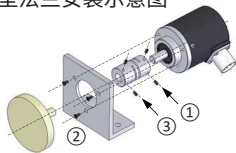


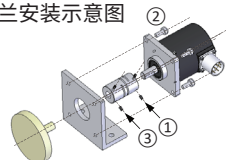
编码器安装:

A型/C型法兰安装示意图



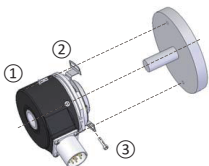
- ① 将联轴器安装到编码器
- ② 将编码器安装到支架
- ③ 将联轴器套装于被测轴上

D型法兰安装示意图



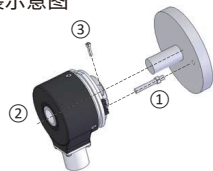
- ① 将联轴器安装到编码器
- ② 将编码器安装到支架上
- ③ 将联轴器套装于被测轴上

弹簧片安装示意图



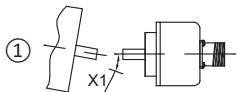
- ① 将编码器套装于电机上
 - ② 固定弹簧片
 - ③ 紧固编码器锁圈螺丝
- 注: 产品安装要以弹簧片本身不发生任何形变为标准

挡销安装示意图

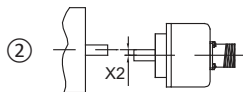


- ① 将挡销安装于电机或者支架上
- ② 将编码器通过挡销套装于被测轴上, 确保挡销尾端面与支撑槽底有0.8 mm的余量
- ③ 紧固编码器锁圈螺丝

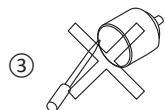
安装注意事项:



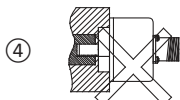
编码器与被测物体轴之间的角度偏差 $X1 < 1.5^\circ$ 。



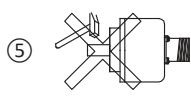
编码器与驱动输出轴之间的径向偏差 $X2 < 0.1 \text{ mm}$ 。



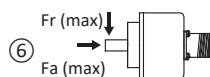
禁止局部或部分拆卸或改装编码器。



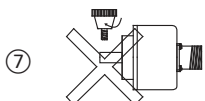
编码器与外部连接需要避免刚性连接。



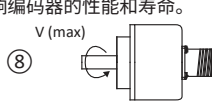
编码器是高精度仪器, 安装时严禁敲击和磕碰, 安装或使用不当会影响编码器的性能和寿命。



安装时注意编码器允许的轴向/径向最大负载, 严禁超过最大值。



禁止对编码器轴进行打磨、切割、钻孔等任何加工处理。



注意不要超过编码器的极限转速, 否则可能出现信号丢失。

电气参数:

接口类型	并口	SSI
输出类型	PNP / PNP OC / NPN / NPN OC	/
供电电压	10 ... 30 V DC / 5 V DC	10 ... 30 V DC / 5 V DC

端子配置(并口):

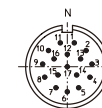
端子号 / Terminal	线色 / Wire color	信号 / Signal	分辨率 / Resolution						
			8 bit (256)	9 bit (512)	10 bit (1024)	11 bit (2048)	12 bit (4096)	13 bit (8192)	
1	白 / WH	0 V	0 V	0 V	0 V	0 V	0 V	0 V	0 V
2	棕 / BN	+Ub	+Ub	+Ub	+Ub	+Ub	+Ub	+Ub	+Ub
3	绿 / GN	bit 1 MSB	B ⁷ / G ⁷	B ⁸ / G ⁸	B ⁹ / G ⁹	B ¹⁰ / G ¹⁰	B ¹¹ / G ¹¹	B ¹² / G ¹²	
4	黄 / YE	bit 2	B ⁶ / G ⁶	B ⁷ / G ⁷	B ⁸ / G ⁸	B ⁹ / G ⁹	B ¹⁰ / G ¹⁰	B ¹¹ / G ¹¹	
5	灰 / GY	bit 3	B ⁵ / G ⁵	B ⁶ / G ⁶	B ⁷ / G ⁷	B ⁸ / G ⁸	B ⁹ / G ⁹	B ¹⁰ / G ¹⁰	
6	粉 / PK	bit 4	B ⁴ / G ⁴	B ⁵ / G ⁵	B ⁶ / G ⁶	B ⁷ / G ⁷	B ⁸ / G ⁸	B ⁹ / G ⁹	
7	蓝 / BU	bit 5	B ³ / G ³	B ⁴ / G ⁴	B ⁵ / G ⁵	B ⁶ / G ⁶	B ⁷ / G ⁷	B ⁸ / G ⁸	
8	红 / RD	bit 6	B ² / G ²	B ³ / G ³	B ⁴ / G ⁴	B ⁵ / G ⁵	B ⁶ / G ⁶	B ⁷ / G ⁷	
9	黑 / BK	bit 7	B ¹ / G ¹	B ² / G ²	B ³ / G ³	B ⁴ / G ⁴	B ⁵ / G ⁵	B ⁶ / G ⁶	
10	紫 / VT	bit 8	B ⁰ / G ⁰	B ¹ / G ¹	B ² / G ²	B ³ / G ³	B ⁴ / G ⁴	B ⁵ / G ⁵	
11	灰粉 / GY / PK	bit 9	NC	B ⁰ / G ⁰	B ¹ / G ¹	B ² / G ²	B ³ / G ³	B ⁴ / G ⁴	
12	红蓝 / RD / BU	bit 10	NC	NC	B ⁰ / G ⁰	B ¹ / G ¹	B ² / G ²	B ³ / G ³	
13	白绿 / WH / GN	bit 11	NC	NC	NC	B ⁰ / G ⁰	B ¹ / G ¹	B ² / G ²	
14	棕绿 / BN / GN	bit 12	NC	NC	NC	NC	B ⁰ / G ⁰	B ¹ / G ¹	
15	白黄 / WH / YE	bit 13 LSB	NC	NC	NC	NC	NC	B ⁰ / G ⁰	
16	黄棕 / YE / BN	V/R	V/R	V/R	V/R	V/R	V/R	V/R	
17	白灰 / WH / GY	ST	ST	ST	ST	ST	ST	ST	

