

旋转编码器系列

Rotary encoder series

编码器简介

Introduction of encoder

▶ 编码器原理 Working principle

旋转编码器是集机、光、电技术于一体的位移传感器，通过光电转换，可将角位移。角速度等机械位移量转换成相应的电脉冲或数字信号输出的位移转感器。它采用了光电扫描原理，其读数系统是基于径向分度盘的旋转，该分度盘是由交替的透光窗口与不透光窗口构成的，此系统用红外光源垂直照射。当编码器轴带动分度盘旋转时，发光器件发出光经旋转的分度盘、指示盘遮掩，形成变化的光信号并被感光器件感受，感光器件将感受到的光信号变化转换成电信号变化，产生初始信号，该信号经后续电路处理后，输出脉冲(或代码)信号。

Rotary encoder is displacement transducer composed of optic, mechanical and electric technology. A displacement transducer converts mechanical displacement of angular displacement. The mechanical displacement such as angular speed will become relevant electrical pulse or digital signals output by photoelectric conversion. It applies photoelectric scanning principle, its reading system is based on rotation of radial index plate, this index plate is consisted of alternate nonopaque window and opaque widow, this system used in vertical irradiation of infrared source, when encoder axis drives the index plate's rotation, light from luminescent device through the rotating index plate, indicator plate's cover,to form varied optical signal and be felt by sensitive device, this sensitive device transfers received optical signal variation to electrical signal variation,produce initial signal, this signal will be disposaled by following circuit, output pulse(code)signal.

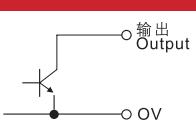
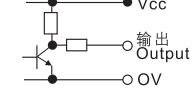
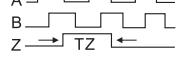
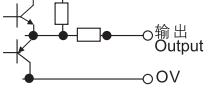
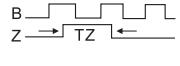
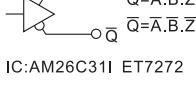
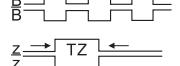
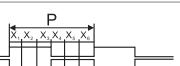
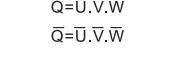
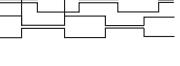
旋转编码器
Rotary encoder

接近传感器
Proximity sensor

光电传感器
Photoelectric sensor

区域传感器
Area Sensor

▶ 编码器输出电路及波形(示例) Encoder output circuit and waveform

信号输出方式 Signal output way	代号 Code number	电路说明 Circuit explanation	输出电路 Output circuit	波形输出(顺时针) Output wave pattern(CW)
NPN集电极开路输出 Collector plough output	C	直接从晶体管的集电极输出的电路 The circuit that output directly from collector of transistor		接上负载电阻，如下图E型所示电路及波形。 Connect load resistance, as model E shown in the following circuit and waveform
电压输出 Voltage output	E	晶体管发射极接地，集电极带负载电阻输出的电路 The circuit that transistorized emitter grounded and collector output with load resistance		
推拉输出 Push-Pull output	F	从两只晶体管发射极对接后输出的电路。 这种电路反应速度快，也可以长距离传输。 The output circuit after two transistorized emitters butt-joint this circuit has fast reaction rate and also can convey in the long distance.		
长线驱动输出 Line driver output	L	输出信号由专用的IC长线驱动输出，接收器也必须用与之相匹配的器件。 Output signal output by special IC long line drives, receiver must use the device which are well-matched.		
	T	IC:AM26C31I ET7272		
测AC马达磁极位置的U、V、W、信号输出 Measure U、V、W、signal output in the hole position of AC motor	U	电机无电刷化的相位差120°的3路信号(电角度。) 3Way signal(electric degrees)of electrical engineering nonbrush's phase 120°difference		

注：从轴端看编码器，顺时针为正转，信号A超前信号B90°，逆时针旋转时相反，信号B超前信号A90°

Note: seeing the encoder from wellenenden,when clockwise is positive rotation,signal A is ahead 90° to signal B, when counter-clockwise is tating,in a contrary,signal B is ahead 90°to signal A .

▶ 安装使用注意事项Installation and operation attentions

机械方面Machine aspect

·编码器与用户输出轴间的连接驱动，应采用弹性联轴器、尼龙齿或同步带连接，切忌采用刚性连接，以避免因用户轴的串动、跳动，造成编码器轴系和码盘的损坏。

·编码器安装时应轻轻推入被套轴，严禁用锤敲击和摔打碰撞，以免损坏轴系和码盘。

·安装时请注意允许的轴负载，不得超过其极限负载。

·应保证编码器轴与用户输出轴的不同轴度<0.2mm,与轴线的偏角<2°

·注意不要超过其电气极限转速，如超过编码器所允许的极限转速时，电气信号可能会丢失。

·Connecting driver between encoder and customer output axis should use elastic coupling nylon teeth of synchronization with connection ,avoid using rigidity connection, so that cause the damage of encoder shafting and code plate by reason of customer axis 'float and pulsation.

·When encoder installs, you should push in the tied up axis lightly, forbid knocking by hammer and collision ,in order to avoid damaging encoder shafting and code plate.

·When installing, please take notice that allowable axis load ,can't exceed the limit load.

·Should guarantee encoder axis and customer output axis'misalignment<0.2mm,declination angle with axes<2°.

·Take notice that it should not exceed this electric limit rotate speed ,if it exceed the limit rotate speed allowable by encoder ,electric signal may be lose.

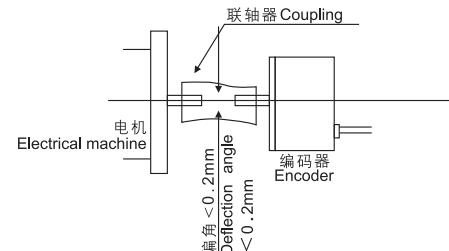
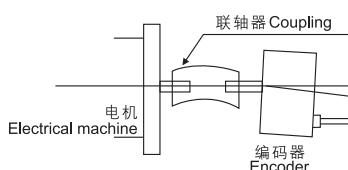
$$N_{max} = (\text{最高响应频率}/L) \times 60 \text{ r/min} \quad (L \text{ 为光栅脉冲数})$$

$$N_{max} = (\text{highest response frequency}/L) \times 60 \text{ r/min} \quad (L \text{ is grating pulse count})$$

·长期使用时，请检查与编码器座体相连部分、以及固定螺钉等是否松动，以防影响设备的正常使用。

·If long -time service, please examine the parts connected with encoder found ationmass and whether clamping screw become flexible, electric signal may be lose .

机械连接要求(示例)Machines connection requirement:



电气方面Electric aspect

·请不要将编码器的输出线与动力线等绕在一起或同一管道传输，也不宜在配电盘附近使用，以防干扰。

·配线时应采用屏蔽电缆。（可采用如右连接方式：）

·安装开机前，应仔细检查，产品说明书与编码器型号是否相符，接线是否正确，错误接线会导致内部电路损坏。

·长距传输时，应考虑信号衰减因素有关，选用输出阻抗低，抗干扰能力强的输出方式。

·脉冲信号的传送距离与下列因素有关：频率、输出电路、输入电路、传输线，发送频率。

·Please don't let encoder output line and power line etc twist together or transfer in the same pipeline,also not suitable to use near the switchboard to avoid interference.

·When wiring ,should apply shielded cable (can use connection mode as right)

·Before installing and powering on ,should attentively check whether product instruction conform to encoder type or not ,whether or not the connection is correct ,the wrong connection will lead internal circuit to fault .

·When transferring in long distance ,should consider signal decrease factor, select output way of low output impedance and strong anti-interference performance .

·Pulse signal's convection distance is related to the following factor :frequency, output circuit ,input circuit, transmission line ,delivery frequency.

环境方面Ambient aspect

·因为编码器乃精密仪器，使用时要注意周围无振源。

·编码器不是防漏结构时，不要溅上水、油等，必要时要加上防护罩。

·请注意环境温度、湿度是否在编码器使用范围内。

Because the encoder is precision instrument,please notice having no earthquake source all around .

If encoder is not leakage proof structure ,don't splash water ,oil etc, cover the protecting hood when necessity.

Please notice if or not ambient temperature ,humidity in range of encoder's operating requirement .

注意：安装或使用不当会影响编码器的性能和使用寿命。

Notice:installation or operating unsuitable will impact the capability and service life of encoder.

旋转变编
Rotary encoder

接近传感器
Proximity sensor

光电传感器
Photoelectric sensor

区域传感器
Area Sensor

旋转编码器 S25S系列

S25S Incremental encoder series

HNC
SENSOR



用途与特点 Application and features

外径Φ25，实心轴，孔径Φ4

体积小，重量轻，安装方便

适用于多种自动化设备

ODΦ25 Solid shaft, bore diameter Φ4.

Miniature, light weight, easy to mount.

Applied for various automation equipment.

▶ 型号说明 Model Explanation

S	25	S	4	-F-	(1000)	BZ	5-26	E	2	□
基本型号 Model S:常规增量型 Incremental encoder S□: 特殊型号定义 Special definition	主体外径OD 25:Φ25mm	轴型Shaft type: 实心轴 Solid shaft	轴直径: 4:Φ4mm等	输出方式 Output configuration : F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage	脉冲数/分辨率 Resolution 100-1024P/R	输出相 Output signal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way E:后出线 Bottom outlet	线缆长度 Cable 2:2m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

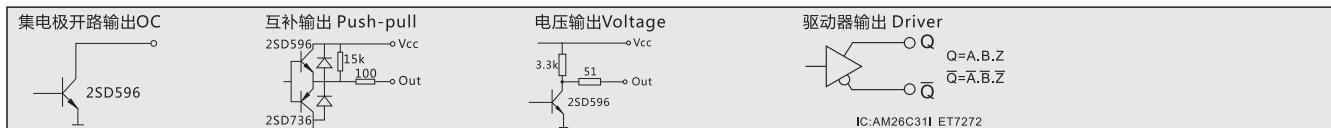
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货中备注说明。Note2 : Standard cable length is 2m. Other length can be customized.

