



CN 超薄分体式绝对值编码器
AM34C
安装手册

GB Absolute Encoders
AM34C
Installation instruction



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版本Ver. A

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CN 1. 前言

这个安装手册提供编码器连接和开始使用的安装流程。

从AM34C的数据手册可以获得更多信息, 联系我们或者从网站下载手册。

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GB 1. Preface

These installation instruction are provided for the connection and starting procedure of your hollow shaft encoder.

You will get further information from the AM34C datasheet, on request or on download from our Internet site.

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CN 2. 安全

有资质的操作人员

因为编码器包含敏感的电子电路, 所以编码器必须由合格的电工进行安装和拆卸。

旋转的轴造成伤害的风险

头发或者衣服上的东西可能被旋转的轴卷进去。

-> 开始所有工作前, 先切断所有电源并且确保工作环境的安全!

静电(ESD)造成损坏的风险

注意防静电操作注意事项。编码器, 包括外壳是一个静电放电灵敏装置。

-> 不要接触插头的触点或者电子器件!

机械冲击造成损坏的风险

猛烈的冲击, 例如锤子的敲击, 可以导致光电传感系统和

滚珠轴承的损坏。

-> 不要用力过猛! 正确安装过程中的力量是允许的。

超限使用造成的损坏风险

-> 装置只能在技术指标的极限范围内工作。

应用场合: 工业过程和控制

连接端子的过电压必须被限定在过电压等级II值以内(SELV)。

连接电缆不能牵引安装, 只能固定安装使用。

编码器作为一个部件安装到装置上(电机, 机器)。他不会直接提供给最终客户。

制造商集成编码器到他们的设备上, 并且确保其符合CE标准并标注CE标志。

GB 2. Safety

Authorized persons

The encoder should only be assembled and dismantled by a qualified electrician, as the unit contains sensitive electronic circuits.

Risk of injury due to rotating shafts

Hair and items of clothing may become caught up in rotating shafts. Prior to commencing all works, disconnect all power suppliers and ensure that the working environment is Safe!

Risk of destruction due to ESD

Observe Precautions for ESD Handling. The Encoder, including housing, is an electrostatic discharge sensitive device. Do not touch plug contacts or electronic components!

Risk of destruction due to mechanical shock

Violent shocks, e.g. due to hammer blows, can lead to the destruction of the optical sensing system and the ball bearings. Never use force! As-

sembly is simple provided that correct procedure is followed.

Risk of destruction due to overloading

-> The unit may only be operated within the limits specified in the technical data.

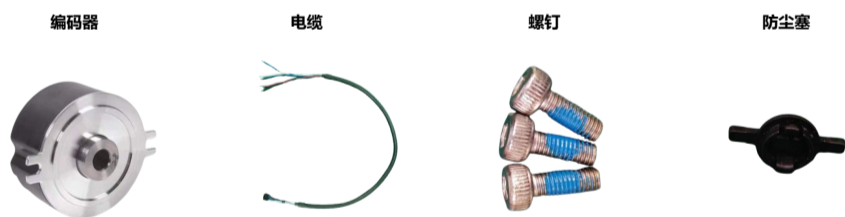
Fields of application: industrial processes and controls.

Over voltage at the connecting terminals must be limited to over voltage-class-II values (SELV). The connecting cable is not for dragline mounting, only for fix mounting. This encoder is a supply part destined for mounting to an appliance (motor, machine). It is not provided for customer sale. Manufacturers integrating this encoder to their facilities are responsible as well for compliance with CE guidelines as for the CE mark.

