

DAM-3057

User's Manual



Beijing ART Technology Development Co., Ltd.

DAM-3057 Module

Introduction

Features

12 Channels Analog Input Module

General

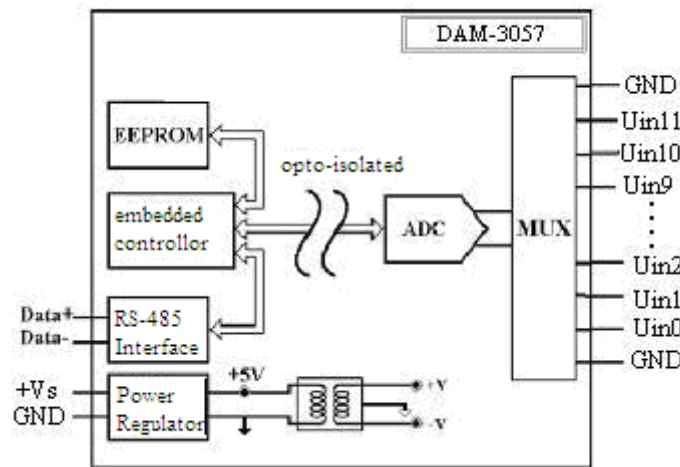
- Power Consumption: 1.3W@24V_{DC}
- Power Supply: unhandled 10~30V_{DC}
- Support Protocol: Modbus
- Built-in Watchdog

Analog Input

- Channels: 12 single-ended inputs
- Input Type: 0~5V, ±5V (or 0~10V, ±10V)
- AD Inversion Frequency: 10Hz
- Resolution: 16-bit
- Accuracy: ±0.2%

Industrial Design

DAM-3057 was designed to use in industrial environment. It can be installed in standard DIN rail inside the cabinet. And it can be powered by unregulated 10~30V_{DC} to meet the various power supplied source in field. It also withstands ambient temperature up to 60°C and resists the effects of vibration and mechanical shock.



Wiring & Installation

Power supply requirements: unregulated +10 V_{DC} ~ +30 V_{DC}. "+Vs" is a positive, and "GND" is ground. "DATA +" and "DATA-" connect with "DATA +" and "DATA-"(or "A" and "B") of RS-232/RS-485 transformation module, then connect transformation module with computer, do not hot plug carefully. The power indicator flashes after wiring is correct, then you can communication with the host computer. According to the label directs color to wiring:

+Vs (R)	Red	DATA+ (Y)	Yellow
GND (B)	Black	DATA- (G)	Green

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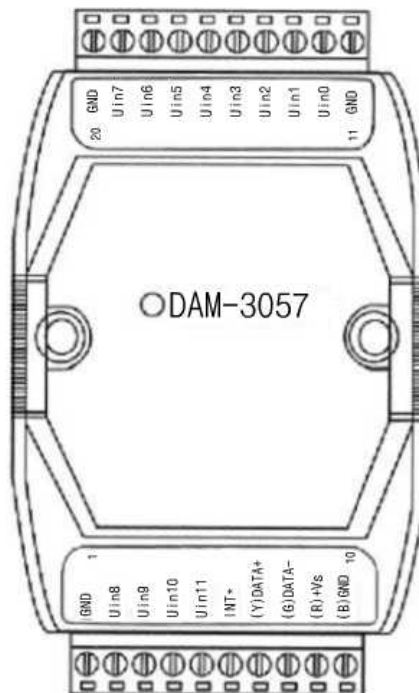


Fig. 1 DAM-3057 Drawing

DAM-3057 can be installed in standard DIN rail inside the cabinet, it also can be installed by stacking mode.

