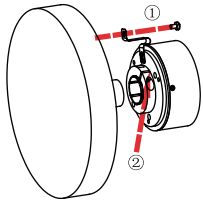


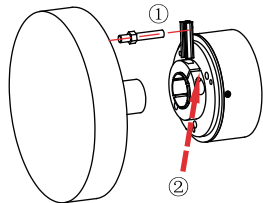
产品安装:

P型弹簧片安装



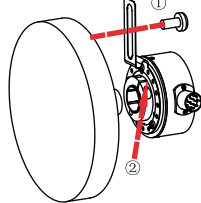
- ① 将编码器的支架固定在电机上且拧紧螺钉
- ② 拧紧锁圈上的螺钉

K型挡销安装



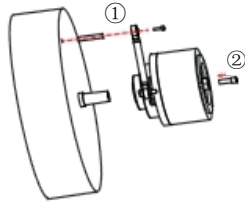
- ① 将销钉拧紧在电机上, 编码器装在电机轴上且保证挡销插入销钉上
- ② 拧紧锁圈上的螺钉

H型长臂支架安装



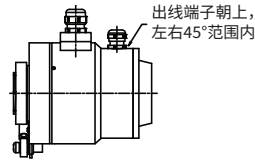
- ① 将编码器的弹簧片固定在电机上且拧紧螺钉
- ② 拧紧锁圈上的螺钉

R型方向扭矩臂安装



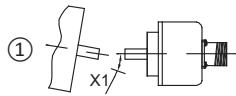
- ① 将编码器套装于电机轴上且固定拐臂
- ② 将螺钉通过编码器的轴套固定在电机轴上

注意:

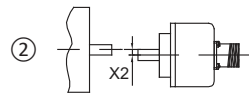


建议: 使用盲孔大轴套产品时客户端的轴预留排气槽, 以便安装时排气。

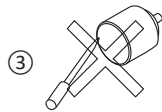
安装注意事项:



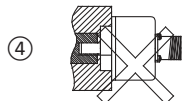
① 超速开关与被测物体轴之间的角度偏差 $X1 < 1.5^\circ$ 。



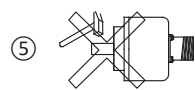
② 超速开关与驱动输出轴之间的径向偏差 $X2 < 0.1 \text{ mm}$ 。



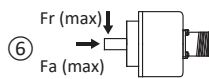
③ 禁止局部或部分拆卸或改装超速开关。



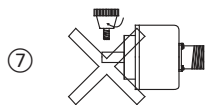
④ 超速开关与外部连接需要避免刚性连接。



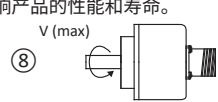
⑤ 超速开关是高精度仪器, 安装时严禁敲击和磕碰, 安装或使用不当会影响产品的性能和寿命。



⑥ 安装时注意允许的轴向/径向最大负载, 严禁超过最大值。



⑦ 禁止对超速开关轴进行打磨、切割、钻孔等任何加工处理。



⑧ 注意不要超过超速开关的极限转速, 否则可能出现信号丢失。

电气参数:

| 输出代码 | 输出形式 | 反相信号 | 供电电压 |
|------|----------|------|--|
| L | TTL | 有 | L5=5 V DC, L4=5 ... 30 V DC, L6=10 ... 30 V DC |
| H | 推挽HTL | 有 | H4=5 ... 30 V DC, H6=10 ... 30 V DC |
| P | 推挽HTL | 无 | P4=5 ... 30 V DC, P6=10 ... 30 V DC |
| C | NPN集电极开路 | 无 | C4=5 ... 30 V DC, C6=10 ... 30 V DC |

端子配置-编码器:

| 编码器信号 | 0V | +Ub | A | \bar{A} | B | \bar{B} | Z | \bar{Z} | 屏蔽 |
|-------|----|-----|---|-----------|---|-----------|---|-----------|------------|
| 色标 | 白 | 棕 | 绿 | 黄 | 灰 | 粉 | 蓝 | 红 | ≡ |

端子配置-机械式超速开关:

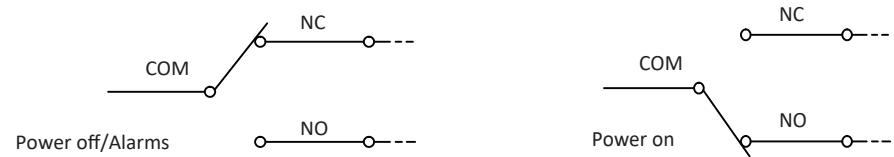
| 超速开关信号 | K1 | K4 | 屏蔽 |
|--------|----|----|----|
| 色标 | 蓝 | 黑 | PH |

注: K1与K4组成一组常闭继电器输出触点, 当转速达到预定值时, 触点断开输出信号, 起到安全作用。

端子配置-电子式超速开关:

| 超速开关信号 | 0V | +Ub | C1 | NO1 | NC1 | C2 | NO2 | NC2 | C3 | NO3 | NC3 | 屏蔽 |
|--------|----|-----|----|-----|-----|----|-----|-----|----|-----|-----|------------|
| 色标 | 黑 | 红 | 白 | 绿 | 黄 | 棕 | 蓝 | 灰 | 紫 | 粉 | 灰/粉 | ≡ |

