EC4-EP20E series Quick Start

v1.0, Feb. 2025

Packing List

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



EC4-EP20E

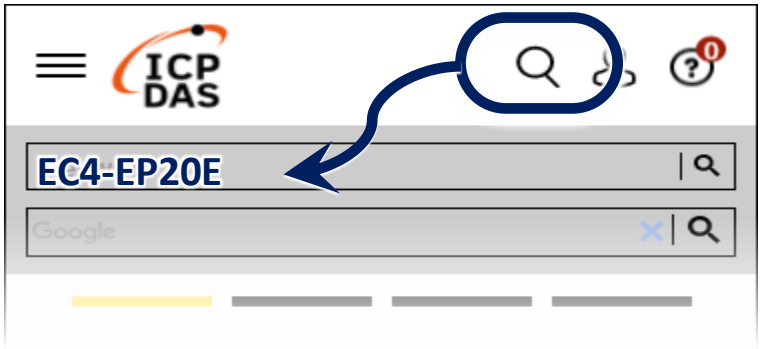
Technical Support

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:

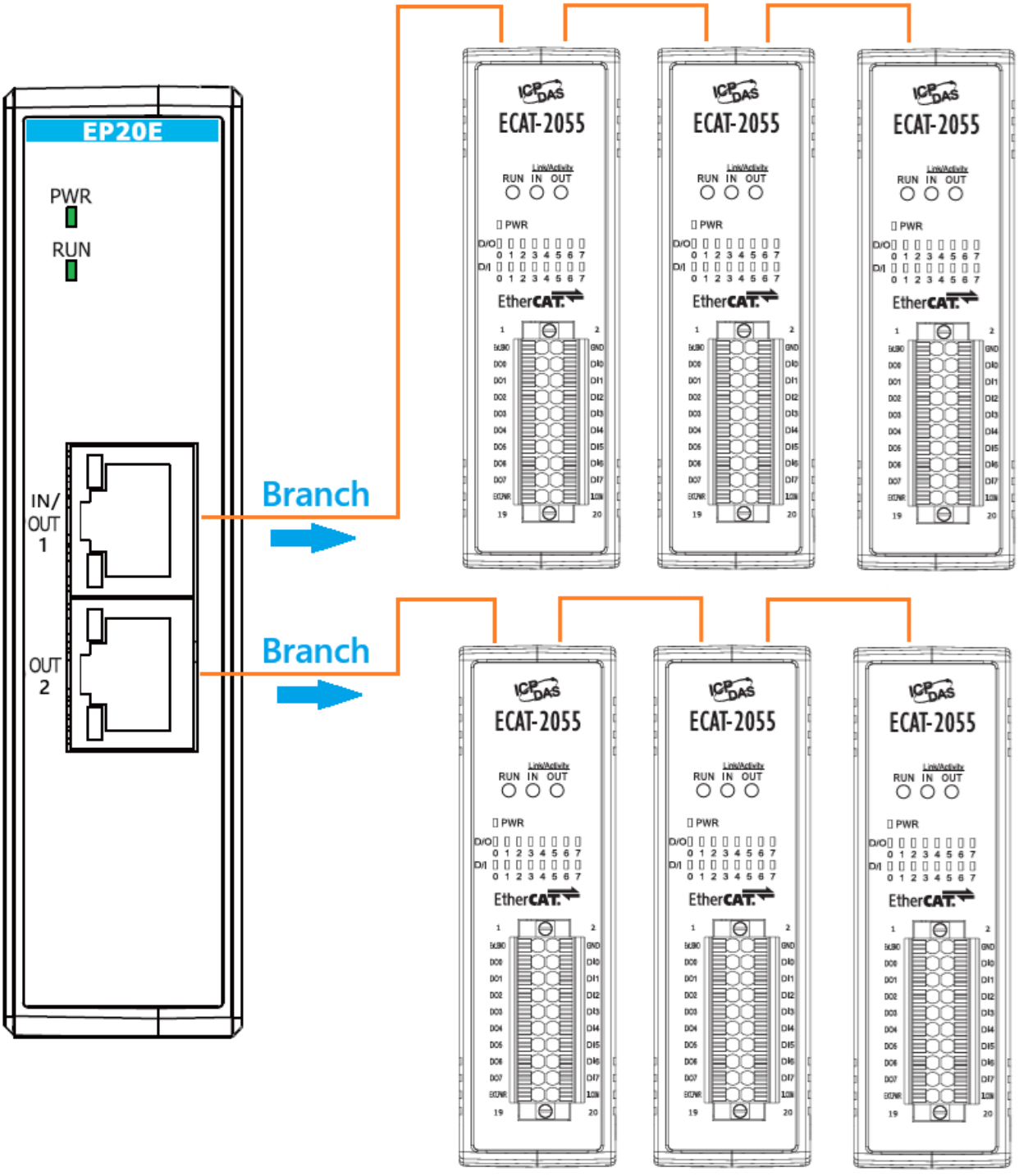
https://www.icpdas.com/en/download/index.php?model=EC4-EP20E

