



Features

- Sink- or Source-type Digital Inputs
- Photocouple Isolation
- All Channels Can Be Used As 16-bit Counters
- 4 kV ESD Protection
- 3750 V_{rms} Isolation Voltage
- Dual Watchdog
- Wide Operating Temperature Range: -25 ~ +75°C



Introduction

The I-7041P offers 14 channels for digital input at 24 V_{DC}, each of which features Photocouple isolation. Moreover, you can choose either sink- or source-type digital input via wire connections. All channels are able to be used as 16-bit counters. The I-7041PD has 14 LED indicators for DI channel status monitoring. 4 kV ESD protection and 3750 V_{rms} intra-module isolation are standard. The hardware specifications for the M-7041P are the same as the the I-7041P and both support the Modbus RTU and DCON protocols which can be configured via software.

Applications

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

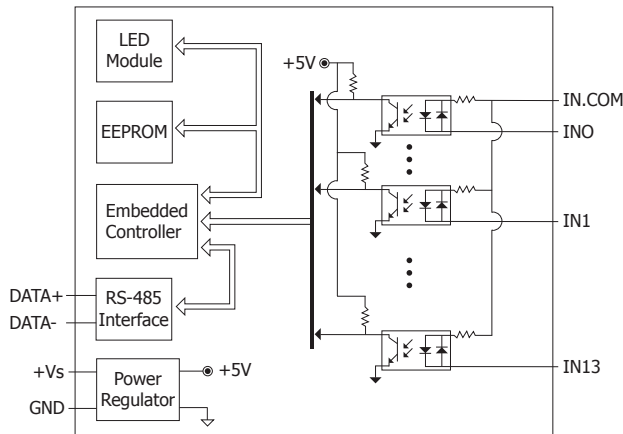
System Specifications

Models	I-7041	I-7041D	M-7041	M-7041D
	I-7041P	I-7041PD	M-7041P	M-7041PD
Communication				
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)			
LED Indicator/Display				
System LED Indicator	Yes, 1 LED as Power/Communication Indicator			
I/O LED Indicator	-	Yes	-	Yes
7-Segment LED Display	-			
Isolation				
Intra-Module Isolation, Field-to-Logic	3750 V _{rms}			
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			
Power				
Reverse Polarity Protection	Yes			
Input Range	10 ~ 30 V _{DC}			
Consumption	0.2 W	0.9 W	0.2 W	0.9 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			

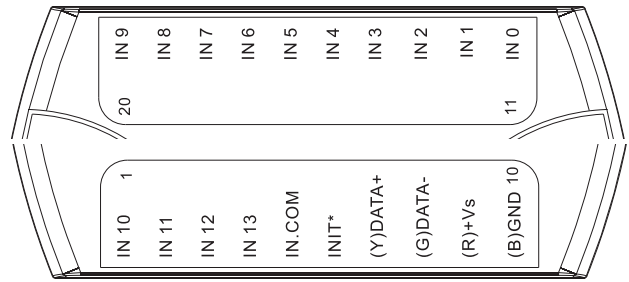
I/O Specifications

Models		I-7041	I-7041D	I-7041P	I-7041PD
		M-7041	M-7041D	M-7041P	M-7041PD
Digital Input/Counter					
Channels		14			
Contact		Wet			
Sink/Source (NPN/PNP)		Sink/Source			
Wet Contact	On Voltage Level	+1 V _{DC} Max.		+11 V _{DC} Max.	
	Off Voltage Level	+4 ~ 30 V _{DC}		+19 ~ 30 V _{DC}	
Dry Contact	On Voltage Level	-			
	Off Voltage Level	-			
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 V _{DC}			

Internal I/O Structure



Pin Assignments



Wire Connections

Digital Input/Counter	ON State Readback as 1 OPEN or <11 Vdc	OFF State Readback as 0 +19 ~ +30 Vdc
Sink		
Source		

Ordering Information

I-7041 CR	14-channel Isolated Digital Input Module with DCON Protocol (Blue Cover) (RoHS)
I-7041-G CR	14-channel Isolated Digital Input Module with DCON Protocol (Gray Cover) (RoHS)
I-7041D CR	I-7041 with LED Display (Blue Cover) (RoHS)
I-7041P-G CR	14-channel Isolated Digital Input Module with DCON Protocol (Gray Cover) (RoHS)
I-7041PD-G CR	I-7041P with LED Display (Gray Cover) (RoHS)
M-7041 CR	14-channel Isolated Digital Input Module with DCON and Modbus Protocol (Gray Cover) (RoHS)
M-7041P-G CR	14-channel Isolated Digital Input Module with DCON and Modbus Protocol (Gray Cover) (RoHS)
M-7041D-G CR	M-7041 with LED Display (Gray Cover) (RoHS)
M-7041PD-G CR	M-7041P with LED Display (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