

快速使用手册

EtherCAT 接口编码器



▶ 样品: UCD-EC00B-1213-L100-PRM



编码器连接器



4 pin female, D-coded

Pin Number	Signal	Sketch
1	Tx +	
2	Rx +	Κ
3	Tx -	
4	Rx -	

4 pin male, A-coded

Pin Number	Signal	Sketch o
1	power supply $(10V - 30V)$	
2	Reserved, not connected	
3	power supply (GND)	
4	Reserved, not connected	

所需电缆:

连接器2

连接器1 连接器3

1. M12-RJ45: 10017227 - 2米长PUR屏蔽电缆, 4针D码, 公头 2. M12-M12 开线: 10017217 - 2米长PUR屏蔽电缆, 5针A码, 母头

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on encoder view







通讯连接

▶ 硬件连接完成后通电,检查编码器背部绿灯是否正常闪烁;

▶ 在Posital 官网上下载ESI文件,并将ESI文件复制到以下目录中:

 \cdots TwinCAT \ IO \ Ethercat;

▶ 打开TwinCAT3软件,并在设备下添加新项目:





通讯连接

▶ 在选项卡下面可设置不同的配置

General里更改设备名称

设备地址

Posital EtherCAT Encoder - Microsoft Visual Studio			7	Quick Launch (Ctrl+Q)	
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🛟 Image-Info					
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▷ 🛄 InfoData				• •	
👂 🐏 Box 1 (Fraba EtherCi					MISC
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Ready					🔳



通讯连接

▶ 如果没有使用外部EtherCAT®-Master(只有笔记本电脑作为Master),则需要额外的任务,在 System→Tasks下新建一个"TwinCAT Task With Image"

1. 新建一个变量 Posital EtherCAT Encoder - Microsoft Visual Studio マ Quick Launch (Ctrl+Q) P - □ × FILE EDIT VIEW PROJECT BUILD DEBUG TWINCAT TWINSAFE PLC TOOLS WINDOW HELP POO 岡・口・雪 日 2000 - ● ▲ 日日 ワ・マ・● Attach ● Release ● 『 ママンド 日月 日 日 2000 - ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	2. 选择 "TwinCAT Task With Image" Insert Task Name: Task 2 (Type O TwinCAT Task With Image O TwinCAT Task (Worker Task)
Solution Explorer Posital EtherCAT Encoder SySTEM License Posital EtherCAT Encoder SYSTEM License Properties Properties <t< td=""><td>O TwinCAT Virtual Task 3. 激活自动开始 Posital EtherCAT Encoder → × Task Online Parameter (Online) Add Symbols Name: Task 2 ✓ Auto start O Auto Start O Auto Start O Cycle ticks: 10 0 10.000 ms</td></t<>	O TwinCAT Virtual Task 3. 激活自动开始 Posital EtherCAT Encoder → × Task Online Parameter (Online) Add Symbols Name: Task 2 ✓ Auto start O Auto Start O Auto Start O Cycle ticks: 10 0 10.000 ms



通讯连接

▶ 在Task2→Inputs下新建一个变量并选择DWORD

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通讯连接

▶ 双击该变量并关联至Fraba "Position Value"

1.选择"Linked to"

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通讯连接

▶ 在Box 1(Fraba EtherCAT) → Encoder → Position Value下检查数据传输是否正常

检查数据传输知否正常





设备编程

▶ 在Box 1(Fraba EtherCAT)→ CoE-Online下查看指令列表

在指令列表中进行设备参数配置

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设备编程

▶ 指令列表

序号	指令	描述
		设置数值为#05,则修改后编码器逆时针旋转数据增大,且设置为分辨率可认
1	1 6000h:	设置数值为#04,则修改后编码器顺时针旋转数据增大,且设置为分辨率可认
2	6001h	单圈分辨率设置(设置值需小于最大单圈分辨率的任意值)
3	6002h	总分辨率设置(设置值需小于总分辨率)
4	6003h	预设值(将当前位置值预设为所需要的数值)
5	1010h	每次设置完成后需执行该指令进行保存
6	1011h	恢复出厂设置





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