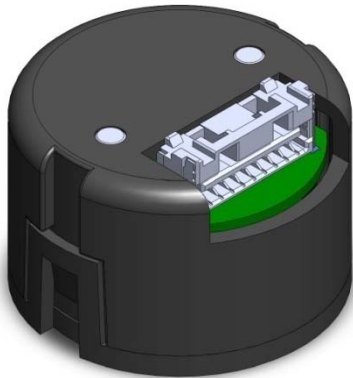




HS28A

Encoder modules



Application

- Stepping Motor
- Automated Equipment

Feature

- Low cost
- Small Size
- Easy Mounting

Resolution

- 360*, 400, 500, 512, 625, 720*, 800, 1000, 1024, 1250, 1440*, 1600, 2000, 2048, 2500 P/R
- Gray word => Option
- * => without Φ 8mm hollow shaft.

Electrical

		Z□VT	Z□LT
Supply voltage		4.5 ~ 5.5V	4.5 ~ 5.5V
Supply current (Max)		100mA	100mA
Signal		A, B, Z	A+, A-, B+, B-, Z+, Z-
Rise/fall time (Max)		250ns	100ns
Frequency		130kHz	300kHz
Outout voltage	"H"	2.4V min.	2.4V min.
	"L"	0.4V Max.	0.4V Max.
Max. output current		10mA	20mA

Mechanical Spec.

Hollow Diameter	Φ 4, 5, 6, 6.35, 8 mm
Starting Torque	<0.8 Ncm
Shaft Loading	Radial : 80 N Axial : 50 N
Max. R.P.M.	6000 rpm
Net Weight	30g

*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 ² , 3Dx2 times
Vibration	1.2mm, 10~55KHz, 3Dx30min.
Protection	IP 40

Connection



HS28A

Encoder modules

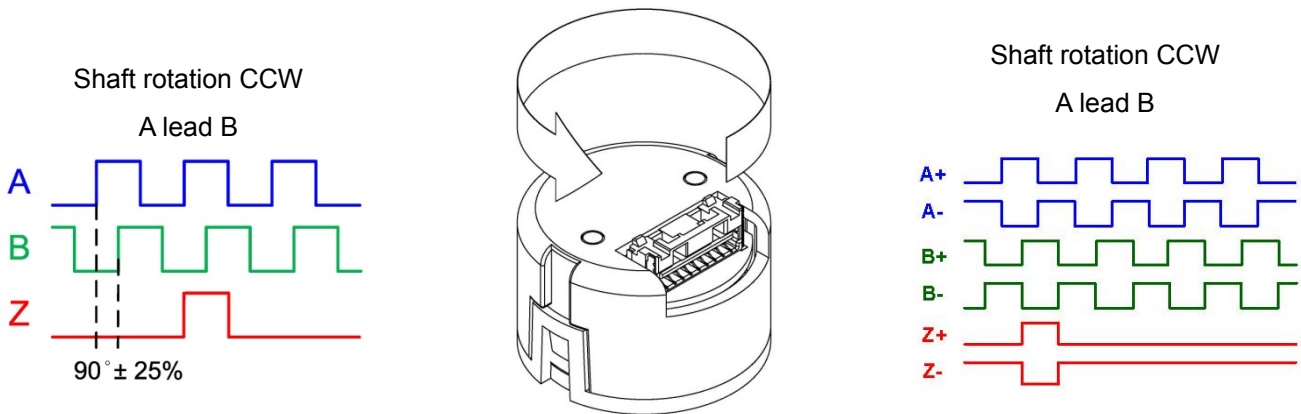
Signal : A, B, Z

Red	Black	White	Green	Yellow	
Vcc	Gnd	A	B	Z	Shield

Signal : A+, A-, B+,B-,Z+,Z-

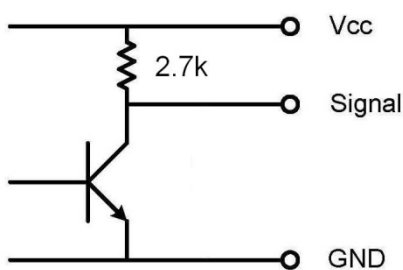
Red	Black	White	White/Black	Green	Green/Black	Yellow	Yellow/Black	
Vcc	Gnd	A+	A-	B+	B-	Z+	Z-	Shield

● Wave form

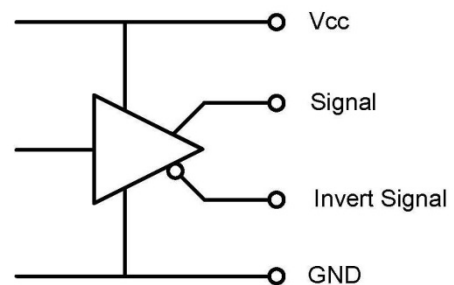


● Output Circuit

Voltage output



Line driver(AM26C31)





HS28A

Encoder modules

Ordering Information

HS28A - XXXX - X X X X - X - NXXX

Resolution
360 ~ 2500

Type No.
001, 002, 003 ...

