I-7019R
8 Channel Universal Analog / Thermocouple Input Module
Quick Start Guide

Product Website:
http://www.icpdas-usa.com/i_7019r.html
http://www.icpdas-usa.com/dcon_utility_pro.html

1. Introduction

I-7019R provides cost-effective protection and conditioning for a wide range of valuable industrial control signals and systems. I-7019R provides 4KV of ESD protection. The individual channels are configurable; the user selects the type and range remotely by issuing commands from the host. Fewer modules may be used for different applications. The user may mount the modules on a DIN rail, panel or wall. Modules have a screw-terminal block to connect to the signals. I-7019R comes with FREE EZ Data Logger Software.

2. Terminal Assignment

![Terminal Assignment Diagram]
3. Block/ Wiring Diagram
4. **I-7019R Jumper setting**

The I-7019R and M-7019R modules can accept current inputs from –20mA to 20mA. No external resistor required but the corresponding jumper must be shorted. The following figure shows the jumper positions.

![Jumper Diagram]

The corresponding jumpers and channels are as follows.

<table>
<thead>
<tr>
<th>Channel</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

When a channel is connected to a current input, the corresponding jumper should be shorted. For example, to connect a current input to channel 3, short the JP8 jumper.
For I-7019R and M-7019R PCB version 4.4 and later, the jumpers for current input are shown in the following figure.

The corresponding jumpers and channels are as follows.

<table>
<thead>
<tr>
<th>Channel</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jumper</td>
<td>J1</td>
<td>J2</td>
<td>J3</td>
<td>J4</td>
<td>J5</td>
<td>J6</td>
<td>J7</td>
<td>J8</td>
</tr>
</tbody>
</table>

The jumper position for voltage and current inputs are:

- **Voltage Input**: ![Diagram of voltage input]
- **Current Input**: ![Diagram of current input]
5. Default Settings
Default settings for the I-7019 series modules are:
- Module address: 01
- Analog input type: Type 08, -10V to 10V
- Baud Rate: 9600 bps
- Checksum disabled
- Engineering unit format

6. Configuration
To install the module, follow the steps below:
1. Connect the analog input.
2. Connect the module to the RS-485 network using the DATA+ and DATA- terminals. If the host is only equipped with an RS-232 interface, then an RS-232 to RS-485 converter will be required.
3. Connect the module to the power supply using the +Vs and GND terminals. Note that the voltage supplied should be in the range of +10 to +30V DC.
4. Open DCON utility program click on COM port (first icon).

2 It can select multi-options such as Baud Rate, Protocol, Checksum, and Format to search module. The default settings for the module can be found in Section 3. Click OK after selecting the COM port setting.
5. DCON utility pro will search for the selected COM port according to the setting previously set. DCON Utility Pro supports DCON and Modbus protocol for all ICPDAS and the others modules.

6. Configuration I/O module setting on PC
7. For I-7000 modules, DCON utility pro terminal can send command to the module. See user manual Sections 2 for details command.

Configure the module: sending the \%AANNTTCCFF command. See user manual Section 2 for detail commands. To configure the I-7017Z, I-7018Z and I-7019 series, the $AA7CiRrr command must also be sent.

Read data from the input channels: send either the #AA or #AAN command to the module.
8. If user doesn't know the command, user can select Address and ID, it will show some refer commands as below. User can select necessary command to test or debug modules.