

**I-7053(D)\_FG**

**M-7053(D)**

16-channel Non-isolated DI Module

### Features

- 16 Source-type Digital Inputs
- Long Effective Distance
- All Channels Can Be Used As 16-bit Counters
- Dry Contact Input
- Non-isolated for all Channels
- Cost-effective
- Dual Watchdog
- Wide Operating Temperature Range: -25 ~ +75°C



### Introduction

The I-7053\_FG features a long effective distance measurement for dry contact digital input of up to 500 meters. The I-7053\_FG supports source-type input. All 16 channels are also able to be used as 16-bit counters, each of which are non-isolated. The I-7053D\_FG has 16 LED indicators for channel status monitoring. The hardware specifications for the M-7053 are the same as the I-7053\_FG 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.

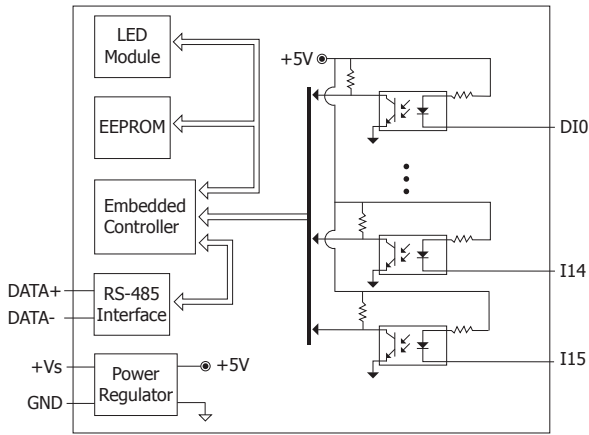
### System Specifications

Models	I-7053_FG	I-7053D_FG	M-7053	M-7053D
<b>Communication</b>				
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)			
<b>LED Indicator/Display</b>				
System LED Indicator	Yes, 1 LED as Power/Communication Indicator			
I/O LED Indicator	-	Yes	-	Yes
7-Segment LED Display	-			
<b>Isolation</b>				
Intra-Module Isolation, Field-to-Logic	-			
<b>EMS Protection</b>				
ESD (IEC 61000-4-2)	-			
EFT (IEC 61000-4-4)	-			
<b>Power</b>				
Reverse Polarity Protection	Yes			
Input Range	10 ~ 30 Voc			
Consumption	0.7 W	0.9 W	0.7 W	0.9 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			

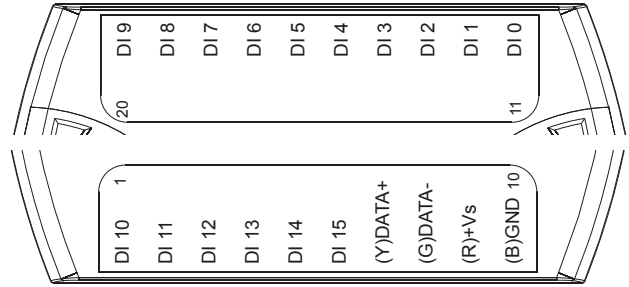
### I/O Specifications

Models	I-7053_FG	I-7053D_FG	M-7053	M-7053D
<b>Digital Input/Counter</b>				
Channels	16			
Contact	Dry			
Sink/Source (NPN/PNP)	Source			
Wet Contact	On Voltage Level	-		
	Off Voltage Level	-		
Dry Contact	On Voltage Level	Open		
	Off Voltage Level	Close to GND		
Counters	Max. Count	65535 (16-bit)		
	Max. Input Frequency	100 Hz		
	Min. Pulse Width	5 ms		
Input Impedance	-			
Channel to Channel Isolation	-			
Overvoltage Protection	-			

### Internal I/O Structure



### Pin Assignments



### Wire Connections

Digital Input/Counter	ON State Readback as 1 OPEN or <math><4 V_{DC}</math>	OFF State Readback as 0 <math>+3.5 \sim +30 V_{DC}</math>
Dry Contact		

### Ordering Information

I-7053_FG CR	16-channel Non-isolated DI Module with DCON Protocol (Blue Cover) (RoHS)
I-7053_FG-G CR	16-channel Non-isolated DI Module with DCON Protocol (Gray Cover) (RoHS)
I-7053D_FG CR	I-7053_FG with LED Display (Blue Cover) (RoHS)
I-7053D_FG-G CR	I-7053_FG with LED Display (Gray Cover) (RoHS)
M-7053-G CR	16-channel Non-isolated DI Module with DCON and Modbus Protocol (Gray Cover) (RoHS)
M-7053D-G CR	M-7053 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