

The M-7017Z module is a new design for 10-channel differential inputs or 20-channel single-ended inputs. For the hardware specifications, please refer to the Hardware User Guide.

DCON Protocol

Most DCON commands of M-7017Z are the same as M-7017R. Followings are the new DCON commands for M-7017Z.

1. Set single-ended/differential mode
 @AASN
 AA: address of module.
 N: 0: differential mode, 1: single-ended mode.
2. Read single-ended/differential mode
 @AAS
 AA: address of module
 Return
 !AAN
 AA: address of module.
 N: 0: differential mode, 1: single-ended mode.
3. Read the analog input of specified channel in single-ended mode.
 #AANN
 AA: address of module.
 NN: the channel to be read, from 00 to 13(hex)
4. The M-7017Z is individual channel configurable. The commands to set/read channel type code are \$AA7CiRrr and \$AA8Ci, respectively. Please refer to the user's manual for details.

Modbus RTU Protocol

For Modbus RTU protocol, the address mapping is as follows.

Address	Description	Attribute
10129 ~ 10138	Over/under range status of channel 0 to 9 for 4 ~ 20mA or 0 ~ 20mA ranges	R
30001 ~ 30020	Analog input value of channel 0 to 19	R
40257 ~ 40276	Type code of channel 0 to 19	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, valid range: 1 ~ 247	R/W
40486	Bits 5:0 Baud rate, valid range: 3 ~ 10 Bits 7:6 00: no parity, 1 stop bit 10: even parity, 1 stop bit 11: odd parity, 1 stop bit	R/W
40488	Modbus response delay time in ms, valid range: 0 ~ 30	R/W
40489	Host watchdog timeout value, 0 ~ 255, in 0.1s	R/W
40490	Channel enable/disable (low word)	R/W
40492	Host watchdog timeout count, write 0 to clear	R/W
40497	Channel enable/disable (high word)	R/W

M-7017Z Module Release Note: 2008/04/29

Address	Description	Attribute
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
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
00271	1: enable, 0: disable fast mode	R/W
00273	Reset status, 1: first read after powered on, 0: not the first read after powered on	R
00277	1: single-ended mode, 0: differential mode	R/W

Following is the engineering data format table for Modbus protocol. The under range value is -32768 and the over range value is 32767. For the hex data format, please refer to Section 1.11 of the user's manual.

Type code	Input type	min	max
07	4~20mA	4000	20000
08	+/-10V	-10000	10000
09	+/-5V	-5000	5000
0A	+/-1	-10000	10000
0B	+/-500mV	-5000	5000
0C	+/-150mV	-15000	15000
0D	+/-20mA	-20000	20000
1A	0~20mA	0	20000

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Notes:

1. This release note is valid only for the M-7017Z module.
2. The terminal assignment and the wiring are the same as those of the I-7017Z.
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.