



## I-8042W-G

16-channel Isolated Digital Input & 16-channel Isolated Digital Output Module

### Features

- Digital Input for Sink Type or Source Type
- Digital Outputs for Sink Type
- Photocouple-isolation protection
- $\pm 4$  kV ESD Protection
- 3750 Vdc Intra-module Isolation



### Introduction

I-8042W offers 16 channels for Digital Input and 16-Channel for Digital Output. Each of which features Photocouple-isolation. I-8042W supports Sink Type Output with short-circuits protection. There are option for Power-on value and safe value for your consideration. About Input, you can chose Sink Type or Source Type input by wire connection. I-8042W also has 32 LED indicators for channel status.  $\pm 4$  kV ESD protection and 3750 Vdc intra-module isolation are standard.



I-8017DW, I-8040W, I-8040PW,  
I-8041W, I-8041AW, I-8041PW, I-8042W,  
I-87017DW, I-87024DW, I-87028CDW,  
I-87040W, I-87040PW, I-87041W, I-87041PW and I-87042W  
with DN-37-381-A & DB37 Male to Female Cable  
(Optional)



I-8042W and I-87042W  
with DN-8K16P16R & DB37 Male to Female Cable  
(Optional)

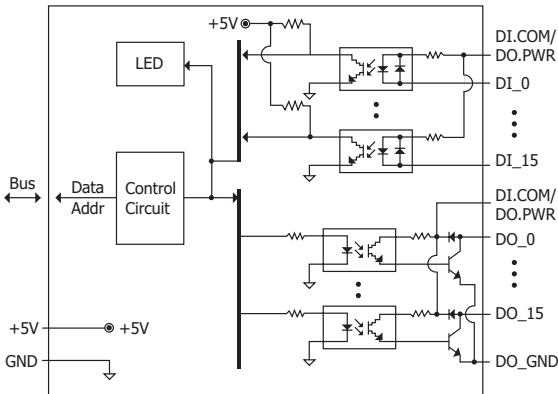
### System Specifications

LED Indicators/Display	
System LED Indicators	1 LED as Power Indicator
I/O LED Indicators	32 LEDs as Digital Input Indicators
Isolation	
Intra-module Isolation, Field-to-Logic	3750 Vdc
EMS Protection	
ESD (IEC 61000-4-2)	$\pm 4$ kV Contact for each Terminal
Power	
Power Consumption	1.5 W max.
Mechanical	
Dimensions (W x L x H)	30 mm x 85 mm x 114 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 90% RH, Non-condensing

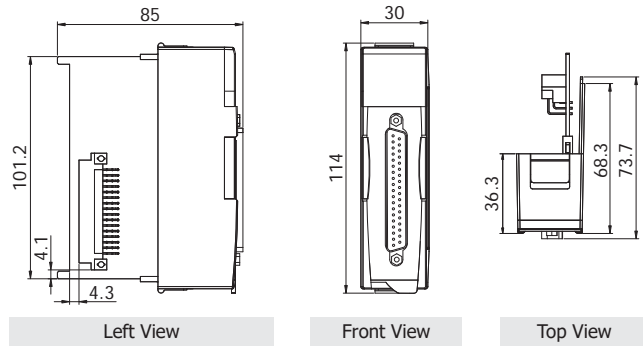
### I/O Specifications

Digital Input	
Channels	16
Type	Wet Contact
Sink/Source	Sink
ON Voltage Level	+10 ~ +30 VDC
OFF Voltage Level	+4 VDC max.
Input Impedance	3 k $\Omega$ , 0.33W
Digital Output	
Channels	16
Type	Isolated Open Collector
Sink/Source (NPN/PNP)	Sink
Load Voltage	+5 ~ +30 VDC
Max. Load Current	100 mA/Channel
Overload Protection	Yes
Short Circuit Protection	-
Power-on Value	Yes
Safe Value	Yes

## 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 Contact (Sink)	Relay ON 	Relay OFF 
TTL/CMOS Logic (Sink)	Voltage > +3.5 V 	Voltage < +1 V 
NPN Output (Sink)	Open Collector ON 	Open Collector OFF 
PNP Output (Sink)	Open Collector ON 	Open Collector OFF 
Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Drive Relay	Relay ON 	Relay OFF 
Resistance Load		

## Pin Assignments

Pin Assignment	Terminal	No.	Pin Assignment
DI.COM/DO.PWR	19	37	DI.COM/DO.PWR
DO.GND	18	36	DO.GND
DO.GND	17	35	DO_15
DI_15	16	34	DO_14
DI_14	15	33	DO_13
DI_13	14	32	DO_12
DI_12	13	31	DO_11
DI_11	12	30	DO_10
DI_10	11	29	DO_9
DI_9	10	28	DO_8
DI_8	09	27	DO_7
DI_7	08	26	DO_6
DI_6	07	25	DO_5
DI_5	06	24	DO_4
DI_4	05	23	DO_3
DI_3	04	22	DO_2
DI_2	03	21	DO_1
DI_1	02	20	DO_0
DI_0	01		

37-pin Male D-Sub Connector

## Ordering Information

<b>I-8042W-G CR</b>	16-ch Isolated DI (Wet) and 16-ch Isolated DO (Sink, NPN) Module (Gray Cover) (RoHS) Includes CA-4002F (DB37 connector Female with plastic cover)
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## Accessories

DN-8K16P16R CR	16-channel digital input terminal and 16-channel relay output board Female DB37 to Screw Terminal Board (Pitch= 3.81 mm) with DIN-rail Mounting (RoHS) Include: CA-3705A (DB37 Male to Female Cable, 90°, 50 CM)
DN-37-A CR	Female DB37 to Screw Terminal Board (Pitch= 5.08 mm) with DIN-rail Mounting (RoHS) Include: CA-3710A (DB37 Male to Female Cable, 90°, 1 M)
DN-37-381-A CR	Female DB37 to Screw Terminal Board (Pitch=3.81 mm) with DIN-rail Mounting (RoHS) Include: CA-3710A (DB37 Male to Female Cable, 90°, 1 M)
CA-3705A CR CA-3710A CR CA-3715A CR	DB37 Male to Female Cable, 90°, 0.5 M/1 M/1.5 M (RoHS)
CA-3710AM CR CA-3720AM CR CA-3730AM CR CA-3750AM CR CA-37100AM CR	DB37 Male to Female, with Molded Cable, 45°, 1 M/2 M/3 M/5 M/10 M (RoHS)