POSITAL

快速使用手册

EtherNet/IP 接口编码器
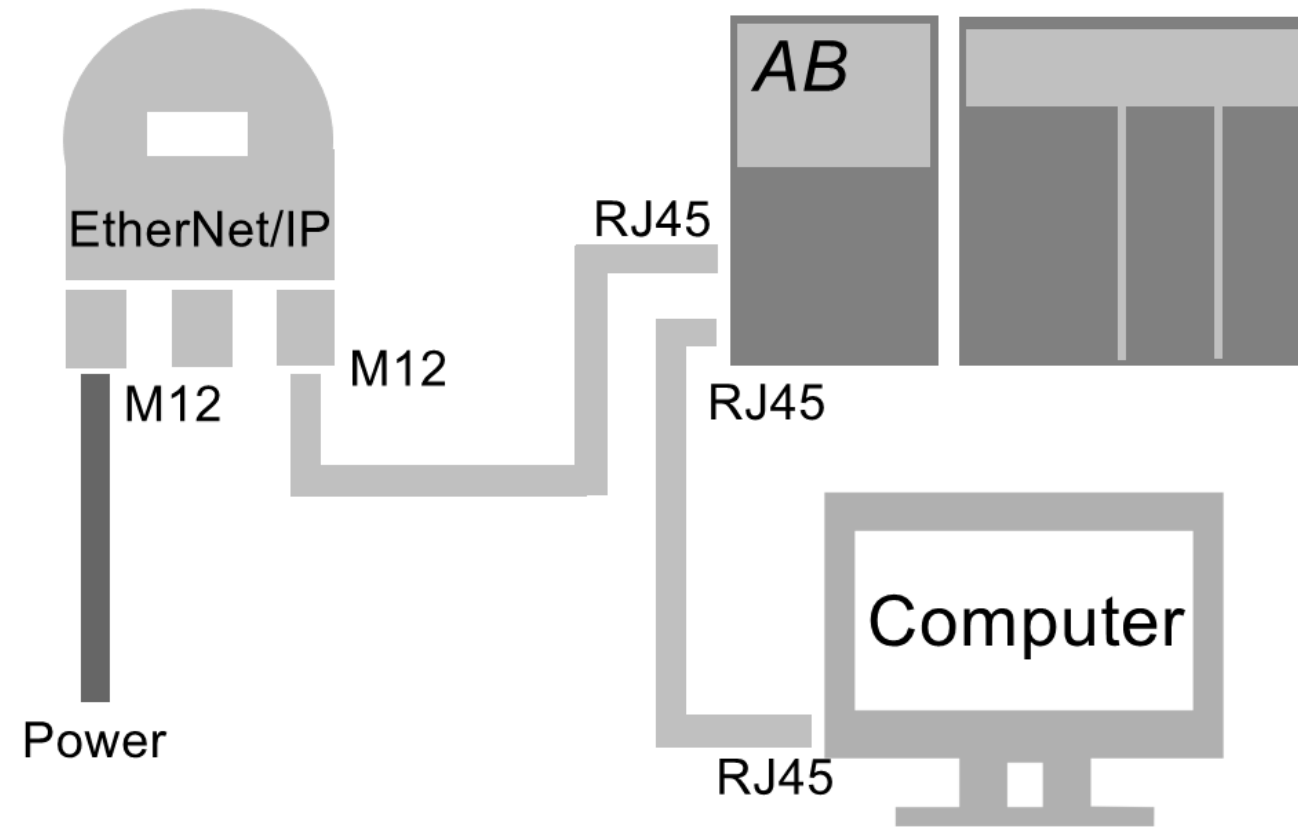

▶ 样品: OCD-EEA1B-1213-C100-PRM

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ETHERNET/IP 编码器快速使用手册

1. 硬件连接

ETHERNET/IP 编码器快速使用手册

IXARC Absolute Rotary Encoder

OCD-EEA1B-1213-C100-PRM

Downloads

Datasheet
2D Drawing
Manual
Configuration File — EDS文件
Tools — 工具
3D Drawing Flange
3D Drawing Housing
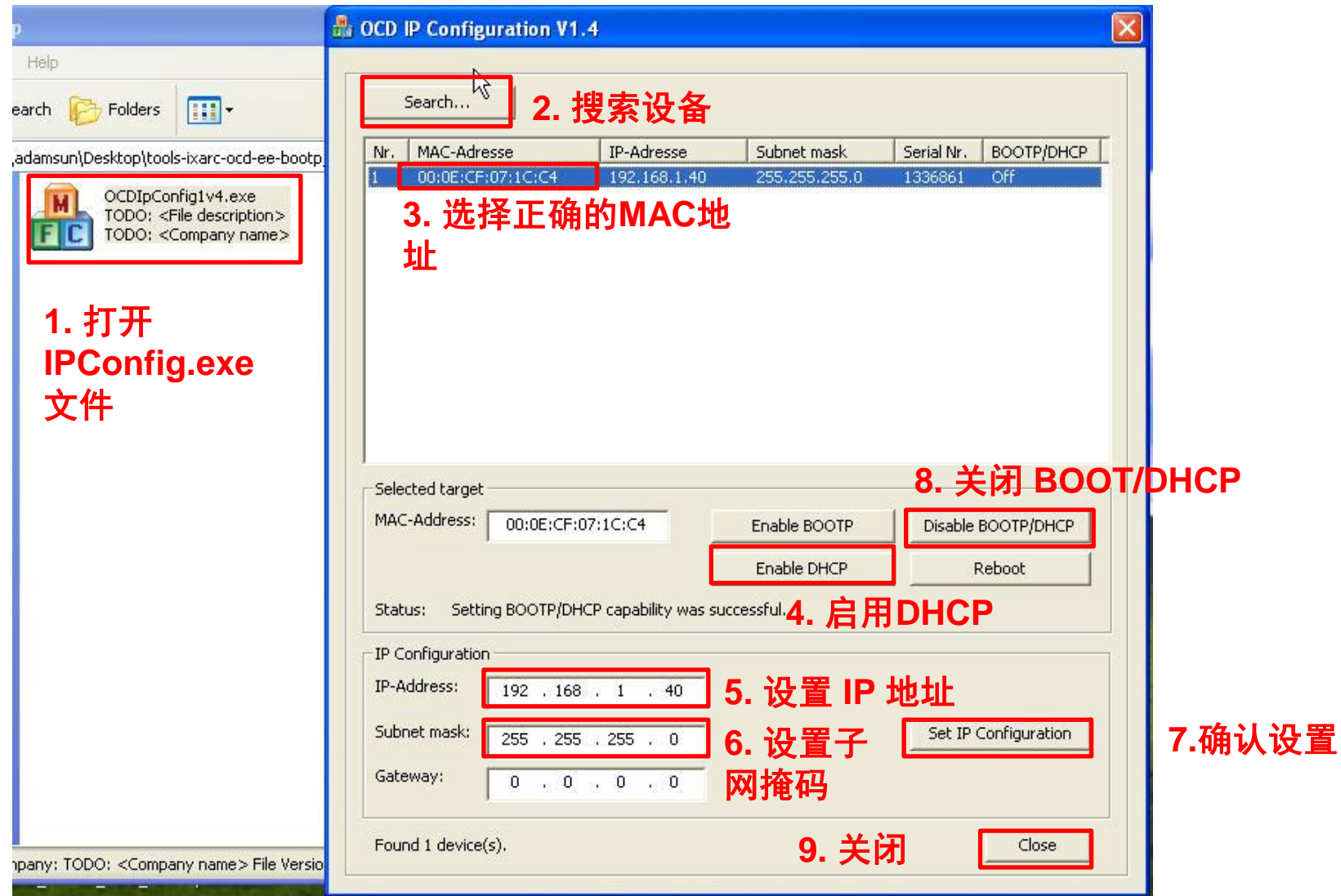Project
CE Certificate
UL Certificate
Certificate
ISO Certificate

1. 通过连接母头M12，通上电源(电压10~30VDC)
2. 通过连接母头M12连接编码器到PLC
3. 通过RJ45电缆连接PLC和计算机
4. 启动ControlLogix5563
5. 你的电脑上安装EDS，RSNetWorx, RSLogix 5000
6. 在我们的网站上，下载EDS文件和配置工具

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2. 设置IP地址

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3. 载入EDS file

1. 登录EDS Wizard

Rockwell Automation - Hardware Installation Tool

This tool allows you to change the hardware description information currently installed on your computer.

2. "添加"

Add — Launch the EDS Wizard and add and associated components only.

Remove — Launch the EDS Wizard and remo files and associated components

Remove All — Remove all previously installed ha associated components from your

Rockwell Automation's EDS Wizard

Registration

Electronic Data Sheet file(s) will be added to your system for use in Rockwell Automation applications.

○ Register a single file
● Register a directory of EDS files

3. 添加一个或多个文件

☐ Look in subfolders

In folder:

ettings\adamsun\Desktop\configuration-eds-ixarc-ocd-ee\EDS_EE_POS   Browse...

4. 设置文件路径

ⓘ * If there is an icon file (.ico) with the same name as the file(s) you are registering then this image will be associated with the device.