信号: bit0=MSB, bit1=MSB-1, bit2=MSB-2, (MSB为最高有效位)

ST: SET输入, 可存储当前位置值作为新的零位(持续高电平2秒)

V/R: Up / down输入, 常通状态下, 可切换编码器加、减计数功能;

目视轴端, 常断状态, 顺时针旋转, 编码器为加计数; 常通状态, 顺时针旋转, 编码器为减计数。



M23 17针

端子配置(SSI):

信号	0V	+Ub	+C	-C	+D	-D	ST	V/R	LH	屏蔽
色标	白	棕	绿	黄	灰	粉	蓝	红	黑	⏏
针号(M23 12针)	1	2	3	4	5	6	7	8	9	PH

C: 时钟信号

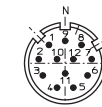
D: 数据信号

ST: SET输入, 可存储当前位置值作为新的零位(持续高电平2秒)

V/R: Up/down输入, 常通状态下, 可切换编码器加、减计数功能;

目视轴端, 常断状态, 顺时针旋转, 编码器为加计数; 常通状态, 顺时针旋转, 编码器为减计数。

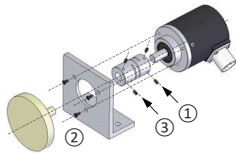
LH: LATCH输入, 冻结当前值



M23 12针

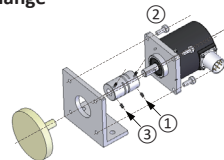
ENCODER INSTALLATION

A/C type flange



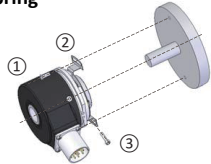
- ① Install coupling onto the encoder
- ② Install encoder onto the stand
- ③ Install the coupling onto the motor shaft

D type flange



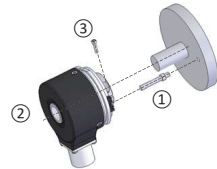
- ① Install coupling onto the encoder
- ② Install encoder onto the stand
- ③ Install the coupling onto the motor shaft

Standard hollow shaft encoders equipped with the spring



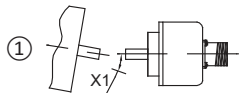
- ① Install the encoder on the motor
- ② Fasten the spring
- ③ Tighten the screws on encoder

Standard hollow shaft encoders equipped with torque stop

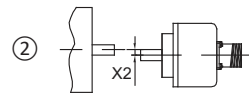


- ① Install the torque stop on the motor or bracket
- ② Install the encoder on the measured shaft via torque stop. Make sure there is 0.8 mm gap between the end side of the torque and the support trench
- ③ Tighten the screws on encoder

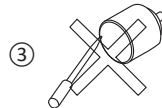
INSTALLATION ATTENTION



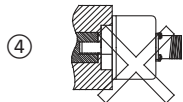
The angle deviation between the encoder and shaft is $X1 < 1.5^\circ$.



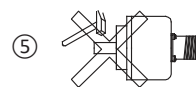
The radial deviation between the encoder and shaft is $X2 < 0.1 \text{ mm}$.



