



# HS28H

Encoder modules



## ● Application 應用

- Stepping Motor 步進馬達
- Automated Equipment 自動化設備
- Robot Arm 機械手臂

## ● Feature 特點

- Low Cost 低成本
- Small Size 體積小
- Easy Mounting 易安裝

## ● Resolution 解析度

500, 512, 625, 1000, 1024, 1250, 2000, 2048, 2500 P/R

## ● Electrical Spec 電氣規格

Resolution	500 ~ 2500	
Output circuit	Z□LT	
Supply voltage	4.5 ~ 5.5V	
Supply current (Max.)	100mA	
Signal	A+, A-, B+, B-, Z+, Z-	
Rise/fall time (Max.)	100ns	
Frequency	300 KHz	
Outout Voltage	"H"	2.4V min.
	"L"	0.4V Max.
Max. Output Current	20mA	

## ● Mechanical Spec 機械規格

Hollow Diameter 孔徑	Φ 4, 5, 6, 6.35, 8 mm
Housing Material 殼材質	PPS
Max. R.P.M. 最大轉速	6000 rpm
Net Weight 淨重	26.2g

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

## ● Environmental Spec 環境條件

Operating Temp. 操作溫度	-20 ~ +85°C
Storage Temp. 保存溫度	-20 ~ +85°C
Operating Humidity 操作溼度	RH 85% Max. non-collecting
Shock 衝擊	490 m/s <sup>2</sup> , 3Dx2 times
Vibration 震動	1.2mm, 10~55KHz, 3Dx30min.
Protection 防護等級	IP 40



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## ● Connection 接線方式

Signal : A+, A-, B+, B-, Z+, Z- (UL2517、AWG28、8pin + Shield)

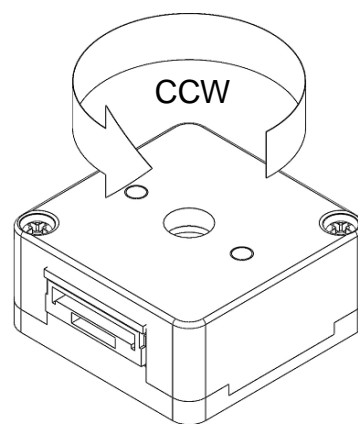
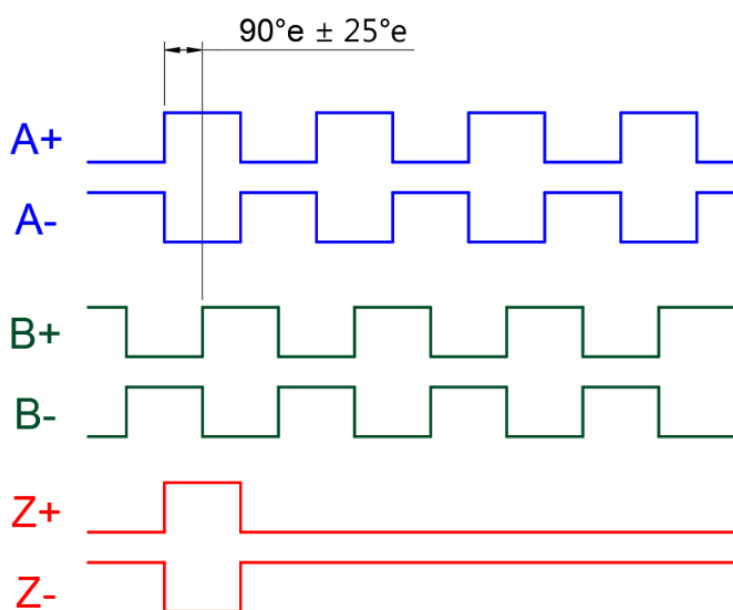
JST : SM09B-GHS-TB

紅	黑	白	白/黑	綠	綠/黑	黃	黃/黑	
Vcc	Gnd	A+	A-	B+	B-	Z+	Z-	Shield

## ● Output Waveform 輸出波形

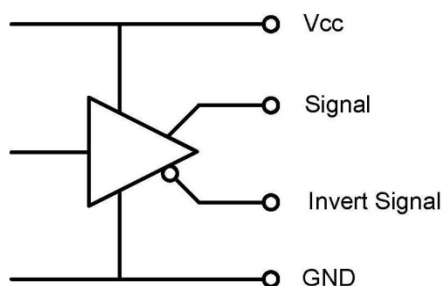
Shaft rotation CCW

A leads B



## ● Output Circuit 輸出電路

Line driver(AM26C31)





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## ● Ordering Information 訂購資訊

HS28H - XXXX - X X X X - X - NXXX

解析度(Resolution)
500 ~ 2500

輸出相位(Phase)
Z    A, B, Z

軸孔(Hollow)
4    4mm
5    5mm
6    6mm
6.35    6.35mm
8    8mm

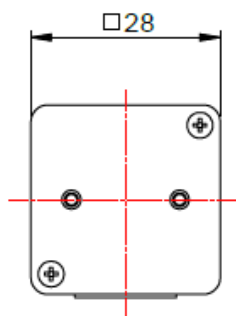
樣式編號(Type No.)
001, 002, 003 ...

