

Features

- I-7063B(D)
 - 8 Digital Input channels and 3 DC SSR Output channels
- I-7065B(D) and M-7065B(D)
 - 4 Digital Input channels and 5 DC SSR Output channels
- Form A DC Solid State Relay Output
- No Arcing, No Bounce, and No Switching Noise
- Sink- and Source-type for Digital Input
- Digital Input Channels can be used as 16-bit Counters
- Configurable Power-on Value Settings
- Configurable Safe Value Settings
- Dual Watchdog
- Wide Operating Temperature Range: -25 ~ +75°C



Introduction

The I-7063B module provides 8 digital input channels and 3 DC SSR output channels, and the I-7065B provides 4 digital input channels and 5 DC SSR output channels. All digital input channels can be used as 16-bit counters. In addition, the digital input channels can be selected either as sink- or source-type via wire connections. In comparison to electromechanical relays, SSR technology provides a faster response time and greater electrical endurance. The integration of DC SSR technology also eliminates potential for arcing, bounce, and switching noise. The I-7063BD provides 11 LED indicators and the I-7065BD/M-7065BD provides 9 LED indicators that can be used to monitor the status of the digital input and SSR output. There are also options for configuring power-on and safe values. 4 kV ESD protection and 3750 VDC intra-module isolation are also provided to enhance noise protection capabilities in industrial environments. The M-7065B supports both the Modbus RTU and DCON protocols, which can be configured via software.

System Specifications

Model	I-7063B	I-7065B	M-7065B
	I-7063BD	I-7065BD	M-7065BD
Communication			
Interface	RS-485		
Format	(N, 8, 1), (N, 8, 2), (E, 8, 1), (O, 8, 1)		
Baud Rate	1200 ~ 115200 bps		
Protocol	DCON		Modbus RTU, DCON
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)		
LED Indicators/Display			
System LED Indicator	Yes, 1 LED as Power/Communication Indicator		
I/O LED Indicators	-	-	-
	Yes, 11 LEDs as Digital Input/Relay Output Indicators	Yes, 9 LEDs as Digital Input/Relay Output Indicators	Yes, 9 LEDs as Digital Input/Relay Output Indicators
7-Segment LED Display	-		
Isolation			
Intra-module Isolation, Field-to-Logic	3750 Vdc		
EMS Protection			
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal ±8 kV Air for Random Point		
EFT (IEC 61000-4-4)	±2 kV for Power Line		
Surge (IEC 61000-4-5)	-		
Power			
Reverse Polarity Protection	Yes		
Input Range	10 ~ 30 Vdc		
Consumption	0.5 W 1.0 W	0.6 W 1.0 W	0.6 W 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		

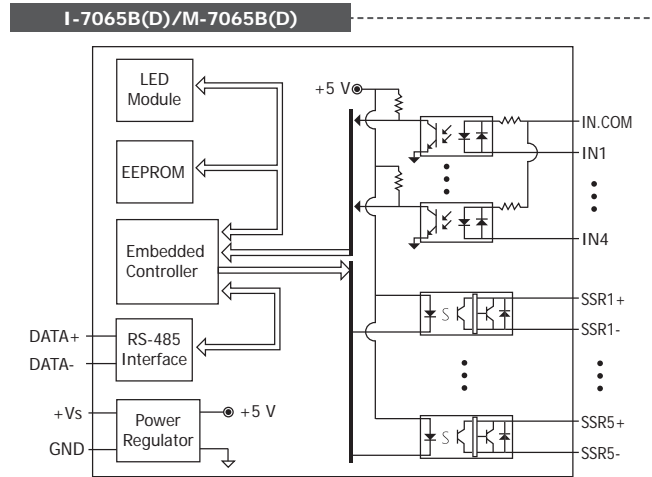
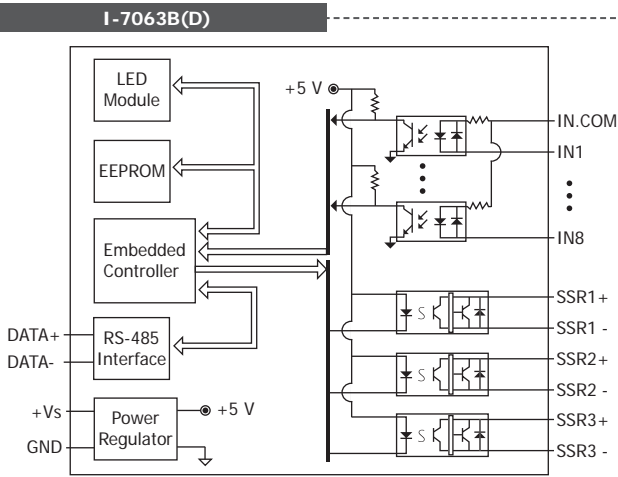
Applications

