The functionality of the M-7011 is the same as the I-7011. The M-7011 supports both the DCON and Modbus RTU protocols. Only one protocol is supported at a time and the default protocol is the Modbus RTU.

Address Mapping

Address	Description	Attribute
30001	Analog input value of channel 0	R
30129	CJC temperature in 0.01C	R
30097	Counter value of DI 0	R
40225 ~ 40226	Low/high alarm limits	R/W
40481	Firmware version (low word)	R
40482	Firmware version (high word)	R
40483	Module name (low word)	R
40484	Module name (high word)	R
40485	Module address	R/W
40486	Baud rate	R/W
40487	Type code	R/W
40488	Modbus response delay time in ms	R/W
40489	Host watchdog timeout value, 0 ~ 255, in 0.1s	R/W
40491	Module CJC offset in 0.01C	R/W
40492	Host watchdog timeout count, write 0 to clear	R/W
40495	LED mode, 1: controlled by module, 2: controlled by host (for M-7011D only)	R/W
40496	LED data for host control mode, valid ranges: -19999 ~ + 19999 (for M-7011D only)	W

Address	Description	Attribute
10001	Digital input channel 0	R
10129	1: thermocouple open wire	R
00033 ~	Digital outputs	R/W
00097 ~	Safe values of digital outputs	R/W
00193 ~	Power on values of digital outputs	R/W
00257	Protocol, 0: DCON, 1: Modbus RTU	R/W
00259	Filter setting, 0: 60Hz rejection, 1: 50Hz rejection	R/W
00260	Modbus host watchdog mode 0: same as I-7000 1: can use AO and DO command to clear host watchdog timeout status	R/W
00261	1: enable, 0: disable host watchdog	R/W
00262	1: enable, 0: disable alarm	R/W
00263	1: latch, 0: momentary alarm	R/W
00264	1: clear latch alarm	W
00266	1: clear counter	W
00268	1: enable, 0: disable CJC offset	R/W
00269	Modbus data format, 0: hex, 1: engineering	R/W
00270	Host watch dog timeout status, write 1 to clear host watch dog timeout status	R/W
00273	Reset status, 1: first read after power d on, 0: not the first read after powered on	R
00276	Open wire detection, 1: enable, 0: disable	R/W

For address 300xx you can use Modbus function 3 and 4 to read. For address 100xx you can use Modbus function 1 and 2 to read.

Following is the engineering data format table for Modbus protocol. For the hex data format, please refer to Section 1.10 of the user's manual.

Type code	Input type	min	max
00	+/-15mV	-15000	15000
01	+/-50mV	-5000	5000
02	+/-100mV	-10000	10000
03	+/-500mV	-5000	5000
04	+/-1V	-10000	10000
05	+/-2.5V	-25000	25000
06	+/-20mA	-20000	20000
0E	Type J	-2100	7600
0F	Type K	-2700	13720
10	Type T	-2700	4000
11	Type E	-2700	10000
12	Type R	0	17680
13	Type S	0	17680
14	Type B	0	18200
15	Type N	-2700	13000
16	Type C	0	23200

Host Watchdog

For Modbus protocol, when the host watchdog is enabled, every valid command can clear the host watchdog timer. Read from the register 12345 of address 0 can also clear the host watchdog timer.

Alarm Mode

For Modbus protocol, the alarm limits are compared with the value of engineering data format.

Notes:
1. This release note is valid only for the M-7011 module.
2. The terminal assignment and the wiring are the same as those of the I-7011.
3. The user's manual and the software utility can be downloaded from the ICP DAS web site http://www.icpdas.com.

Technical Service:
● Email problem report to service@icpdas.com if you have any questions.

Problem Report Items:
When reporting problems, please include the following information:
1) Is the problem reproducible? If yes, how to reproduce?
2) What kind and version of platform you are using?
    For example, Windows 98 SE, Windows ME, Windows XP Professional, etc.
3) What kind of our products that you are using?
    Please see the product's manual .
4) If a dialog box with an error message was displayed, please include the full text of the dialog box, including the text in the title bar.
5) If the problem involves other programs or hardware devices, what devices or version of the failing programs that you are using?
6) Other comments relative to this problem or any suggestions will be welcome.

After we have received your comments, we will take about two business days to test the problems that you described. And then reply to you as soon as possible. Please resend the problem report if you do not get response from us in three days and please keep contact with us.