To perform an installation test on the file(s), click Next

5."下一步"   Next >   Cancel

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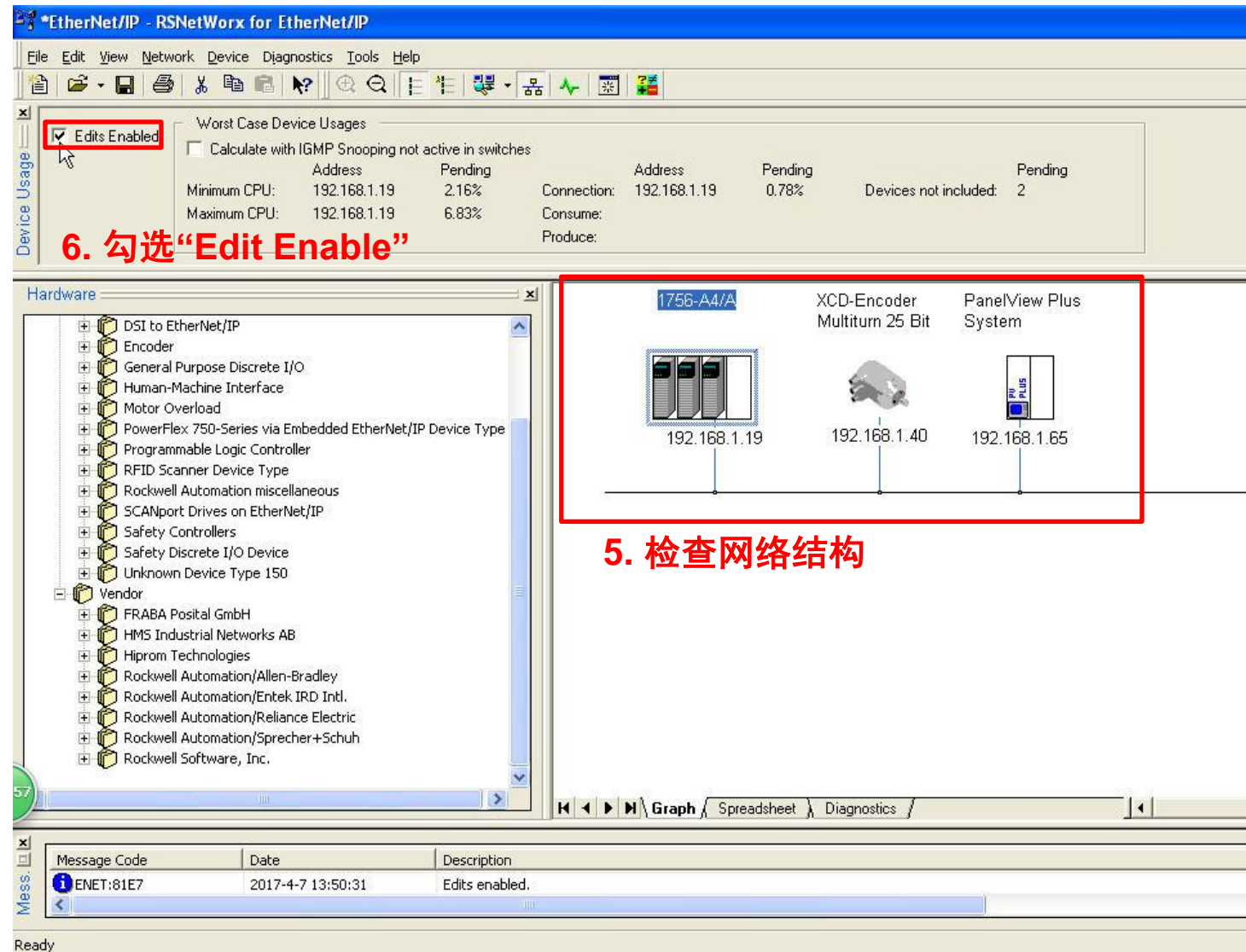
4. 建立网络

2. 点击"Online"

1. 打开RSNetWorx

3.选择合适的网络

4. "OK"

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6. 勾选"Edit Enable"

5. 检查网络结构

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5. 建立新的控制器

2. 点击 "No. Controller"