触点接线示意



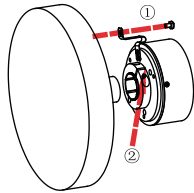
注: COM与NC组成一组常闭继电器输出, COM与NO组成一组常开继电器输出。断电状态时, COM端和NC闭合, 输出为1。通电状态时, COM端和NO闭合, 输出为0。当转速达到预定值时, COM端和NO断开, COM端和NC闭合, 输出为1。NO1, C1, NO1为第一组, NC2, C2, NO2为第二组, NC3, C3, NO3为第三组, 每组超速开关之间相互隔离。

注意事项:

输入额定电压: 24 V DC
 超速开关的选择范围: 10rpm---3000 rpm
 超速开关值的选择为: 额定电机转速的1.1---1.2倍

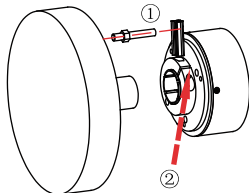
PRODUCT INSTALLATION

P type equipped with spring



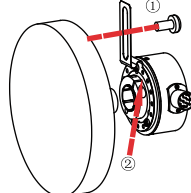
- ① Install the encoder on the motor and fasten the spring
- ② Tighten the screw on encoder

K type equipped with torque stop



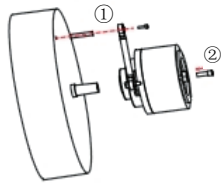
- ① Install the torque stop on the motor, install the encoder on the shaft via torque stop
- ② Tighten the screws on encoder

H type equipped with extended spring



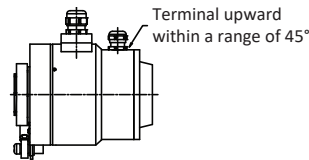
- ① Install the encoder on the motor and fasten the spring
- ② Tighten the screw on encoder

R type encoders equipped with universal torque arm



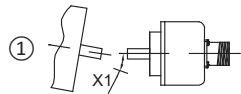
- ① Install the encoder on the motor and fasten the universal torque arm
- ② Fix the encoder on the motor shaft with a screw

Attention:

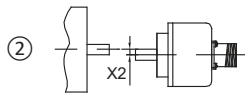


For blind hole large hollow shaft encoder, leave an exhaust slot for the shaft when do the assembling.

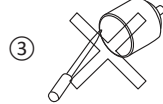
INSTALLATION ATTENTION



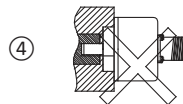
The angle deviation between the product and shaft is $X1 < 1.5^\circ$.



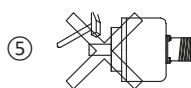
The radial deviation between the encoder and shaft is $X2 < 0.1 \text{ mm}$.



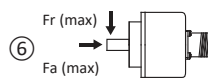
No modification.



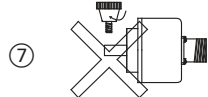
Don't use rigid connection between product and flange.



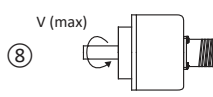
No hammer and impact.



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

| Output code | Output type | Inverted signal | Supply voltage |
|-------------|---------------|-----------------|--|
| L | TTL | Y | L5=5 V DC, L4=5 ... 30 V DC, L6=10 ... 30 V DC |
| H | Push-pull HTL | Y | H4=5 ... 30 V DC, H6=10 ... 30 V DC |
| P | Push-pull HTL | N | P4=5 ... 30 V DC, P6=10 ... 30 V DC |
| C | NPN OC | N | C4=5 ... 30 V DC, C6=10 ... 30 V DC |

TERMINAL ASSIGNMENT - Encoder

| Signal of encoder | 0V | +Ub | A | \bar{A} | B | \bar{B} | Z | \bar{Z} | SHD |
|-------------------|----|-----|----|-----------|----|-----------|----|-----------|------------|
| Color | WH | BN | GN | YE | GY | PK | BU | RD | ⏏ |

TERMINAL ASSIGNMENT - Mechanical overspeed switch

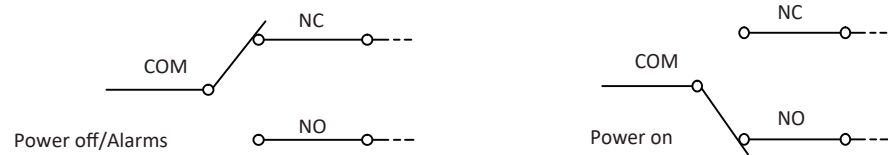
| Signal | K1 | K4 | SHD |
|--------|----|----|-----|
| Color | BU | BK | PH |

K1 and k4 are in the relay close state, when the motor's speed is over the default setting value, K1 and K4 will turn from close to open.

TERMINAL ASSIGNMENT - Electronic overspeed switch

| Signal | 0V | +Ub | C1 | NO1 | NC1 | C2 | NO2 | NC2 | C3 | NO3 | NC3 | SHD |
|--------|----|-----|----|-----|-----|----|-----|-----|----|-----|-------|------------|
| Color | BK | RD | WH | GN | YE | BN | BU | GY | VT | PK | GY/PK | ⏏ |

Wiring diagram



COM and NC are in the relay close state, COM and NO are in the relay open state. In the Power-off state, COM and NC are in the relay close state and output 1. In the Power-on state, COM and NO are in the relay close state and output 0. When the motor's speed is over the default setting value, COM and NO will turn from close to open, COM and NC will turn from open to close and output 1. NC1, C1 and NO1 form the first group, NC2, C2 and NO2 form the second group, NC3, C3 and NO3 form the third group, each group of overspeed switches is mutually isolated.

Attention:

1. Input rated voltage: 24 V DC
2. The speed value of overspeed switch can select from 10 rpm to 3000 rpm.
3. Please select the speed of overspeed switch is 1.1 to 1.2 times rated speed of motor.