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物料号/Art No.: 703299-0001

版本 Ver. B

纸张尺寸/Page Size: A3

* 如有更改, 恕不另行通知 Subject to change without notice

HENGSTLER

CN 正余弦编码器RS20
10mm 锥轴
安装手册

GB Sine-wave encoder RS20
Taper full-length shaft 10mm
Installation instructions

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CN 1. 前言

这个安装手册提供连接和开始使用这个编码器的流程。

你可以从RS20的数据手册获得更多信息, 你可以联系我们提供或者从我们的网站自行下载。

www.hengstler.com.cn

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 RS20 datasheet, on request or on download from our Internet site.

www.hengstler.com

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。

->再开始所有工作前, 先切断所有电源并且确保工作环境的安全!

静电造成损坏的风险

编码器内部的CMOS器件对于高压非常敏感, 例如衣服摩擦产生的高电压。

->不要接触插头的触点或者电子器件!

机械过载造成的损坏风险

刚性安装将使约束力增加, 并且将造成轴承的永久过载。

-> 不要限制编码器的移动! 只使用附带的钢弹簧片或者合适联轴器以此获得编码器安全!

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。

过载造成的损坏风险

-> 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).

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 static electricity

The CMOS modules contained in the encoder are very sensitive to high voltages such as can arise due to friction of the clothing.

->Do not touch plug contacts or electronic components!

Risk of destruction due to mechanical overload

Rigid mounting will give rise to constraining forces which will permanently overloaded the bearings.

-> Never restrict the freedom of movement of encoder! Use only the enclosed sheet steel springs or a suitable coupling to secure the unit!

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! Assembly 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.

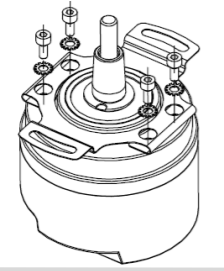
Manufacturers integrating this encoder to their facilities are responsible as well for compliance with CE guidelines as for the CE mark.

3. 安装 / Assembly

安装步骤 0-5: 字母A代表弹簧片安装的特殊说明, 字母B代表膨胀法兰安装的特殊说明

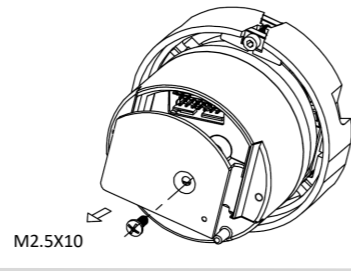
0-5 installation sequence; Letter A: special step for tether, letter B: special step for expansion flange