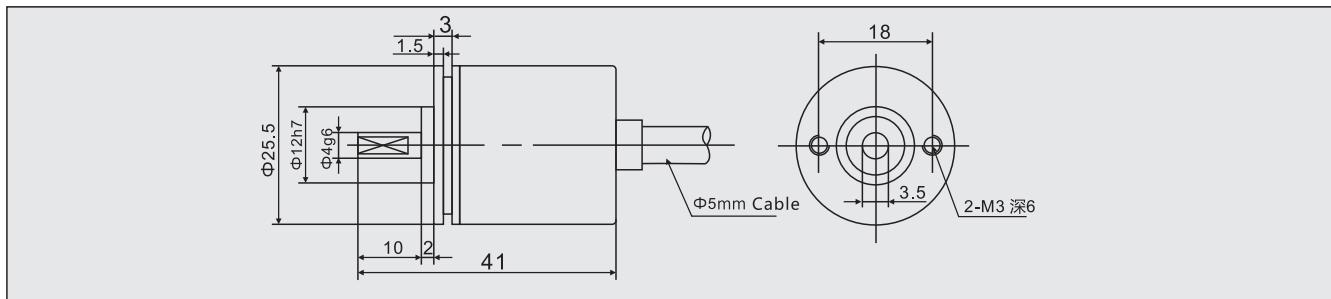
▶ 技术规格 Specification

电气参数 Electric parameter			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24v	+8V~24V
消耗电流 Current consumption	≤60mA	≤60mA	≤60mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%	≥VCC*70%
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise / down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	50KHz	100KHz
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负荷 Axial load	≤15N	抗振动 Vibration resist	100m/s ² , 10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	-20°C~+85°C
最高转速 Taptop rotate speed	6000r/min	储存温度 Storing temperature	-20°C~+85°C
转动惯量 Running inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP50
重量 weight	约About 0.15kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 S30S系列

S30S Incremental encoder series



用途与特点 Application and features

外径Φ30，实心轴，轴径Φ4
体积小，重量轻，安装方便
适用于多种自动化设备

ODΦ30 Half hollow shaft, bore diameter Φ4.
Miniature, light weight, easy to mount.
Applied for various automation equipment.

▶ 型号说明 Model Explanation

S	30	S	4	-F-	(1000)	BZ	5-26	E	2	□
基本型号 Model S:常规增量型 Incremental encoder S □: 特殊型号定义 Special definition	主外径OD 30:Φ30mm	轴型Shaft type: 实心轴 Solid shaft	轴直径: 4:Φ4MM等	输出方式 Output configuration : F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage	脉冲数/分辨率 Resolution 100-1024P/R	输出相 Output signal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

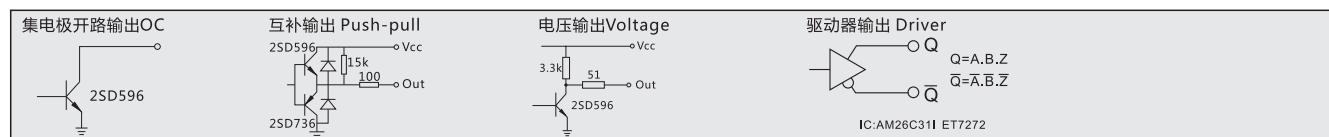
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货时备注说明。Note2 : Standard cable length is 2m. Other length can be customized.

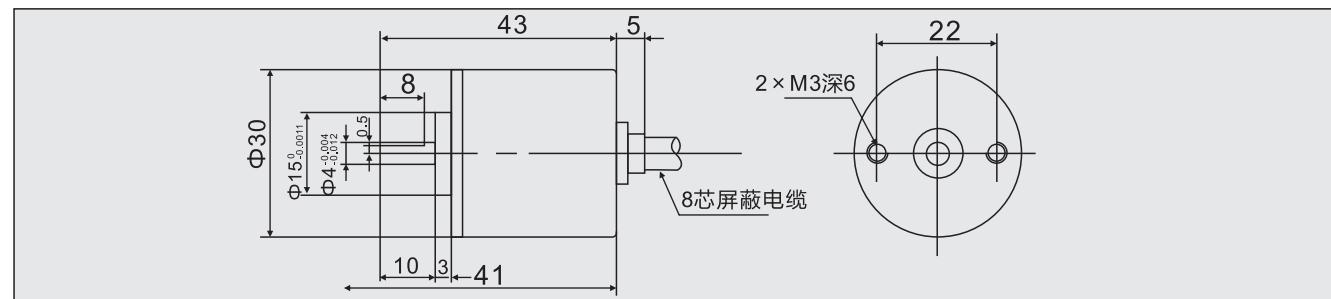
▶ 技术规格 Specification

电气参数 Electric parameter			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤60mA	≤60mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%V	≥VCC*70%V
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise /down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	50KHz	100KHz
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负载 Axial load	≤15N	抗振动 Vibration resist	100m/s ² ,10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	- 20°C ~ +85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	- 20°C ~ +85°C
转动惯量 Running inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP50
重量 weight	约About 0.15kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 S38S系列

S38S Incremental encoder series

HNC
SENSOR



用途与特点 Application and features

外径Φ38，实心轴，轴径Φ6

体积小，重量轻，安装方便

适用于多种自动化设备

ODΦ38 Half hollow shaft, bore diameter Φ6 .

Miniature,light weight ,easy to mount.

Applied for various automation equipment.

▶ 型号说明 Model Explanation

S	38	S	6	-F-	(1000)	BZ	5-26	G	2	□
基本型号 Model S:常规增量型 Incremental encoder	主体外径OD 38:Φ38mm	轴型Shaft type: 实心轴 Solid shaft	轴直径: 6:Φ6mm 8:Φ8mm	输出方式 Output configuration : F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution 10-5000P/R	输出相 Outputsignal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat
S□: 特殊型号定义 Special definition										

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

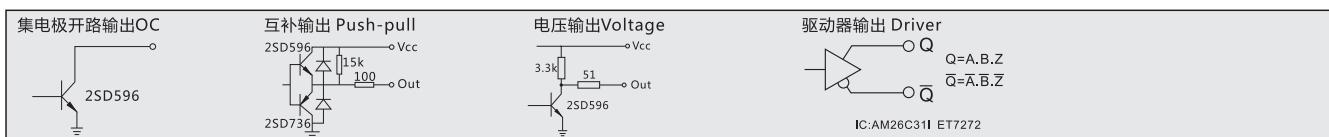
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires.Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货中备注说明。Note2 : Standard cable length is 2m.Other length can be customized.

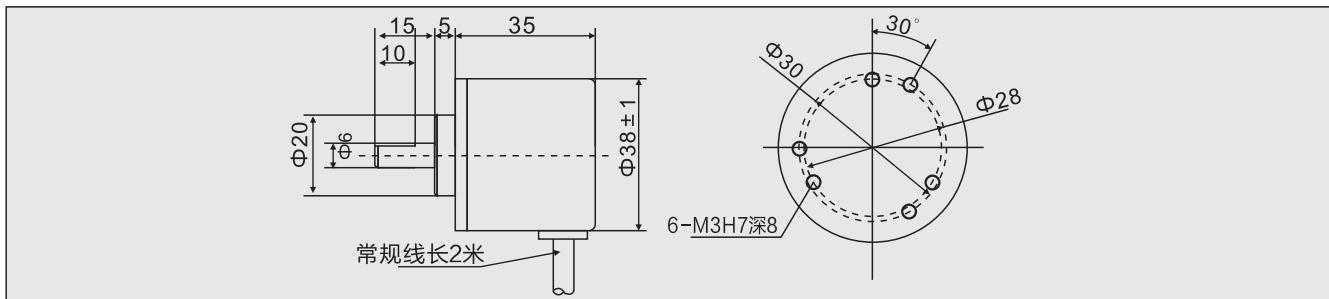
▶ 技术规格 Specification

电气参数 Electric parameter			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤60mA	≤60mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%	≥VCC*70%
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise / down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负载 Axial load	≤15N	抗振动 Vibration resist	100m/s ² , 10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	- 20°C ~ +85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	- 20°C ~ +85°C
转动惯量 Running inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP50
重量 weight	约About 0.15kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)





旋转编码器 SG38S系列

SG38S Incremental encoder series

HNC
SENSOR

Waterproof
防水系列

用途与特点 Application and features

外径Φ38，实心轴，轴径Φ6
体积小，重量轻，安装方便
封闭式壳体更加牢固抗冲击、防水 IP : 66
反接保护及短路保护、高抗电磁干扰

ODΦ38 Half hollow shaft, bore diameter Φ6 or Φ8.
Miniature, light weight, easy to mount, Waterproof IP:66.
Applied for various automation equipment
Anti connection protection and short circuit protection and high electromagnetic interference.

▶ 型号说明 Model Explanation

SG	38	S	6	-F-	(1000)	BZ	5-26	F	2	□
基本型号 Model S:常规增量型 Incremental encoder	主体外径OD 38:Φ38MM	轴型Shaft type: 实心轴 Solid shaft	轴直径: 6:Φ6mm 等	输出方式 Output configuration: F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution 10-5000P/R	输出相 Outputsignal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V 12-24:12-24V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat
S □: 特殊型号定义 Special definition										

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货时备注说明。Note2 : Standard cable length is 2m. Other length can be customized.

