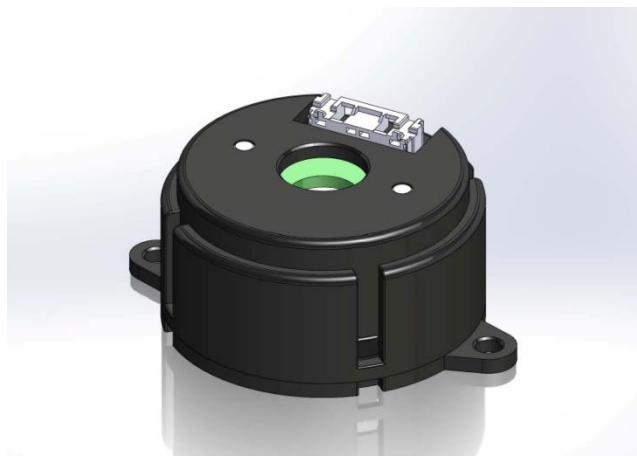




# HS40A

Encoder modules



## Application

- Stepping Motor
- Automated Equipment

## Feature

- Reliable sturdy design
- Small Size
- Easy Mounting

## Resolution

600, 625, 720, 800, 1000, 1024, 1200, 1250, 1440, 1600, 2000, 2048, 2400, 2500, 2880, 3200, 4000, 4096, 16000 P/R

## Electrical

Resolution	600 ~ 4096			5000 ~ 16000
Output circuit	Z□VH、Z□VT Z□OH、Z□OT	Z□PH、Z□PT	Z□LH、Z□LT	Z□LT
Supply voltage	4.5 ~ 5.5V、8 ~ 30V			4.5 ~ 5.5V
Supply current (Max)	80mA		100mA	110mA
Signal	A, B, Z		A+,A-,B+,B-,Z+,Z-	A+,A-,B+,B-,Z+,Z-
Rise/fall time (Max)	250ns*	50ns		10ns
Frequency	300kHz	500kHz		1.5MHz
Outout voltage	“H”	VCC – 2V		2.4V min
	“L”	0.5V Max		0.5V Max
Max. output current	20mA	100mA	20mA、100mA	20mA

\*Pull up Resistance = 2kΩ

## Mechanical Spec.

Hollow Diameter	Φ 5, 6, 6.35, 8mm
Starting Torque	<0.8 Ncm
Housing material	
Max. R.P.M.	7500 rpm *
Net Weight	60g

\*R.P.M = Frequency \* 60 / Resolution

## Environmental Spec.

Operating Temp.	-20 ~ +85°C
Storage Temp.	-20 ~ +85°C
Operating Humidity	RH 85% max non-collecting
Shock	490 m/s <sup>2</sup> , 3Dx2 times
Vibration	1.2mm, 10~55KHz, 3Dx30min.
Protection	IP 40



# HS40A

Encoder modules

## Connection

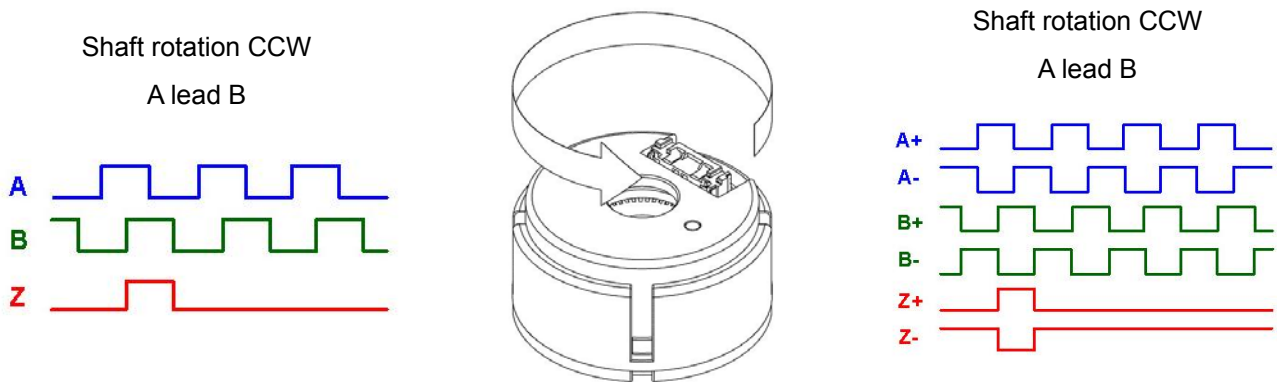
Signal : A, B, Z (UL2464 · AWG 26 · 5pin + shield)

Red	Black	White	Green	Yellow	
Vcc	Gnd	A	B	Z	Shield

Signal : A+, A-, B+, B-, Z+, Z- (UL2517 · AWG 28 · 8pin + shield)

