ECAT-2016 series Quick Start

v1.1, Jan. 2021

Packing List

In addition to this guide, the package includes the following items:



ECAT-2016N/2016-3

Technical Support

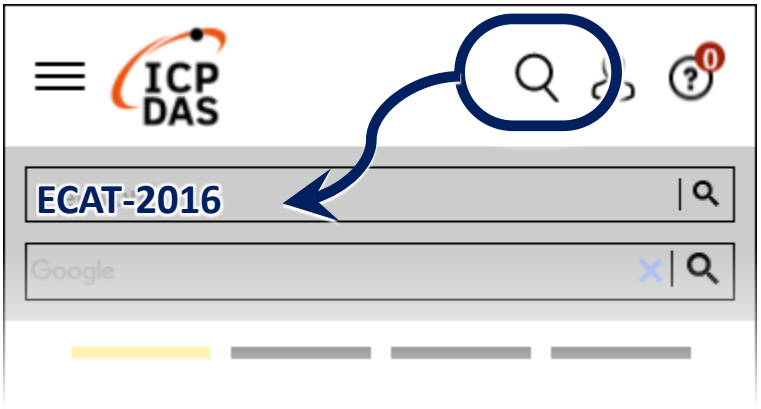
service@icpdas.com

www.icpdas.com

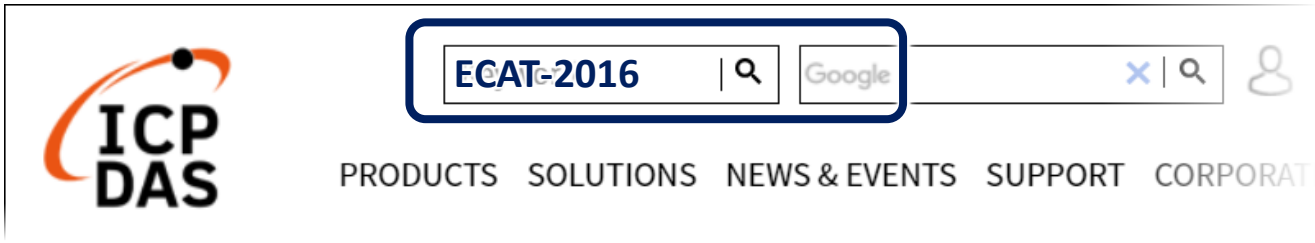
Resources

How to search for ESI, manuals and spec information on ICP DAS website.

- For Mobile Web



- For Desktop Web



Related Information

For more detailed information related to the manual, hardware manual:

http://www.icpdas.com/en/download/index.php?model=ECAT-2016N

http://www.icpdas.com/en/download/index.php?model=ECAT-2016-3

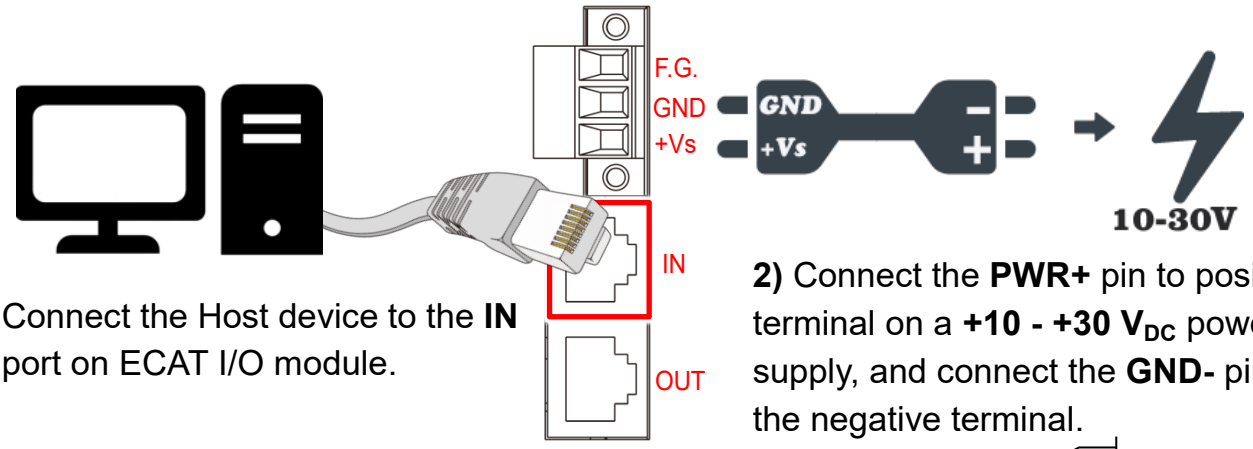
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1 Connecting the Power and Host

