

# ECAT-2012H Quick Start

**v1.0, Oct. 2019**

## What's in the box?

The package includes the following items:



ECAT-2012H Module x 1

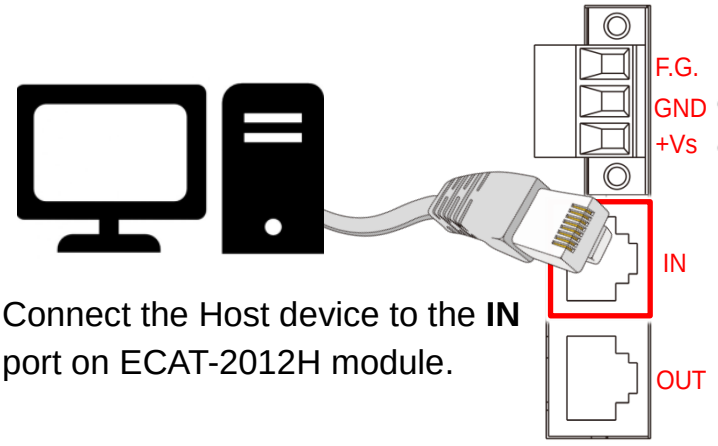


Quick Start x1 (This Document)

# 1 Connecting the Power and Host PC

➢ **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-2012H module.

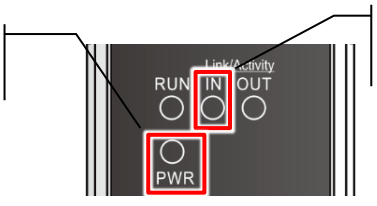



**2)** Connect the **PWR+** pin to positive terminal on a **+10 - +30 $V_{DC}$** power supply, and connect the **GND-** pin to the negative terminal.

➢ **Verify that LEDs indicator**

Red, OK




Green, OK






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# 2 Search Modules

## ESI file

The latest ESI file (**ICPDAS ECAT-2012.xml**) can be downloaded from ICP DAS website at