1. 打开 RSLogix 5000

3. 选择你的电脑

4. 选择正确版本

5. 命名

6. 选择型号

7. 选择 slot

8. 保存合适的路径上

9. "OK"
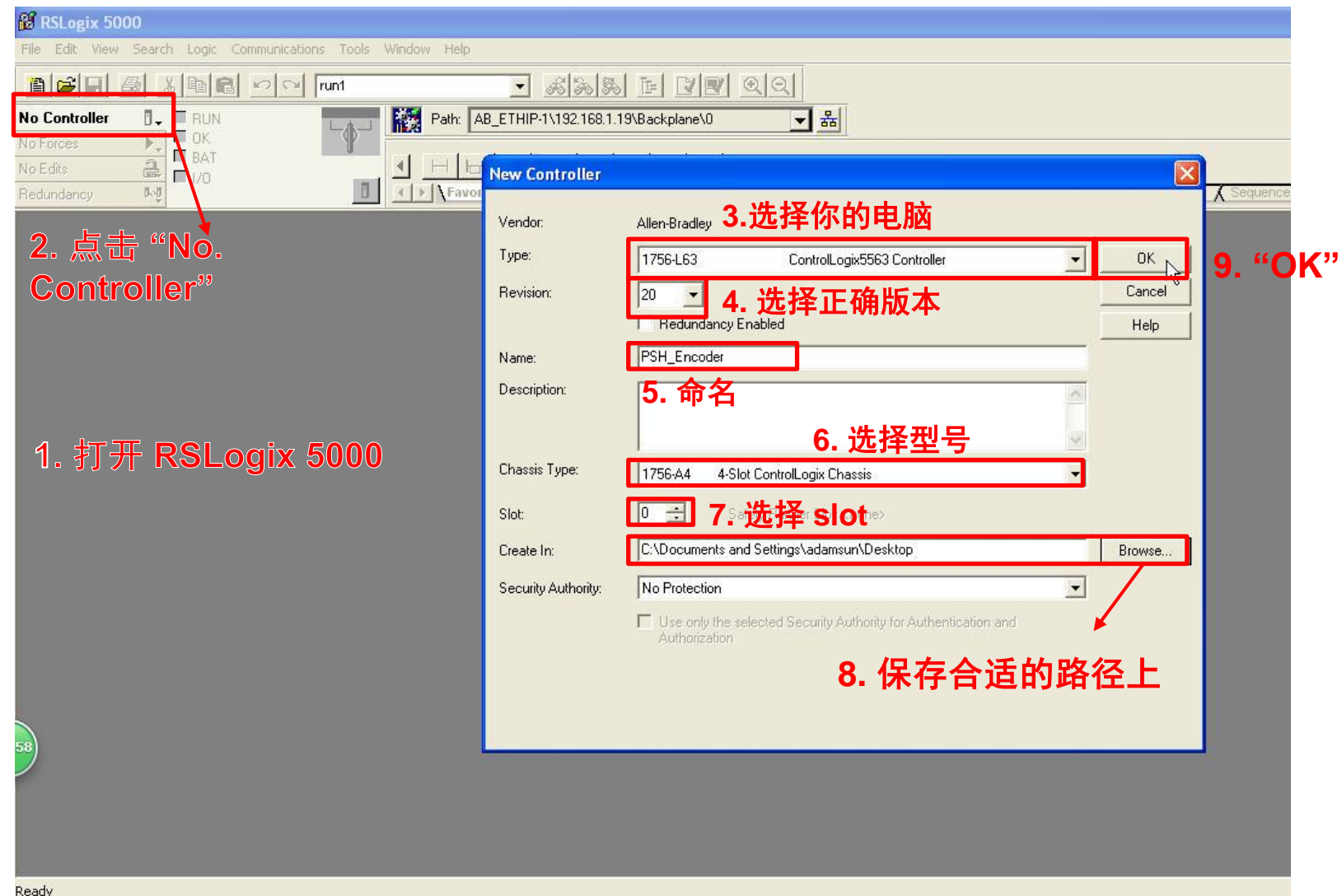
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6.创建一个新的以太网模块

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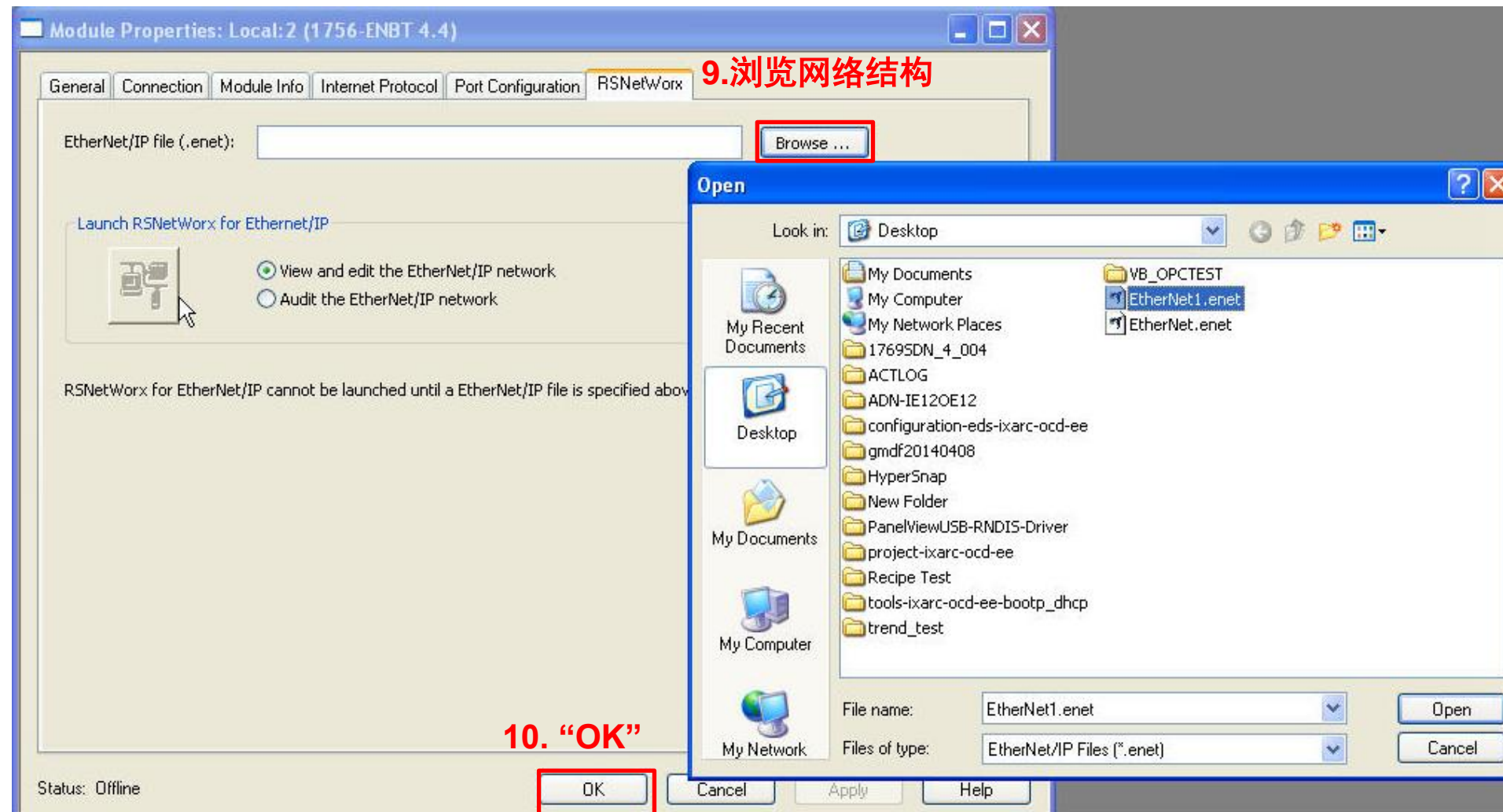
ETHERNET/IP 编码器快速使用手册