※Switch on module and connect it to an EtherCAT network

NOTE:

Attaching an ESC directly to an office network will result in network flooding, since the ESC will reflect any frame – especially broadcast frames – back into the network (broadcast storm).



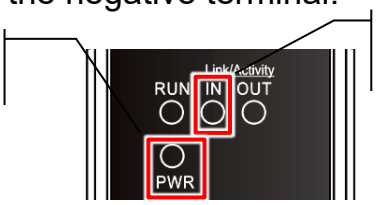
1) Connect the Host device to the **IN** port on ECAT I/O module.

2) Connect the **PWR+** pin to positive terminal on a **+10 - +30 V_{DC}** power supply, and connect the **GND-** pin to the negative terminal.

※Verify that LEDs indicator

Red, OK





Green, OK



2 Search Modules

ESI file

The latest ESI file (**ECAT-2016….xml**) can be downloaded from website at

ECAT-2016_Series_EtherCAT_Slave_Information(ESI).xml

Install the ESI file

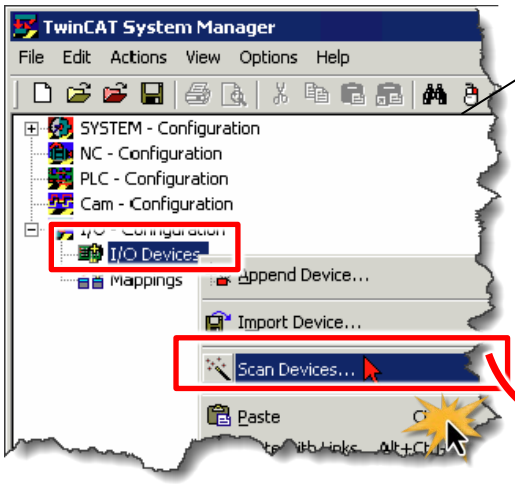
Copy the **"ECAT-2016….xml"** file to the Master Tools installation folder, as indicated in the table below.

Software	Default Path
Beckhoff EtherCAT Configuration	C:\EtherCAT Configurator\EtherCAT
Beckhoff TwinCAT 3.X	C:\TwinCAT\3.x\Config\Io\EtherCAT
Beckhoff TwinCAT 2.X	C:\TwinCAT\Io\EtherCAT

Run the EtherCAT Master software (Beckhoff TwinCAT 2.X)

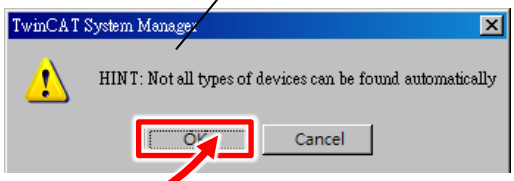
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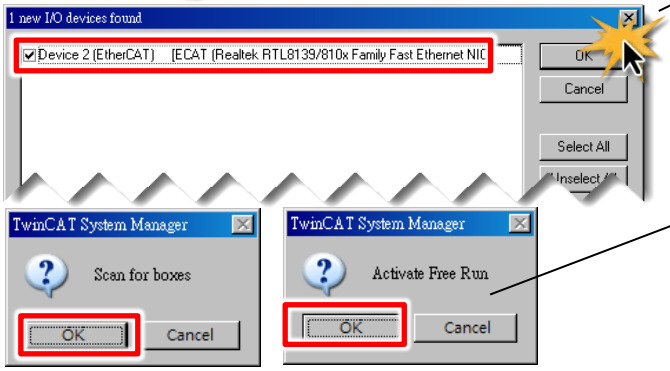
Switch on power and execute the TwinCAT System Manager (Config mode)