3. 安装和拆卸 / Assembly and Disassembly

检查包装盒物品/Check list of items

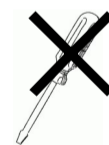
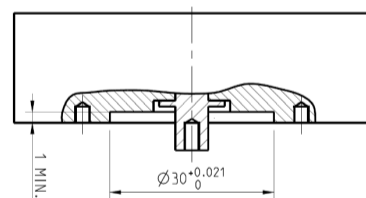
物品清单: 1个编码器, 1根电缆, 安装附件包(含3个M3x8螺钉, 防尘塞1个)
List of items: encoder x1, cable x1, accessory package(Screw M3x8 x3, Plug x1)



A

编码器注意事项/Precautions

- a) 电机轴承位于编码器侧, 需有密封盖(避免轴承油脂污染编码器码盘)
- b) 编码器安装面需加工编码器定位圆槽($\phi 30(+0.021/0)$)
- c) 安装时请使用使用扭力

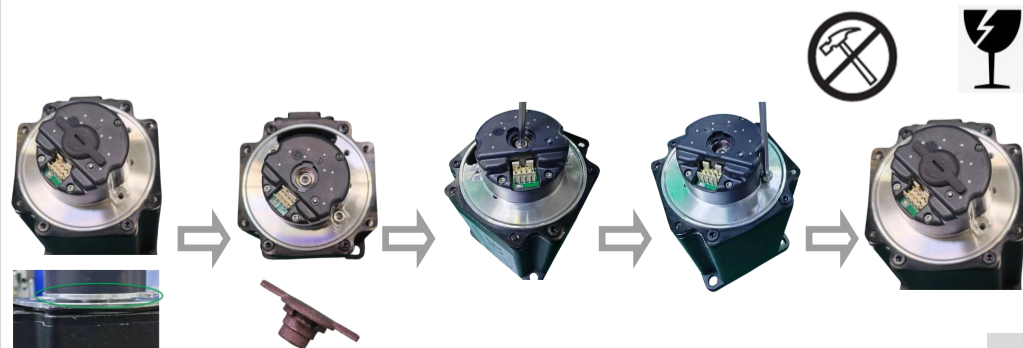


B

编码器的安装/Assembly

- a) 将编码器轴穿入电机轴(此时编码器安装面与电机安装面, 有间隙)
 - b) 用扳手或手逆时针旋转拆卸堵塞, 并轻轻取下(此时编码器安装面与电机安装面贴合)
 - c) 锁紧M3螺钉固定编码器轴 ($M=0.8\pm 0.1Nm$)
 - d) 使用扭力扳手锁紧两侧M3螺钉固定编码器 ($M=0.8\pm 0.1Nm$)
 - e) 用扳手或手顺时针旋转安装防尘塞盖, 完成安装
- 注意: 编码器属于易碎品, 要轻拿轻放。**
- a) Attaching the encoder (there is still a gap between the encoder and the motor plate)
 - b) By turning the plug counterclockwise with a screwdriver, the gap between the encoder and the motor plate closes and the plug is lifted slightly
 - c) Fixing of the central screw M3 ($M=0.8\pm 0.1Nm$)
 - d) Fixing the M3 screws on both side ($M=0.8\pm 0.1Nm$)
 - e) Assemble the plug clockwise with a screwdriver

Attention: Encoders are fragile items and should be handled with care.



C

使用调试线缆进行参数优化/Use debug cable calibration

通过简单的按钮操作, 就可轻松连接编码器, 无需电脑可在现场直接进行精度优化。

With button operation, encoder can be easily accuracy calibration without a computer.



电缆连接完成后, 请执行校准操作, 以获得更好的使用效果。校准操作方法, 请参考网站的《AM34C操作手册》。

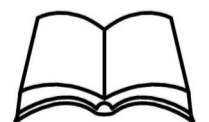
please perform calibration operation to achieve better usage results. Please refer to the AM34C Operation Manual on the website.

D

连接软件进行参数优化/Use software calibration

使用支持2.5MHz波特率的RS485适配器连接电脑。

Connect to computer using an RS485 adapter that supports 2.5MHz baud rate.



连接完成后, 请执行校准操作, 以获得更好的使用效果。调试软件使用及校准操作方法, 请参考网站的《AM34C操作手册》。

please perform calibration operation to achieve better usage results. Please refer to the AM34C Operation Manual on the website.