7. 创建一个新的以太网编码器模块

Controller Organizer

- Controller PSH_Encoder
  - Controller Tags **8.选择控制器标签**
  - Controller Fault Handler
  - Power-Up Handler
- Tasks
  - MainTask
    - MainProgram
  - Unscheduled Programs / Phases
- Motion Groups
  - Ungrouped Axes
- Add-On Instructions
- Data Types
  - User-Defined
  - Strings
  - Add-On-Defined
  - Predefined
  - Module-Defined
- Trends
- I/O Configuration
  - 1756 Backplane, 1756-A4
    - [0] 1756-L63 PSH_Encoder
    - [2] 1756-ENBT/A ENBT
      - Ethernet
        - New Module...
        - Discover Modules...
        - Paste   Ctrl+V
        - Print

1. 点击 "Ethernet", 选择"New Module"

Select Module Type

Catalog | Module Discovery | Favorites

Enter Search

Catalog Nu...
- 48MS-SN
- 5XRF_IN
- Checker
- Checker
- DataMar
- DataMar
- DataMar
- Drivelogi
- E1 Plus
- EtherNet
- ETHERN
- ETHERN
- ETHERN
- ILX34-AB
- IND560
- IND780
- In-Sight
- In-Sight 3400 Series   Vision System   Cognex Corporat...   Communication

195 of 195 Module Types Found   Add to Favorites

Close on Create   **7. "OK"** Create   Close   Help

New Module

Type:	ETHERNET-MODULE Generic Ethernet Module
Vendor:	Allen-Bradley
Parent:	ENBT
Name:	Encoder **2.命名**
Description:	

3.设置数据形式

Comm Format | Input Data - DINT |

Address / Host Name
- IP Address: 192 . 168 . 1 . 40
- Host Name:

4. 设置IP地址

5. 设置连接参数

Connection Parameters

	Assembly Instance:	Size:	
Input:	3	2	(32-bit)
Output:	105		
Configuration:	106	12	(8-bit)
Status Input:			
Status Output:			

Open Module Properties

6. "OK" OK   Cancel   Help

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9.控制标签及其定义

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8. 下载配置

1. 点击"Communications", 选择 "Who Active"

