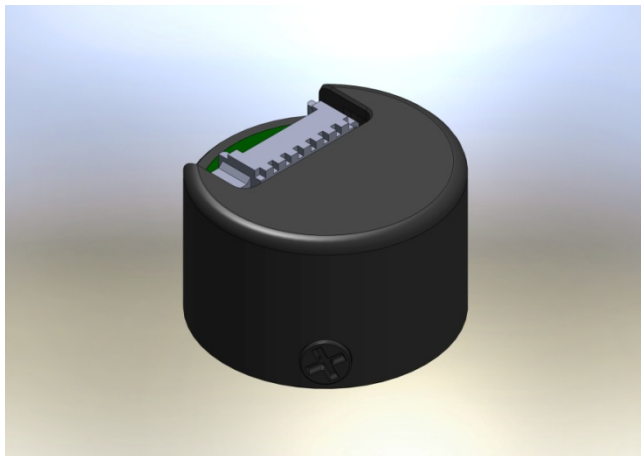




HS20A

Encoder modules



Application

- Stepping Motor
- Automated Equipment
- Robot arm

Feature

- Low cost
- Miniature Size
- Easy Mounting

Resolution

200, 250, 256, 300, 360, 400, 500, 512, 600, 720, 800, 1000, 1024, 1200, 1440, 1600, 2000, 2048, 8192 P/R

Electrical

| Resolution | 200 ~ 2048 | | 3000 ~ 8192 |
|----------------------|------------|------------------------|------------------------|
| Output circuit | Z□VT、Z□OT | Z□LT | Z□LT |
| Supply voltage | 4.5 ~ 5.5V | 4.5 ~ 5.5V | 4.5 ~ 5.5V |
| Supply current (Max) | 60mA | 80mA | 90mA |
| Signal | A, B, Z | A+, A-, B+, B-, Z+, Z- | A+, A-, B+, B-, Z+, Z- |
| Rise/fall time (Max) | 100ns | 50ns | 10ns |
| Frequency | 220kHz | 500kHz | 1.5MHz |
| Outout voltage | “H” | 2.4V min. | 2.4V min. |
| | “L” | 0.4V Max. | 0.4V Max. |
| Max. output current | 5mA | 5mA | 5mA |

Mechanical Spec.

| | |
|-----------------|-------------------------------|
| Hollow Diameter | Φ 2, 3, 4 mm |
| Starting Torque | <0.8 Ncm |
| Shaft Loading | Radial : 40 N Axial : 25 N |
| Max. R.P.M. | 6000 rpm |
| Net Weight | 30g |

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 |



HS20A

Encoder modules

Connection

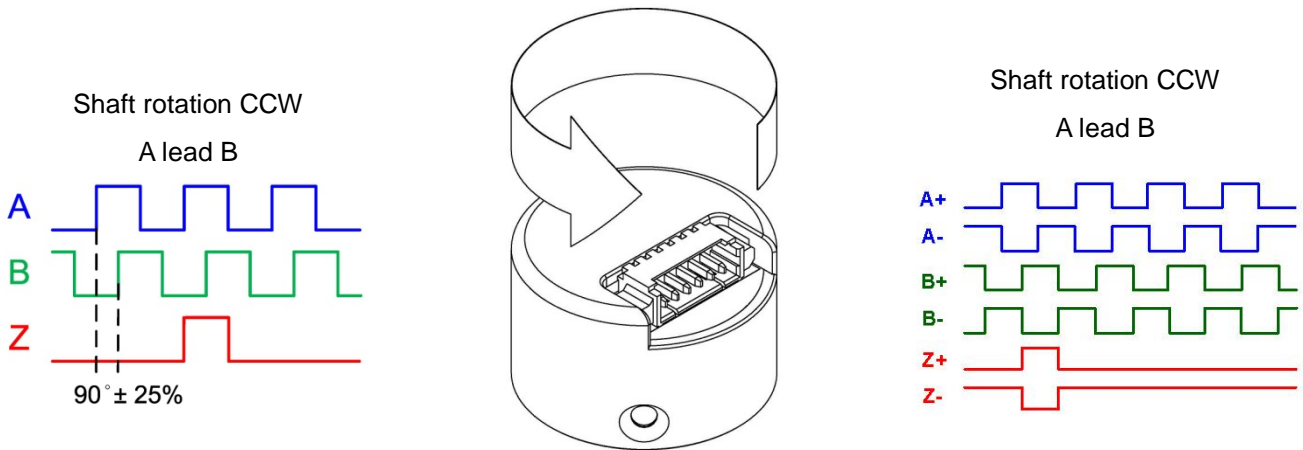
Signal : A, B, Z

| Red | Black | White | Green | Yellow | Blue |
|-----|-------|-------|-------|--------|--------|
| Vcc | Gnd | A | B | Z | Shield |