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1. Application

Wiring Method 1: Branch Wiring

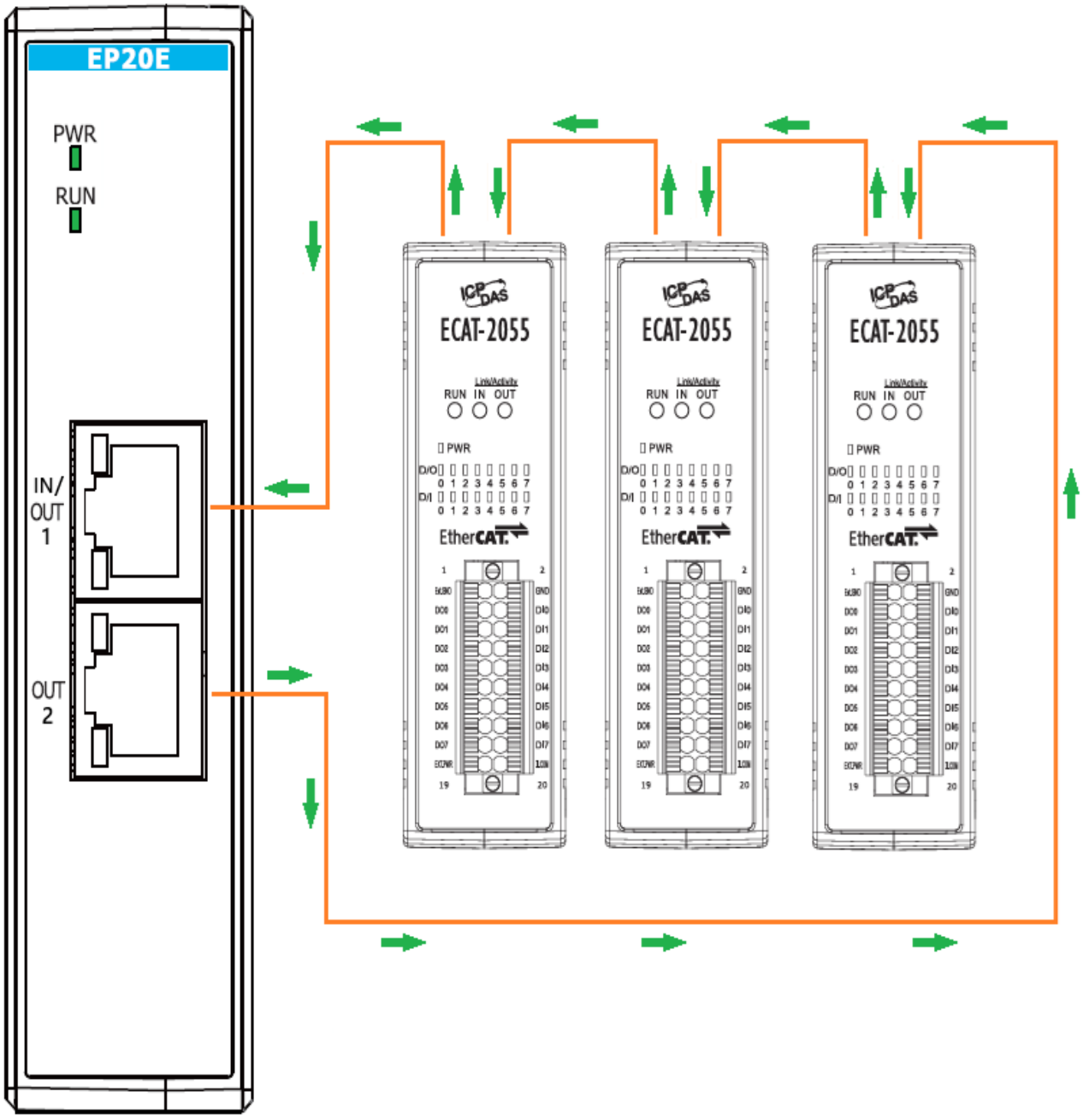
Convert the Daisy-Chain multi-way tap topology (Branch) directly using the EtherCAT junction to simplify wiring.