▶ 技术规格 Specification

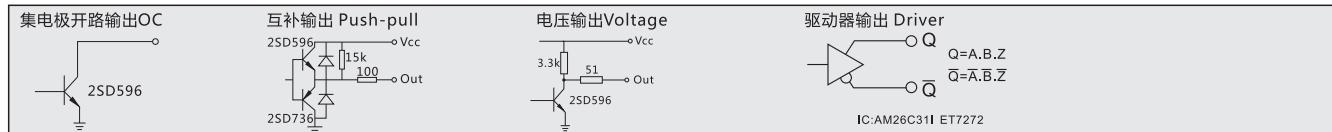
电气参数 Electric parameter

输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24v	+8V~24V
消耗电流 Current consumption	≤60mA	≤60mA	≤60mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%V	≥VCC*70%V
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise /down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	150KHz	150KHz	150KHz

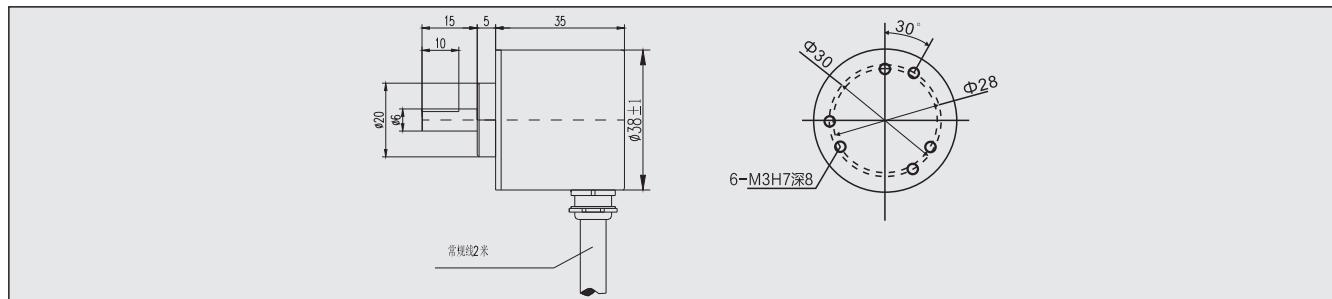
机械及环境参数 Mechanical and Environmental

径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负载 Axial load	≤15N	抗振动 Vibration resist	100m/s ² ,10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	- 20°C ~ +85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	- 20°C ~ +85°C
转动惯量 Runing inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP66
重量 weight	约About 0.15kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器
Rotary encoder

接近传感器
Proximity sensor

光电传感器
Photoelectric sensor

区域传感器
Area Sensor

旋转编码器 S50S系列

S50S Incremental encoder series

HNC
SENSOR



用途与特点 Application and features

外径Φ50，空心轴，孔径Φ6或Φ8

可承受较高的轴向和径向负荷

应用于测量、自动控制、机器人、印刷包装及数控等

The outer diameter of hollow shaft, with 50, 6 or 8 mm diameter apertureCan bear higher axial and radial load
It is applied to measurement, automatic control, robot, printing and packaging, numerical control and so on.

▶ 型号说明 Model Explanation

S	50	S	8	-F-	(1000)	BZ	5-26	G	2	□
基本型号 Model S :常规增量型 Incremental encoder S □: 特殊型号定义 Special definition	主体外径OD 50:Φ38mm	轴型Shaft type: 实心轴 Solid shaft	轴直径: 6:Φ6mm 8:Φ8mm	输出方式 Output configuration : F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution 10-5000P/R	输出相 Outputsignal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

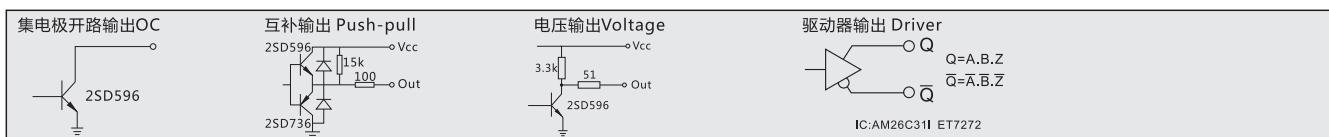
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires.Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货中备注说明。Note2 : Standard cable length is 2m.Other length can be customized.

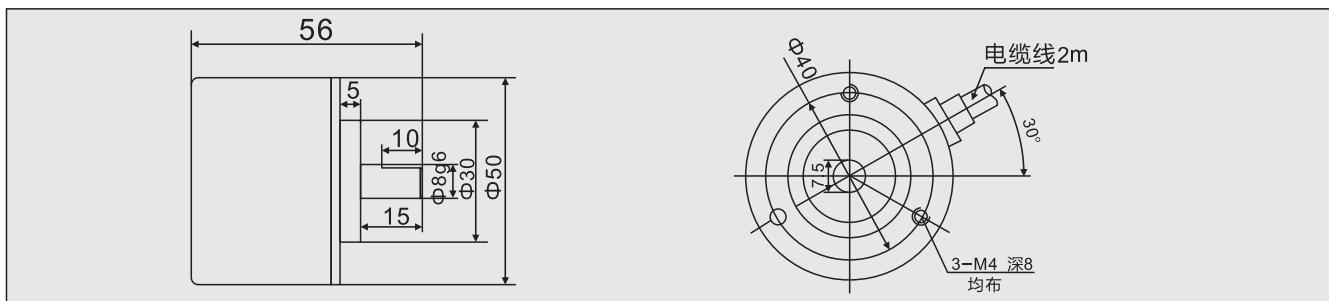
▶ 技术规格 Specification

电气参数 Electric parameter			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤60mA	≤60mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%	≥VCC*70%
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise / down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负载 Axial load	≤15N	抗振动 Vibration resist	100m/s ² , 10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	- 20°C ~ +85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	- 20°C ~ +85°C
转动惯量 Running inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP55
重量 weight	约About 0.3kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 S58S系列

S58S Incremental encoder series



用途与特点 Application and features

外径Φ58mm，止口36mm，轴径Φ10mm

不锈钢轴载荷能力强、工作寿命长

可根据客户要求选配航空插头侧出线

The outer diameter of 58mm, the spigot shaft diameter 36mm, diameter of 10mm

Strong load capacity and long working life of stainless steel shaft

An aerial plug can be selected according to the requirements of the customer

▶ 型号说明 Model Explanation

SG	58	S	10	-F-	(1000)	BZ	5-26	G	2	□
基本型号 Model S : 常规增量型 Incremental encoder S □: 特殊型号定义 Special definition	主体外径OD 58:Φ58mm	轴型Shaft type: 实心轴 Solid shaft	轴直径: 10:Φ10mm	输出方式 Output configuration: F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution 10-2500P/R	输出相 Output signal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V 12-24:12-24V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires.Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货时备注说明。Note2 : Standard cable length is 2m.Other length can be customized.

▶ 技术规格 Specification

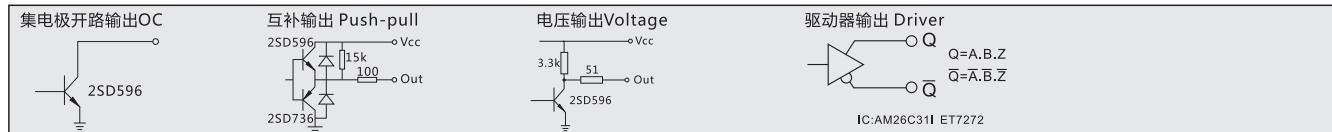
电气参数 Electric parameter

输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24v	+8V~24V
消耗电流 Current consumption	≤60mA	≤60mA	≤60mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%V	≥VCC*70%V
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise /down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	150KHz	150KHz	150KHz

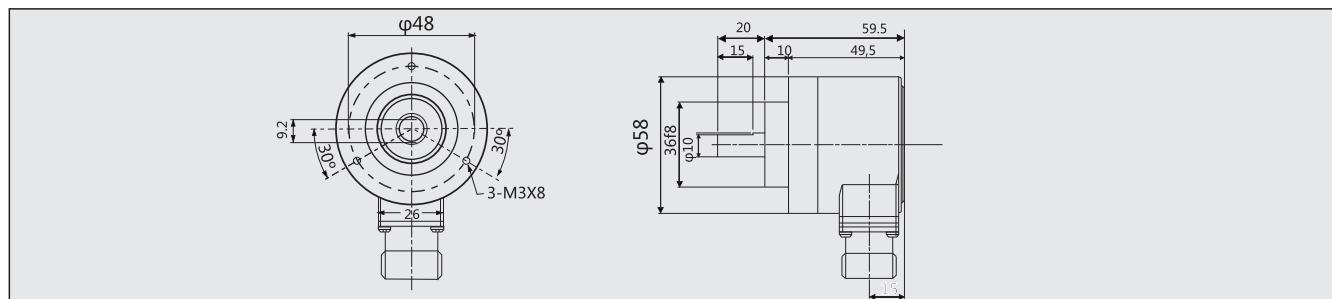
机械及环境参数 Mechanical and Environmental

径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负荷 Axial load	≤15N	抗振动 Vibration resist	100m/s ² ,10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	- 20°C ~ +85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	- 20°C ~ +85°C
转动惯量 Runing inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP66
重量 weight	约About 0.15kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 S58S系列

S58S Incremental encoder series

HNC
SENSOR



用途与特点 Application and features

外径Φ58，空心轴，孔径Φ15
可承受较高的轴向和径向负荷
长线驱动输出型，抗干扰能力强，可长距离传输
应用于数控机床、印刷机械零位补正和信号分割

The outer diameter of phi 58, Phi 15 diameter hollow shaft.

Can bear higher axial and radial load

The long line drive output type has strong anti-interference ability.

It is applied to zero position correction and signal segmentation of CNC machine tools.

▶ 型号说明 Model Explanation

S	58	S	15	-L-	(1024)	BZ	5	C	2	□
基本型号 Model S:常规增量型 Incremental encoder S □: 特殊型号定义 Special definition	主体外径OD 58:Φ58mm	轴型Shaft type: 实心轴 Solid shaft	轴直径: 15:Φ15mm 10:Φ10mm	输出方式 Output configuration: F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution 10-2500P/R	输出相 Outputsignal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof C:航插 Plug	线缆长度 Cable 2:2 m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

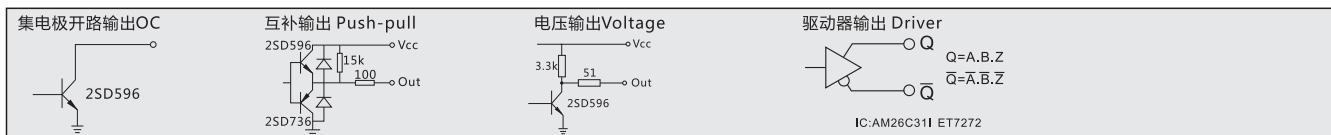
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires.Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货中备注说明。Note2 : Standard cable length is 2m.Other length can be customized.