出厂前弹簧片已安装
The tether has been installed before delivery



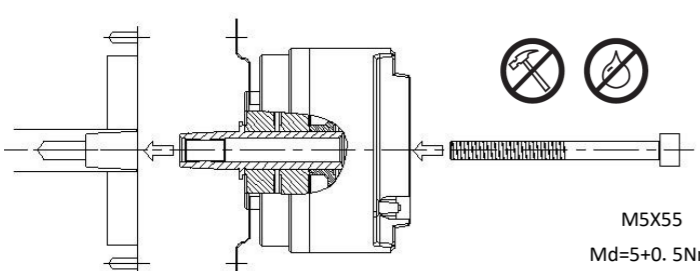
0A

1



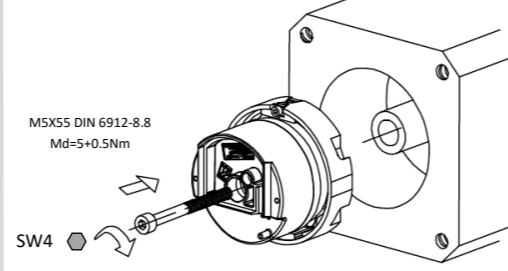
M2.5X10

2A



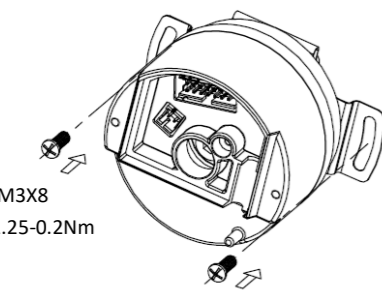
M5X55
Md=5+0.5Nm

2B



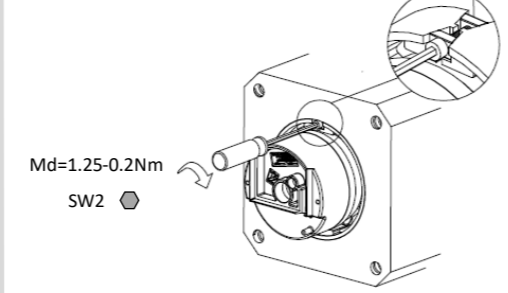
M5X55 DIN 6912-8.8
Md=5+0.5Nm
SW4

3A



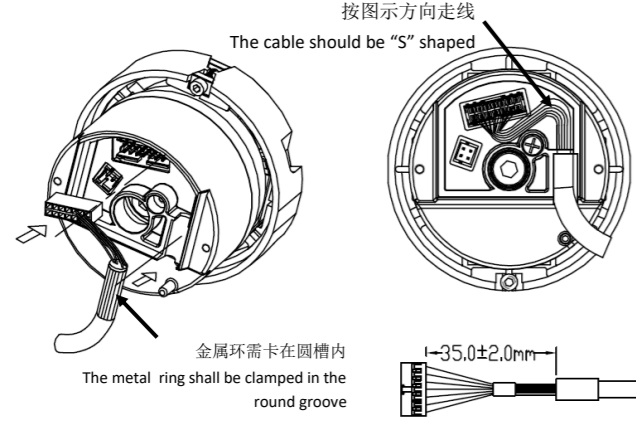
M3X8
Md=1.25-0.2Nm

3B



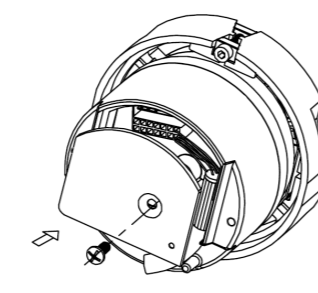
Md=1.25-0.2Nm
SW2

4



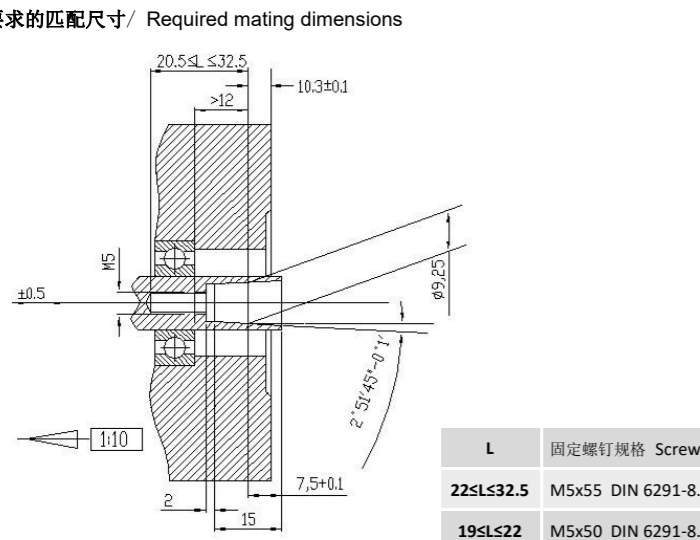
按图示方向走线
The cable should be "S" shaped
金属环需卡在圆槽内
The metal ring shall be clamped in the round groove
l=35.0±2.0mm

5



M2.5X10
Md=0.4±0.1Nm
插头插紧, 盖板不要压线。
Ensure plug in tight. The cover lid does not press cable.

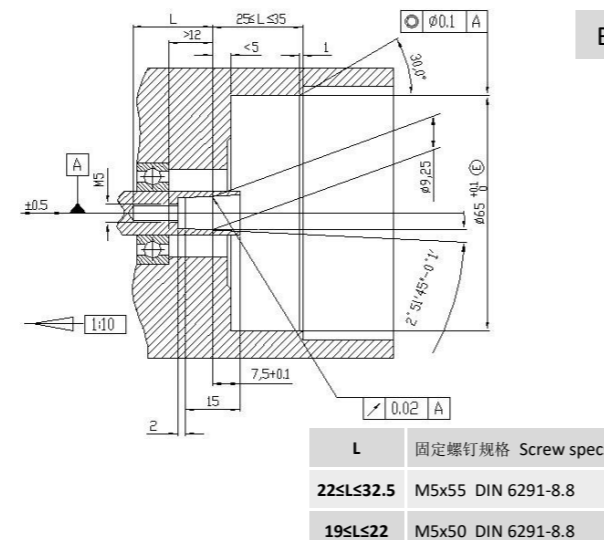
A



要求的匹配尺寸 / Required mating dimensions

L	固定螺钉规格 Screw specs
22≤L≤32.5	M5x55 DIN 6291-8.8
19≤L≤22	M5x50 DIN 6291-8.8

B



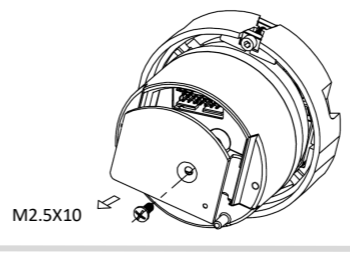
L	固定螺钉规格 Screw specs
22≤L≤32.5	M5x55 DIN 6291-8.8
19≤L≤22	M5x50 DIN 6291-8.8

4. 拆卸 / Dismounting

5-7或8: 编码器有两种拆卸方法将锥轴顶出, 方法1见步骤5-7; 方法2 见步骤8使用需单独购买的特殊定制M6螺钉。

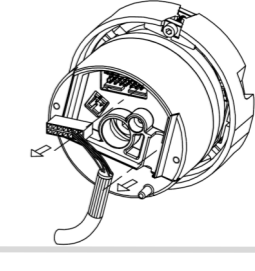
5-7 or 8: Two disassembly methods to push out the cone shaft, see step 5-7 for method 1; Method 2 see step 8 using special custom M6 screws to be purchased separately.