Phase
Z A, B, Z

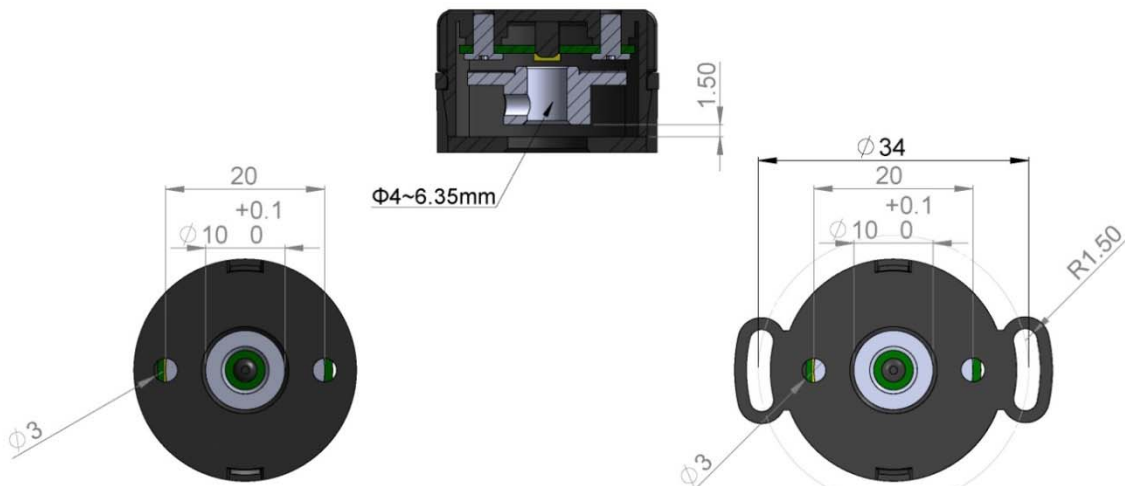
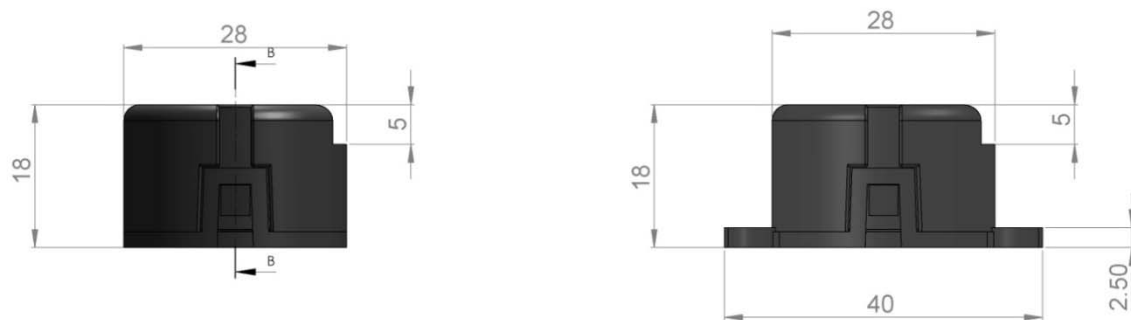
Base
D Default
E Ears

Hollow diameter
4 4mm
5 5mm
6 6mm
6.35 6.35mm
8 8mm

Supply voltage
T TTL (5V)