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

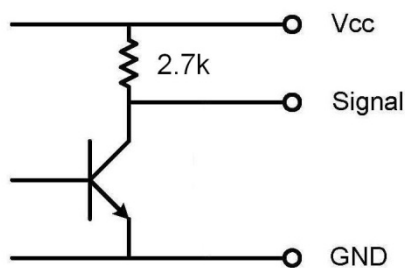
| Red | Black | White | White/black | Green | G/black | Yellow | Yellow/black | Blue |
|-----|-------|-------|-------------|-------|---------|--------|--------------|--------|
| Vcc | Gnd | A+ | A- | B+ | B- | Z+ | Z- | Shield |

Wave form

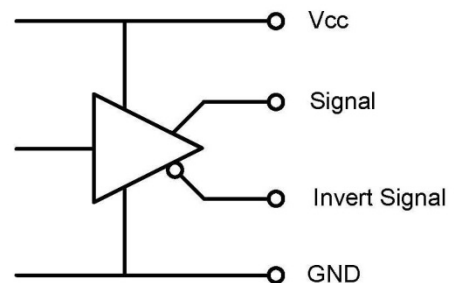


Output circuit

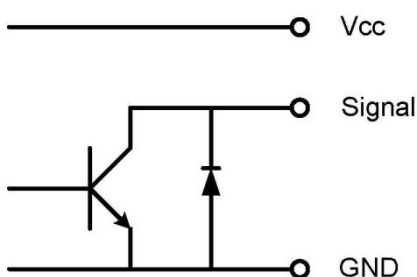
Voltage output



Line driver(AM26C31)