1. I/O Devices → Right click → Scan Devices…

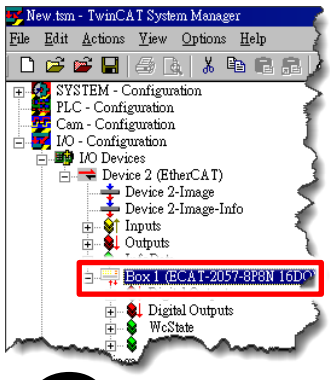
2. Click **“OK”** button





3. Choose the correct network device which is connected to ECAT Module and click **“OK”** button

4. Click **“OK”** to start scanning Click **“OK”** to activate the free run mode for TwinCAT system manager



5. In the left-hand window, **ECAT Module** is now shown in the TwinCAT system Manager

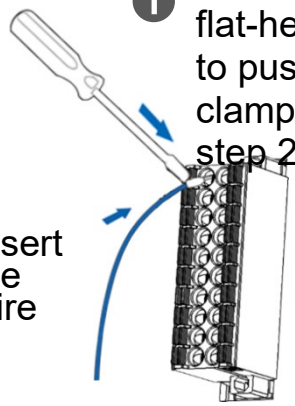
3 Wiring to the Connector

➢ Wiring Tip

Connecting the wire

❶ Use the blade of a flat-head screwdriver to push the wire clamp, then hold until step 2 complete.

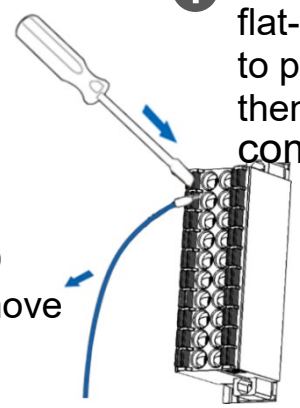
❷ Insert the wire



Removing the wire

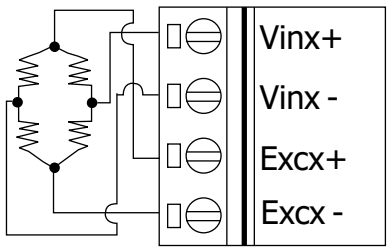
❶ Use the blade of a flat-head screwdriver to push the wire clamp, then hold until step 2 complete.

❷ Remove the wire



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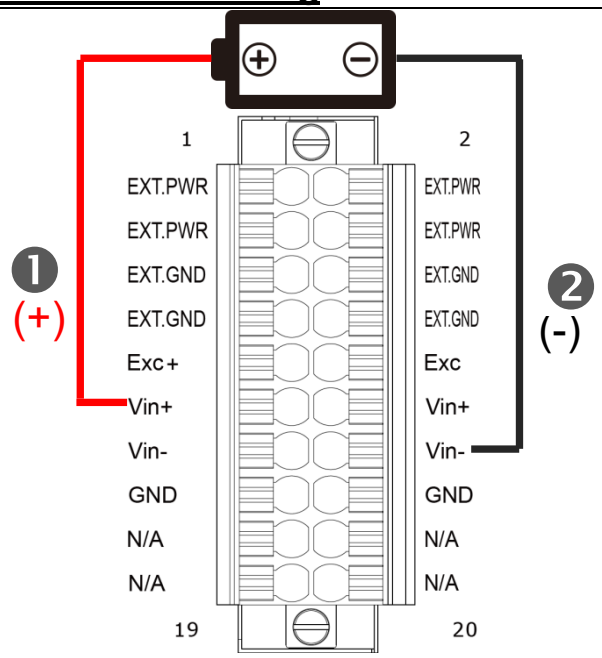
➢ Wire Diagrams

