NuDAM-6063 Relay Output and Isolated Input Module

1. Introduction

NuDAM-6063 provides eight form A relay output channels. It can control high power devices without external circuits. The isolation guarantees the industrial safety.

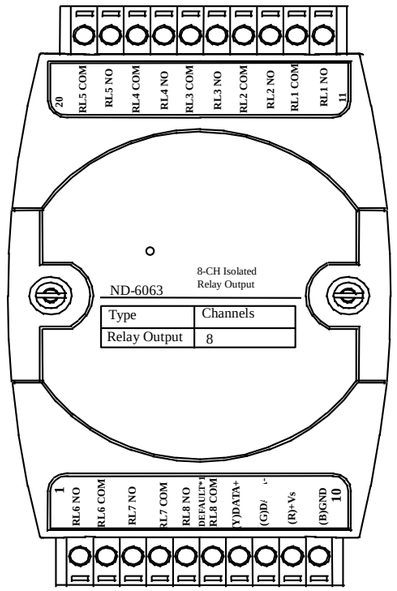
Features

- 4 channels relay output
- programmable power on output state
- programmable out polarity setting
- programmable host watchdog timer for host failure protection
- internal watchdog timer for device failure protection
- easy programming by software
- easy installation and wiring

Specifications

- Interface:
- RS-485, 2 wires
- Speed (bps): 600, 1200, 2400, 4800, 9600, 19.2k, 38.4k, 57.6k, 115.2k
- Relay Output:
- Channel number: 8
- Output type: form A
- Contact rating:
- AC 0.5A/125V
- DC 1A/30V, 0.3A/110V
- ON/OFF time interval: 3ms
- Expected life: 10^8 (at 180 cpm)
- Insulation resistance: 1000 MΩ minimum (at 500VDC)
- Storage Temperature Range: -25 to 80 °C
- Operating Temperature Range: -10 to 70 °C
- Power Requirement: +10V to $+30V_{DC}$ Unregulated with against power reversal
- Power Consumption: 0.7W
- Case: ABS with captive mounting hardware
- CE Class A Conformity

2. Pin Assignment



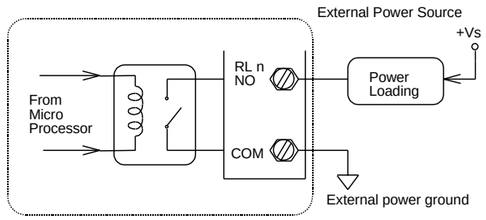
Pin Definitions

Pin #	Signal Name	Description
1	RL6 NO	Relay 6, normal open
2	RL6 COM	Relay 6, common
3	RL7 NO	Relay 7, normal open
4	RL7 COM	Relay 7, common
5	RL8 NO	Relay 8, normal open
6	DEFAULT*/ RL8 COM	Initial state setting / Relay 8, common
7	(Y)DATA+	RS-485 signal, positive
8	(G)DATA-	RS-485 signal, negative
9	(R)+VS	Power supply, +10V ~ +30Vdc
10	(B)GND	Ground
11	RL1 NO	Relay 1, normal open
12	RL1 COM	Relay 1, common
13	RL2 NO	Relay 2, normal open
14	RL2 COM	Relay 2, common
15	RL3 NO	Relay 3, normal open
16	RL3 COM	Relay 3, common
17	RL4 NO	Relay 4, normal open
18	RL4 COM	Relay 4, common
19	RL5 NO	Relay 5, normal open
20	RL5 COM	Relay 5, common

The module is in DEFAULT mode when DEFAULT* pin connected to GND while applying power on the module.
Do not apply any power signal to DEFAULT* pin, just left it open or connected it to GND.

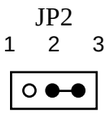
3. Application Wiring

Form A Relay Output

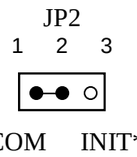


4.Jumper Setting

Init* Mode



Digital Output Mode (Default Setting)



5. Installation

Equipment for Installation

A existing RS-485 network
NuDAM modules
DC Power supply (+10V~+30V)
Wires for power, communication and I/O signal

Installation Procedure

1. Configure every single NuDAM module under the administration utility.
2. The baud rate setting and calibration procedure must be done under the DEFAULT* mode.
3. The baud rate and check-sum status must be identity with the application network. The address ID must not be conflict with other modules on the network.
4. Plug the new module to the existing network.
5. Use the NuDAM administration utility to check the entire network.

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6. Command Set

There are three categories of NuDAM commands. The first is the ***general commands***, including set configuration command, read configuration, reset, read module's name or firmware version, etc. Every NuDAM can response to the general commands. The second is the ***functional commands***, which depends on functions of each module. Not every module can execute all function commands. The third is the ***special commands*** including functions about the programmable watchdog timer, safe values, and the programmable leading code. All the commands used in the NuDAM analog input module are list in the following table.

Command	Syntax
General Command	
Set Configuration	**%(OldAddr)(NewAddr)(InputRange)(BaudRate)(DataFormat)**
Read Configuration	**$(Addr)2**
Read Module Name	**$(Addr)M**
Read Firmware Version	**$(Addr)F**
Software Reset	**$(Addr)RS**
Reset Status	**$(Addr)5**
Functional Command	
Read Digital Output Status	**$(Addr)6**
Digital Output	**#(Addr)(ChannelNo)(OutData)**

Special Command	
Read Command Leading Code Setting	**~(Addr)0**
Change Command Leading Code Setting	**~(Addr)10(C1)(C2)(C3)(C4)(C5)(C6)**
Set Host Watchdog / Safety Value	**~(Addr)2(Flag)(TimeOut)(SafeValue)**
Read Host WatchDog / Safe Value	**~(Addr)3**
Host is OK	**~****
I/O Polarity Setting	**~(Addr)CP(State)**
Read Polarity Setting	**~(Addr)CR**

**** The module accepts calibration command, baud rate and checksum configuration setting under the DEFAULT* mode.***

**** Please refer the manual in PDF file format in the CD for detail description of these commands.***

7. ADLINK on the Internet

The full version manual can be download from website
http://www.adlink.com.tw/download/manual/index.htm#6000

Homepage: http://www.adlink.com.tw
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