

### EtherCAT Interface Absolute Encoder

**Quick Manual** 



Sample: UCD-EC00B-1213-L100-PRM



### **1**. Connection an EtherCAT Absolute Encoder

#### **1.1** Connector Description





#### **1.2 Device Connection**

### DC Power Supply



2



### 2. Network Connection

≥ 2.1 After the hardware connection is completed, power on, check whether the green light on the back of the encoder (L/A) is flashing normally;

≥ 2.2 Download the ESI file from the Posital website and copy the ESI file to the following directory: …\TwinCAT \ IO \ Ethercat;

2.3 Open the TwinCAT3 software and add a new project under the device:





### 2.4 Under the tabs is it possible to set the different configurations.

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2.5 If no external EtherCAT®-Master is in use (only Laptop as Master) then an additional task is necessary. Create a new "TwinCAT Task With Image" under System→Tasks

2.Choose "TwinCAT Task With Image"

1.Add a new task	Insert Task
	Name: Task 2 OK
Posital EtherCAT Encoder - Microsoft Visual Studio       V       Quick Launch (Ctrl+Q)       P       Image: Comparison of the	Type O TwinCAT Task TwinCAT Task With Image O TwinCAT Job Task (Worker Task)
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	3. Activate Auto start Posital EtherCAT Encoder + × Task Online Parameter (Online) Add Symbols
PLC SAFETY C++ ↓ /O ▲ <sup>40</sup> Devices ▲ <sup>40</sup> Device 2 (EtherCAT) <sup>10</sup> Error List	Name: Task 2 - ☑ Auto start
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#### 2.6 Create a new variable under Task2→Inputs and select type "DWORD"





### 2.7 Double-click on the variable and associate it with the Fraba "Position Value"

1.C	hoose "Linked to"				
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2.8 Check whether the data transmission is correct under Box 1 (Fraba EtherCAT)  $\rightarrow$  Encoder  $\rightarrow$ 

#### Position Value



Check whether the data transmission is correct



### **3**. Device Configuration

**2** 3.1 View the list of instructions in Box 1 (Fraba EtherCAT)  $\rightarrow$  coe-online

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### Configure device parameters in the instruction list

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### **3.2** The list of instructions

Chapter	Object	Description
3.2.1	6000h:	If the value is set to #04, the clockwise rotation of the encoder increases after modification, and the resolution is set to be adjustable
		If the value is set to #05, the anti-clockwise rotation of the encoder will increase after modification and the resolution will be adjustable
3.2.2	6001h	Single-turn resolution setting (set value should be less than any value of the maximum single-turn resolution)
3.2.3	6002h	Total measuring range setting(set value should be less than the max value)
3.2.4	6003h	Preset Value (Sets the current position value)
3.2.5	1010h	Store application parameter (Set object 1010h to save all parameters to the non volatile memory)
3.2.6	1011h	Restore application parameter







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