



I-7044

I-7044D

4-ch Isolated (Wet) DI and
8-ch Isolated (Sink, NPN) DO Module

Features

- 4 Digital Inputs and 8 Digital Outputs
- Open Collector Output
- Photocoupler Isolation
- Digital Input Channels Can be Used as 16-bit Counters
- Configurable Power-on Value and Safe Value Settings
- Built-in Dual Watchdog



Introduction

The I-7044 offers 4 channels for digital input and 8 channels for digital output, each of which features Photocoupler isolation. The I-7044 supports sink-type output using open collector and sink- or source-type input via wire connections. All input channels are able to be used as 16-bit counters. There are options to enable both power-on and safe values. The I-7044D has 12 LED indicators for DI and DO channel status monitoring. 3750 V_{rms} intra-module isolation are standard. The hardware specifications for the M-7044 are the same as the I-7044 and both support the Modbus RTU and DCON protocols which can be configured via software.

Applications

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

System Specifications

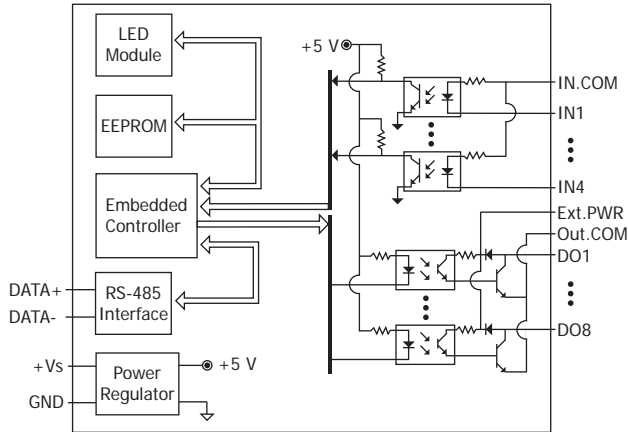
Model	I-7044	I-7044D
CPU Module		
Watchdog Timer	Module, Communication (Programmable)	
Display		
Type	-	I/O LED Indicator
Isolation		
Intra-module Isolation	3750 V _{rms}	
EMS Protection		
EFT (IEC 61000-4-4)	±2 kV for Power Line	
ESD (IEC 61000-4-2)	±2 kV Contact for Each Terminal	
LED Indicators		
Status	1 x Power and Communication	4 x Digital Input 8 x Digital Output
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	
Power		
Reverse Polarity Protection	Yes	
Input Range	+10 ~ +30 VDC	
Consumption	1.0 W	1.7 W
Mechanical		
Dimensions (mm)	72 x 123 x 35 (W x L x H)	
Installation	DIN-Rail Mounting	

I/O Specifications

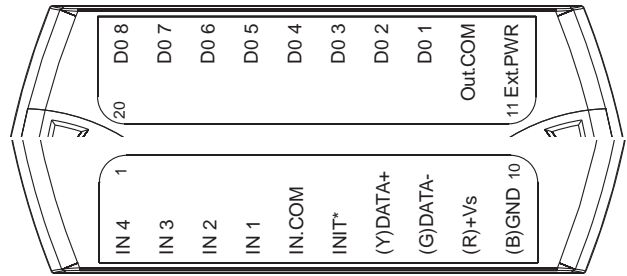
Model	I-7044	I-7044D
Digital Input/Counter		
Channels	4	
Type	Wet Contact	
Sink/Source (NPN/PNP)	Sink/Source	
ON Voltage Level	+1 VDC Max.	
OFF Voltage Level	+4 ~ +30 VDC	
Max. Counts	65535 (16-bit)	
Frequency	100 Hz	
Min. Pulse Width	5 ms	
Input Impedance	3 kΩ	
Overvoltage Protection	±35 VDC	
Digital Output		
Channels	8	
Type	Open Collector	
Sink/Source (NPN/PNP)	Sink	
Load Voltage	+3.5 ~ +30 VDC	
Load Current	375 mA/channel	
Power on Value	Programmable	
Safe Value	Programmable	

Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-40 ~ +85°C
Humidity	10 ~ 95% RH, Non-condensing

Internal I/O Structure



Pin Assignments









Wire Connections

Digital Input/Counter	ON State Readback as 1 OPEN or <1 VDC	OFF State Readback as 0 +4 ~ +30 VDC
Sink		
Source		
Output Type	ON State Readback as 1	OFF State Readback as 0
Open Collector Output (Resistance Load)		
Open Collector Output (Inductive Load)		

Ordering Information

I-7044 CR	4-ch Isolated (Wet) DI and 8-ch Isolated (Sink, NPN) DO Module using DCON Protocol (Blue Cover) (RoHS)
I-7044-G CR	4-ch Isolated (Wet) DI and 8-ch Isolated (Sink, NPN) DO Module using DCON Protocol (Gray Cover) (RoHS)
I-7044D CR	4-ch Isolated (Wet) DI and 8-ch Isolated (Sink, NPN) DO Module with LED Display using DCON Protocol (Blue Cover) (RoHS)

Accessories

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