HOUDE®

H28S 系列

安装使用说明书

TÜV CERT DIN EN ISO 9001 Zertifikat: 01 100 038922

TÜV CERT DIN EN ISO 9001 Certificate: 01 100 038922

■ 型号说明

H28S — 轴径 | 线输出形式 | 电源 | 输出方式 | 脉冲数 | 信号形式 | 零位宽度

- 轴径：5: 5mm
- 线输出形式：G: 电缆侧出；E: 电缆后出
- 电源：05: DC5V；10-30: DC10-30V
- 输出方式：F: 推挽输出；L: 驱动器输出
- 脉冲数：100P/R；500P/R
- 信号形式：B: 两相A&B
- 零位宽度：M: 1T；0.5M: 0.5T

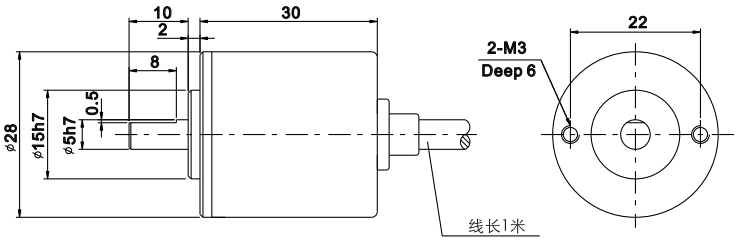
■ 输出电路说明

■ 接线说明

L型（驱动器输出）

PIN	线色	信号
4	红	Vcc
7	黑	0V
1	白	A
5	粉	A\
2	绿	B
6	蓝	B\

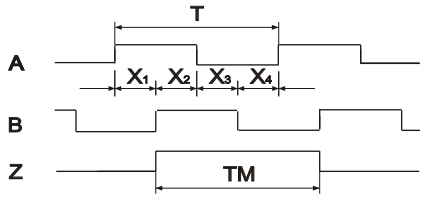
■ 安装尺寸



注意 在使用前请仔细阅读本说明

1）拿编码器时,不允许只拿编码器输出线。
2）编码器应防止较大的冲击和振动。
3）编码器贮存应远离灰尘、油、水、以及腐蚀的物质,温度不能过高或过低,这些环境可能引起编码器损伤及性能的不稳定。
4）禁止对编码器做任何改造,改造过的编码器质量不受保证。
5）编码器工作时，禁止人接触编码器轴、圆盘以及编码器别的旋转部分。否则可能造成人身伤害。

■ 输出波形



本图为从联接板方向看顺时针(CW)旋转的波形

- 波形比率
  $X_1+X_2=0.5T\pm0.1T$
  $X_2+X_3=0.5T\pm0.1T$
- 相位差
  $Xn>0.15T(n=1,2,3,4)$
- 零位信号
  $TM=1T\pm0.5T$

■ 电气参数

输出电路	F	L
电源电压	DC10-30V	DC5V
消耗电流	<60mA	<150mA
响应频率	<100kHz	<100kHz
允许负载	<30mA	<20mA
信号高电平	>Vcc×70%	>2.5V
信号低电平	<1V	<0.5V
上升/下降时间	<1us	<100ns

■ 机械参数

最大转速	6000r/min
径向负荷	10N
轴向负荷	5N
重量	0.1Kg
防护等级	IP50
工作温度	-10℃....+70℃
贮存温度	-20℃....+80℃
抗冲击	1000m/s^2 , 6ms
抗振动	100m/s^2, 10....200H z
启动力矩	12X10^{-4}N.m

安装注意事项

1）为防止编码器内部损坏,编码器与电机轴应间隙配合，严禁敲击装入。
2）编码器与电机轴不要刚性连接,请使用弹性连接板.
3）安装时,请注意编码器允许的轴负载.
4）供给电压必须保持在规定的范围之内。否则，可能损坏编码器。
5）编码器线为避免交流电电力线的电磁干扰而应当单独走线。
6）编码器接线请严格按照编码器接线表中规定的线色接线。
7）编码器使用应当远离尘、油、水、过高（低）温度、高湿及腐性或易燃性物质的环境。
8）编码器的信号线不能用力拉拔或折弯。

■ 质量保证

在用户遵守保管和使用规则的条件下，产品自发货日起12个月内，因质量不良损坏时，制造方无偿地为用户修理或更换。

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H28S series

INSTRUCTION MANUAL

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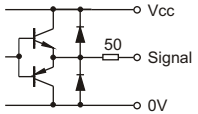
■ DEFINITION OF MODELS