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

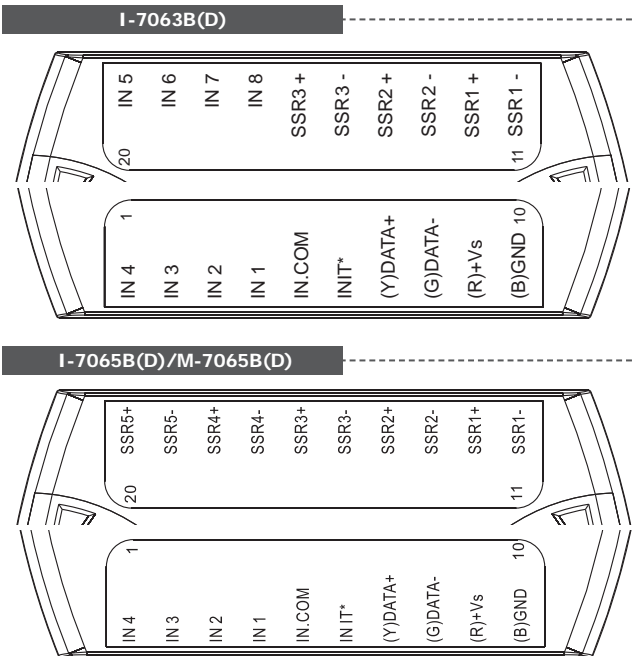
I/O Specifications

Model	I-7063B	I-7065B	M-7065B
	I-7063BD	I-7065BD	M-7065BD
DC Solid State Relay Output			
Channels	3	5	
Relay Type	DC-SSR (Form A)		
Form A DC-SSR	Operating Voltage Range	3 ~ 30 Vdc	
	Max. Load Current	1 A	
	Leakage Current	0.1 mA	
	Min. Operate Time	1 ms	
	Min. Release Time	1 ms	
	Dielectric Strength	3500 Vdc	
Electrical Endurance	Long Life, No Arcing, No Bounce, No Switching Noise		
Power-on Value	Yes		
Safe Value	Yes		
Digital Input/Counter			
Channels	8	4	
Type	Dry Contact	-	
	Wet Contact	Sink/Source	
Wet Contact	On Voltage Level	+1 Vdc Max.	
	Off Voltage Level	+4 ~ 30 VDC	
Dry Contact	On Voltage Level	-	
	Off Voltage Level	-	
	Effective Distance for Dry Contact	-	
Counters	Max. Count	65535 (16-bit)	
	Max. Input Frequency	100 Hz	
	Min. Pulse Width	5 ms	
Input Impedance	3 kΩ		
Channel-to-Channel Isolation	-		
Overvoltage Protection	±35 VDC		

Internal I/O Structure



Pin Assignments



Wire Connections

Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Sink	OPEN or <1 VDC	+4 ~ +30 VDC
Source	OPEN or <1 VDC	+4 ~ +30 VDC
Output Type	ON State Readback as 1	OFF State Readback as 0
Relay Output		

Ordering Information

I-7063B CR	8-channel Isolated Digital Input and 3-channel DC SSR Output Module using the DCON Protocol (Blue Cover) (RoHS)
I-7063BD CR	I-7063B with LED Display (Blue Cover) (ROSH)
I-7065B CR	4-channel Isolated Digital Input and 5-channel DC SSR Output Module using the DCON Protocol (Blue Cover) (RoHS)
I-7065BD CR	I-7065B with LED Display (Blue Cover) (ROSH)
M-7065B-G CR	4-channel Isolated Digital Input and 5-channel DC SSR Output Module using the DCON and Modbus Protocols (Gray Cover) (RoHS)
M-7065BD-G CR	M-7065B-G with LED Display (Gray Cover) (ROSH)

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)
	SG-3000 Series	Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Input transformers

2
3

RS-485 Remote I/O Modules

I-7063B/I-7063BD/I-7065B/I-7065BD/M-7065B/M-7065BD