

I-87024DW

4-channel 14-bit Analog Output Module

Features

- 4-channel Analog Output
- D-Sub 37-Pin Connector
- 4 kV ESD Protection
- Dual Watchdog
- Configurable Power-on Value
- Configurable Safe Value
- 3000 VDC Intra-module Isolation, Field-to-Logic
- Open Daughter Board Detection
- RF Immunity

Introduction

The I-87024DW is a serial interface and 4-channel analog output module. The programmable analog outputs are 14-bit resolution and support an output range of 0 ~ 5 V, ±5 V, 0 ~ 10 V, ±10 V, 0 ~ +20 mA, or +4 ~ +20 mA.



I-87024DW with DN-37-381-A and DB37 Male to Female Cable (Optional)

Applications

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

System Specifications

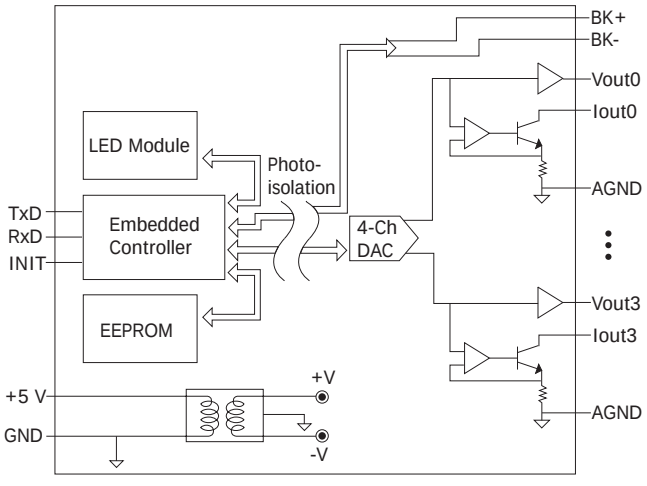
Communication	
Port	RS-485
Format	N, 8, 1
Baud Rate	1200 ~ 115200 bps
Protocol	DCON
CPU Module	
Dual Watchdog	Module (1.6 Seconds), Communication (Programmable)
LED Indicators/Display	
System LED Indictors	1 as Power/Communication Indicator
I/O LED Indicators	16 as High/Low Alarm Signals
Isolation	
Intra-module Isolation, Field-to-Logic	3000 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal
RS (IEC 61000-4-3)	3 V/m, 80 MHz ~ 1 GHz
Power	
Consumption	Typical: 1.3 W; Max.:3.1 W (4-channel Output 20 mA at 10 V)
Mechanical	
Dimensions (W × L × H)	30 mm × 115 mm × 85 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 95 % RH, Non-condensing

I/O Specifications

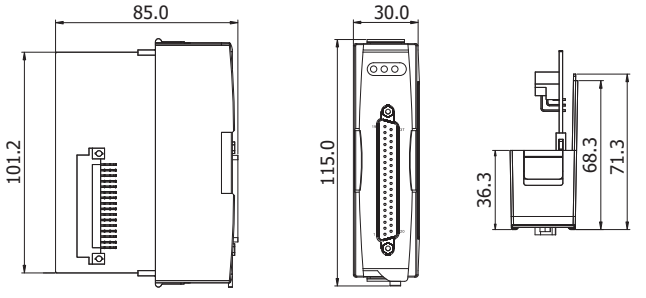
Analog Output		
Channels		4
Current Output Wiring		Sink
Range		0 ~ +5 VDC , ±5 VDC , 0 ~ +10 VDC , ±10 VDC , 0 ~ +20 mA, +4 ~ +20 mA
Resolution		14-bit
Accuracy		±0.1% of FSR
Zero Drift	Voltage	±30 μV/°C
	Current	±0.2 μA/°C
Span Drift		±20 ppm/°C
DA Output Response Time		10 ms per channel
Programmable Output Slope		0.125 ~ 2048 mA/Second
		0.0625 ~ 1024 V/Second
Output Capacity	Voltage	10 VDC @ 20 mA
	Current	External +24 VDC @ 1050 Ω
Open Wire Detection		Yes
Short Circuit Protection		Yes
Power-on Value		Yes
Safe Value		Yes
Open Daughter Board Detection		Yes

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Internal I/O Structure

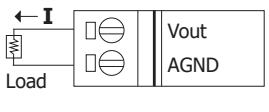
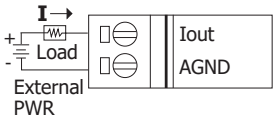
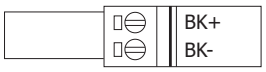
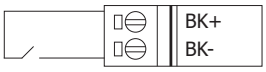


Dimensions (Units: mm)

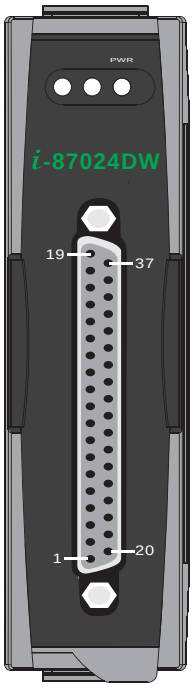


Left View | Front View | Top View

Wire Connections

Analog Output	
Voltage Output Wiring	**Current Output Wiring**
	
Daughter Board Detection	
Connect	**Open**
	

Pin Assignments



Pin Assignment	Terminal No.		Pin Assignment
N/A	19		
N/A	18	37	BK+
AGND	17	36	N/A
Vout3	16	35	N/A
AGND	15	34	N/A
Vout2	14	33	N/A
AGND	13	32	N/A
Vout1	12	31	N/A
AGND	11	30	N/A
Vout0	10	29	N/A
AGND	09	28	N/A
Iout3	08	27	N/A
AGND	07	26	N/A
Iout2	06	25	N/A
AGND	05	24	N/A
Iout1	04	23	N/A
AGND	03	22	N/A
Iout0	02	21	N/A
BK-	01	20	N/A

37-pin Male D-Sub Connector

Accessories

	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, 90º, 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, 90º, 1 M)
	CA-3705A CR CA-3710A CR CA-3715A CR	DB37 Male to Female Cable, 90º, 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, 45º, 1 M/2 M/3 M/5 M/10 M (RoHS)

Ordering Information

I-87024DW-G CR	4-channel 14-bit Analog Output Module (Gray Cover) (RoHS)

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