



### Introduction

I-7052 offers 6 fully independent channels and 2 common ground channels for digital input. The differential inputs features Photocouple isolation for channel to channel. Moreover, you can choose sink type or source type input by wire connections. All channels are able to be used as 16-bit counters. I-7052D has 8 LED indicators for DI channel status. 4KV ESD protection and 5000 Vrms intra-module isolation are standard.

### I/O Specifications

Digital Input		
Input Channels	8	
Input Type	Sink or Source, 6 fully independent channels and 2 common ground channels	
Off Voltage Level	+1 V Max.	
On Voltage Level	+4 V <sub>cc</sub> ~ +30 V <sub>cc</sub>	
Input Impedance	3 kΩ, 0.3W	
Counters	Channels	8
	Max. Counters	16-bit (65535)
	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 ms
Photo-isolation	5000 V <sub>rms</sub>	

### Digital Input

#### Features

- Differential Digital Inputs
- Sink Type or Source Type
- Photocouple Isolation
- Can Be Used As Counters
- 4 kV ESD Protection
- 5000 Vrms Isolation Voltage
- Dual Watchdog
- RoHS Compliance
- Wide Range of Operating Temperature: -25 °C ~ +75 °C



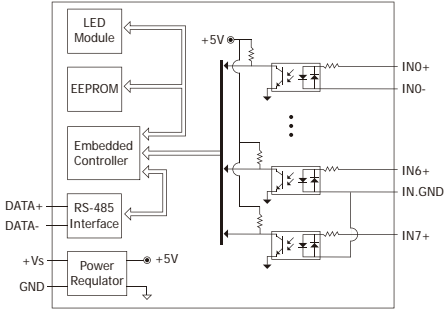
### Applications

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

### System Specifications

Interface	
Interface	RS-485
Format	N, 8, 1
Baud Rate	1200 ~ 115200 bps
LED Display	1 LED as Power/Communication indicator
	8 LEDs as digital input indicators (for I-7052D)
Power	
Input Voltage Range	+10 V <sub>cc</sub> ~ +30 V <sub>cc</sub>
Power Consumption	I-7052 0.4 W
	I-7052D 0.7 W
Environment	
Operating temperature	-25 °C ~ +75 °C
Storage temperature	-40 °C ~ +85 °C
Humidity	5 ~ 95% RH, non-condensing
Dimensions	72 mm x 122 mm x 35 mm (W x L x H)

## Internal I/O Structure

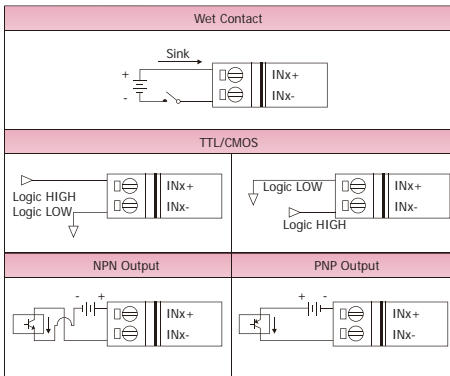


## Pin Assignment

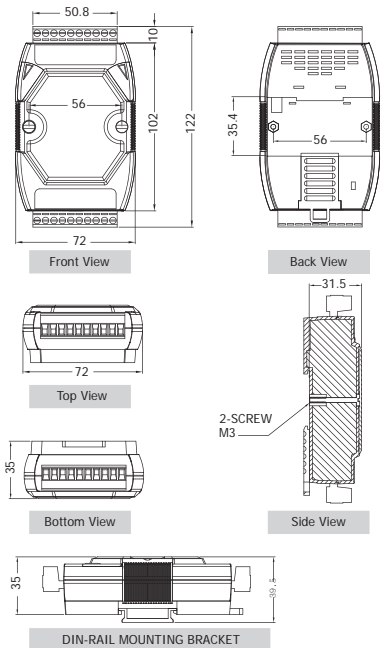
Terminal No.	Pin Assignment
01	IN5+
02	IN5-
03	IN6+
04	IN.GND
05	IN7+
06	INIT+
07	(Y)DATA+
08	(G)DATA-
09	(R)+Vs
10	(B)GND

Terminal No.	Pin Assignment
20	IN4-
19	IN4+
18	IN3-
17	IN3+
16	IN2-
15	IN2+
14	IN1-
13	IN1+
12	IN0-
11	IN0+

## Wire Connection



## Dimensions (Unit: mm)



## Ordering Information

I-7052 CR	8-channel Isolated Digital Input Module with 16-bit Counters (RoHS)
I-7052D CR	I-7052 with LED Display (RoHS)

## Related Products

Converters	USB, RS-232, Fiber Optical to RS-485 Converters and Repeaters
Power Supply	24 V <sub>dc</sub> Power Supply
Relay Module	External Relay Modules for I-7000 DO Module

Learning Kit	Starter Learning Kit
Application Books	Application Books Designed with Our Products
Data Logger Software	User Friendly Data Logger Software (free)