



I-7042

13-ch Isolated (Sink, NPN, 3.5~30 VDC) DO Module



I-7042D



I-7043(D)



M-7043(D)

16-ch Non-isolated (Sink, NPN, 10~30 VDC) DO Module

Features

- I-7042/I-7042D
 - 13 Open Collector Outputs
- I-7043/I-7043D/M-7043/M-7043D
 - 16 Open Collector Outputs
- Sink-type Digital Outputs
- Configurable Power-on Value and Safe Value Settings
- Built-in Dual Watchdog



Introduction

The I-7042 offers 13 channels digital output channels, each of which features Photocoupler isolation and supports sink-type output using an open collector. There are also options to enable both power-on and safe values. The I-7042D has 13 LED indicators that can be used to monitor the status of DO channels. 3750 Vrms intra-module isolation is standard. The I-7043 offers 16 digital output channels, each of which are non-isolated and support sink-type output using an open collector. There are also options to enable both power-on and safe values. The I-7043D has 16 LED indicators that can be used to monitor the status of DO channels. The hardware specifications for the M-7043 are the same as the I-7043, and both support the Modbus RTU and DCON protocols, which can be configured via software.

System Specifications

Model		I-7042	I-7043	M-7043
		I-7042D	I-7043D	M-7043D
CPU Module				
Watchdog Timer		Module, Communication (Programmable)		
Display				
Type		7042D/43D: I/O LED Indicator		
Isolation				
Intra-module Isolation		3750 Vrms		
EMS Protection				
EFT (IEC 61000-4-4)		I-7042(D): ±2 kV for Power Line		
ESD (IEC 61000-4-2)		I-7042(D): ±2 kV Contact for Each Terminal ±4 kV Air for Random Point		
LED Indicators				
Status	All	1 x Power and Communication		
	7042D/43D	13 x DO	16 x DO	16 x DO
COM Ports				
Ports		1 x RS-485		
Baud Rate		1200 ~ 115200 bps		
Data Format		(N, 8, 1), (N, 8, 2), (E, 8, 1), (O, 8, 1)		
Protocol		DCON		Modbus RTU, DCON
Power				
Reverse Polarity Protection		Yes		
Input Range		+10 ~ +30 VDC		
Consumption		1.0 W	0.4 W	
		1.7 W	1.1 W	

Applications

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

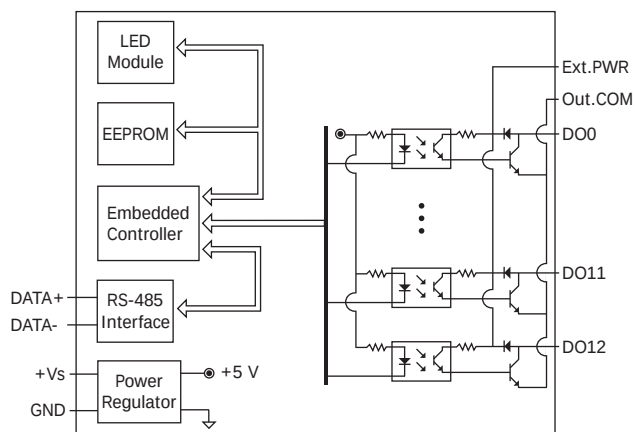
I/O Specifications

Model	I-7042(D)	I-7043(D) M-7043(D)
Digital Output		
Channels	13	16
Type	Open Collector	
Sink/Source (NPN/PNP)	Sink	
Load Voltage	+3.5 ~ 30 VDC	+10 ~ 30 VDC
Load Current	100 mA/Channel	
Power-on Value	Programmable	
Safe Value	Programmable	

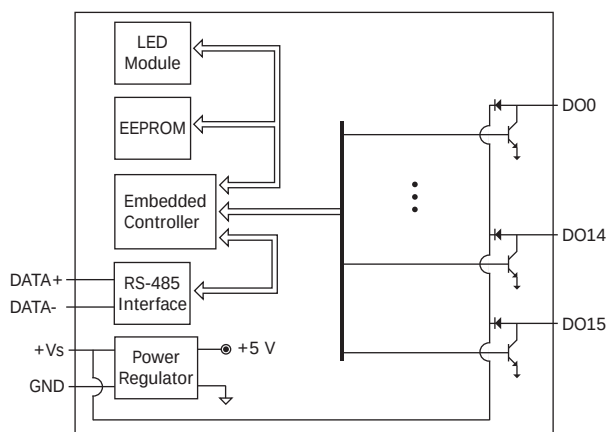
Mechanical	
Dimensions (mm)	72 x 123 x 35 (W x L x H)
Installation	DIN-Rail Mounting
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-40 ~ +85°C
Humidity	10 ~ 95% RH, Non-condensing