Output circuit
V Voltage output
L Line driver

Mechanical Drawing



Default type

Ears type

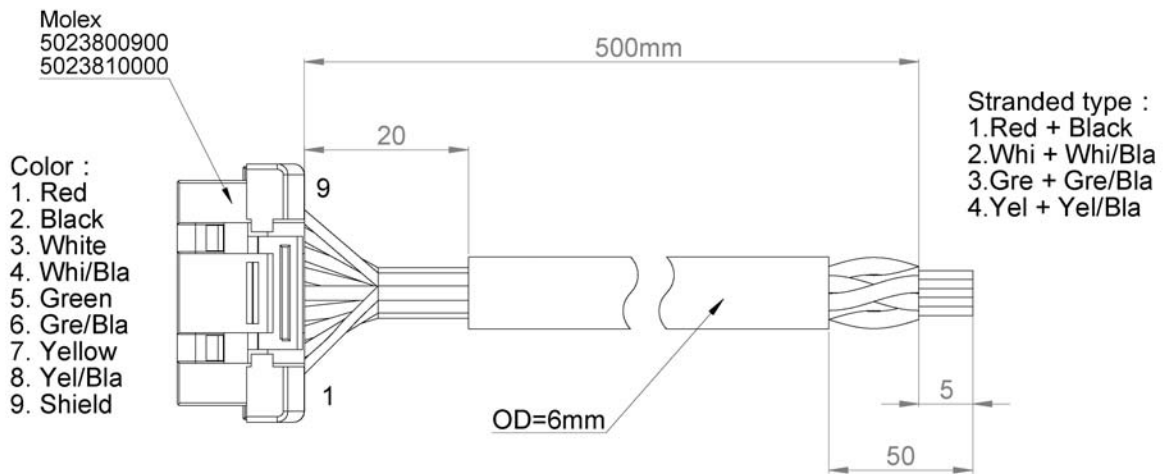
unit:mm



HS28A

Encoder modules

● Cable introduction

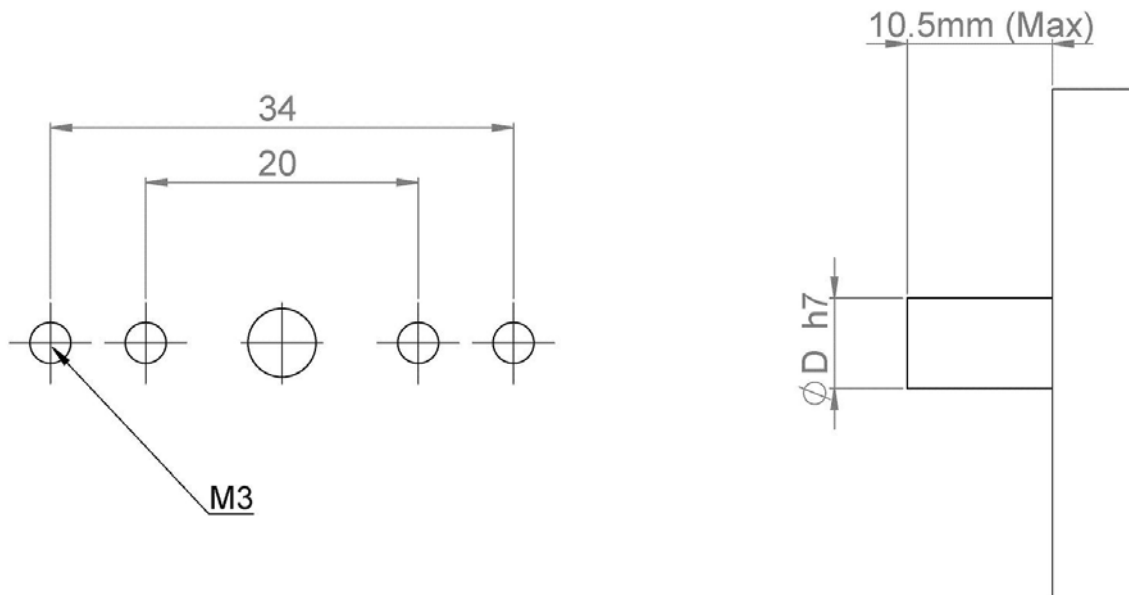


< Wire spec >
AWG 28 , UL2517 ,
Sprial Shielding

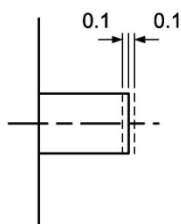
< Marking >
UL 2517 28AWG VW-1SC 105°C 300V E22227 MD CAS
221798 AWM I/II A/B FTI 105°C 300V MD Rohs

Cable length : 500mm 、 1ft

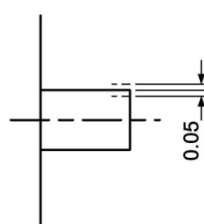
● Setting Dimension



Axial assembly tolerance



Radial assembly tolerance



Concentric angle tolerance