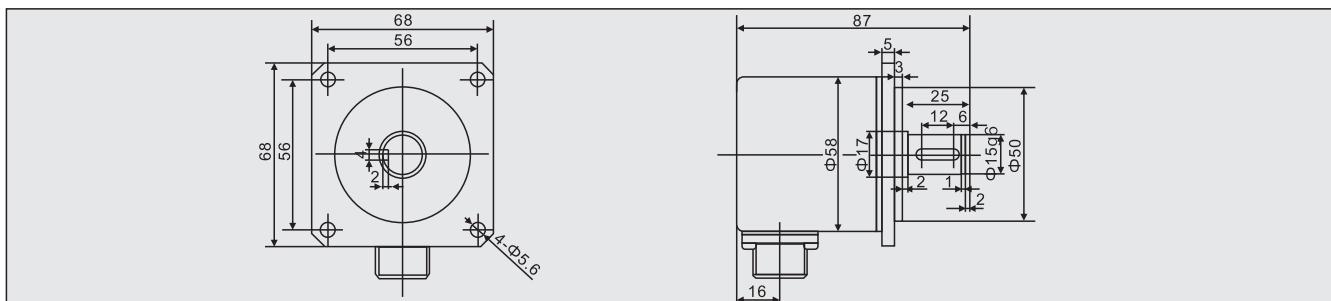
▶ 技术规格 Specification

电气参数 Electric parameter			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤60mA	≤60mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%	≥VCC*70%
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise / down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负载 Axial load	≤15N	抗振动 Vibration resist	100m/s ² , 10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	-20°C~+85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	-20°C~+85°C
转动惯量 Running inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP56
重量 weight	约About 0.5kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 S38H系列

S38H Incremental encoder series



用途与特点 Application and features

外径Φ38，空心轴，孔径Φ6或Φ8

双翼弹簧片辅件安装、避免对编码器的直接损伤

金属外壳更加牢固抗冲击

防护等级IP55、可满足标准的防护要求

ODΦ38 Half hollow shaft, bore diameter Φ6 or Φ8.

Miniature, light weight, easy to mount.

The double wing spring accessory is installed to avoid direct damage to the encoder.

▶ 型号说明 Model Explanation

S	38	H	8	-F-	(1000)	BZ	5-26	G	2	□
基本型号 Model S:常规增量型 Incremental encoder	主体外径OD 38:Φ38mm	轴型Shaft type 半空心轴 Half hollow shaft	孔直径: 6:Φ6mm 8:Φ8mm 12:Φ12mm	输出方式 Output configuration : F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution 10-5000P/R	输出相 Outputsignal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货时备注说明。Note2 : Standard cable length is 2m. Other length can be customized.

▶ 技术规格 Specification

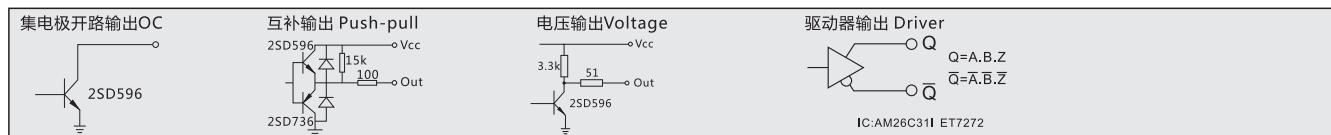
电气参数 Electric parameter

输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤60mA	≤60mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%V	≥VCC*70%V
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise /down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz

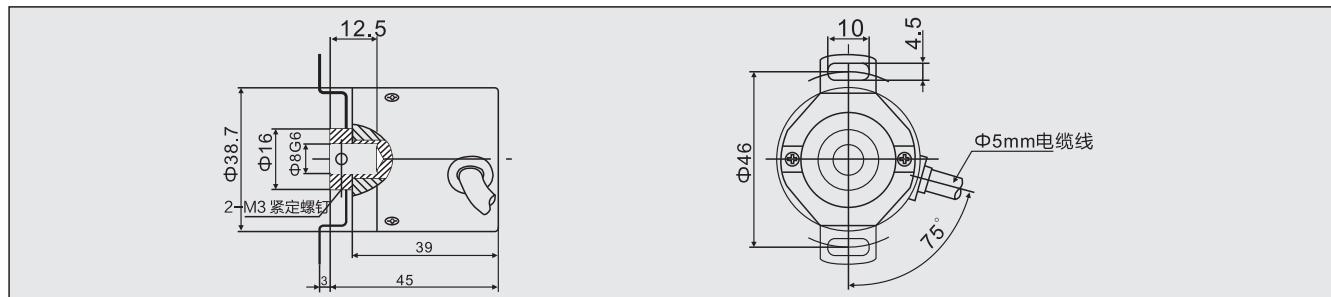
机械及环境参数 Mechanical and Environmental

径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负荷 Axial load	≤15N	抗振动 Vibration resist	100m/s ² , 10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	-20°C~+85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	-20°C~+85°C
转动惯量 Runing inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP55
重量 weight	约About 0.18kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 S38T系列

S38T Incremental encoder series

HNC
S
ENSOR



用途与特点 Application and features

外径Φ38，空心轴，孔径Φ8或Φ9
双翼弹簧片辅件安装、避免对编码器的直接损伤
可配合电机直接使用
防护等级IP55、可满足标准的防护要求

ODΦ38 Hollow shaft, bore diameter Φ8 or Φ9
The double wing spring accessory is installed to avoid direct damage to the encoder
Direct use with motor
Protection grade IP55 and standard protection requirements

▶ 型号说明 Model Explanation

S	38	T	8	-F-	(1000)	BZ	5-26	G	2	□
基本型号 Model S:常规增量型 Incremental encoder S □: 特殊型号定义 Special definition	主体外径OD 38:Φ38mm	轴型Shaft type: 全空心轴 Hollow shaft	孔直径: 8:Φ8mm 9:Φ9mm	输出方式 Output configuration: F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution	输出相 Outputsignal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

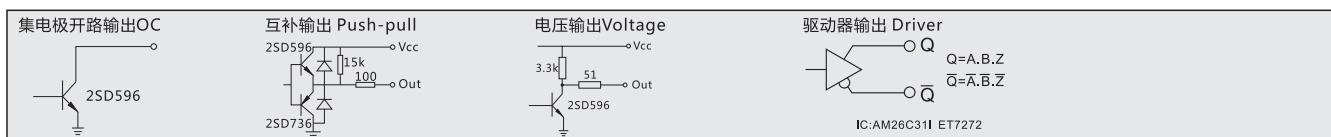
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1: Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货中备注说明。Note2: Standard cable length is 2m. Other length can be customized.

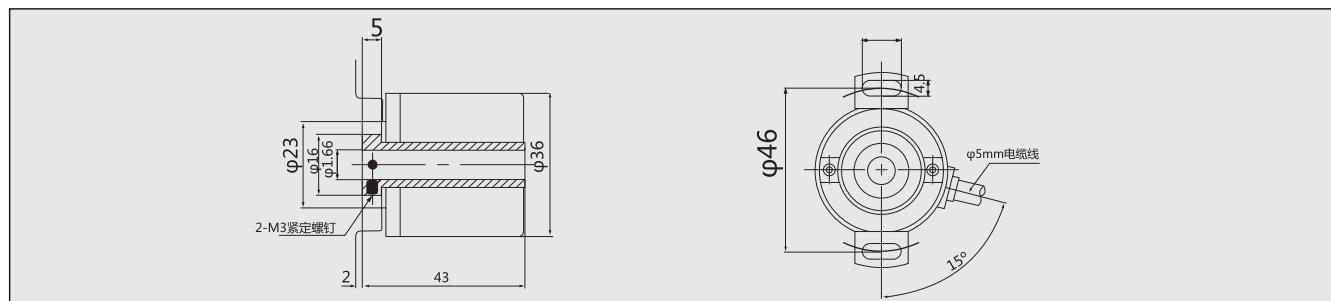
▶ 技术规格 Specification

电气参数 Electric parameter			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤60mA	≤60mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%	≥VCC*70%
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise / down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负荷 Axial load	≤15N	抗振动 Vibration resist	100m/s ² , 10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	-20°C~+85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	-20°C~+85°C
转动惯量 Running inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP55
重量 weight	约About 0.18kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 S50T系列

S50T Incremental encoder series

用途与特点 Application and features

外径Φ50，空心轴，孔径Φ8或Φ10
可配双轴伸轮式机构用于同步转动侧长
广泛用于各种机械和工业控制

The outer diameter of hollow shaft, with 50, 8 or 10 mm diameter aperture.
It can be equipped with two shaft extension wheel mechanism for synchronous rotation length measurement.
Widely used in all kinds of mechanical and industrial control.

▶ 型号说明 Model Explanation

S	50	T	8	-F-	(1000)	BZ	5-26	G	2	□
基本型号 Model S:常规增量型 Incremental encoder S □: 特殊型号定义 Special definition	主体外径OD 38;Φ38mm	轴型Shaft type: 全空心轴 Hollow shaft	孔直径: 6:Φ6mm 8:Φ8mm 10:Φ10mm 12:Φ12mm	输出方式 Output configuration: F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution 100-2000P/R	输出相 Output signal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires.Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货时备注说明。Note2 : Standard cable length is 2m.Other length can be customized.

▶ 技术规格 Specification

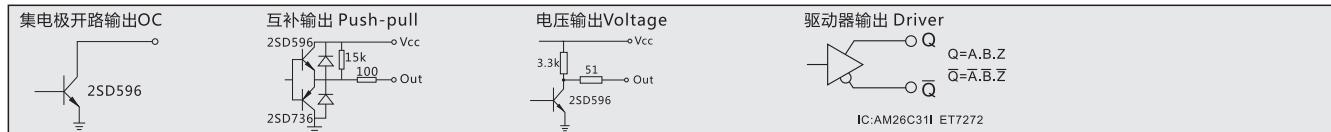
电气参数 Electric parameter

输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤60mA	≤60mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%V	≥VCC*70%V
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise /down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz

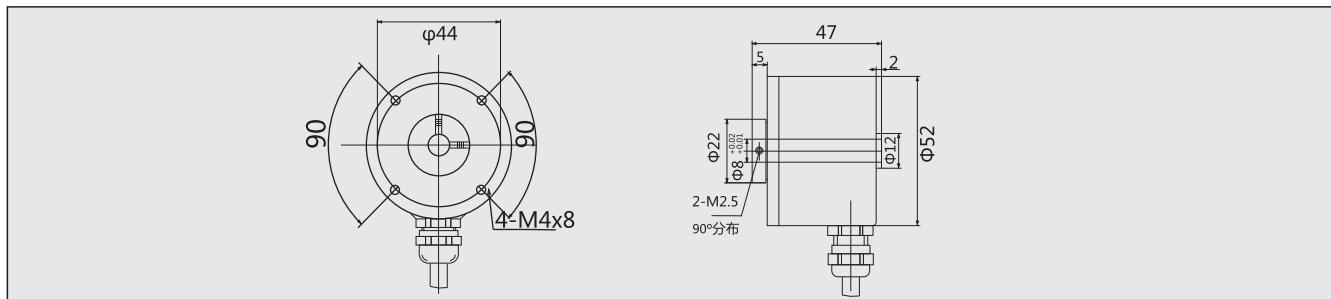
机械及环境参数 Mechanical and Environmental

径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负荷 Axial load	≤15N	抗振动 Vibration resist	100m/s ² ,10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	- 20°C ~ +85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	- 20°C ~ +85°C
转动惯量 Runing inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP55
重量 weight	约About 0.3kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)