Strain gauge Input


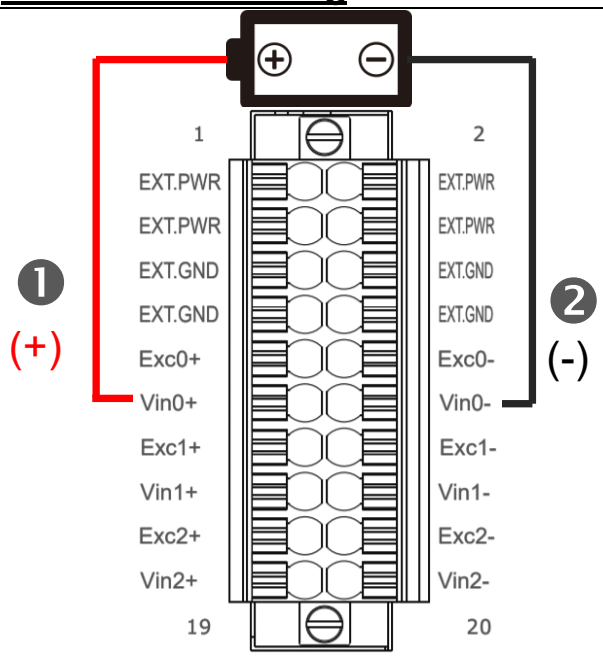
NOTE：Use Stable Signal Source (e.g., Dry Battery)

➢ Connect Strain gauge channel 0

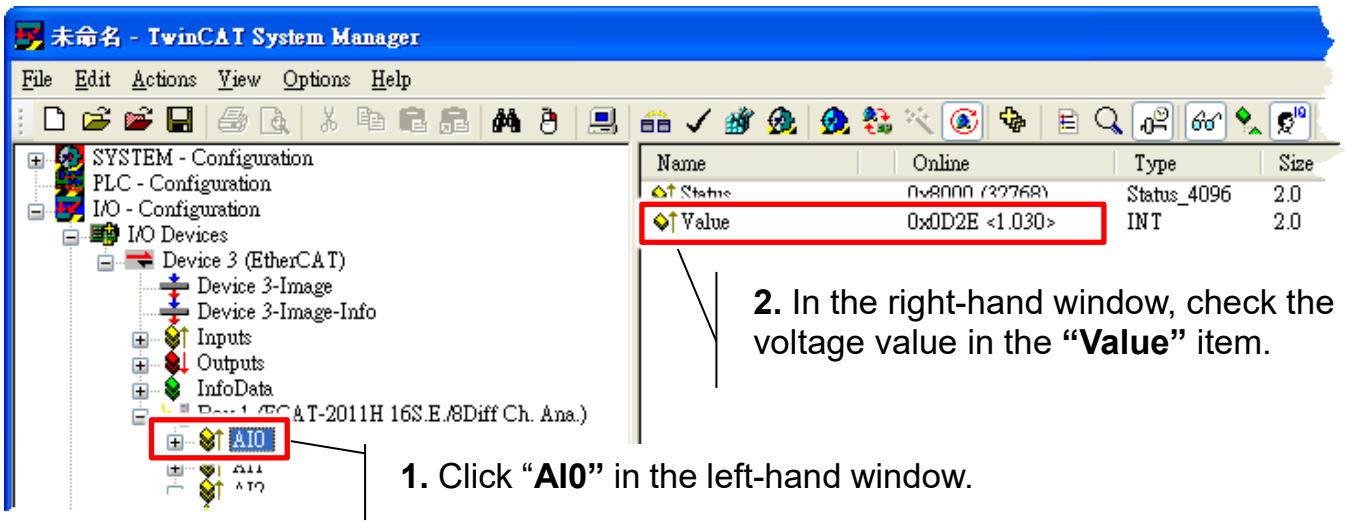
ECAT-2016N wiring



ECAT-2016-3 wiring



➢ Verifying the Strain guage Functionality



2. In the right-hand window, check the voltage value in the **“Value”** item.

1. Click “**AI0**” in the left-hand window.

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