



I-87082 I-87082-G

2-ch 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-87082 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 V_{rms} 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.

Applications

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

System Specifications

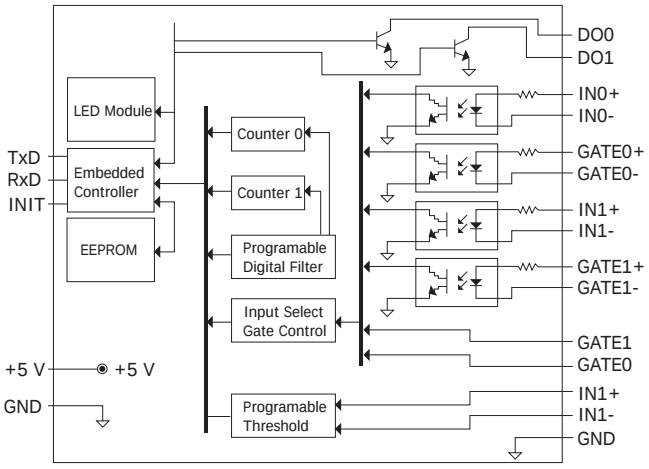
CPU Module	
Watchdog Timer	Yes, Module (1.6 Seconds), Communication (Programmable)
Isolation	
Intra-module Isolation	3750 V_{rms}
LED Indicators	
Status	1 x Power and Communication 8 x I/O
COM Ports	
Baud Rate	115200 bps
Data Format	N, 8, 1
Protocol	DCON
Power	
Power Consumption	0.9 W Max.
Mechanical	
Dimensions (W x L x H)	31 mm x 116 mm x 88 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-30 ~ +75 °C
Humidity	5 ~ 95% RH, Non-condensing

I/O Specifications

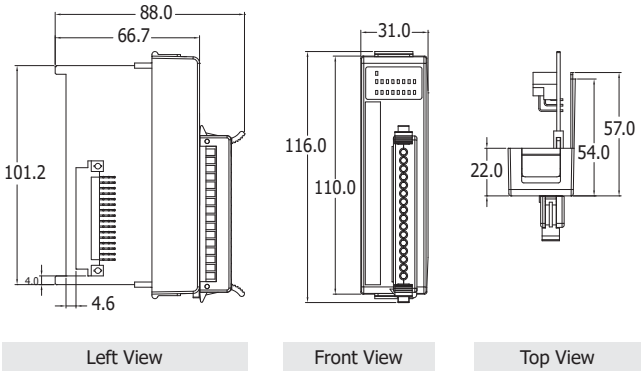
Digital Output	
Channels	2
Sink/Source (NPN/PNP)	Sink, Open Collector
Load Voltage	+5 V_{DC} ~ +30 V_{DC}
Max. Load Current	30 mA
Counter/Frequency/Encoder Input	
Channels	2
Type	Counter or Frequency
Counter/Encoder Bits	32-bits (4,294,967,295)
ON Voltage Level	Sensor Type: +3.5 V_{DC} ~ +30 V_{DC} Non-isolated: 0 ~ +5 V_{DC} (Default > 2.4 V_{DC}) 0 ~ +5 V_{DC} (Default < 0.8 V_{DC})
OFF Voltage Level	Sensor Type: +1 V_{DC} Max. Non-isolated: 0 ~ +5 V_{DC} (Default > 2.4 V_{DC})
Max. Counter/Frequency	100 kHz
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
Digital Filter	2 ~ 65000 µs
Counter Mode	Up

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Internal I/O Structure



Dimensions (Units: mm)



Left View | Front View | Top View

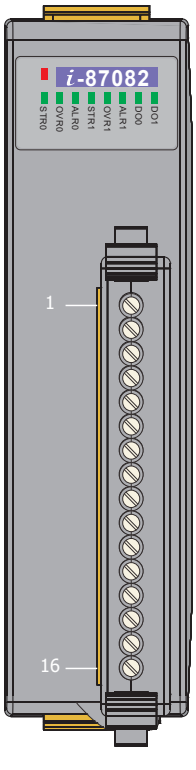
Wire Connections

Counter Type	
Isolation	**Non-Isolation**
Counter Input + Counter Input - Gate Control+ Gate Control- INx+ INx- GATEx+ GATEx-	Counter Input + Gate Control Ground INx GATEx D.GND

Frequency Type	
Isolation	**Non-Isolation**
Frequency Input + Frequency Input - Don't be used INx+ INx- GATEx+ GATEx-	Frequency Input + Don't be used Frequency Input - INx GATEx D.GND

Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Resistance Load	ON State	OFF State
	DOx (B)GND	DOx (B)GND
Inductance Load	ON State	OFF State
	DOx (B)GND	DOx (B)GND

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-

Ordering Information

I-87082 CR	2-ch Counter/Frequency Input Module (Blue Cover) (RoHS)
I-87082-G CR	2-ch Counter/Frequency Input Module (Gray Cover) (RoHS)

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