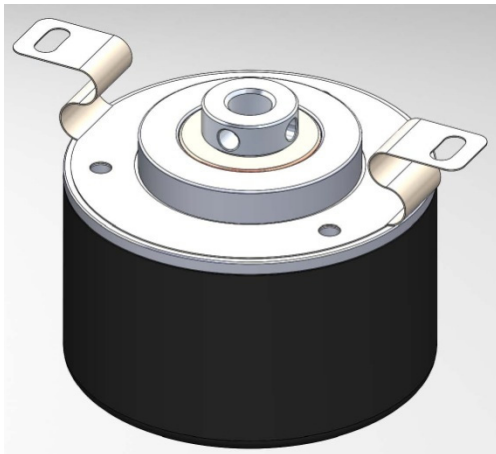




HS50A

Hollow Type Encoder



● Application

- Industry Machine
- Automated Equipment

● Feature

- Reliable sturdy design
- Small Size & Easy Mounting
- ESD (IEC61000-4-2)
- Reverse connection protection
- Short-Circuit protection

● Resolution

50*, 100*, 200*, 360, 400, 500, 512, 600, 625, 720, 800, 1000, 1024, 1200, 1250, 1440, 1600, 2000, 2048, 2400, 2500 P/R

* => without Line driver & Push pull.

● Electrical

	Z□VH、Z□VT Z□OH、Z□OT	Z□PH、Z□PT	Z□KH、Z□KT	Z□LH、Z□LT
Supply voltage*	4.5 ~ 5.5V、8 ~ 30V		4.5 ~ 5.5V、8 ~ 30V	
Supply current (Max)	80mA		100mA	
Signal	A, B, Z		A+,A-,B+,B-,Z+,Z-	A+,A-,B+,B-,Z+,Z-
Rise/fall time (Max)	1us**	100ns	100ns	
Frequency	300kHz	500kHz	500kHz	
Outout voltage	“H”	VCC – 2V		VCC – 2V
	“L”	0.5V Max		0.5V Max
Max. output current	20mA	120mA	120mA	120 or 20mA

* Ripple < 100mVp-p

** Pull up Resistance = 2kΩ

● Mechanical Spec

Hollow Diameter	Φ4,5, 6, 6.35, 8 mm
Starting Torque	<0.8 Ncm
Shaft Loading	Radial : 80 N Axial : 50 N
Max. R.P.M.	6000、12000* rpm
Net Weight	150g

*Option

● Environmental Spec

Operating Temp.	-20 ~ +85°C
Storage Temp.	-20 ~ +85°C
Operating Humidity	RH 95% max non-collecting
Shock	490 m/s ² , 3Dx2 times
Vibration	1.2mm, 10~55KHz, 3Dx30min.
Protection	IP 54



HS50A

Hollow Type Encoder

● Connection

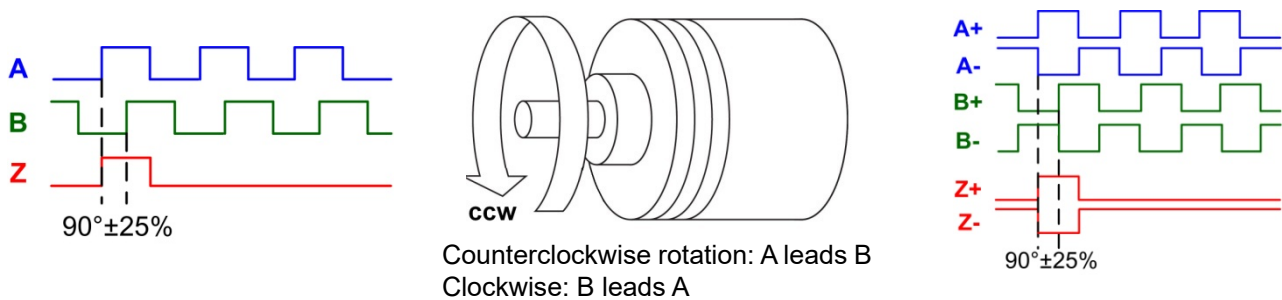
Signal : A, B, Z (UL2464 · AWG 26 · 5pin + shield)

Red	Black	White	Green	Yellow	
Vcc	Gnd	A	B	Z	Shield

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

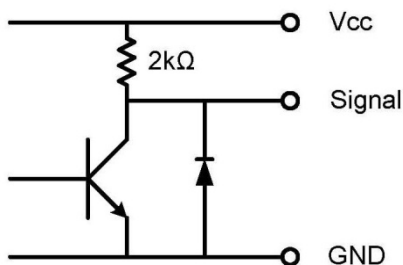
Red	Black	White	White/Black	Green	Green/Black	Yellow	Yellow/Black	
Vcc	Gnd	A+	A-	B+	B-	Z+	Z-	Shield

● Output Waveform

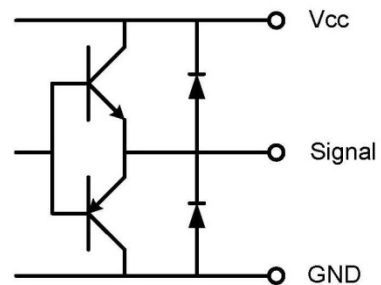


● Output Circuit

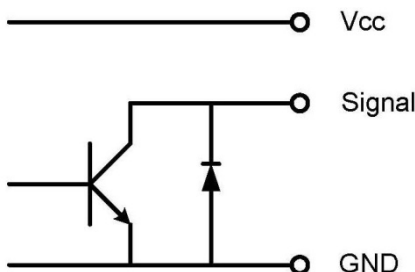
Voltage output



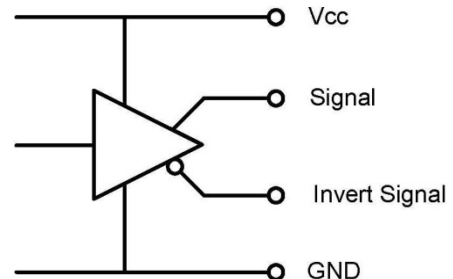
Push pull



Open collector



Line driver 5V =>(26C31) · 30V(7272)





