

I-87KW Series



I-87052W 8-channel Isolated Digital Input Module

Introduction .

The I-87052W module offers 8 fully independent differential Digital Input channels that feature 2 kV channel-to-channel Photocouple isolation. In addition, either sink- or source-type input can be selected via the wire connections, while all channels are able to be used as 16-bit counters. The I-87052W also includes 8 LED indicators that can be used to monitor the status of the Digital Input channels. 4 kV ESD protection and 5000 Vrms intra-module isolation are provided as standard.

Features 8-channel Isolated Digital Input 2 kV Channel-to-Channel Isolation Sink- or Source-type Input 4 kV ESD Protection 5000 Vrms Isolation Voltage All Channels can be used as 16-bit Counters RoHS Compliant Wide Operating Temperature Range: -25 to +75°C

Applications .

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

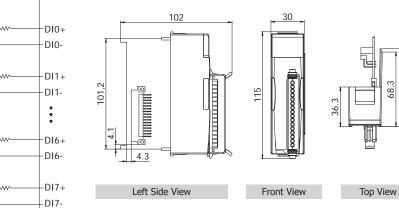
I/O Specifications —

Digital In	put	
Channels		8
Туре		Wet, Differential
Sink/Source (NPN/PNP)		Sink, Source
ON Voltage Level		+3.5 V _{DC} ~ 30 V _{DC}
OFF Voltage Level		+1 VDC Max.
Input Impedance		3 kΩ, 0.25 W
	Channels	8
Counters	Max. Count	16-bit (65535)
Counters	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 ms
Channel-to-Channel Isolation		Yes, 2 kV
Low Pass Filter		Yes
Effective Distance for Dry Contact		-

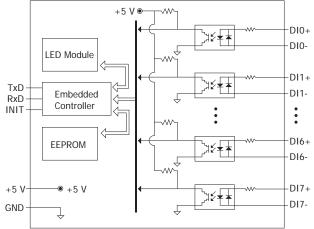
System Specifications -

Communication				
Interface	RS-485			
Format	N, 8, 1			
Baud Rate	1200 to 115200 bps			
Protocol	DCON			
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)			
LED Indicators/Display				
System LED Indictors	Yes, 1 as Power/Communication Indicator			
I/O LED Indicators	8 as Digital Input Indicators			
Isolation				
Intra-module Isolation, Field-to-Logic	5000 Vrms			
EMS Protection				
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal			
ESD (IEC 61000-4-2)	±8 kV Air for Random Point			
Power				
Power Consumption	0.3 W Max.			
Mechanical				
Dimensions (L x W x H)	115 mm x 30 mm x 102 mm			
Environment				
Operating Temperature	-25 to +75°C			
Storage Temperature	-40 to +85°C			
Humidity	10 to 95% RH, Non-condensing			

Dimensions (Units: mm) ____



Internal I/O Structure _____



Wire Connections _

ON State Readback as 1	OFF State Readback as 0	
+4 ~ +30 VDC	Open or +1 VDC Max.	
→ DIx+ 3kΩ +	× DIx+ 3kΩ + - DIx- To other channels	
+4 V _{DC} ~ +30 V _{DC}	Open or +1 V _{DC} Max.	
Contraction of the second sec	DIx+ 3kΩ - + DIx- To other Channels	

Pin Assignments .

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Terminal No.	Pin Assignment
01	DI0+
02	DI0-
03	DI1+
04	DI1-
05	DI2+
06	DI2-
<mark>្រាវ</mark> 07	DI3+
08	DI3-
1 09	DI4+
1 0	DI4-
b 11	DI5+
1 2	DI5-
13	DI6+
14	DI6-
15	DI7+
16	DI7-

Ordering Information .

I-87052W-G CR

8-channel Isolated Digital Input Module with 2 kV Channel-to-Channel Isolation using the DCON Protocol (Gray Cover) (RoHs)

Accessories

SG-770 CR

7-channel Differential or 14-channel Single-ended Surge Protector (RoHS)

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