2. 选择控制器

3. Download

9. 位置数据读取和复位

2.可以根据需要添加逻辑指令
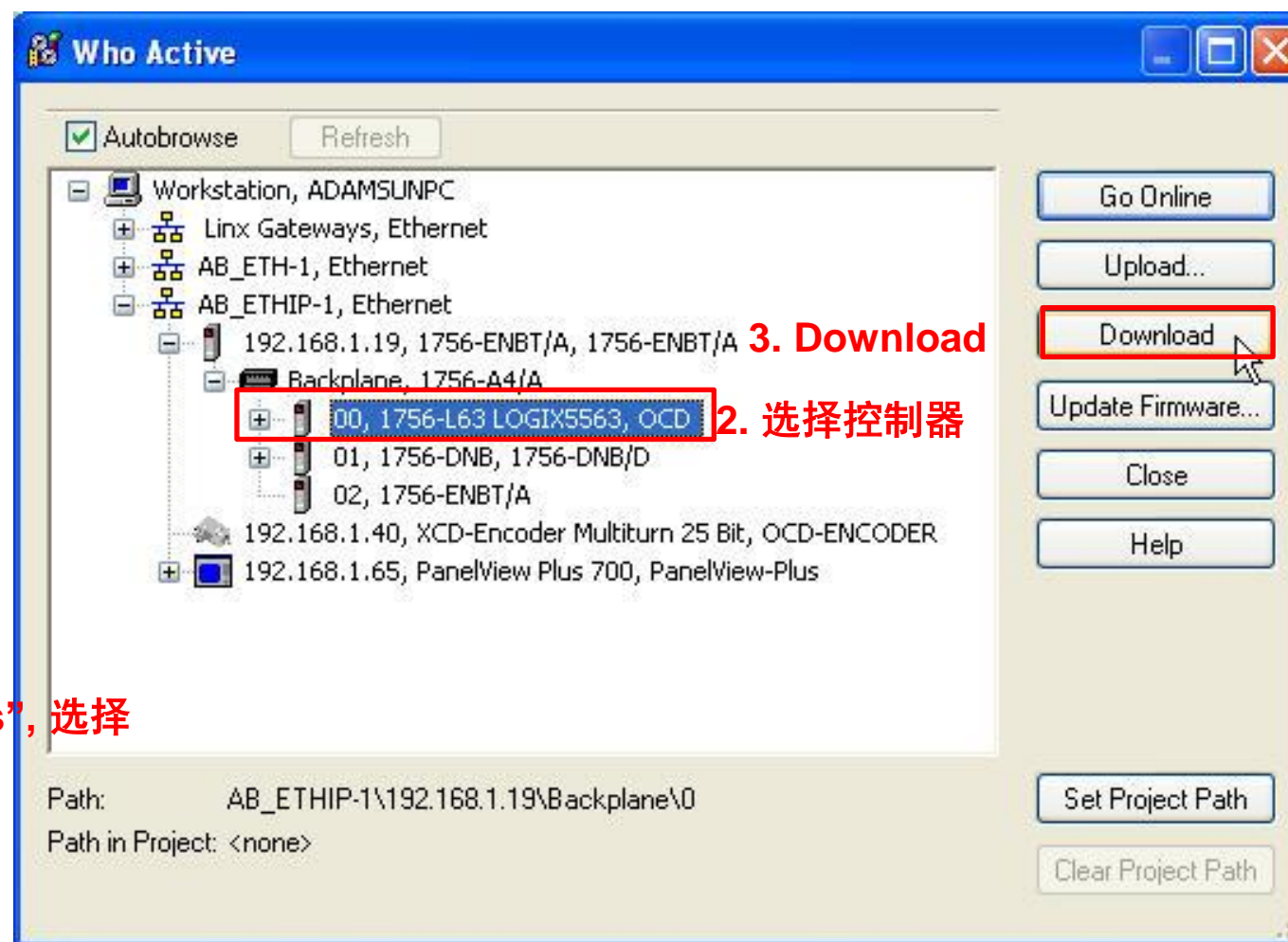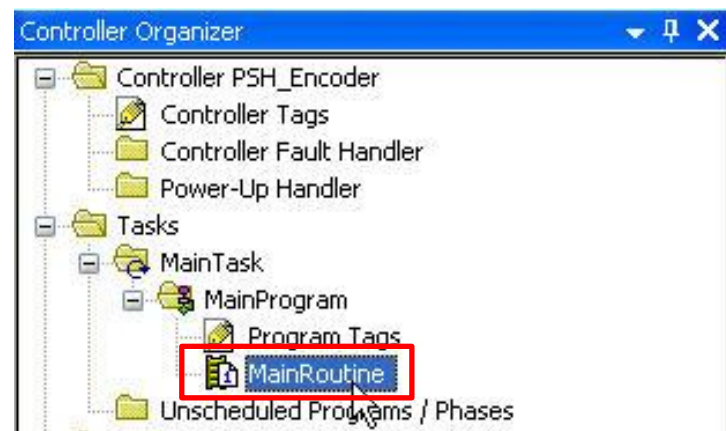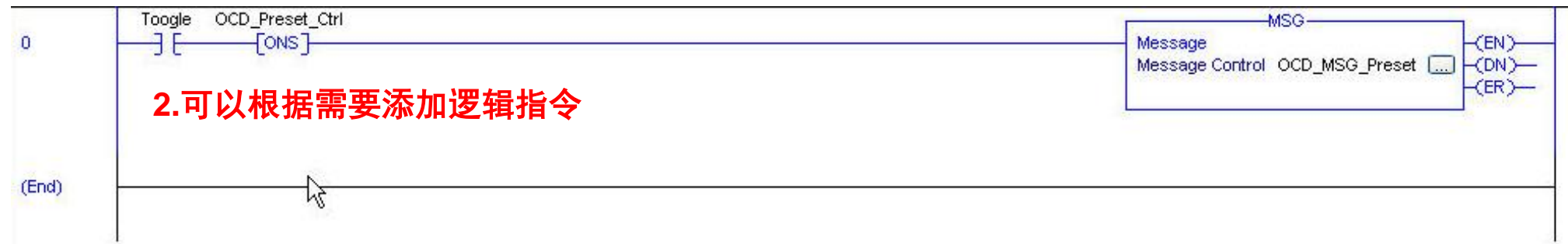
1. 选择"Main Routine"