HS50A

Hollow Type Encoder

● Ordering Information

HS50A - XXXX - X X X X - RXXX

Resolution	
50 ~ 2500	

Cable length	
010 , 020 , 030 ...	

Phase	
Z	A, B, Z

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

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

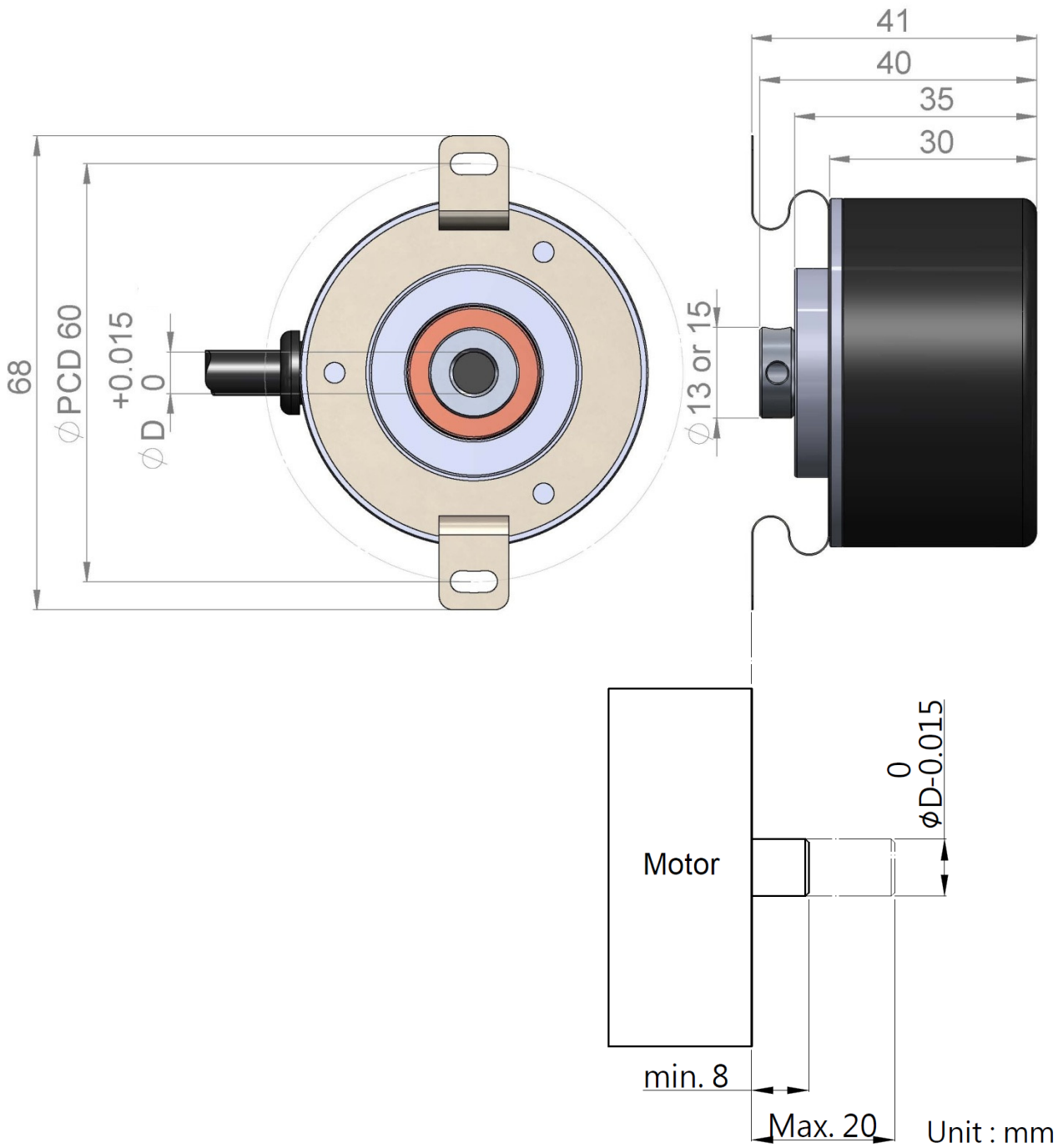
Output circuit	
V	Voltage output(NPN)
O	Open collector(NPN)
P	Push pull
K	Push pull(with inverted signal)
L	Line driver



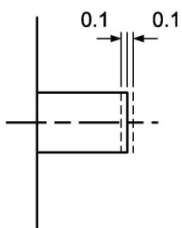
HS50A

Hollow Type Encoder

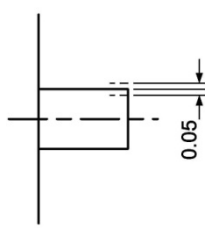
Mechanical Drawing



Axial assembly tolerance



Radial assembly tolerance



Concentric angle tolerance