旋转编码器 S60T系列

S60T Incremental encoder series

HNC
S
ENSOR

用途与特点 Application and features

外径Φ60，空心轴，孔径Φ12或Φ10

双翼弹簧片附件安装、避免对编码器的直接损伤
可配合电机直接使用

The outer diameter of hollow shaft, with 60, 12 or 10 mm diameter aperture
The double wing spring accessory is installed to avoid direct damage to the encoder.
Direct use with motor

▶ 型号说明 Model Explanation

S	60	T	12	-F-	(1000)	BZ	5-26	G	2	□
基本型号 Model S:常规增量型 Incremental encoder S □: 特殊型号定义 Special definition	主体外径OD 60:Φ60mm	轴型Shaft type: 全空心轴 Hollow shaft	孔直径: 10:Φ10mm 12:Φ12mm	输出方式 Output configuration: F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution 100-2500P/R	输出相 Outputsignal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	Red	Black	Green	White	Yellow	-	-	-	N.C
8芯电缆线8 wires	Red	Black	Green	White	Yellow	Brown	Gray	Orange	N.C

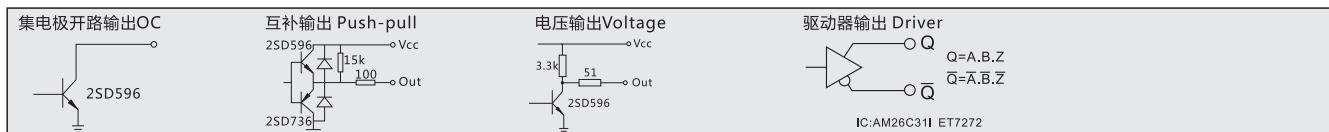
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires.Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货中备注说明。Note2 : Standard cable length is 2m.Other length can be customized.

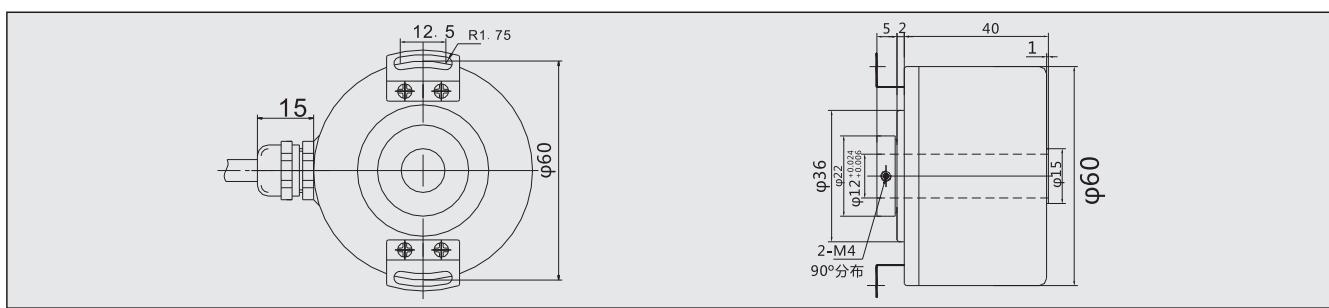
▶ 技术规格 Specification

电气参数 Electric parameter			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24v	+8V~24V
消耗电流 Current consumption	≤60mA	≤120mA	≤120mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%	≥VCC*70%
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise / down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负荷 Axial load	≤15N	抗振动 Vibration resist	100m/s ² , 10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	-20°C~+85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	-20°C~+85°C
转动惯量 Runging inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP55
重量 weight	约About 0.4kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 S80T系列

S80T Incremental encoder series



用途与特点 Application and features

外径Φ80，空心轴，孔径Φ20或Φ30

薄型设计、无键槽锁紧环固定、轴孔规格多选
主要用于电梯、轻工机械、位移及速度测量等

The outer diameter of hollow shaft, with 80, 20 or 30 mm diameter aperture
Thin design, no keyway lock ring and shaft hole multiselect specifications

It is mainly used for elevator, light industry machinery, displacement and speed measurement.

▶ 型号说明 Model Explanation

S	80	T	20	-F-	(1000)	BZ	5-26	G	2	□
基本型号 Model S:常规增量型 Incremental encoder S □: 特殊型号定义 Special definition	主体外径OD 80:Φ80mm	轴型Shaft type: 全空心轴 Hollow shaft	孔直径: 16:Φ16mm 18:Φ18mm 20:Φ20mm 22:Φ22mm 25:Φ25mm 30:Φ30mm	输出方式 Output configuration: F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution 100-2500P/R	输出相 Output signal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

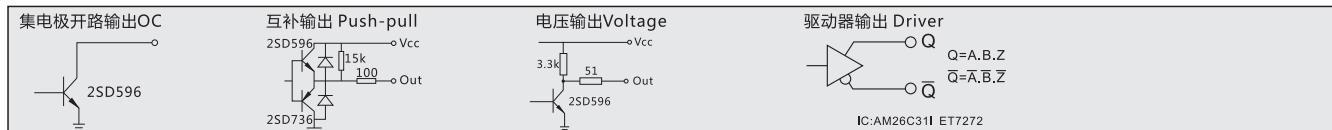
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货时备注说明。Note2 : Standard cable length is 2m. Other length can be customized.

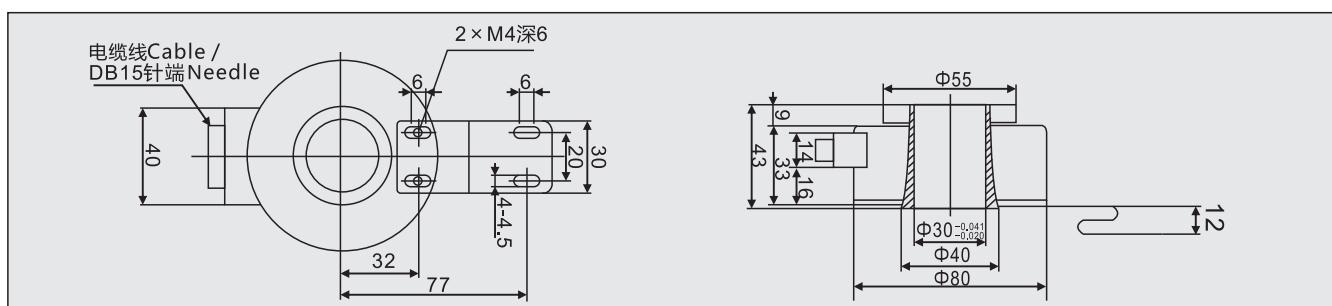
▶ 技术规格 Specification

电气参数 Electric parametar			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤120mA	≤120mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%V	≥VCC*70%V
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise /down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负载 Axial load	≤15N	抗振动 Vibration resist	100m/s ² ,10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	-20°C~+85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	-20°C~+85°C
转动惯量 Runing inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP54
重量 weight	约About 0.6kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 S100T 系列

S100T Incremental encoder series

HNC
S
ENSOR



用途与特点 Application and features

外径Φ100，空心轴，孔径Φ30或Φ45

薄型设计、无键槽锁紧环固定、轴孔规格多选

主要用于电梯、轻工机械、位移及速度测量等

The outer diameter of hollow shaft, with 100, 30 or 45 mm diameter aperture
Thin design, no keyway lock ring and shaft hole multiselect specifications
It is mainly used for elevator, light industry machinery, displacement
and speed measurement.

▶ 型号说明 Model Explanation

S	100	T	30	-F-	(1000)	BZ	5-26	G	2	□
基本型号 Model S:常规增量型 Incremental encoder	主体外径OD 100:Φ100mm	轴型Shaft type: 全空心轴 Hollow shaft	孔直径: 30:Φ30mm 35:Φ35mm 38:Φ38mm 40:Φ40mm 45:Φ45mm	输出方式 Output configuration : F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICH7长线驱动输出Driver output (driving element ICH7)	脉冲数/分辨率 Resolution 100-2500P/R	输出相 Outputsignal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5.5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat
S □: 特殊型号定义 Special definition										

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

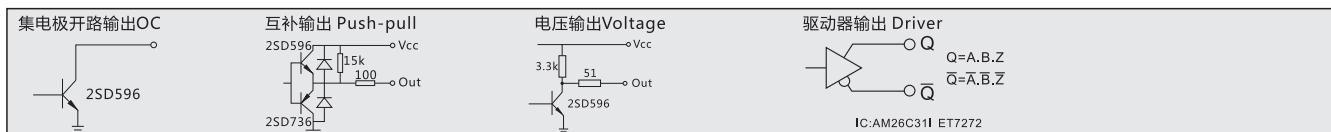
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货时备注说明。Note2 : Standard cable length is 2m. Other length can be customized.

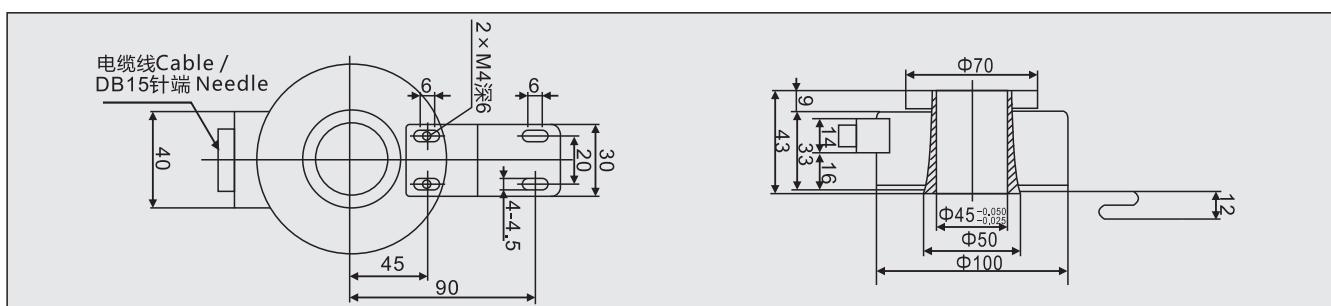
▶ 技术规格 Specification

电气参数 Electric parameter			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤120mA	≤120mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%	≥VCC*70%
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise / down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负载 Axial load	≤15N	抗振动 Vibration resist	100m/s ² , 10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	-20°C~+85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	-20°C~+85°C
转动惯量 Running inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP54
重量 weight	约About 0.7kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 S38Z系列

S38Z Incremental encoder series

用途与特点 Application and features

外径Φ38，空心轴，孔径Φ8或Φ9

双翼弹簧片辅件安装、避免对编码器的直接损伤
可配合电机直接使用

防护等级IP55、可满足标准的防护要求

ODΦ38 Half hollow shaft, bore diameter Φ6 or Φ8.

