

I-7013(D), M-7013P(D) Quick Start

Ver. 1.2 2015.3.25

Warranty

All products manufactured by ICP DAS are under warranty regarding defective materials for a period of one year from the date of delivery to the original purchaser.

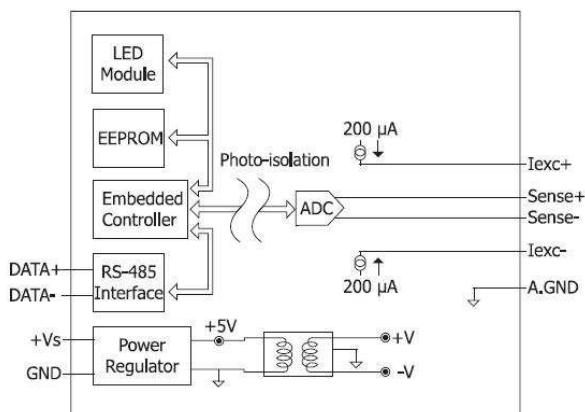
Warning

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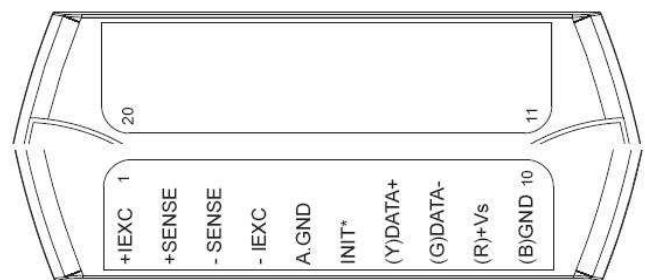
Packing List

<p>I-7013(D), M-7013P(D)</p> 	<p>Plastic Rail</p> 	<p>CD</p> 	<p>Quick Start Guide</p> 
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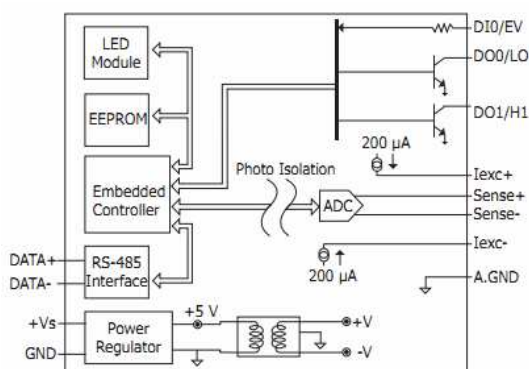
Internal I/O Structure < I-7013(D) >



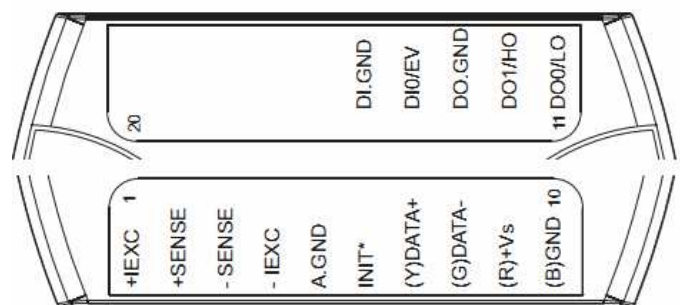
Pin Assignments < I-7013(D) >



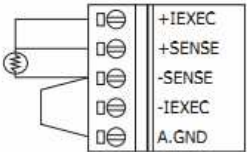
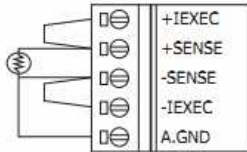
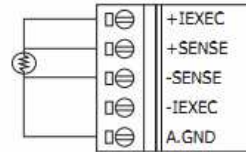
Internal I/O Structure < M-7013P(D) >