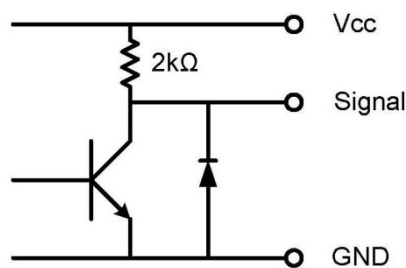
Red	Black	White	White/Black	Green	Green/Black	Yellow	Yellow/Black	
Vcc	Gnd	A+	A-	B+	B-	Z+	Z-	Shield

### Wave form

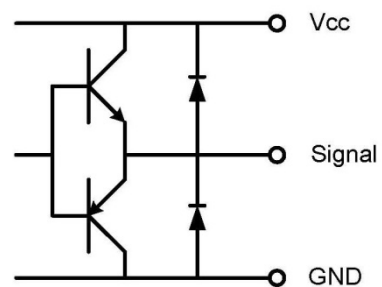


### Output circuit

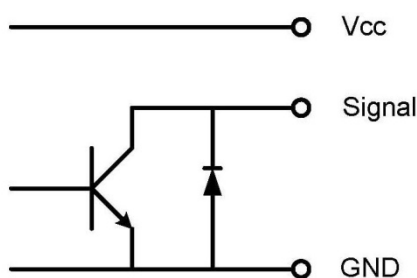
#### Voltage output



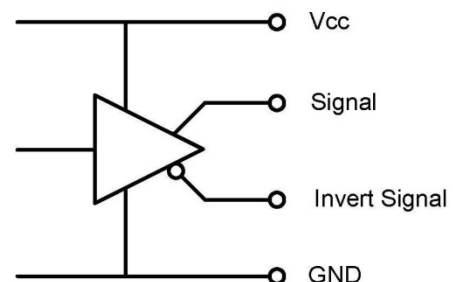
#### Push pull



#### Open collector



#### Line driver 5V =>(26C31) · 30V(7272)





# HS40A

Encoder modules

## Ordering Information 訂購資訊

HS40A - XXXX - X X X X - RXXX

Resolution
200 ~ 16000

Phase
Z   A, B, Z

Hollow
5   5mm
6   6mm
6.35   6.35mm
8   8mm

Type no.
001, 002, 003 ...

Supply voltage
H   8~30V
T   TTL(5V)

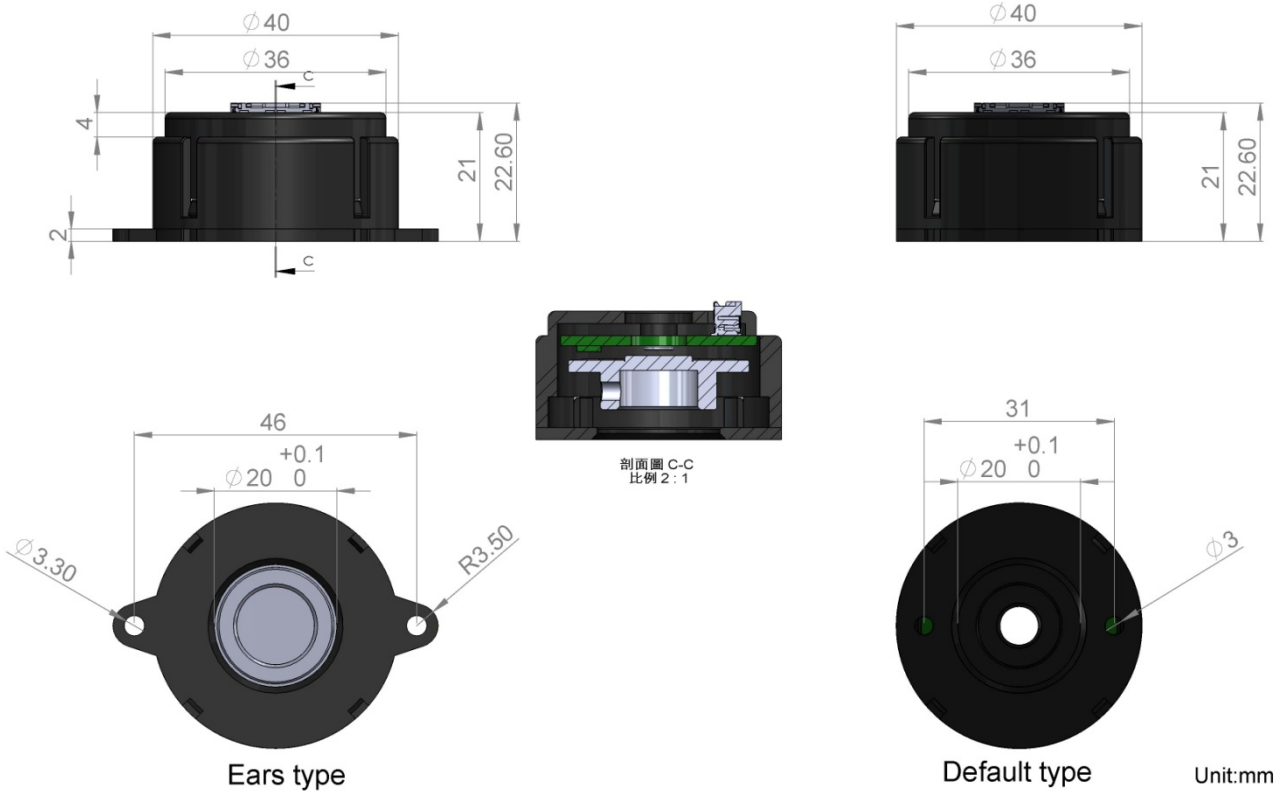
Output circuit
V   Voltage output (NPN)
O   Open collector
P   Push pull(HTL)
K   Push pull(with inverted signal)
L   Line Driver