http://ftp.icpdas.com/pub/cd/fieldbus_cd/ethercat/slave/ecat-2000/software/

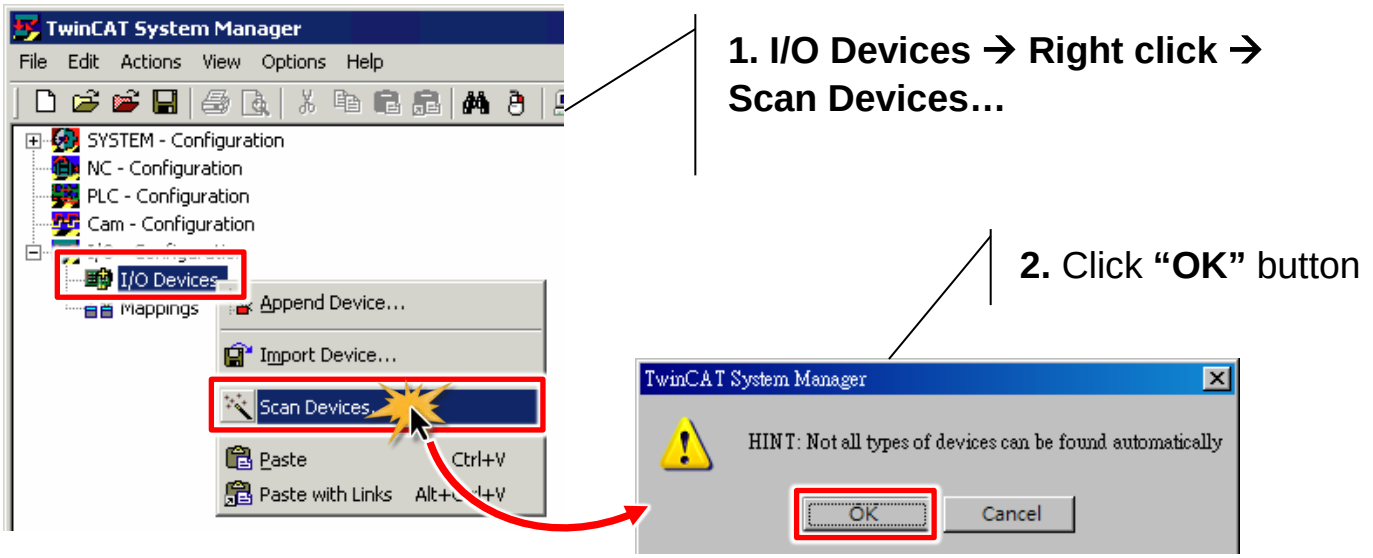
## Install the ESI file

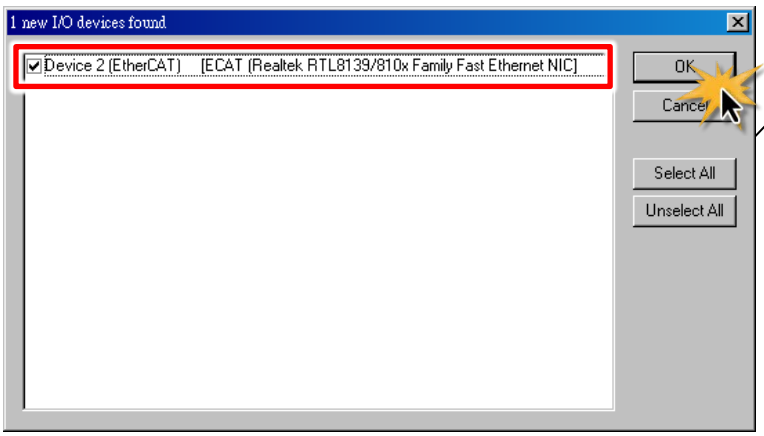
Copy the **"ICPDAS ECAT-2012.xml"** file to the Master Tools installation folder, as indicated in the table below.

| 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)