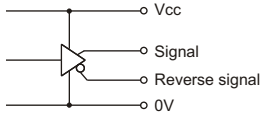
H28S — Shaft	Cable model	Voltage	Output circuit	Resolution	Output signal	Zero signal
5: 5mm	G:Side entry cable	05:DC5V	F:push-pull	100P/R	B: Singnal A&B	M: 1T
	E:Back entry cable	10-30: DC10-30V	L:Line driver	500P/R		0.5M:0.5T

■ OUTPUT CIRCUIT

F-Type（Pull-Push type）



L-Type（Line driver）

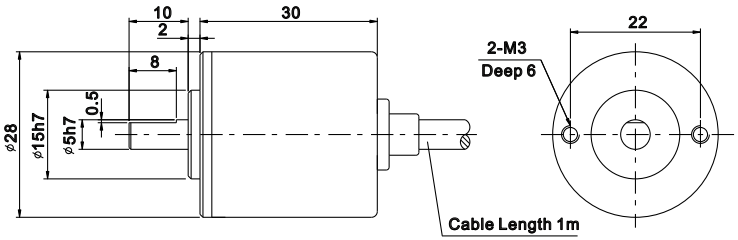


■ CONNECTIONS TABLE

L-Type

PIN	Lead color	Signal
4	Red	Vcc
7	Black	0V
1	White	A
5	Pink	A\
2	Green	B
6	Blue	B\

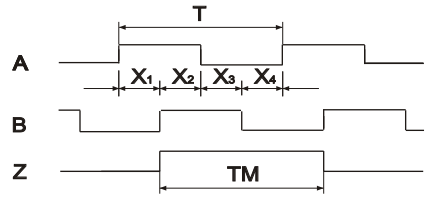
■ EXTERNAL DIMENSIONS



CAUTIONS Following instructions before they touch the encoder.

1)Hold the body of the encoder, Never hang it by the lead wires
2)Isolate the encoder from shock and vibration.
3)Keep the encoder away from dust,oil,water,high or low temperature and corrosive materials. These situations may cause the damage of the encoder and a personal injury.
4)Any modification of the encoder is prohibited, A modified encoder is not a subject to the warranty.
5)Do not contact a shaft,a disc,a coupling or other rotating part of the encoder in operation to avoid a personal injury.

■ OUTPUT WAVE FORM



The waveforms from viewed from the coupled plate and clockwise rotation.

- Waveforms ratio
  $X_1+X_2=0.5T\pm0.1T$
  $X_2+X_3=0.5T\pm0.1T$
- Phase shift
  $Xn>0.15T(n=1,2,3,4)$
- Zero signal width
  $TM=1T\pm0.5T$

■ ELECTRICAL SPEC

Output type	F	L
Supply voltage	DC10-30V	DC5V
Consumption current	<60mA	<150mA
Frequency response	<100kHz	<100kHz
Load current	<30mA	<20mA
Voltage output(V_H)	>Vcc×70%	>2.5V
Voltage output(V_L)	<1V	<0.5V
Rise time/fall time	<1us	<100ns

■ MECHANICAL SPEC

Max. Rotating speed	6000r/min
Radial shaft load	10N
Axial shaft load	5N
Weight	0.1Kg
Protection	IP50
Operating temperature	-10℃....+70℃
Storage temperature	-20℃....+80℃
Shock resistance	1000m/s^2 , 6ms
Vibration resistance	100m/s^2, 10....200H z
Starting torque	12X10^{-4}N.m

INSTRUCTIONS FOR INSTALLATION

1) For preventing the damage of a glass disc inside,There should be space between the encoder and the motor shaft.Do not attempt to assemble by hammering.
2) The encoder shaft is not wanted the rigidity to link by the shaft with user,Please use elasticity to connection the board Socket.
3 The supply voltage should be kept within the required range. it may cause the damage of the encoder.
4) Do not lock the encoders with clamp loop before putting them into motors,to prevent the axis from being deformed .
5) The cable should be isolated from AC power lines to avoid motor interference.
6) The wiring of the rotary encoder should be connected according to color codes of wires and electrical connections.
7) The encoder should be located free of dust,oil,water,high or low temperature,high humidity and corrosive or flammable materials.
8) The lead wires of the encoder should not be pulled out or bent into a sharp angle.

■ QUALITY ASSURANCE

If the encoder does not function properly within 12 months of the delivering date due to its poor qualigy,it will be repaired or replaced by the producer for free only when customer has strictly followed the regulations for maintenance and operation.

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