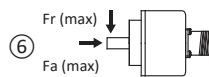
No modification.



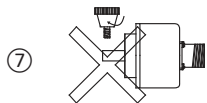
Don't use rigid connection between encoder and flange.



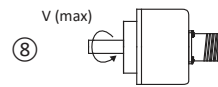
No hammer and impact.



Axial and radial load not beyond the limit.



No machining to the shaft. (Inc. skiving, sawing, drilling)



Not beyond $V(\text{max})$, otherwise signal will be lost.

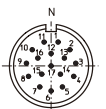
ELECTRICAL PARAMETERS

Interface type	Parallel	SSI
Output type	PNP / PNP OC / NPN / NPN OC	/
Supply voltage	10 ... 30 V DC / 5 V DC	10 ... 30 V DC / 5 V DC

TERMINAL ASSIGNMENT(Parallel)

Terminal	Wire color	Signal	Resolution					
			8 bit (256)	9 bit (512)	10 bit (1024)	11 bit (2048)	12 bit (4096)	13 bit (8192)
1	WH	0 V	0 V	0 V	0 V	0 V	0 V	0 V
2	BN	+Ub	+Ub	+Ub	+Ub	+Ub	+Ub	+Ub
3	GN	bit 1 MSB	B^7 / G^7	B^8 / G^8	B^9 / G^9	B^{10} / G^{10}	B^{11} / G^{11}	B^{12} / G^{12}
4	YE	bit 2	B^6 / G^6	B^7 / G^7	B^8 / G^8	B^9 / G^9	B^{10} / G^{10}	B^{11} / G^{11}
5	GY	bit 3	B^5 / G^5	B^6 / G^6	B^7 / G^7	B^8 / G^8	B^9 / G^9	B^{10} / G^{10}
6	PK	bit 4	B^4 / G^4	B^5 / G^5	B^6 / G^6	B^7 / G^7	B^8 / G^8	B^9 / G^9
7	BU	bit 5	B^3 / G^3	B^4 / G^4	B^5 / G^5	B^6 / G^6	B^7 / G^7	B^8 / G^8
8	RD	bit 6	B^2 / G^2	B^3 / G^3	B^4 / G^4	B^5 / G^5	B^6 / G^6	B^7 / G^7
9	BK	bit 7	B^1 / G^1	B^2 / G^2	B^3 / G^3	B^4 / G^4	B^5 / G^5	B^6 / G^6
10	VT	bit 8	B^0 / G^0	B^1 / G^1	B^2 / G^2	B^3 / G^3	B^4 / G^4	B^5 / G^5
11	GY / PK	bit 9	NC	B^0 / G^0	B^1 / G^1	B^2 / G^2	B^3 / G^3	B^4 / G^4
12	RD / BU	bit 10	NC	NC	B^0 / G^0	B^1 / G^1	B^2 / G^2	B^3 / G^3
13	WH / GN	bit 11	NC	NC	NC	B^0 / G^0	B^1 / G^1	B^2 / G^2
14	BN / GN	bit 12	NC	NC	NC	NC	B^0 / G^0	B^1 / G^1
15	WH / YE	bit 13 LSB	NC	NC	NC	NC	NC	B^0 / G^0
16	YE / BN	V/R	V/R	V/R	V/R	V/R	V/R	V/R
17	WH / GY	ST	ST	ST	ST	ST	ST	ST

Attention: Bite definition of parallel interface for an absolute encoder is: bit 1=MSB, bit 2=MSB-1, bit 3=MSB-2,...
 ST: SET input, the high level will last 2 s and this position will be stored as new zero position.
 V/R: Up / down input, in the normally open state, the encoder's counting function can be switched. Observe the shaft end, in the normally closed state, the encoder's counting will increase when the shaft turning clockwise, in the normally open state, the encoder's counting will decrease when the shaft turning clockwise.



M23 17-pin

TERMINAL ASSIGNMENT(SSI)

Signal	0V	+Ub	+C	-C	+D	-D	ST	V/R	LH	SHD
Color	WH	BN	GN	YE	GY	PK	BU	RD	BK	\perp
M23 12-pin	1	2	3	4	5	6	7	8	9	PH

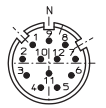
C: Colck Signal

D: Data Signal

ST: SET input, the high level will last 2 s and this position will be stored as new zero position.

V/R: Up/down input, in the normally open state, the encoder's counting function can be switched. Observe the shaft end, in the normally closed state, the encoder's counting will increase when the shaft turning clockwise, in the normally open state, the encoder's counting will decrease when the shaft turning clockwise.

LH: LATCH input, freeze current value.



M23 12-pin