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

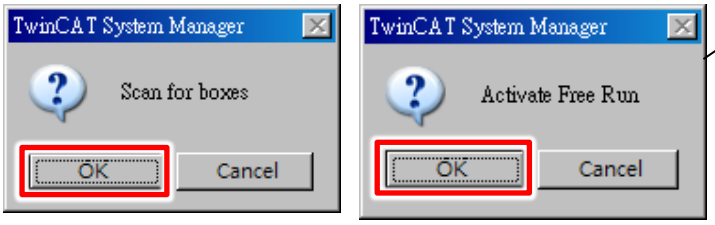


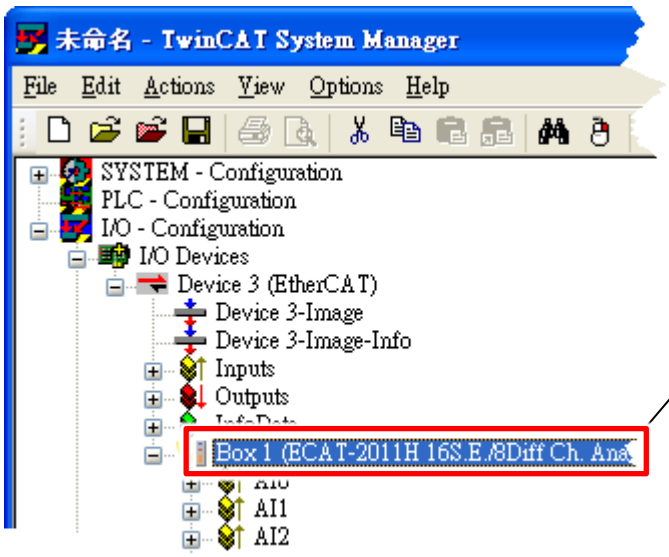

**3.** Choose the correct network device which is connected to ECAT-2012H and click **"OK"** button



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



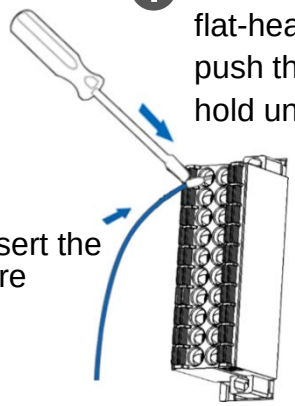

**5.** In the left-hand window, **ECAT-2012H** is now shown in the TwinCAT system Manager

# 3 Wiring to the Connector

## ➢ Wiring Tip

### Connecting the wire

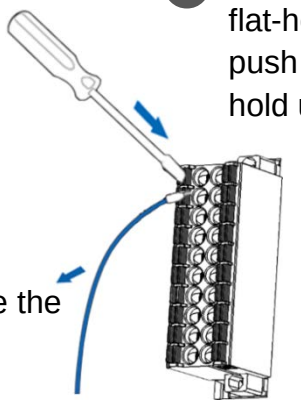
❶ Use the blade of a flat-head screwdriver to push the wire clamp, then hold until step 2 complete.



❷ Insert the wire

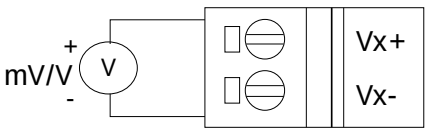
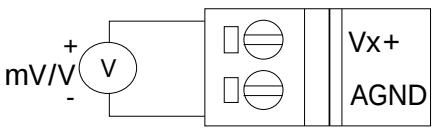
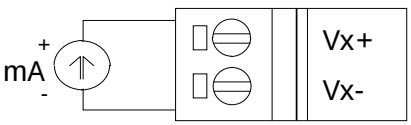
### Removing the wire

