RS-485 Remote I/O Modules

I-87KW Series



■ Introduction -

The I-87055W module offers 8 non-isolated Digital Input channels and 8 nonisolated Digital Output channels. All Digital Input channels are also able to be used as 16-bit counters. The I-87055W supports sink-type Digital Output and Digital Input with dry contact connections. The I-87055W includes 16 LED indicators that can be used to monitor the status of the Digital Input and Digital Output channels, and options are available for configuring both poweron and safe values. 4 kV ESD protection is provided for the Digital Input and Digital Output channels as standard.

■ Features

- 8-channel Non-isolated Digital Input and 8-channel Non-isolated Digital
- Sink-type Digital Output Channels
- Dry Contact Digital Input Channels
- All Digital Input Channels can be used as 16-bit Counters
- All Channels are Non-isolated
- 4 kV ESD Protection
- Configurable Power-on Value
- Configurable Safe Value
- RoHS Compliant
- Wide Operating Temperature Range: -25 to +75°C









Applications -

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

■ 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	16 as High/Low Alarm Signals	
Isolation		
Intra-module Isolation, Field-to-Logic	-	
EMS Protection		
ECD (IEC (1000 4.2)	±4 kV Contact for each Terminal	
ESD (IEC 61000-4-2)	±8 kV Air for Random Point	
Power		
Power Consumption	0.6 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	

■ I/O Specifications

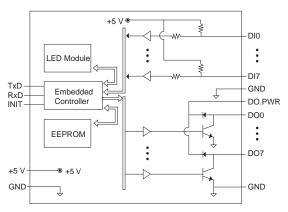
Digital Input		
Channels		8
Туре		Dry Contact
Sink/Source	(NPN/PNP)	Sink
ON Voltage Level		Close to GND
OFF Voltage Level		Open
	Channels	8
Counters	Max. Count	16-bit (65535)
Counters	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 ms
Channel-to-	-Channel Isolation	-
Low Pass Filter		Yes
Effective Distance for Dry Contact		100 m Max.
Digital Ou	tput	
Channel		8
Туре		Open Collector
Sink/Source (NPN/PNP)		Sink
Load Voltage		+5 VDC ~ +30 VDC
Max. Load Current		100 mA/channel
Short Circuit Protection		-
Power-on Value		Yes
Safe Value		Yes

-87055W

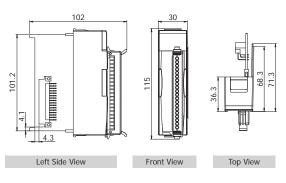


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■ Internal I/O Structure .



■ Dimensions (Units: mm).



■ Wire Connections.

Input Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0	
	Relay ON	Relay OFF	
Relay Contact	Relay Close GND	Relay Open	
	Voltage < +1 V	Voltage > +3.5 V	
TTL/CMOS Logic	Logic CND CND CND	Logic Level High Dix GND ☐ GND	
	Open Collector ON	Open Collector OFF	
Open Collector		Off -K↓× □⊖ □ DIX GND	

Input Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
	Relay ON	Relay OFF
Drive Relay	□ DO.PWR DOX GND	□⊕ DO.PWR DOx D⊕ GND
Resistance Load	DO.PWR DOX GND	DO.PWR DOX GND

■ Pin Assignments .

i-870		25252
20 —	-00000000000000000000000000000000000000	2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

Ter	minal No.	Pin Assignment
[n	01	DIO
	02	DI1
Ţ B	03	DI2
	04	DI3
	05	DI4
	06	DI5
C D	07	D16
	08	DI7
	09	GND
	10	GND
	11	GND
	12	D00
	13	DO1
[D	14	DO2
2 5 2 5 5	15	DO3
ا م	16	DO4
	17	DO5
٦	18	DO6
C n	19	D07
٦	20	DO.PWR

Ordering Information _

I-87055W-G CR

8-channel Non-isolated Digital Input and 8-channel Non-isolated Digital Output Module using the DCON Protocol (Gray Cover) (RoHS)

Accessories .

RM-104/108/116	4/8/16-channel 16A Power Relay Board, 1 Form C
RM-204/208/216	4/8/16-channel 8A Power Relay Board, 2 Form C
DN-SSR4	4-channel 1A Solid-state Relay Board, 1 Form A

RM-22.22	1-channel 20 A Power Relay for Direct 35 mm Rail (EN 50022) Mounting, 2 Form A
SG-770 CR	7-channel Differential or 14-channel Single-ended Surge Protector (RoHS)



IT and Instrumentation for industry