Open collector

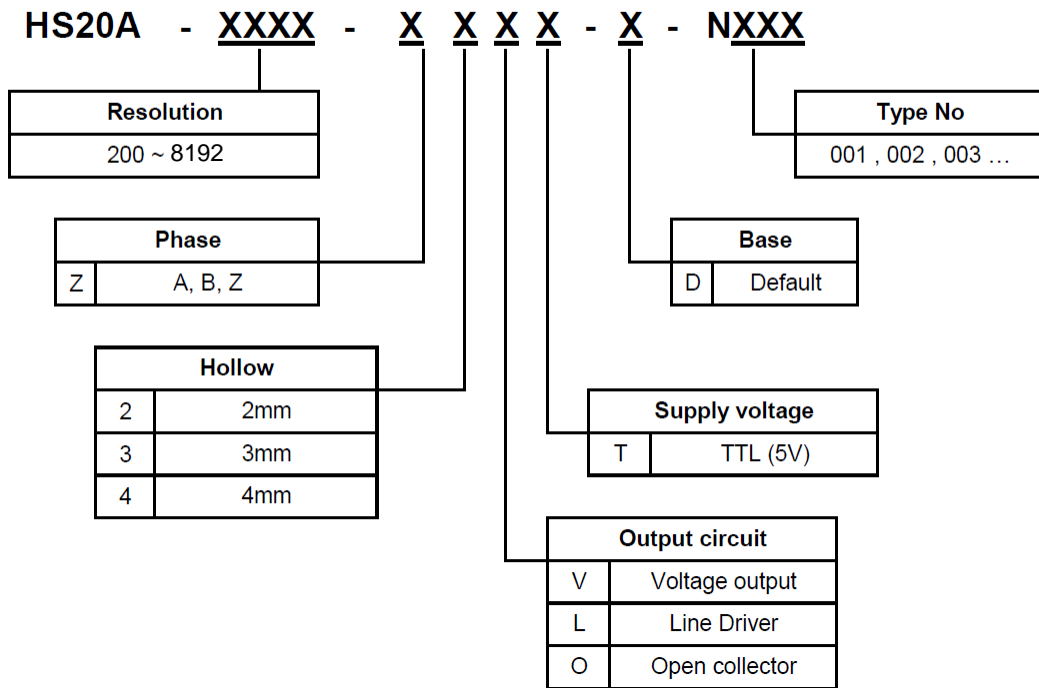




HS20A

Encoder modules

Ordering Information

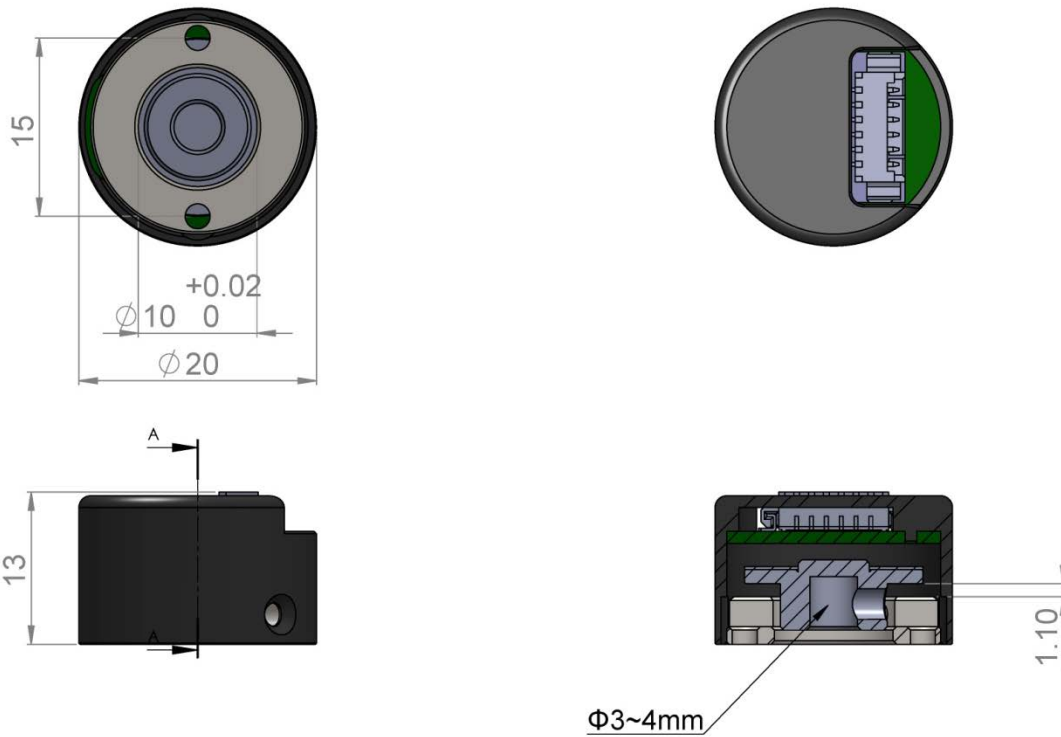




HS20A

Encoder modules

Mechanical Drawing



Cable introduction

<<Line driver>>

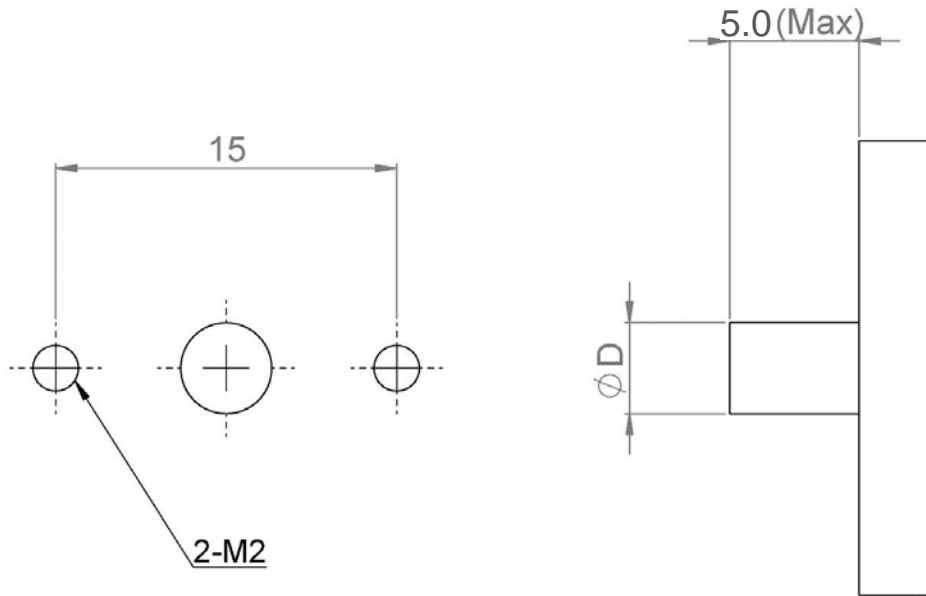
Cable length : 150 、 305 、 500 、 1000 、 2000mm



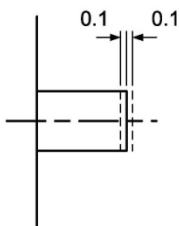
HS20A

Encoder modules

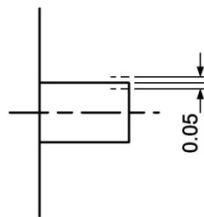
- **Setting Dimension**



Axial assembly tolerance



Radial assembly tolerance



Concentric angle tolerance