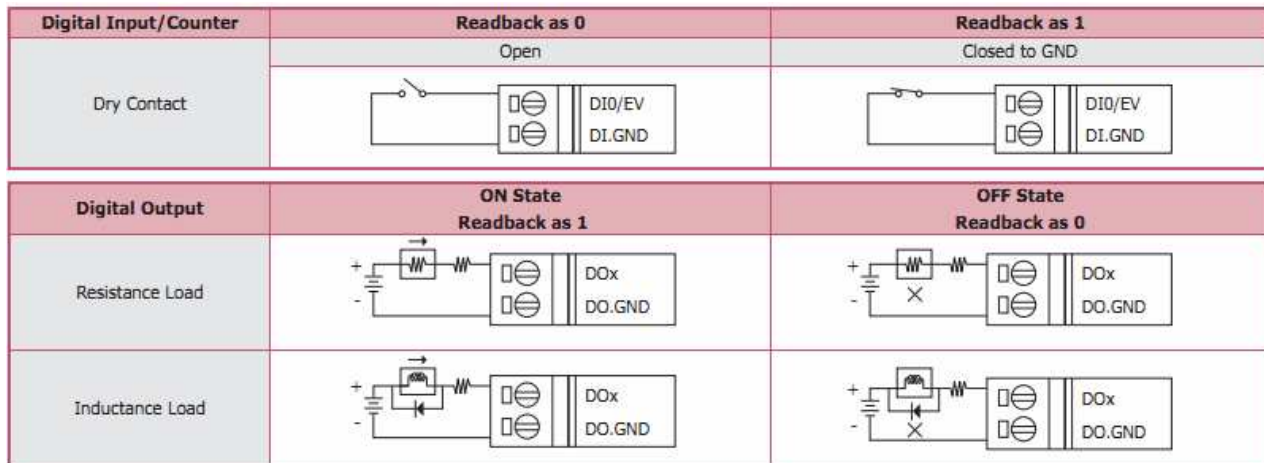
Pin Assignments < M-7013P(D) >



Wire Connections < I-7013(D) , M-7013P(D) >

2-wire RTD Connection	3-wire RTD Connection	4-wire RTD Connection
		

■ Wire Connections < M-7013P(D) >



■ Modbus Table

Address	Description	R/W	Address	Description	R/W
30001	Analog input value of channel 0	R	10001	Digital input channel 0	R
30097	Counter value of DI 0	R	00033 ~	Digital outputs	R/W
40225 ~	Low/high alarm limits	R/W	00097 ~	Safe values of digital outputs	R/W
40226			00193 ~	Power on values of digital outputs	R/W
40481	Firmware version (low word)	R	00257	Protocol, 0: DCON, 1: Modbus RTU	R/W
40482	Firmware version (high word)	R	00259	Filter setting, 0: 60Hz rejection, 1: 50Hz rejection	R/W
40483	Module name (low word)	R	00260	Modbus host watchdog mode	R/W
40484	Module name (high word)	R		0: same as I-7000 1: can use AO and DO command to clear host watchdog timeout status	
40485	Module address	R/W	00261	1: enable, 0: disable host watchdog	R/W
40486	Baud rate	R/W	00262	1: enable, 0: disable alarm	R/W
40487	Type code	R/W	00263	1: latch, 0: momentary alarm	R/W
40488	Modbus response delay time in ms	R/W	00264	1: clear latch alarm	W
40489	Host watchdog timeout value, 0 ~ 255, in 0.1s	R/W	00266	1: clear counter	W
40492	Host watchdog timeout count, write 0 to clear	R/W	00269	Data format, 0: hex, 1: engineering	R/W
40495	LED mode, 1: controlled by module, 2: controlled by host (for M-7011D only)	R/W	00270	Host watch dog timeout status, write 1 to clear host watch dog timeout status	R/W
40496	LED data for host control mode, valid ranges: -19999 ~ + 19999 (for M-7011D only)	W	00273	Reset status, 1: first read after power d on, 0: not the first read after powered on	R
30865	Low word of resistance value of channel 0 in 0.01 ohm	R			
30866	High word of resistance value of channel 0 in 0.01 ohm	R			

■ DCON Protocol

Functions	Command	Response	Notes
Read module name	\$AAM	!AA(Data)	AA: address number
Read module firmware version	\$AAF	!AA(Data)	
Read analog input data	#aa	>(data)	

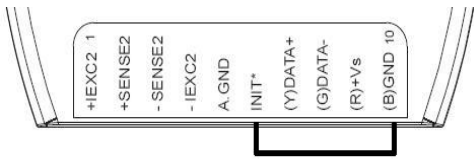
If you want to know the detail DCON protocol, please check it from CD or web

CD path: \\napdos\7000>manual\

Web: ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/7000/manual/

Module test and configuration

Step 1: INIT Operation



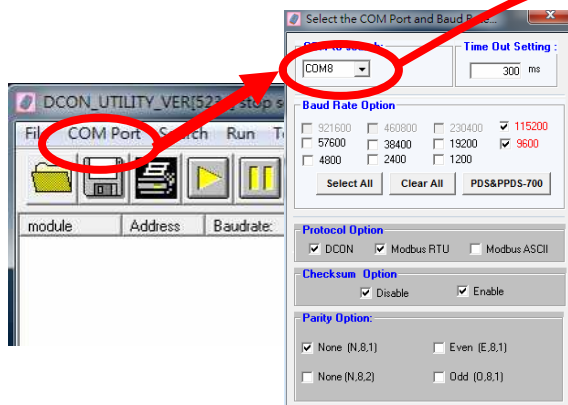
1. Short the INIT* pin and the GND pin.
2. Reboot the module

Step 2: Install & Run DCON Utility

1. Please Install DCON Utility first
You can find the software in the CD.
CD path:
<Driver>:\napdos\driver\dcon_utility\
Web link:
http://ftp.icpdas.com/pub/cd/8000cd/napdos/driver/dcon_utility/
2. Run DCON utility