3. 在"Toogle", 添加"New Toogle"

4.创建OCD_MSG_Preset

5.创建一个Preset_Value标签
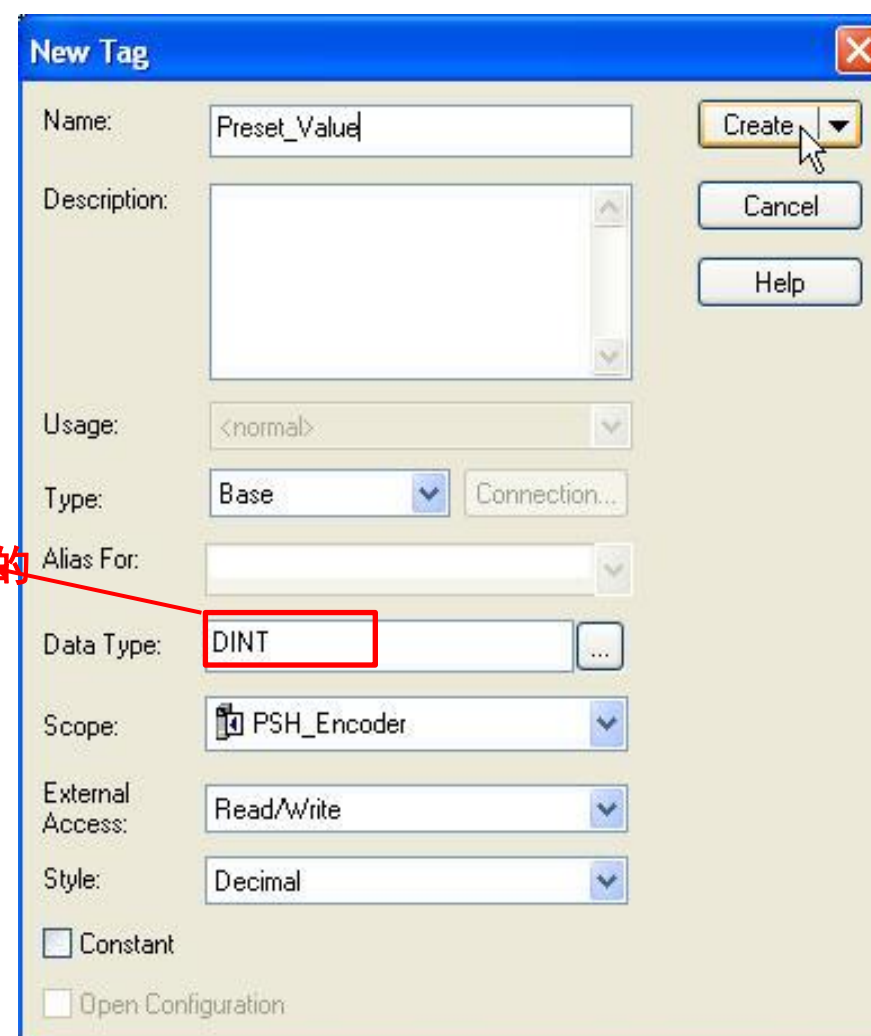
10. 配置OCD_MSG_Preset

7. 切换到"Communication"

Message Configuration - OCD_MSG_Preset

Configuration* | Communication | Tag

2. 选择MSG 类型

Message Type: ICIP Generic

3. Service type

Service Type: Set Attribute Single

5. 选择 source

Source Element: Preset_Value

Source Length: 4 (Bytes)

Service Code: 10 (Hex) Class: 23 (Hex)

6.Byte长度

Instance: 1 Attribute: 13 (Hex)

Destination Element:

New Tag...

