



Introduction

The 87026PW is a multifunction module that includes 6 analog input channels, 2 analog output channels, 2 digital input channels, 2 digital output channels. It provides a programmable input range on all analog input (+/- 150 mV, +/-500 mV, +/-1 V, +/-5 V, +/-10 V, +/-20 mA or 0 ~ +20 mA), analog outputs are 12-bit at +/-5 V, +/-10 V, 0 ~ +20 mA or +4 ~ +20 mA and all digital outputs can be set as alarm output. Each analog input can be configured for an individual range and provides a high overvoltage protection of 240 Vrms. Voltage and current inputs/outputs are jumper selectable.

Applications

- Industrial Automation
- Industrial Machinery
- Building Automation
- Food and Beverage Systems
- Semiconductor Fabrication
- Control Systems

System Specifications

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 Indicators/Display	
System LED Indicator	1 LED as Power/Communication Indicator
	2 LED as Digital Input indicator
	2 LED as Digital Output indicator
I/O LED Indicator	16 LEDs as High/Low Alarm Signals
Isolation	
Intra-module Isolation, Field-to-Logic	2500 Vdc
EMS Protection	
ESD (IEC 61000-4-2)	4 kV Contact for each Terminal ±8 kV Air for Random Point
Power	
Power Consumption	1.8 W
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

Features

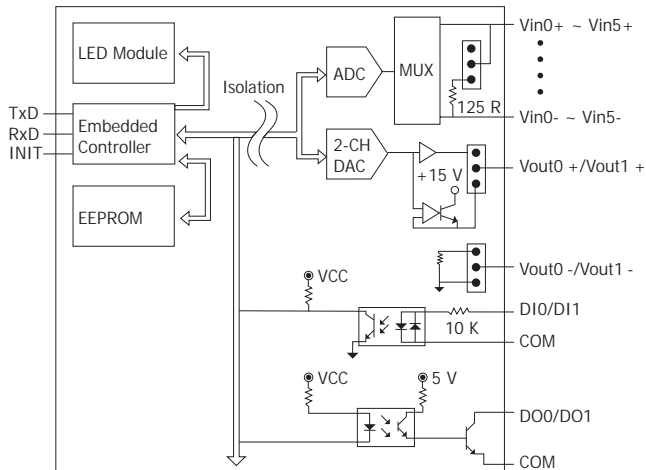
- Multifunction (6AI, 2AO, 2DI and 2DO)
- Supports Fast Mode and Normal Mode
- Individual Channel Configuration
- Open Wire Detection for Current Output
- Overload and Short Circuit Protection for Digital Output
- Configurable Power-on Value Settings
- Configurable Safe Value Settings
- 240 Vrms Overvoltage Protection for Voltage Input
- 70 VDC Overvoltage Protection for Digital Input
- Jumper Selectable Voltage or Current Input/Output
- Dual Watchdog
- ±4 kV Contact ESD Protection
- Wide Operating Temperature Range: -25°C ~ +75°C