E

3. 安装和拆卸 / Assembly and Disassembly

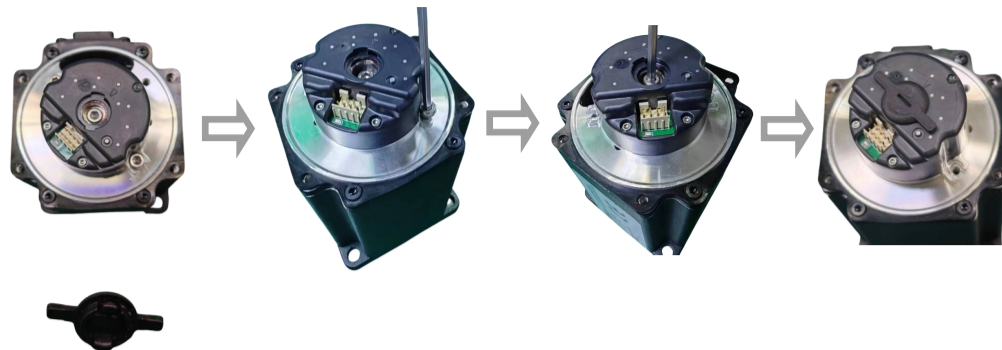
编码器拆卸/Encoder disassembly

- 用扳手或手逆时针旋转拆卸防尘塞盖，取下
- 松下两侧固定编码器M3螺钉。
- 松下固定编码器轴M3螺钉。
- 用扳手或手顺时针旋转安装堵塞，完成拆卸（此时编码器安装面与电机安装面脱离）。

注意：编码器属于易碎品，要轻拿轻放。

- By turning the plug counterclockwise with a screwdriver
- Loosen the M3 screws on both side
- Loosen of the central screw M3
- Slightly lift the encoder cap until the plug rests on the encoder cap and then turn the plug clockwise until the arrows come into alignment

Attention: Encoders are fragile items and should be handled with care.

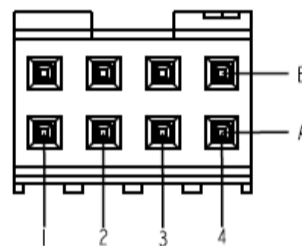


4. 技术数据 / Technical data

供电电压 Operating Voltage	5V±10% (SELV)	存储温度 Storage Temperature	-30°C~+80°C
电源消耗 Power consumption	Max 120mA	工作温度 Operating Temperature	-40°C~+110°C
最高转速 Max Speed	10,000 PRM	最大相对湿度 Max. relative humidity	85%
允许轴最大轴向跳动 Mating shaft axial move-	±0.2 mm		
允许轴最大径向跳动 Mating shaft runout	TIR 0.05 mm		
外壳防护等级 Enclosure rating	IP20		

5. 电气连接 / Connection diagram

PIN	颜色 Color	定义 Assigment	PIN	颜色 Color	定义 Assigment
1A	/	SHIELD	1B	紫 Violet	Calibration
2A	/	/	2B	/	/
3A	蓝 Blue	SD+	3B	蓝/黑 Blue/Black	SD-
4A	红 Red	+5V	4B	黑 Black	GND



黄色指示灯常亮：工作正常

6. 订货代码 / Ordering information

7.1 中文

型号	分辨率	供电电压	轴径	接口	环境温度	接线
AM34H 高精度	1223 23bit单圈, 12bit多圈 0823 23bit单圈, 8bit多圈	A 5VDC	Z.0F φ6盲孔 Z.0T φ8盲孔	BE BiSS-C AS 串行异步通讯	A -40° C ... +85° C B -40° C ... +110° C	A5 8针插头+0.5m 线
AM34L 标准精度						

7.2 English

Type	Resolution	Supply voltage	Shaft	Interface	Temperature	Connection
AM34H High	1223 12bit MT+23bit ST 0823 8bit MT+23bit ST	A 5VDC	Z.0F φ6 Hub Shaft Z.0T φ8 Hub Shaft	BE BiSS-C AS RS485 Compatible	A -40° C ... +85° C B -40° C ... +110° C	A5 8 pole connector+0.5m cable
AM34L Normal						