Miniature, light weight, easy to mount.

Applied for various automation equipment.

▶ 型号说明 Model Explanation

S	38	Z	8	-F-	(1000)	BZ	5-26	G	2	□
基本型号 Model S:常规增量型 Incremental encoder	主体外径OD 38:Φ38mm	轴型 Shaft type: 锥轴 Cone shaft	孔直径: 8:Φ8mm 9:Φ9mm	输出方式 Output configuration: F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出 Driver output (driving element AM26LS31) T:ICHD7长线驱动输出 Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution	输出相 Output signal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat
S □: 特殊型号定义 Special definition										

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1: Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

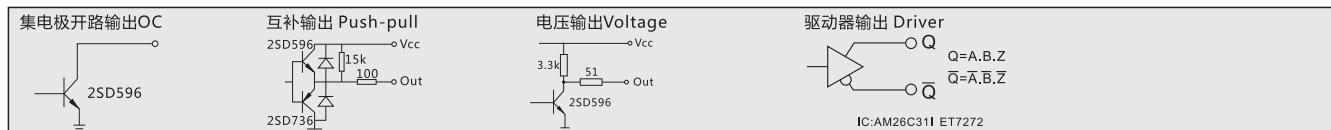
注2：电缆线标准线长2米，如需其他规格在订货时备注说明。Note2: Standard cable length is 2m. Other length can be customized.

▶ 技术规格 Specification

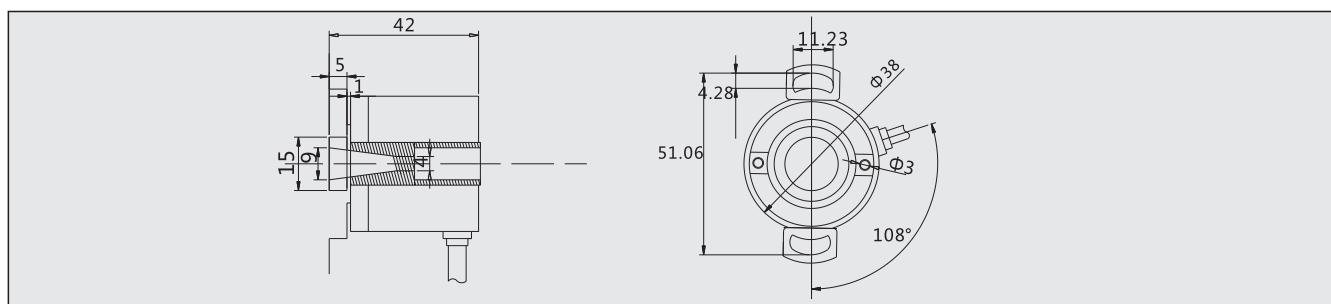
电气参数 Electric parameter

输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤60mA	≤60mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%V	≥VCC*70%V
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise /down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负载 Axial load	≤15N	抗振动 Vibration resist	100m/s ² , 10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	-20°C~+85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	-20°C~+85°C
转动惯量 Running inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP55
重量 weight	约About 0.18kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 SSF48Z 系列

SSF48Z Incremental encoder series

HNC
S
ENSOR



用途与特点 Application and features

孔径为Φ9通孔锥轴或 Φ8通孔轴

带有ABZ及UVW六通道信号，配备RS422可提供12路信号，兼容TTL

广泛应用于交流私服单元等自动化控制领域或特别适合于伺服电机配套使用

分辨率最高2500PPR，极频可达6极

The aperture is 9 holes or 8 holes with cone shaft axis

With ABZ and UVW six channel signal, equipped with RS422 can provide 12 way signal, compatible with TTL.

It is widely used in the field of automation control, such as communication private clothing unit, etc.,

or is especially suitable for supporting the use of servo motors.

The maximum resolution is 2500PPR, and the polar frequency can reach 6 poles

▶ 型号说明 Model Explanation

S	SF48	Z	9	-4P-	2500	BZ	5	G	0.2	□
基本型号 Model S:常规增量型 Incremental encoder S □: 特殊型号定义 Special definition	主体外径OD 48:Φ48mm	轴型 Shaft type: 锥轴 Cone shaft	孔直径: 8:Φ8mm 9:Φ9mm	极对数 Pair of poles 2P 3P 4P 5P 6P 8P	脉冲数/分辨率 Resolution 1000 1024 2048 2500	输出相 Outputsignal: B:ABZA/B/Z/ BZ:ABZUVW A/B/Z/ U/V/W/	电压 Supply voltage 5:5V	出线方式 Outlet way G:侧出线 Side outlet	线缆长度 Cable 0.2 : 0.2m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
14芯电缆线	红Red	黑Black	绿Green	白White	黄Yellow	绿/黑GN/BK	白/黑WH/BK	黄/黑YE/BK	N.C
U V W U/ V/ W/			棕Brown	灰Gray	橙Orange	棕/黑BN/BK	灰/黑GY/BK	橙/黑OG/BK	N.C

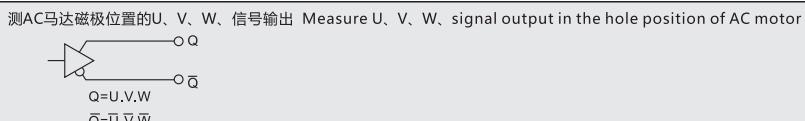
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货中备注说明。Note2 : Standard cable length is 2m. Other length can be customized.

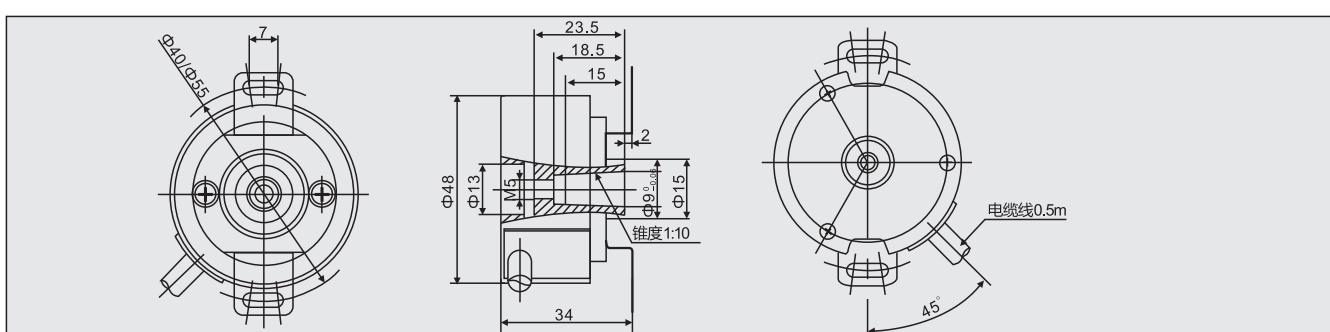
▶ 技术规格 Specification

电气参数 Electric parameter			
输出电路 Output circuit	驱动器 Drivers L		
电源电压 Mains voltage	+5V±5%		
消耗电流 Current consumption	≤200mA		
允许负载 Allowable load	20mA		
信号高电平 Signal high electrical level	≥2.5V		
信号低电平 Signal low electrical level	≤0.5V		
上升/下降时间 Rise / down time	≤200ns		
响应频率 Response frequency	150KHz		
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负荷 Axial load	≤15N	抗振动 Vibration resist	100m/s ² , 10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	-20°C~+85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	-20°C~+85°C
转动惯量 Running inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP54
重量 weight	约About 0.15kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器 SLX50S系列

SLX50S Incremental encoder series

HNC
SENSOR



用途与特点 Application and features

拉线盒尺寸50*50，测量行程2M,适合中短距离测量

外观坚固耐磨，测量精准，采用进口柔韧钢丝

主要用于液压系统，直线运动系统控制，位移应变量检测等

The size of the drawing box is 50*50, and the measuring stroke is 2M, which is suitable for short distance measurement.

The appearance is strong, wear-resistant, accurate, and imported flexible steel wire.

It is mainly used for hydraulic system, linear motion system control, displacement strain detection and so on.

▶ 型号说明 Model Explanation

SLX	50	S	-F-	(1000)	BZ	5-26	G	2	-2m	□
基本型号 Model S:常规增量型 Incremental encoder S □: 特殊型号定义 Special definition	拉线盒尺寸 Size	轴型Shaft type: 实心轴 Solid shaft	输出方式 Output configuration: F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution 10-5000P/R	输出相 Outputsignal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	钢丝长度 Length of steel wire 2:2m	客户定制 Customized informat

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

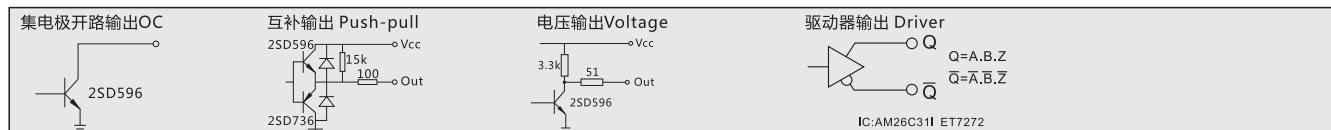
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1: Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货时备注说明。Note2: Standard cable length is 2m. Other length can be customized.