Internal I/O Structure

I-7042/I-7042D

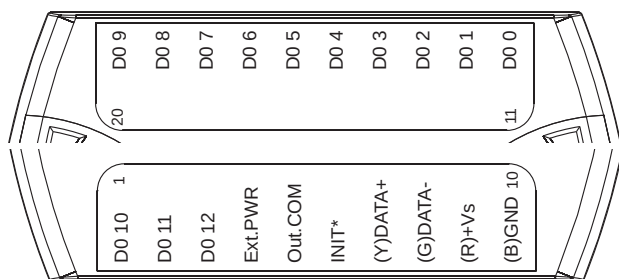


I-7043/I-7043D/M-7043/M-7043D

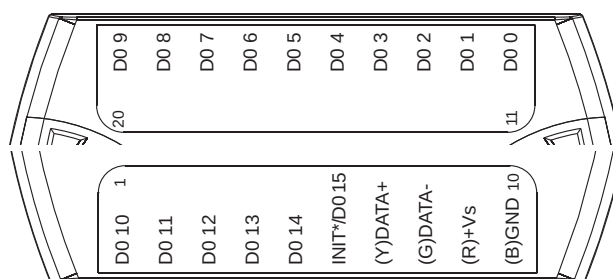


Pin Assignments

I-7042/I-7042D



I-7043/I-7043D/M-7043/M-7043D



Wire Connections

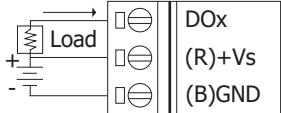
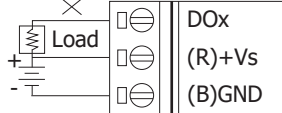
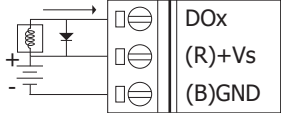
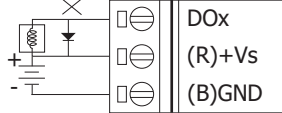
I-7042/I-7042D

Output Type		ON State Readback as 1	OFF State Readback as 0
Open Collector Output (Resistance Load)			

I-7043/I-7043D/M-7043/M-7043D

Output Type		ON State Readback as 1	OFF State Readback as 0
DO0 ~ DO14	Open Collector Output (Resistance Load)		
	Open Collector Output (Inductive Load)		

Wire Connections

I-7043/I-7043D/M-7043/M-7043D			
 INIT JP3 (Default)  JP3 DO15			
Output Type	ON State Readback as 1		OFF State Readback as 0
DO15	Open Collector Output (Resistance Load)		
	Open Collector Output (Inductive Load)		

Ordering Information

I-7042 CR	13-ch Isolated (Sink, NPN, 3.5~30 VDC) DO Module using DCON Protocol (Blue Cover) (RoHS)
I-7042D CR	13-ch Isolated (Sink, NPN, 3.5~30 VDC) DO Module with LED Display using DCON Protocol (Blue Cover) (RoHS)
I-7043 CR	16-ch Non-isolated (Sink, NPN, 10~30 VDC) DO Module using DCON Protocol (Blue Cover) (RoHS)
I-7043D CR	16-ch Non-isolated (Sink, NPN, 10~30 VDC) DO Module with LED Display using DCON Protocol (Blue Cover) (RoHS)
I-7043D-G CR	16-ch Non-isolated (Sink, NPN, 10~30 VDC) DO Module with LED Display using DCON Protocol (Gray Cover) (RoHS)
M-7043-G CR	16-ch Non-isolated (Sink, NPN, 10~30 VDC) DO Module using DCON and Modbus Protocols (Gray Cover) (RoHS)
M-7043D-G CR	16-ch Non-isolated (Sink, NPN, 10~30 VDC) DO Module with LED Display, using DCON and Modbus Protocols (Gray Cover) (RoHS)

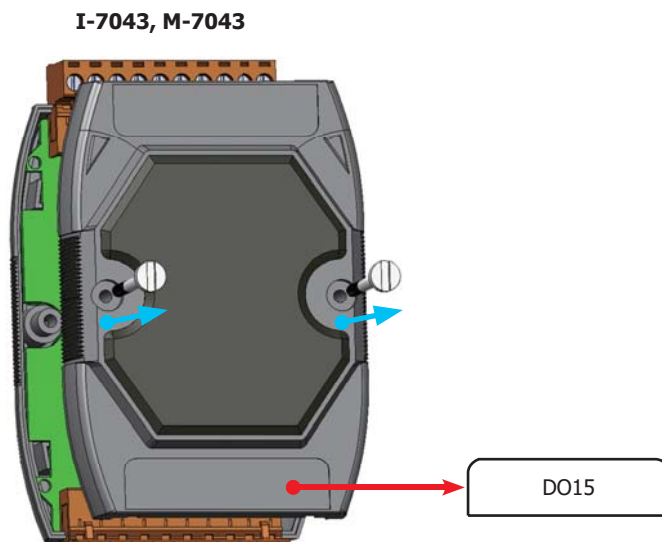
Accessories

tM-7520U CR		Tiny Isolated RS-232 to RS-485 Converter (RoHS)
tM-7561 CR		Tiny USB to Isolated RS-485 Converter with CA-USB18 Cable (RoHS)
tM-SG4 CR		RS-485 Pull-high/Pull-low and Termination Resistor Module (RoHS)
I-7514U CR		Isolated 4-channel RS-485 Repeater/Hub/Splitter (Gray Cover) (RoHS)
SG-770 CR		7 or 14-channel Surge Protector (RoHS)
SG-3000 Series		Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Input Transformers

Jumper

Notice:

1. Remove the top cover of the module before adjusting the jumper. Additionally, some modules may have two screws on the back cover.



2. Users can locate the Jx/JPx jumpers on the board by checking the I/O labels on the cover.

Channel	DO15	(R)+Vs	(B)GND
Jumper	JP3		