上蓋樣式(Cover)
H    有孔(Hole on cover)
C    無孔(Closed cover)

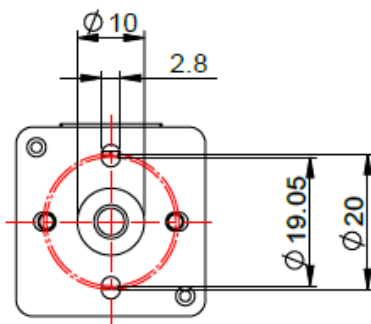
工作電壓(Supply voltage)
T    TTL (5V)

輸出電路(Output circuit)
L    Line driver

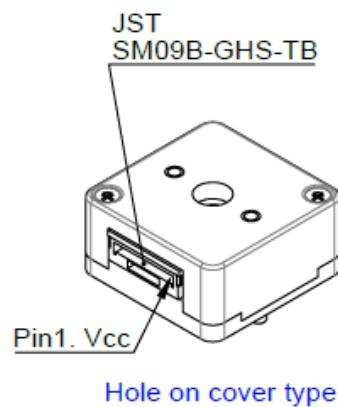
## ● Mechanical Drawing 外型尺寸



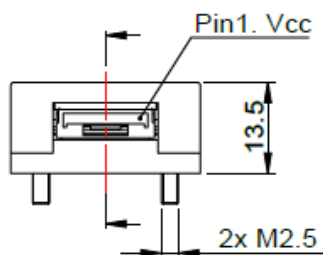
Top



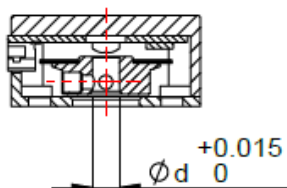
Bottom



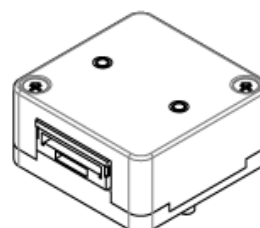
Hole on cover type



Front



Section



Closed cover type



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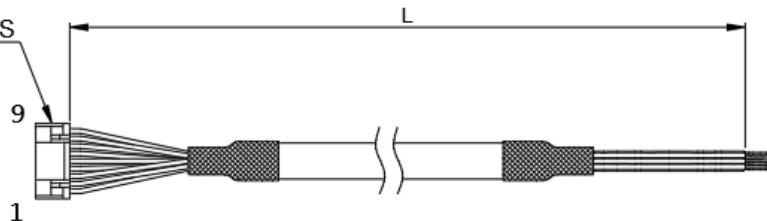
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## ● Cable Introduction 線材說明

顏色順序：

1. 紅
2. 黑
3. 白
4. 白/黑
5. 綠
6. 綠/黑
7. 黃
8. 黃/黑
9. Shield

JST  
GHR-09V-S



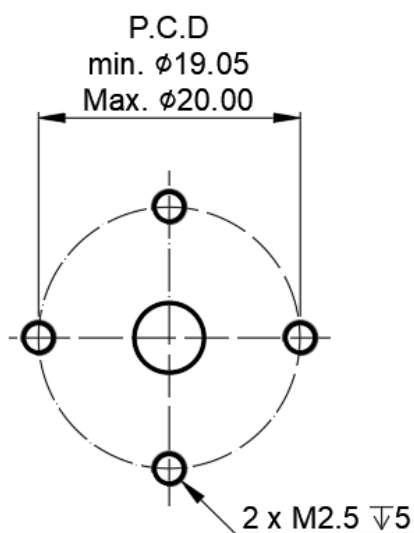
<線材規格>  
AWG28、UL2517、編織隔離

絞線組合方式：

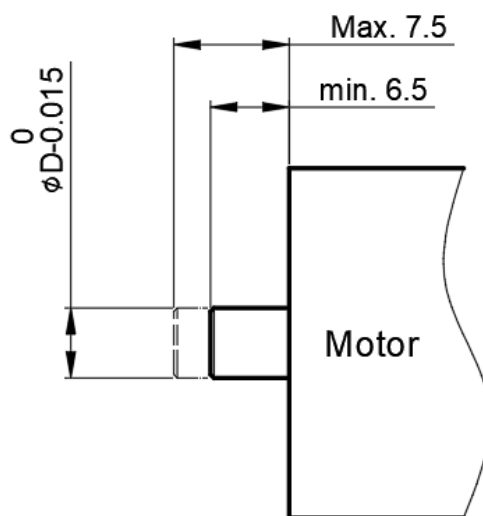
1. 紅+黑
2. 白+白/黑
3. 綠+綠/黑
4. 黃+黃/黑
5. Shield

**Cable length 線長：305mm、500mm**

## ● Setting Dimension 安裝尺寸



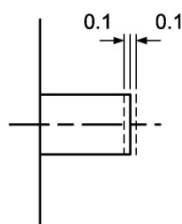
適用於無孔上蓋



Unit : mm

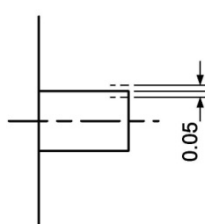
Axial assembly tolerance

軸向結合公差



Radial assembly tolerance

徑向結合公差



Concentric angle tolerance

同心角度公差