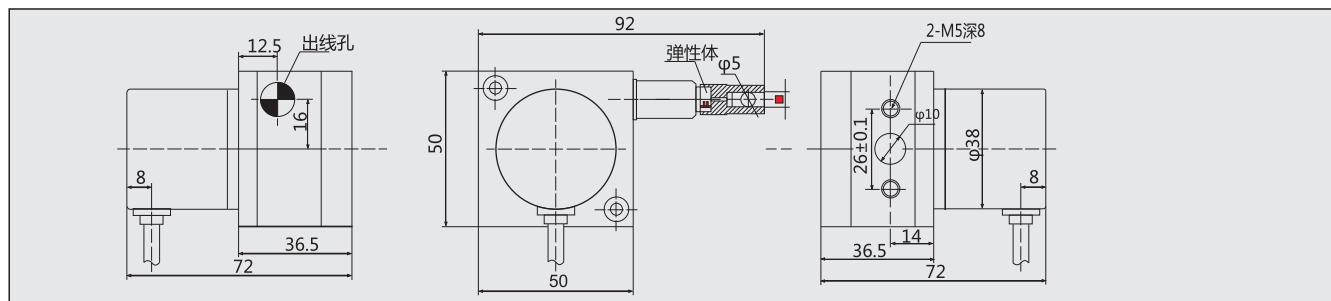
▶ 技术规格 Specification

电气参数 Electric parameter			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤120mA	≤120mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%V	≥VCC*70%V
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise /down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz
详细参数 Detailed parameters			
测量行程 Measuring stroke	0-2000mm	重复精度 Repetition precision	0.01%
分辨率 Resolving power	0.1, 0.04, 0.02, 0.01, 0.005	最大往返速度 Maximum round-trip speed	300mm/s
轮毂周长 Hub circumference	100mm	往复频率 Reciprocating frequency	20Hz
壳体材质 Shell material	铝合金 Aluminium alloy	响应频率 Response frequency	200Hz
表面 Surface treatment	氧化喷砂 Oxidizing sand blasting	寿命 Life	200-500万次 2-5million times
钢丝绳 Wire rope	0.6mm	抗振动 Anti vibration	10Hz-1500Hz 10G
线性精度 Linear precision	0.05%FS	冲击 Impact resistance	50G

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器
Rotary encoder

接近传感器
Proximity sensor

光电传感器
Photoelectric sensor

区域传感器
Area Sensor

旋转编码器 SLX78S系列

SLX78S Incremental encoder series

HNC
SENSOR



用途与特点 Application and features

拉线盒尺寸78*78，测量行程3M,适合中短距离测量

外观坚固耐磨，测量精准，采用进口柔韧钢丝

主要用于液压系统，直线运动系统控制，位移应变量检测等

The size of the drawing box is 78*78, and the measuring stroke is 3M, which is suitable for short distance measurement.

The appearance is strong, wear-resistant, accurate, and imported flexible steel wire. It is mainly used for hydraulic system, linear motion system control.

▶ 型号说明 Model Explanation

SLX	78	S	-F-	(1000)	BZ	5-26	G	2	-3m	□
基本型号 Model S:常规增量型 Incremental encoder	拉线盒尺寸 Size	轴型Shaft type: 实心轴 Solid shaft	输出方式 Output configuration : F:推挽输出 Push-pull C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output (driving element AM26LS31) T:ICHD7长线驱动输出Driver output (driving element ICHD7)	脉冲数/分辨率 Resolution 10-5000P/R	输出相 Output signal: B:AB两相 BZ:ABZ三相	电压 Supply voltage 5:5V 5-26:5-26V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	钢丝长度 Length of steel wire 3:3m	客户定制 Customized informat
S □: 特殊型号定义 Special definition										

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

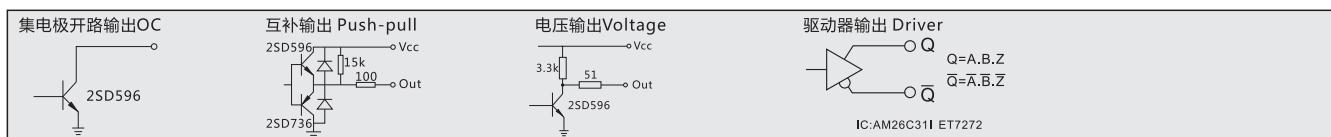
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货中备注说明。Note2 : Standard cable length is 2m. Other length can be customized.

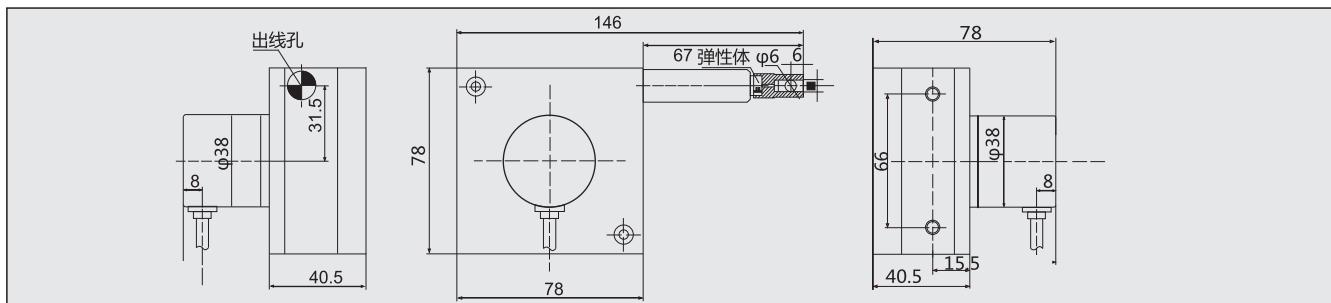
▶ 技术规格 Specification

电气参数 Electric parameter			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤120mA	≤120mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%	≥VCC*70%
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise / down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz
详细参数 Detailed parameters			
测量行程 Measuring stroke	0-2000mm	重复精度 Repetition precision	0.01%
分辨率 Resolving power	0.1, 0.04, 0.02, 0.01, 0.005	最大往返速度 Maximum round-trip speed	300mm/s
轮毂周长 Hub circumference	100mm	往复频率 Reciprocating frequency	20Hz
壳体材质 Shell material	铝合金 Aluminium alloy	响应频率 Response frequency	200Hz
表面 Surface treatment	氧化喷砂 Oxidizing sand blasting	寿命 Life	200-500万次 2-5million times
钢丝绳 Wire rope	0.6mm	抗振动 Anti vibration	10Hz-1500Hz 10G
线性精度 Linear precision	0.05%FS	冲击 Impact resistance	50G

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)





旋转编码器SLX63A系列

SLX63A Incremental encoder series

HNC
Sensors

用途与特点 Application and features

拉线盒尺寸63*63，测量行程2m,适合中短距离测量

外观坚固耐磨，测量精准，采用进口柔韧钢丝

主要用干液压系统、直线运动系统控制、位移应变量检测等

The size of the drawing box is 63*63, and the measuring stroke is 2m, which is suitable for short distance measurement.

The appearance is strong, wear-resistant, accurate, and imported flexible steel wire. It is mainly used for hydraulic system, linear motion system control.

► 型号说明 Model Explanation

► 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	信号输出Signal output				屏蔽线Shield
4-20mA	白White	黑Black					N.C
0-5V,0-10V,0-5K,0-10K	红Red	黑Black	白White				N.C

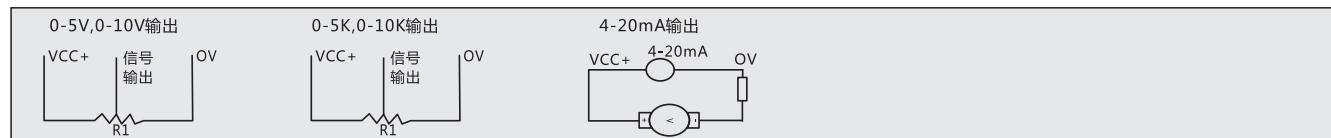
注1：电缆颜色若更改，将不另行通知，请以产品代码或说明书上的颜色为准。Note1: Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.
注2：电缆线长标准为2米，如其他规格在订货时备注说明。Note2: Standard cable length is 2m. Other length can be customized.

注2：电缆线标准线长2米，如需其他规格在订货中备注说明。Note2 : Standard cable length is 2m. Other length can be customized.

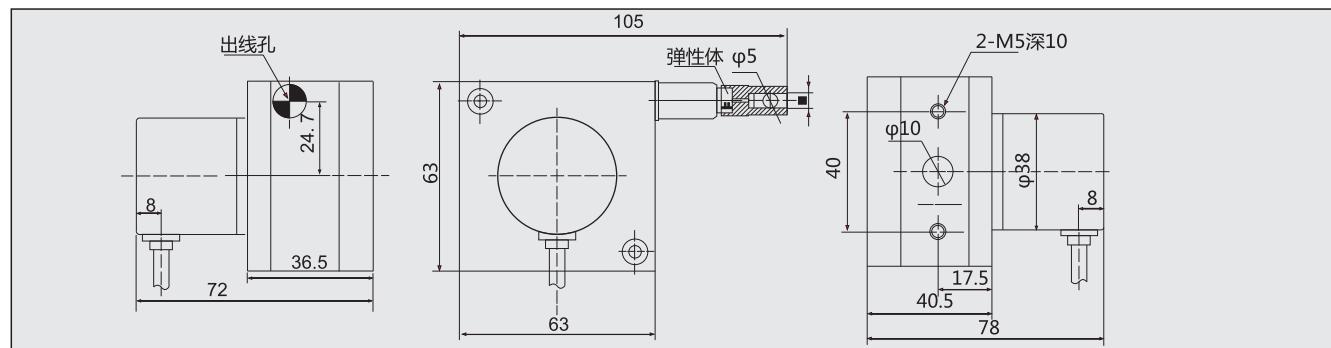
► 技术规格Specification

电气参数 Electric parametar			
信号形式 Signal	电位器模拟信号Analog signal	电气接口Electrical interface	插头或电缆线 Plug or cable
工作电压 Voltage	5-30V	拉伸力度Tensile strength	2N-5N
最大输入电流 Maximum input current	20mA	电缆长度Cable length	2m
零点满度Zero point fullness	可调Adjustable	工作温度Working temperature	-30°C - +90°C
短路保护Short circuit protection	Yes		
防护等级Protection grade	标准IP54 Standard IP54		
详细参数 Detailed parameters			
测量行程Measuring stroke	0-2000mm	重复精度Repetition precision	0.01%
分辨率Resolving power	0.1, 0.04, 0.02, 0.01, 0.005	最大往返速度Maximum round-trip speed	300mm/s
轮廓周长Hub circumference	100mm	往复频率Reciprocating frequency	20Hz
壳体材质Shell material	铝合金Aluminium alloy	响应频率Response frequency	200Hz
表面Surface treatment	氧化喷砂Oxidizing sand blasting	寿命Life	200-500万次 2-5million times
钢丝绳Wire rope	0.6mm	抗振动Anti vibration	10Hz-1500Hz 10G
线性精度Linear precision	0.05%FS	冲击Impact resistance	50G

▶ 电路输出方式(示例) Example for output circuit



► 安装尺寸图 Mounting Dimensions(单位Unit:mm)



旋转编码器SLX115A系列

SLX115A Incremental encoder series

HNC
SENSOR



用途与特点 Application and features

拉线盒尺寸115*115，测量行程15m,适合中短距离测量

外观坚固耐磨，测量精准，采用进口柔韧钢丝

主要用于液压系统，直线运动系统控制，位移应变量检测等

The size of the drawing box is 115*115, and the measuring stroke is 15m, which is suitable for short distance measurement.