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Wiring Method 2: Ring Wiring

Cable redundancy is a ring topology. When the communication cable on one side is disconnected, it can also communicate through the cable on the other side to ensure the stable operation of the control system. The structure is as follows.



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2. Search Modules

Download and Unzip file to get ESI file

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

EC4-IO_ESI_XML.zip

Unzip the **“ECx-IO….zip”** to get the **“EC4-IO….xml”** ESI file(XML format)

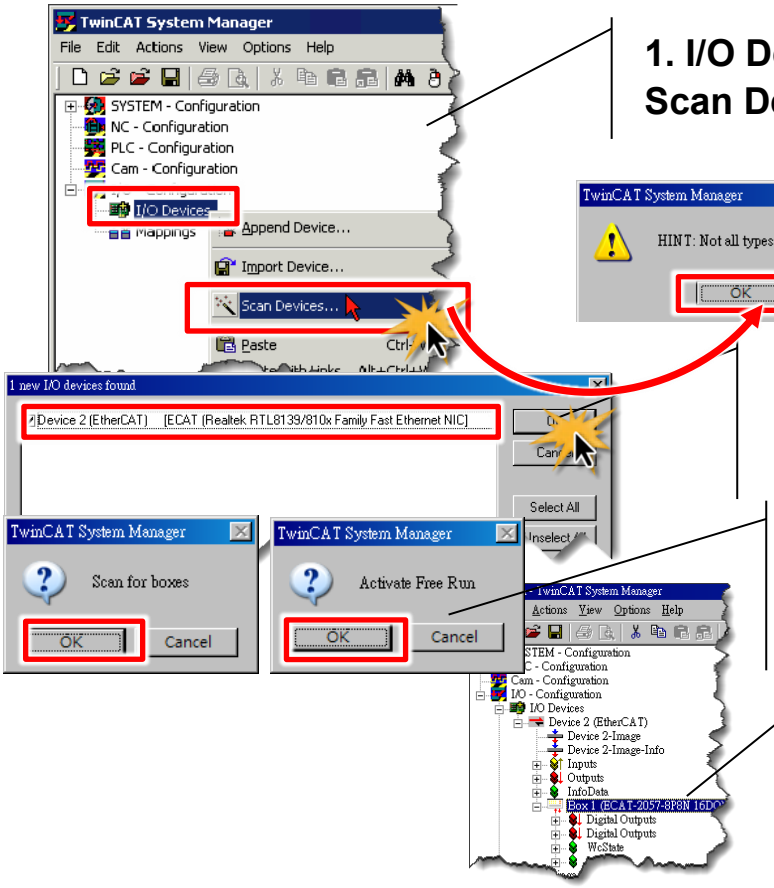
Install the ESI file

Copy the **“EC4-IO….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 Main software (Beckhoff TwinCAT 2.X)

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 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,Module is now shown in the TwinCAT system Manager

6. When TwinCAT detects the EC4-EP20E module, it means the communication is normal.

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