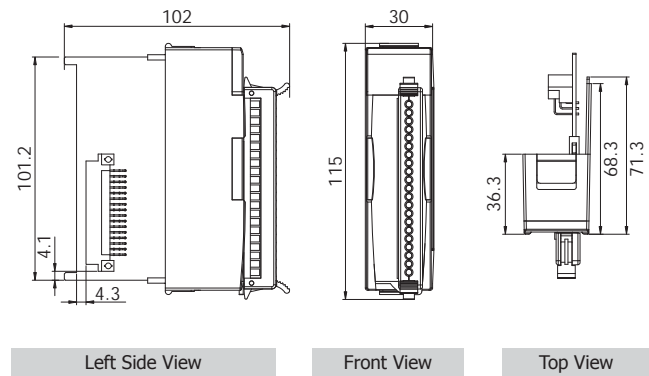
I/O Specifications

Analog Input		
Channels		6
Wiring		Differential
Range		+/-150 mV, +/-500 mV, +/-1 Vdc , +/-5 Vdc, +/-10 Vdc, +/-20 mA, (Jumper Selectable)
Resolution	Normal Mode	16-bit
	Fast Mode	12-bit
Accuracy	Normal Mode	+/-0.1% of FSR
	Fast Mode	+/-0.5% or better
Sampling Rate	Normal Mode	10 Hz (Total)
	Fast Mode	60 Hz (Total)
Bandwidth	Normal Mode	15.7 Hz
	Fast Mode	78.7 Hz
Input Impedance		2 MΩ (Voltage), 125 Ω (Current)
Common Mode Rejection		86 dB Min.
Normal Mode Rejection		100 dB
Overvoltage Protection		240 Vrms
Individual Channel Configuration		Yes
Analog Output		
Channels		2
Range		+0 ~ +5 Vdc, +0 ~ +10 Vdc, +/-5 Vdc, +/-10 Vdc, +0 ~ +20 mA, +4 ~ +20 mA (Jumper Selectable)
Resolution		12-bit
Accuracy		+/-0.1% of FSR
Output Capacity		10 V @ 20 mA
Current Load Resistance		500 Ω
Power-on and Safe Values		Yes
Open Wire Detection for Current Output		Yes, Only +4 ~ +20 mA.
Digital Input		
Channels		2
Type		Wet
Sink /Source (NPN /PNP)		Sink
On Voltage Level		+3.5 Vdc ~ 50 Vdc
Off Voltage Level		+1 Vdc Max.
Input Impedance		10 KΩ, 0.66W
Counters	Channels	2
	Max. Count	32-bit
	Max. Input Frequency	100 Hz
	Min. Pulse Width	5 ms
Overvoltage Protection		70 Vdc
Channel-to-Channel Isolation		Yes
Digital Output		
Channels		2
Type		Open Collector
Sink /Source (NPN /PNP)		Sink
Load Voltage		+3.5 Vdc ~ +50 Vdc
Max. Load Current		700 mA/channel
Overvoltage Protection		60 Vdc
Overload Protection		Yes
Short Circuit Protection		Yes
Power-on and Safe Values		Yes

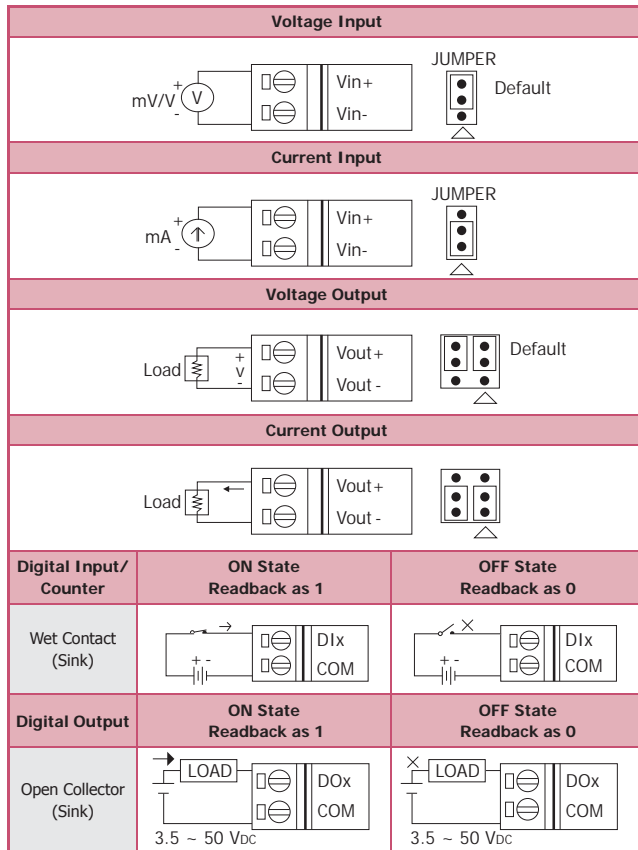
Internal I/O Structure



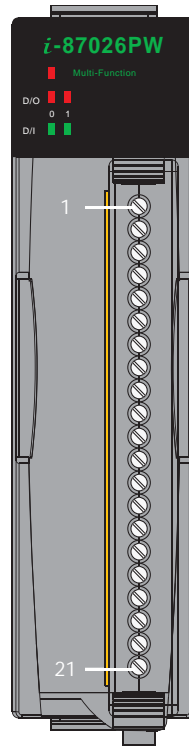
Dimensions (Units: mm)



Wire Connections



Pin Assignments



Terminal No.	Pin Assignment
01	Vin0+
02	Vin0-
03	Vin1+
04	Vin1-
05	Vin2+
06	Vin2-
07	Vin3+
08	Vin3-
09	Vin4+
10	Vin4-
11	Vin5+
12	Vin5-
13	Vout0+
14	Vout0-
15	Vout1+
16	Vout2-
17	DO0
18	DO1
19	DI0
20	DI1
21	COM

Ordering Information

I-87026PW CR	6-channel Analog Input, 2-channel Analog Output, 2-channel Digital Input and 2-channel Digital Output Module (Gray Cover) (RoHS)
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Accessories

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