1

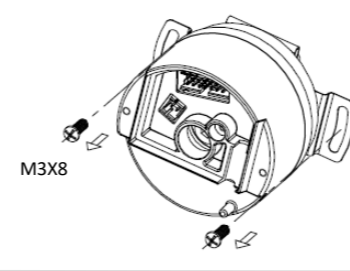


M2.5X10

2

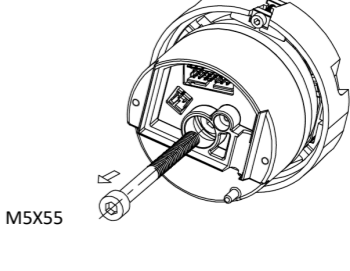


3



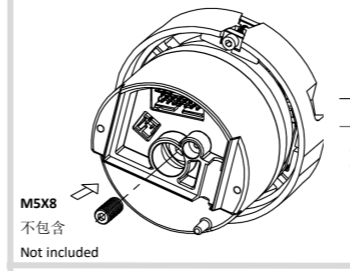
M3X8

4



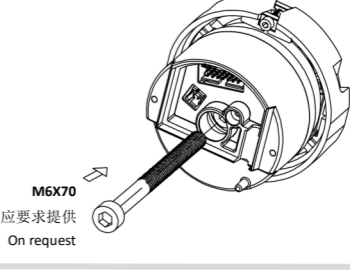
M5X55

5



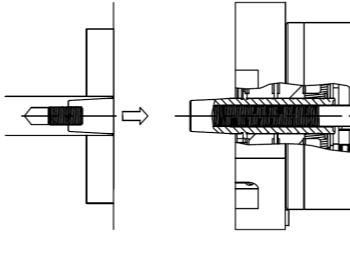
M5X8
不包含
Not included

6



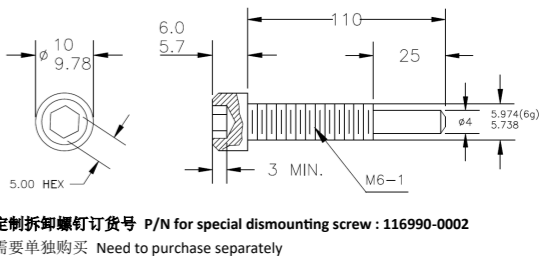
M6X70
应要求提供
On request

7



M6X70
应要求提供
On request

8



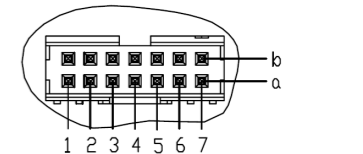
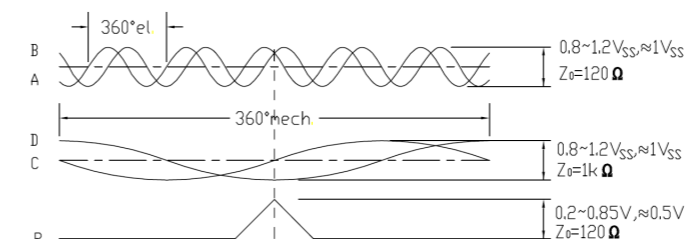
定制拆卸螺钉订货号 P/N for special dismounting screw : 116990-0002
需要单独购买 Need to purchase separately

5. 技术数据 / Technical data

供电电压 Operating Voltage	5V±5% (SELV)	工作温度 Operating Temperature	-20°C~100°C
无负载消耗电流 I _{max} No load supply current	150 mA	存储温度 Storage Temperature	-20°C~80°C
最高转速 Max Speed	6,000 PRM	重量 Weight	200 g
允许轴最大轴向跳动 Mating shaft axial move-	±0.4 mm		
允许轴最大径向跳动 Mating shaft runout	±0.1 mm		
外壳防护等级 Enclosure rating	IP40		

信号格式 Signal Format

从后盖看, 轴逆时针旋转方向 CCW View from cover



管脚	功能	电缆(选件) Cable(optional)	线缆颜色
PIN	Function	Wire Color	线缆颜色
1a	C-	BRN	棕
1b	5V	GRY/PNK	灰/粉
2a	A-	YLW	黄
2b	D+	BLK	黑
3a	NC	GRN/BRN	绿/棕
3b	B+	BLU	蓝
4a	R-	PNK	粉
4b	R+	GRY	灰
5a	B-	RED	红
5b	GND	WHT/GRN	白/绿
6a	D-	VIO	紫
6b	A+	GRN	绿
7a	NC	RED/BLU	红/蓝
7b	C+	WHT	白