



I-87040W

I-87040PW

32-channel Isolated Digital Input Module with 16-bit Counters

Introduction

I-87040W/I-87040PW offer 32 channels for digital input, each of which features photocouple isolation. Moreover, you can choose sink type or source type input by wire connections. All channels are able to be used as 16-bit counters and it has 32 LED indicators for channel status. 4 kV ESD protection and 3750 VDC intra-module isolation are also provided. Paired with a daughter board like DN-37-381-A, it makes wiring easier than ever! I-87040PW is suitable for +24VDC digital input system provides the noise protection ability for industrial environment.

Features

- Sink- or Source-type Digital Inputs
- Photocouple Isolation
- All Channels Can Be Used As 16-bit Counters
- Optional Daughter Boards
- 4 kV ESD Protection
- 3750 V_{rms} Intra-module Isolation
- D-Sub DB37 Wiring
- Dual Watchdog
- RoHS Compliant
- Wide Operating Temperature Range: -25 ~ +75°C



Applications

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

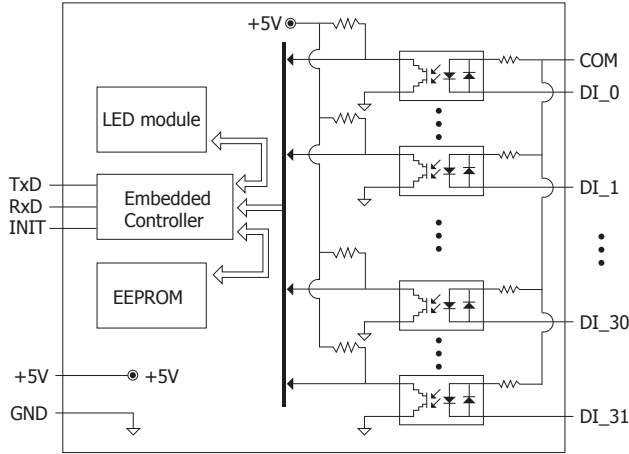
System Specifications

Models	I-87040W	I-87040PW
Communication		
Interface	RS-485	
Format	N, 8, 1	
Baud Rate	1200 ~ 115200 bps	
Protocol	DCON	
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)	
LED Indicator/Display		
System LED Indicator	1 LED as Power/Communication Indicator	
I/O LED Indicator	32 LEDs as Digital Input Indicators	
Isolation		
Intra-Module Isolation, Field-to-Logic	3750 V _{rms}	
EMS Protection		
ESD (IEC 61000-4-2)	4 kV Contact for Each Terminal	
	8 kV Air for Random Point	
Power		
Power Consumption	1.6 W Max.	
Mechanical		
Dimensions (W x L x H)	30 mm x 85 mm x 115 mm	
Environment		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-40 ~ +85°C	
Humidity	10 ~ 95% RH, Non-condensing	

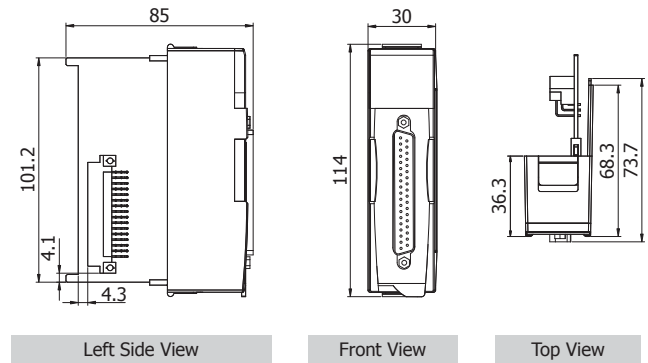
I/O Specifications

Models	I-87040W	I-87040PW
Digital Input		
Channels	32	
Type	Isolation, One Common for All Digital Inputs	
Sink /Source (NPN /PNP)	Sink, Source	
On Voltage Level	+3.5 V _{DC} ~ +30 V _{DC}	+19 V _{DC} ~ +30 V _{DC}
Off Voltage Level	+1 V _{DC} Max.	+11 V _{DC} Max.
Input Impedance	4.7 kΩ, 0.25 W	
Counters	Channels	32
	Max. Counts	16-bit (65535)
	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 ms
Channel to Channel Isolation	-	
Low Pass Filter	Yes	
Effective Distance for Dry Contact	-	

Internal I/O Structure



Dimensions (Units: mm)



Wire Connections

I-87040W		
Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Sink	OPEN or <1 V _{DC}	+4 ~ +30 V _{DC}
Source	OPEN or <1 V _{DC}	+4 ~ +30 V _{DC}

I-87040PW		
Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Sink	OPEN or <11 V _{DC}	+19 ~ +30 V _{DC}
Source	OPEN or <11 V _{DC}	+19 ~ +30 V _{DC}

Pin Assignments

Pin Assignment	Terminal	No.	Pin Assignment
COM	19	37	COM
NC	18	36	NC
NC	17	35	DI_31
DI_15	16	34	DI_30
DI_14	15	33	DI_29
DI_13	14	32	DI_28
DI_12	13	31	DI_27
DI_11	12	30	DI_26
DI_10	11	29	DI_25
DI_9	10	28	DI_24
DI_8	09	27	DI_23
DI_7	08	26	DI_22
DI_6	07	25	DI_21
DI_5	06	24	DI_20
DI_4	05	23	DI_19
DI_3	04	22	DI_18
DI_2	03	21	DI_17
DI_1	02	20	DI_16
DI_0	01		

37-pin Male D-Sub Connector

Accessories

	DN-37-A	I/O Connector Block with DIN-Rail Mounting and 37-pin D-sub Connector (pitch:5.08 mm)
	DN-37-381-A	I/O Connector Block with DIN-Rail Mounting and 37-pin D-sub Connector (pitch:3.81 mm)
	CA-3705A	Male-Female D-sub Cable 0.5 M
	CA-3710A	Male-Female D-Sub Cable 1M
	CA-3715A	Male-Female D-Sub Cable 1.5M
	MD-11	Input Type MagicWire for I-8041W/I-87041W
	MD-11	Output Type MagicWire for I-8040W/I-87040W
	SG-770 CR	7 channel differential or 14 channel single-ended surge protector (RoHS)
		I-8040W/40PW/41W/41AW/42W and I-87040W/41W with DN-37-381-A

Ordering Information

I-87040W-G CR	32-channel Isolated Digital Input Module with 16-bit Counters (Gray Cover) (RoHS)
I-87040PW-G CR	32-channel Isolated Digital Input Module with 16-bit Counters (Gray Cover) (RoHS)