

I-87082W

2-channel Counter/Frequency Input Module

Features

- 2-channel Counter/Frequency Input
- 32-bit Counter
- Isolated or Non-isolated Input
- Programmable Alarm Output
- Programmable Digital Filter
- Programmable Threshold Voltage Level
- Maximum Frequency of up to 100 kHz
- Dual Watchdog

Introduction

The I-87082W offers 2 high speed counter or frequency input channels and 2 digital output channels. Two types of digital input are provided, one for isolated input, and the other is for nonisolated input. The isolated input provides 3750 Vrms isolation voltage and the non-isolated input provides programmable threshold voltage level. The built-in digital filter is valid for both non-isolated and isolated input and can filter out noise where the high/low pulse width is smaller than the minimum high/low width of the digital filter. The maximum count is up to 32-bit and the maximum frequency is up to 100 kHz. The module also provides programmable alarm output with non-isolated open collectors.

System Specifications

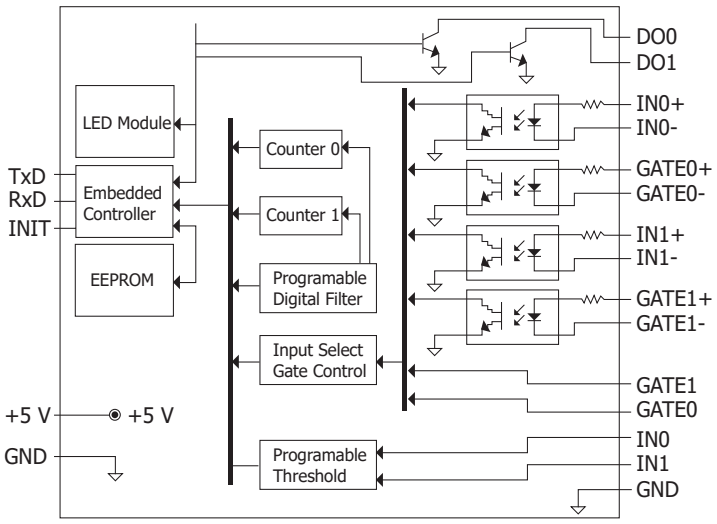
COM Ports	
Interface	RS-485
Format	N, 8, 1
Baud Rate	1200 ~ 115200 bps
Protocol	DCON
CPU Module	
Dual Watchdog	Module (1.6 Seconds), Communication (Programmable)
LED Indicators/Display	
System LED Indicators	1 as Power/Communcation Indicator
I/O LED Indicators	8 as Counter/Frequency status Indicators
Isolation	
Intra-module Isolation, Field-to-Logic	3750 Vrms
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal ±8 kV Air for Random Point
Power	
Power Consumption	0.5 W max.
Mechanical	
Dimensions (W x L x H)	30 mm x 102 mm x 115 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 95 % RH, Non-condensing

I/O Specifications

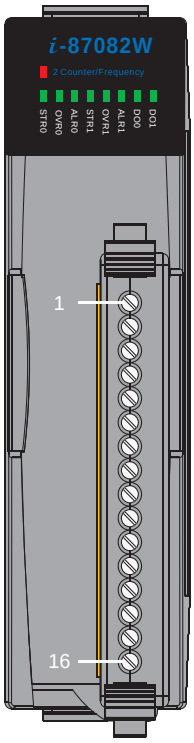
Counter/Frequency Input		
Channels		2
Type		Counter or Frequency
Isolated	ON Voltage Level	+3.5 VDC ~ +30 VDC
	OFF Voltage Level	+1 VDC Max
Non-isolated	ON Voltage Level	0 ~ +5 VDC (Default > 2.4 VDC)
	OFF Voltage Level	0 ~ +5 VDC (Default < 0.8 VDC)
	Threshold Voltage	Programmable
Counter		Up
Max. Counts		32-bits (4,294,967,295)
Max. Counter/Frequency		100 kHz
Digital Filter		2 ~ 65000 μs
Frequency Accuracy		1 Hz or 10 Hz (Software Selectable)
Programmable Alarm Mode	Mode 0	High Alarm Comparator on Counter 0 and Counter 1
	Mode 1	Two Steps High Alarm Comparator on Counter 1
Low Pass Filter		Yes
Digital Output		
Channels		2
Type		Sink, Open Collector
Output Voltage		+5 VDC ~ +30 VDC
Output Current		30 mA
Alarm Output		Yes

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Internal I/O Structure

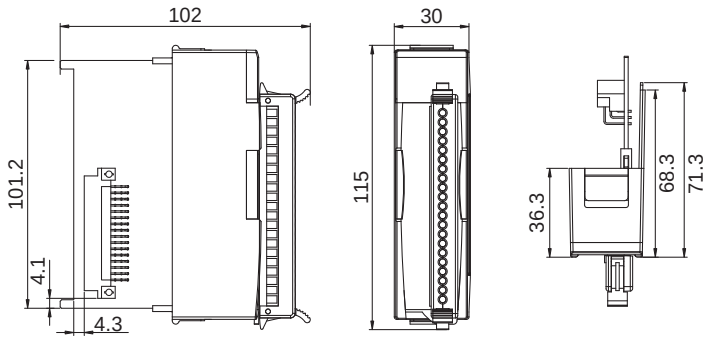


Pin Assignments



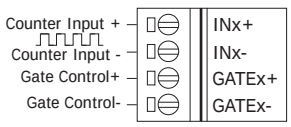
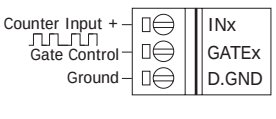
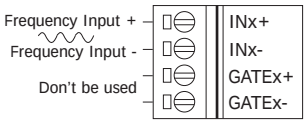
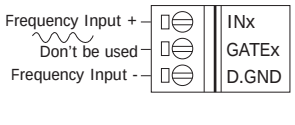
Terminal No.	Pin Assignment
01	DO0
02	DO1
03	IN0
04	GATE0
05	GND
06	IN1
07	GATE1
08	GND
09	IN0+
10	IN0-
11	GATE0+
12	GATE0-
13	IN1+
14	IN1-
15	GATE1+
16	GATE1-

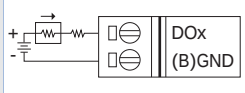
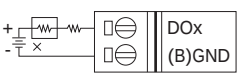
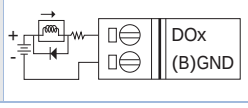
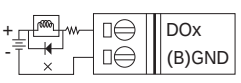
Dimensions (Units: mm)



Left View | Front View | Top View

Wire Connections

Counter Type	
Isolation	**Non-Isolation**
	
Frequency Type	
Isolation	**Non-Isolation**
	

Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Resistance Load	ON State	OFF State
		
Inductance Load	ON State	OFF State
		

Accessories

	**SG-770 CR**	7/14-channel Differential/Single-ended Surge Protector (RoHS)

Ordering Information

I-87082W-G CR	2-channel Counter/Frequency Input Module (RoHS)

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