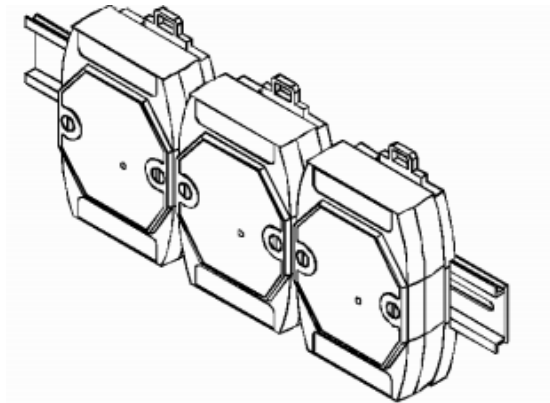


Fig.2 DAM-E3057 standard DIN installation

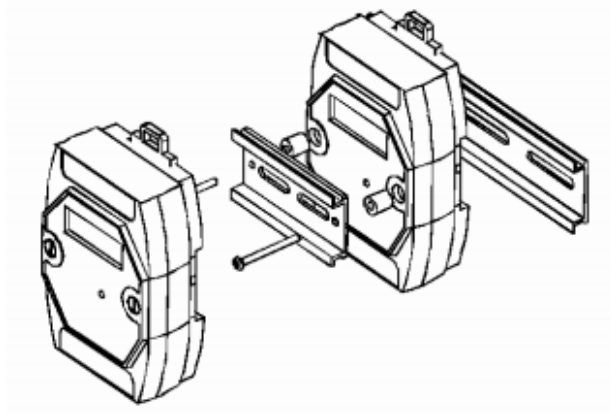


Fig.3 DAM-E3057 stack installation

Application Wiring

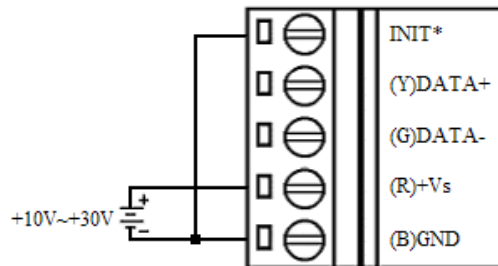
Reset Connection:

Shorted the INIT * and GND shorted, add +10 ~ +30 VDC between +Vs and GND, power on, the module indicator quickly flashes three times, power off until the indicator stops flashing, disconnect the INIT * and GND, then reset the module has been completed.

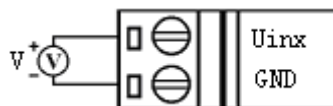
After reset successfully, the module restore the factory default values:

Module Address: 1

Baud Rate: 9600



Analog Input connection



Default setting

If the module's address or baud rate is wrong, or forget the last modified value, the module can be reverted to default settings. Steps: Short-circuit the "INIT*" and "GND" when there is no power; power-on for 3 seconds, power off, disconnect "INIT*" and "GND". The module is reverted to the default settings.

- ✚ Address: 00
- ✚ Baud Rate :9600bps
- ✚ Noparity
- ✚ The serial port default work mode: parity bit: none
data bits: 8
stop bit: 1

Code configuration table

Baud Rate Configuration Code Table

Code	00	01	02	03	04	05	06	07
Rate	1200	2400	4800	9600	19200	38400	57600	115200

Analog Input Range Configuration Code Table

Input Type	Input Range	Code
V	±5V	08
	±10V	09
	0~5V	0D
	0~10V	0E

Pin Definition

Pin	Name	Function
1	GND	Analog ground
2	Uin8	Analog input 8-ch
3	Uin9	Analog input 9-ch
4	Uin10	Analog input 10-ch
5	Uin11	Analog input 11-ch
6	INIT*	reset pin, connect with(B)GND, then power-on to reset
7	(Y)DATA+	RS-485 positive
8	(G)DATA-	RS-485 negative
9	(R)+Vs	DC Power Supply (+),+10~+30V _{DC}
10	(B)GND	DC Power Supply (-)
11	GND	Analog ground
12	Uin0	Analog input 0-ch
13	Uin1	Analog input 1-ch
14	Uin2	Analog input 2-ch
15	Uin3	Analog input 3-ch
16	Uin4	Analog input 4-ch
17	Uin5	Analog input 5-ch
18	Uin6	Analog input 6-ch
19	Uin7	Analog input 7-ch
20	GND	Analog ground