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



❷ Remove the wire

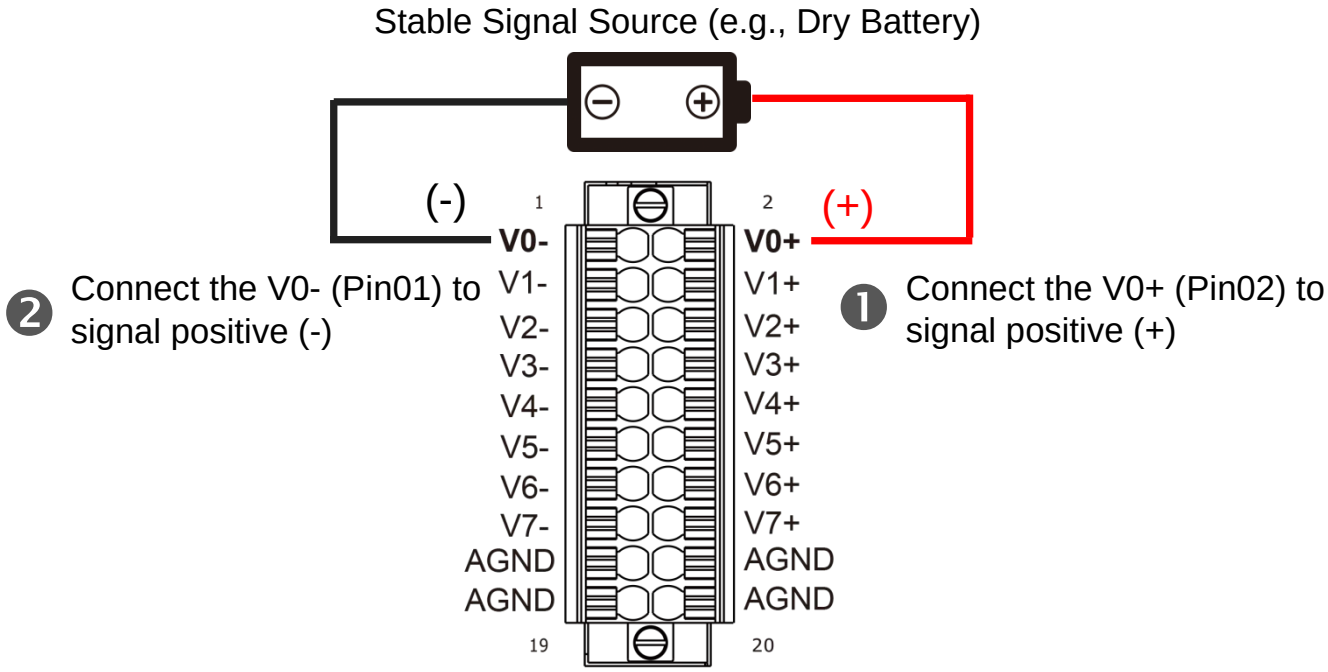
## ➢ Wire Diagrams

| Voltage Input (Differential) | Voltage Input (Single-ended) | Current Input |
|---|---|---|
|   **(Default Settings)** |   |   |

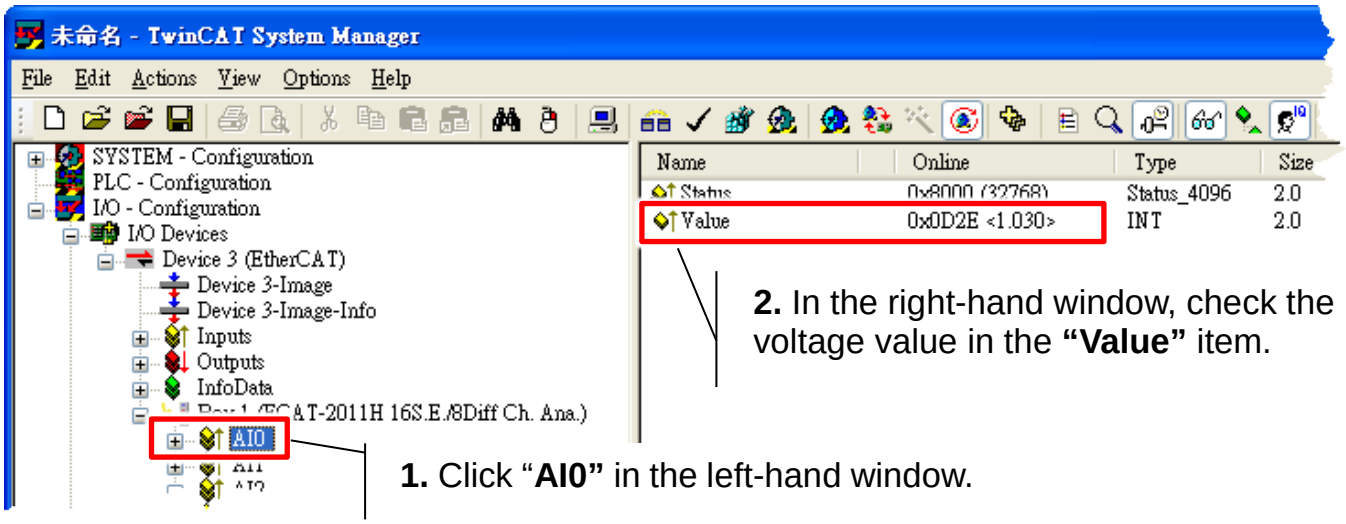


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## ➢ Wiring the AI0 (Analog Input type default is Differential input)




## ➢ Verifying the AI Functionality




# Related Information

- EtherCAT Series Product Page:

http://www.icpdas.com/root/product/solutions/industrial_communication/fieldbus/ethercat/ethercat_selection_guide.html

- Documentation & Software:

http://ftp.icpdas.com/pub/cd/fieldbus_cd/ethercat/slave/ecat-2000/



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