# HS40A

Encoder modules

## Mechanical Drawing



### ● Cable introduction

**A, B, Z (UL2464 、 AWG 26 、 5pin + shield)**

Cable length : 1M 、 3M 、 5M

**A+, A-, B+, B-, Z+, Z- (UL2517 、 AWG 28 、 8pin + shield)**

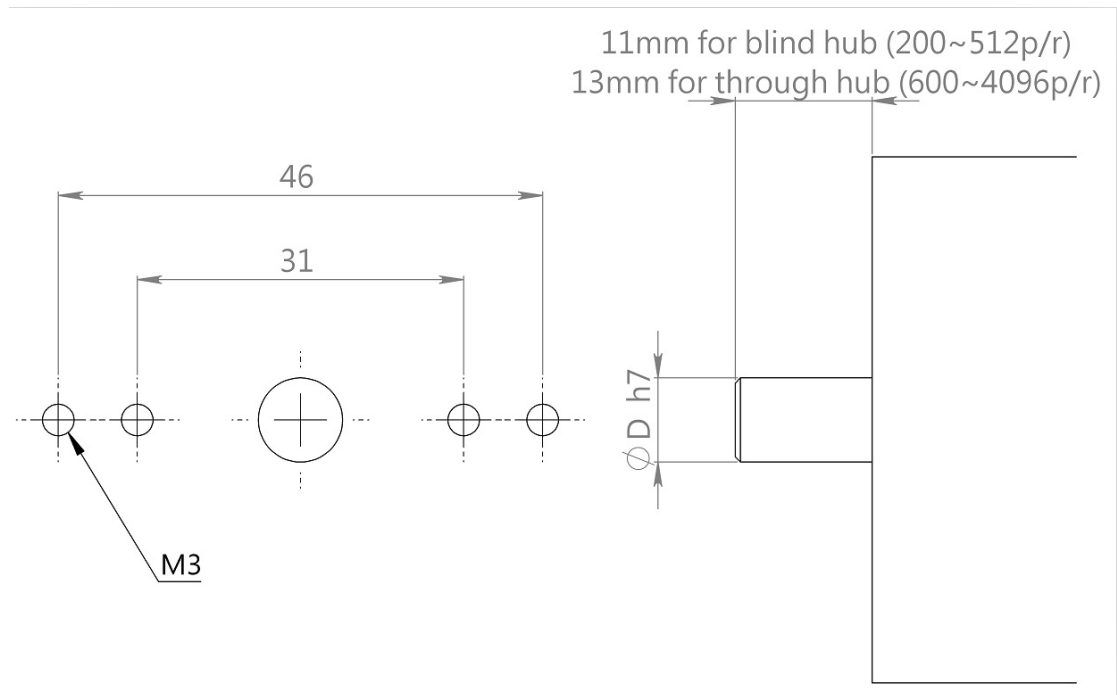
Connector : Molex 510210900 Cable length : 420mm 、 500mm 、 1ft



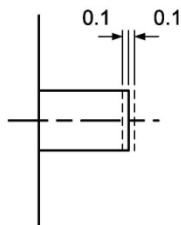
# HS40A

Encoder modules

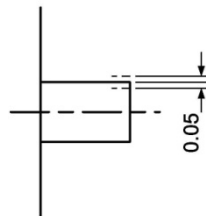
## ● Setting Dimension



Axial assembly tolerance



Radial assembly tolerance



Concentric angle tolerance