The appearance is strong, wear-resistant, accurate, and imported flexible steel wire. It is mainly used for hydraulic system, linear motion system control, displacement strain detection and so on.

▶ 型号说明 Model Explanation

S LX	115	A	-4-20MA-	5	24	F	2	□
基本型号 Model S:常规增量型 Incremental encoder	拉线盒尺寸 Size	输出类型 type of output S : 数字量输出 S: digital output A : 模拟量输出 A: analog output	输出方式 Output configuration : 4-20mA 0-5V 0-10V 0-5K 0-10K 485	拉线行程 Stroke 5m	电压 Supply voltage 5:5V 24:24V 12:12V	出线方式 Outlet way G:侧出线 Side outlet F:侧出线防水 Side outlet waterproof E:后出线 Bottom outlet	线缆长度 Cable 2 : 2m	客户定制 Customized informat
S □: 特殊型号定义 Special definition								

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	信号输出Signal output				屏蔽线Shield
4-20mA	白White	黑Black					N.C
0-5V,0-10V,0-5K,0-10K	红Red	黑Black	白White				N.C

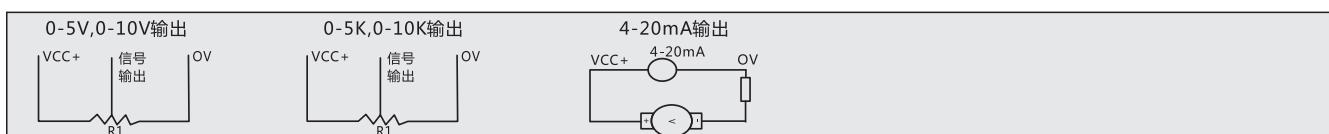
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货中备注说明。Note2 : Standard cable length is 2m. Other length can be customized.

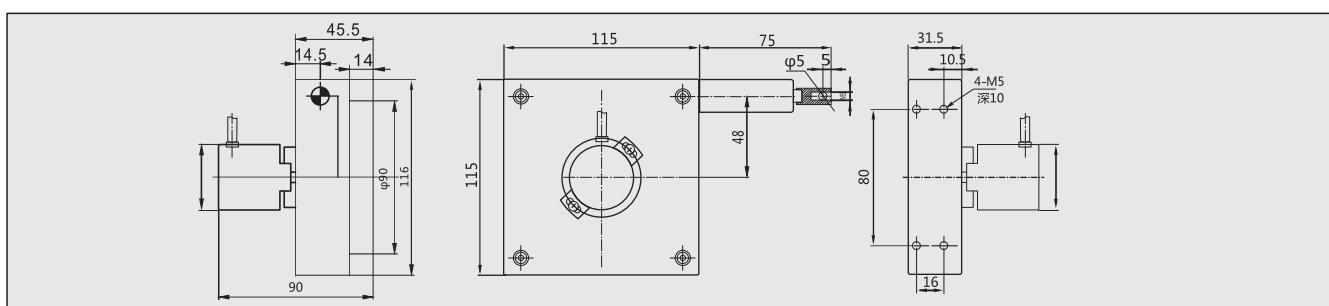
▶ 技术规格 Specification

电气参数 Electrical parameters			
信号形式 Signal	精密电位器模拟信号 Analog signal	电气接口 Electrical interface	插头或电缆线 Plug or cable
工作电压 Voltage	5-30V	拉伸力度 Tensile strength	2N-5N
最大输入电流 Maximum input current	20mA	电缆长度 Cable length	2m
零点满度 Zero point fullness	可调 Adjustable	工作温度 Working temperature	-30°C-+90°C
短路保护 Short circuit protection	Yes		
防护等级 Protection grade	标准IP54 Standard IP54		
详细参数 Detailed parameters			
测量行程 Measuring stroke	0-2000mm	重复精度 Repetition precision	0.01%
分辨率 Resolving power	0.1, 0.04, 0.02, 0.01, 0.005	最大往返速度 Maximum round-trip speed	300mm/s
轮毂周长 Hub circumference	100mm	往复频率 Reciprocating frequency	20Hz
壳体材质 Shell material	铝合金 Aluminium alloy	响应频率 Response frequency	200Hz
表面 Surface treatment	氧化喷砂 Oxidizing sand blasting	寿命 Life	200-500万次 2-5million times
钢丝绳 Wire rope	0.6mm	抗振动 Anti vibration	10Hz-1500Hz 10G
线性精度 Linear precision	0.05%FS	冲击 Impact resistance	50G

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



手轮编码器S60系列

S60 Incremental encoder series



用途与特点 Application and features

外径Φ100，厚度仅25mm

手动脉冲发生器，金属齿轮、转动手感清晰

用于数控机床、印刷机械零位补正和信号分割

Diameter with 100, the thickness of only 25mm

Manual pulse generator, metal gear and rotation feel clear.

Zero position correction and signal segmentation for CNC machine tools, printing machines.

▶ 型号说明 Model Explanation

S	60	-001	-F-	(100)	B	5	□
基本型号 Model S:常规增量型 Incremental encoder	主体外径OD 60:Φ60MM	内部编码Code	输出方式 Output configuration : C:集电极开路 Open collector E:电压输出 Voltage L:AM26LS31驱动输出Driver output	脉冲数/分辨率 Resolution 10-100P/R	输出信号 Output signal B:AB	电压 Supply voltage 5:5V 12:12V	客户定制 Customized informat
S □: 特殊型号定义 Special definition							

▶ 电缆线线色说明 Cable Color Explanation

信号线Signal	VCC	0V	A	B	Z	A/	B/	Z/	屏蔽线Shield
5芯电缆线5 wires	红Red	黑Black	绿Green	白White	黄Yellow	-	-	-	N.C
8芯电缆线8 wires	红Red	黑Black	绿Green	白White	黄Yellow	棕Brown	灰Gray	橙Orange	N.C

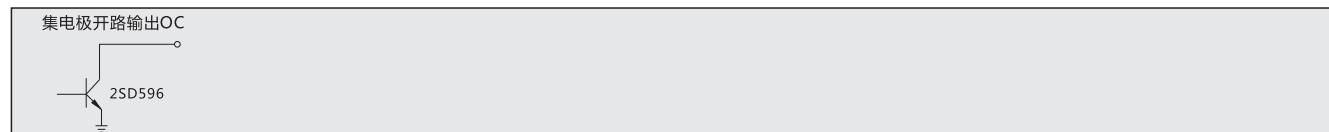
注1：电缆颜色若有更改，恕不另行通知，请以编码器标签或说明书上的颜色定义为准。Note1 : Please refer to color table or product instruction to connect wires. Chang of wire color will not be informed respectively.

注2：电缆线标准线长2米，如需其他规格在订货中备注说明。Note2 : Standard cable length is 2m. Other length can be customized.

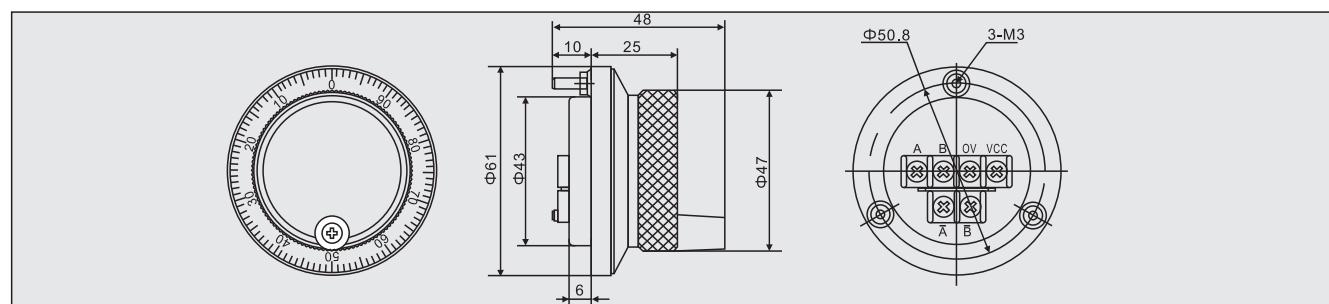
▶ 技术规格 Specification

电气参数 ELECTRIC PARAMETAR			
输出电路 Output circuit	驱动器 Drivers L	C、E、F	驱动器 Drivers T
电源电压 Mains voltage	+5V±5%	+5V~24V	+8V~24V
消耗电流 Current consumption	≤60mA	≤120mA	≤120mA
允许负载 Allowable load	20mA	30 mA	20mA
信号高电平 Signal high electrical level	≥2.5V	≥VCC*70%V	≥VCC*70%V
信号低电平 Signal low electrical level	≤0.5V	≤0.5V	≤0.5V
上升/下降时间 Rise /down time	≤100ns	≤1us	≤100ns
响应频率 Response frequency	100KHz	100KHz	100KHz
机械及环境参数 Mechanical and Environmental			
径向负载 Radial load	≤30N	抗冲击 Concussion resist	1000m/s ² , 6ms
轴向负荷 Axial load	≤15N	抗振动 Vibration resist	100m/s ² , 10~200Hz
起动力矩 Storque	≤2×10 ⁻³ N.m	工作温度 Working temperature	-20°C~+85°C
最高转速 Tiptop rotate speed	6000r/min	储存温度 Storing temperature	-20°C~+85°C
转动惯量 Runing inertia	20g/cm ²	相对湿度 Relatively humidity	≤RH85%无结露 No icing
允许角加速度 Allowable acceleration	1×10 ⁴ rad/s ²	防护等级 Protect grade	IP54
重量 weight	约About 0.7kg		

▶ 电路输出方式(示例) Example for output circuit



▶ 安装尺寸图 Mounting Dimensions(单位Unit:mm)



HNC

Sensor

世华电气技术有限公司

HNC Electric Limited



www.hnselectric.com