4. 设置 Class Code和 Attribute ID

○ Enable ○ Enable Waiting ○ Start ○ Done Done Length: 0

○ Error Code: Extended Error Code: ☐ Timed Out ←

Error Path:

Error Text:

OK | Cancel | Apply | Help

10. "OK"

MSG
Message
Message Control OCD_MSG_Preset ⟨EN⟩ ⟨DN⟩ ⟨ER⟩

View Configuration Dialog

Message Path Browser

Path: Encoder

Encoder

☐ I/O Configuration
☐ 1756 Backplane, 1756-A4
[0] 1756-L63 PSH_Encoder
☐ [2] 1756-ENBT/A ENBT
☐ Ethernet
1756-ENBT/A ENBT
ETHERNET-MODULE Encoder

8. 选择以太网模块

OK | Cancel | Help

9. "OK"

11. 读取位置值

Name		Value	←	Force Mask	←	Style	Data Type
□ Encoder:C		{...}		{...}			AB:ETHERNET_MODULE:C:0
+ Encoder:C.Data		{...}		{...}		Hex	SINT[400]
□ Encoder:I		{...}		{...}			AB:ETHERNET_MODULE_DIN...
□ Encoder:I.Data		{...}		{...}		Decimal	DINT[2]
+ Encoder:I.Data[0]		43302	**1. 位置数据**			Decimal	DINT
+ Encoder:I.Data[1]		0	**2. 速度数据**			Decimal	DINT
Toogle		0				Decimal	BOOL
OCD_Preset_Ctrl		0				Decimal	BOOL
+ OCD_MSG_Preset		{...}		{...}			MESSAGE
+ Preset_Value		0				Decimal	DINT

12. 复值指令

3. 位置值被设置为复位值   **2. 设置Toogle为1**

Name	Value	Force Mask	Style	Data Type
⊟ Encoder:C	{...}	{...}		AB:ETHERNET_MODULE:C:0
+ Encoder:C.Data	{...}	{...}	Hex	SINT[400]
⊟ Encoder:I	{...}	{...}		AB:ETHERNET_MODULE_DIN...
⊟ Encoder:I.Data	{...}	{...}	Decimal	DINT[2]
+ Encoder:I.Data[0]	1000		Decimal	DINT
+ Encoder:I.Data[1]	0		Decimal	DINT
Toogle	1		Decimal	BOOL
OCD_Preset_Ctrl	1		Decimal	BOOL
+ OCD_MSG_Preset	{...}	{...}		MESSAGE
+ Preset_Value	1000		Decimal	DINT

1. 设置需要的复位值

附录

2.2.2 Position Sensor Objects

Instance Attributes (Get: read, Set: write + read)

Class Code: 23_{hex}

Attrib. ID	Access	Name	Data Type	Description
01_{hex}	Get	Number of Attributes	USINT	Number of supported Attributes
02_{hex}	Get	Attribute List	Array of USINT	List of supported Attribute
$0A_{hex}$	Get	Position Value Signed	DINT	Current position signed
$0B_{hex}$	Get	Position Sensor Type	UINT	Specifies the device type
$0C_{hex}$	Set	Direction Counting Toggle	Boolean	Controls the code sequence clockwise or counterclockwise
$0E_{hex}$	Set	Scaling Function Control	Boolean	Scaling function on/off
10_{hex}	Set	Measuring units per Span	UDINT	Resolution for one revolution
11_{hex}	Set	Total Measuring Range in Measuring Units	UDINT	Total resolution
13_{hex}	Set	Preset Value	DINT	Setting a defined position value
18_{hex}	Get	Velocity Value	DINT	Current speed in format of attribute 19_{hex} and $2A_{hex}$
19_{hex}	Set	Velocity Format	ENGUINT	Format of the velocity attributes
29_{hex}	Get	Operating Status	BYTE	Encoder diagnostic operating status
$2A_{hex}$	Get	Physical Resolution Span	UDINT	Resolution for one revolution
$2B_{hex}$	Get	Number of Spans	UINT	Number of revolutions
33_{hex}	Get	Offset Value	DINT	Shift position value with the calculated value
64_{hex}	Set	Device Type	DINT	Encoder device = 22_{hex} Generic device = 0 (default)
65_{hex}	Set	Endless Shaft	DINT	Off = 0, On = 1, Auto = 2
66_{hex}	Set	Velocity Filter	DINT	Fine = 0, Middle = 1, Raw = 2

1.目标位置地址

2.1.3.1 Data Offset

Byte Offset	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
0	Direction Counting Toggle							
1	Scaling Function Control							
2	Measuring units per Revolution (low byte)							
3								
4								
5	Measuring units per Revolution (high byte)							
6	Total Measuring Range in measuring units (low byte)							
7								
8								
9	Total Measuring Range in measuring units (high byte)							
10	Velocity Format (low byte)							
11	Velocity (high byte)							

2. 数据定义

4.1.6 Velocity Format

Default value for Velocity Format is steps per second. This parameter can be set with Con- figuration Assembly and Explicit Messaging.

Attribute ID	Default value	Value range	Data length
	$1F04_{hex}$	$1F04_{hex}$	Steps per second
		$1F05_{hex}$	Steps per millisecond
		$1F06_{hex}$	Steps per microsecond
19_{hex}		$1F07_{hex}$	Steps per minute
		$1F0F_{hex}$	RPM

3. 速度单位

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