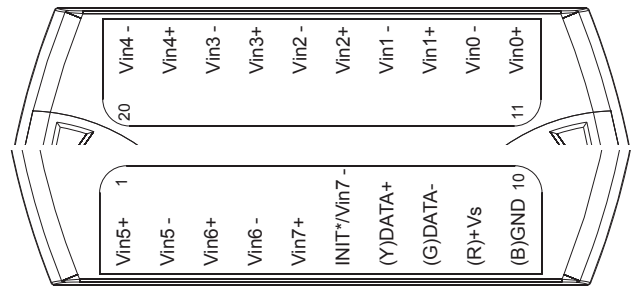
I/O Specifications

Models	I-7018BL	I-7018P
Analog Input		
Channels	6-channel Differential and 2-channel Single-ended, or 8-channel Differential	
Wiring	Differential	
Sensor Type	Thermocouple	J, K, T, E, R, S, B, N, C
	Voltage	+/-1.5 mV, +/-50 mV, +/-100 mV, +/-500 mV, +/-1 V, +/-2.5 V
	Current	+/-20 mA, 0 ~ 20 mA, 4 ~ 20 mA (requires optional external 125 Ω resistor)
Resolution	16-bit	
Accuracy	0.1%	
Sampling Rate	10 Hz	
Input Impedance	> 400 kΩ	
Common Voltage Protection	+/-15 Vdc	
Individual Channel Configuration	-	
Overvoltage Protection	+/-35 Vdc	
Open Wire Detection (for thermocouple only)	Yes	-
Temperature Outputs Consistency	-	
Stable Temperature Output in the Field	-	

Internal I/O Structure



Pin Assignments



Wire Connections

I-7018BL/I-7018P	
Analog Input Channel 0 to 5 Wire Connection	
<p>mV/V</p>	<p>mA</p> <p>Requires Optional External 125 Ω Resistor</p>
<p>Thermocouple</p>	
I-7018P	
Analog Input Channel 6 and 7 Wire Connection	
<p>8 differential mode</p> <p>JP1</p> <p>mV/V</p>	<p>INIT* Mode</p> <p>JP1</p> <p>mV/V</p>
<p>mA</p> <p>Requires Optional External 125 Ω Resistor</p>	<p>mA</p>
<p>Thermocouple</p>	<p>Thermocouple</p>

Note: To access the jumpers, the cover must be opened.

Ordering Information

I-7018BL CR	8-channel Analog Input Module with DCON Protocol (Blue Cover) (RoHS)
I-7018P CR	8-channel Analog Input Module with DCON Protocol (Blue Cover) (RoHS)
I-7018P-G CR	8-channel Analog Input Module with DCON 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 Pull-high/Pull-low 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)
	SG-3000 series	Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Inputs