Step 3: Set search configuration & search module



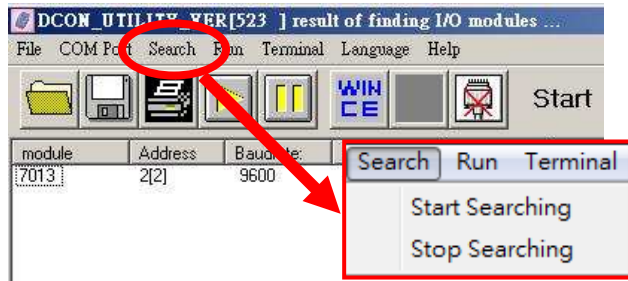
Select COM Port Number

1. Click "COM Port"
2. Assign the communication information and click "OK"

Module Default Setting	
COM Port	Refer converter Port Number
Baud Rate	9600
Protocol	DCON for I-7000 Modbus RTU for M-7000
Parity Option	N,8,1

3. Click "Search" and select "Start Searching"
Software will search the modules from COM Port
4. Click "Search" and select "stop searching"
Manual stop when the modules searched

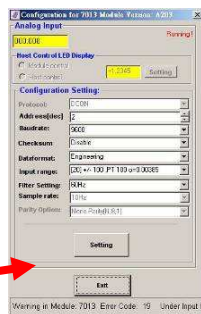
Note:
When no module can be searched, please check the wire and communication information



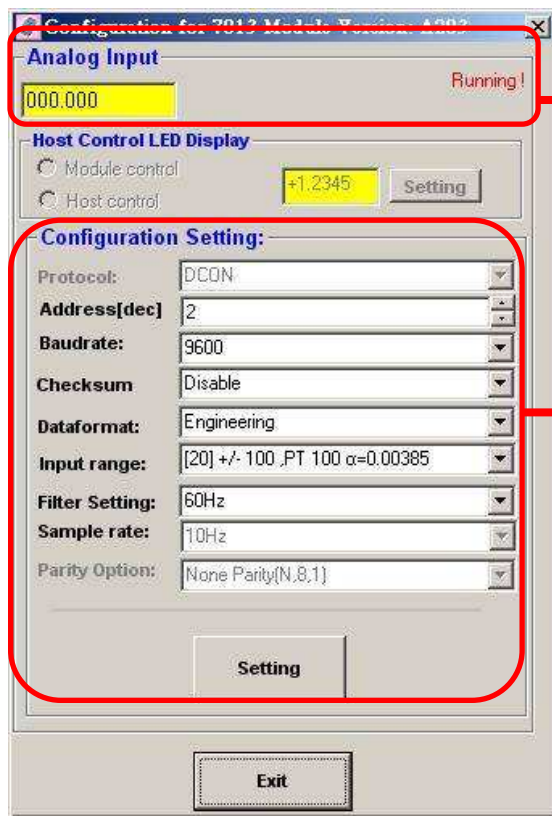
Step 4: Select Module for testing and configuration



Double click "select module"



Step 5: Configuration Settings & Channel Settings

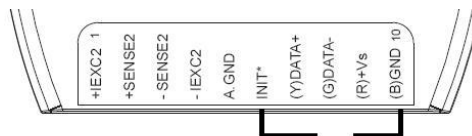


Channel Status

Module Settings	
Protocol	DCON / Modbus
Address	1~255 (0:INIT)
Baud rate	1200~115200
Parity option	N,8,1
Input range	Depends on signal sources

Step 6: Change to normal mode and keep the settings

1. Disconnect the INIT* pin from the GND pin.
2. Reboot the module



■ Trouble Shooting

Q1. How to do when forgot module address or baud rate?

Please turn to INIT mode, and run DCON Utility to search.
The module supports DCON protocol at the INIT mode.
And the address is 0. The communication setting is "9600,N,8,1".

Q2. How to configure the I-7000 and M-7000 modules?

ICP DAS provide DCON Utility to configure I-7000 and M-7000 modules.
Please download the last version from: http://ftp.icpdas.com/pub/cd/8000cd/napdos/driver/dcon_utility/

Q3. How to calibrate the analog input module?

Usually it is not necessary to calibrate the analog input module.
However, in case you need to perform this operation, we provide a function to calibrate the module.
Please refer to user manual 1.9.

Notice:

1. Please update DCON Utility to version 5.2.3 or more.
2. Keep the module running more than 30 minutes to warm-up.

Q4. How to programming with I-7000 or M-7000 by C#, VB, VC?

ICP DAS I-7000 and M-7000 series both support DCON protocol. And Only M-7000 series supports Modbus protocol.
For DCON protocol, please download SDK and Demo from:
http://ftp.icpdas.com/pub/cd/8000cd/napdos/driver/dcon_dll_new/
For Modbus protocol, please refer this web link:
<http://www.icpdas.com/products/PAC/i-8000/modbus.htm>

If there is any other question, please feel free to contact us. Email: service@icpdas.com
Website: http://www.icpdas.com.tw/contact_us/contact_us.html