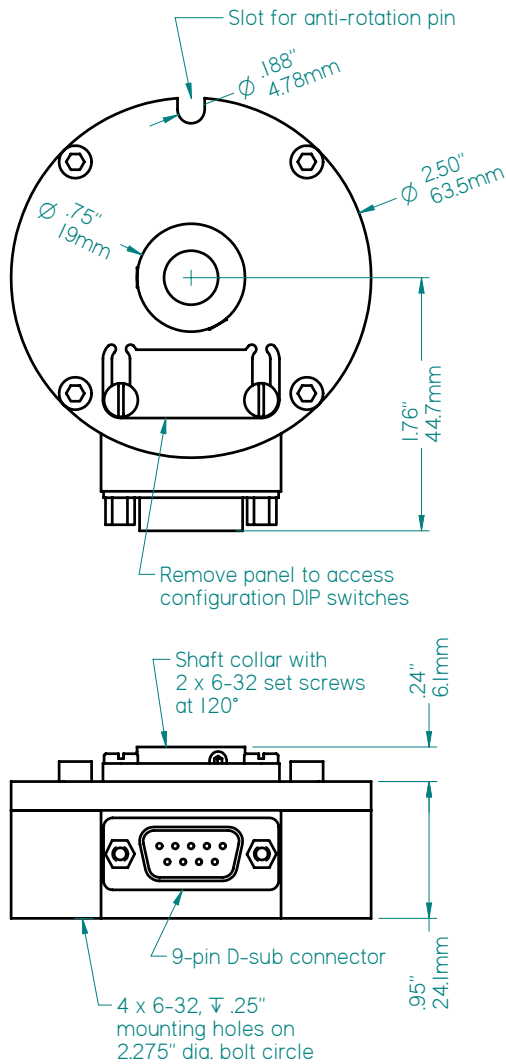


FEATURES

- Up to 3/8" or 10mm shaft bore diameter
- DIP switch selectable pulses per revolution
- Quadrature (A and B) pulse outputs
- CE and RoHS compliant available
- ESD and short circuit protection
- 5 vdc and 8 to 30 vdc supply voltages
- 9-pin D-Sub or 4-pin M12 connector
- Non-programmable models available - see HS25

DIMENSIONS

(shown with 3/8" shaft bore and 9-pin D-sub connector)



SPECIFICATIONS

Mechanical

Shaft Bore: Any up to 3/8", 10mm diameter
Maximum Speed: 600 rpm
Shaft Loading:
 — Radial: 5.5 lbs. / 2.5 kg max.
 — Axial: 2.2 lbs. / 1 kg max.
A flexible mounting bracket is recommended.
Bearing Life: 42 x 1,000,000/rpm = hours
Materials:
 — Case: Aluminum, anodized
 — Shaft: 303 Stainless steel
 — Switch cover: ABS plastic
Weight: 5.5 oz. (156 grams)

Electrical Connections

| 9-pin D-sub Pin No. | 4-pin M12 Pin No. | Function | Wire Color |
|---------------------|-------------------|----------|------------|
| 1 | 3 | Common | Black |
| 2 | 1 | +vdc | Red |
| 3 | 4 | Output A | White |
| 4 | 2 | Output B | Green |
| 5-9 | | not used | - |

Installation Notes

1. Slide the HS25 onto the shaft and tighten set screws. Be sure to maintain clearance around the entire encoder body.
2. Use the anti-rotation screw, flexible mounting bracket, or other means to prevent the encoder from rotating.
3. Attach the cable leads to the control device (e.g. PLC) ensuring that the power supply meets specifications.
4. Attach the cable to the encoder.

Accessories

See our website or contact us for more information about Cables, Flexible Mounting Brackets, and the Anti-Rotation Pin.

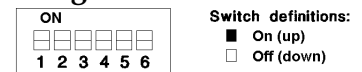
Electrical

Supply Voltages: (specify when ordering)
 5 ± 5% VDC or 8-30 VDC
Current: 50 mA max (no load)
Pulse Rate: 0 - 30 kHz
Operating Temperature: 0° to 70° C
Output Circuit: (specify when ordering)
 — Push/Pull (combined sourcing/sinking)
 — NPN open collector (Vcc=30 vdc max)
Output Current: 50ma max source/sink
Output Waveshape:

Square wave outputs A and B are 50/50 duty cycle nominal. A leads B by 90° for clockwise rotation when viewed from shaft collar end.

- Pulse symmetry: 180±30%
- Pulse interval jitter: 30% max
- Quadrature: 90±30% max
- Phase jitter: 30% max

Configuration Switches



| Pulses per Revolution | | | | | | Selection | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|-----------|---|---|---|---|---|-----|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | |
| 4 | □ | □ | □ | □ | □ | 88 | □ | □ | □ | □ | □ | 172 | □ | □ | □ | □ | □ |
| 8 | □ | □ | □ | □ | □ | 92 | □ | □ | □ | □ | □ | 176 | □ | □ | □ | □ | □ |
| 12 | □ | □ | □ | □ | □ | 96 | □ | □ | □ | □ | □ | 180 | □ | □ | □ | □ | □ |
| 16 | □ | □ | □ | □ | □ | 100 | □ | □ | □ | □ | □ | 184 | □ | □ | □ | □ | □ |
| 20 | □ | □ | □ | □ | □ | 104 | □ | □ | □ | □ | □ | 188 | □ | □ | □ | □ | □ |
| 24 | □ | □ | □ | □ | □ | 108 | □ | □ | □ | □ | □ | 192 | □ | □ | □ | □ | □ |
| 28 | □ | □ | □ | □ | □ | 112 | □ | □ | □ | □ | □ | 196 | □ | □ | □ | □ | □ |
| 32 | □ | □ | □ | □ | □ | 116 | □ | □ | □ | □ | □ | 200 | □ | □ | □ | □ | □ |
| 36 | □ | □ | □ | □ | □ | 120 | □ | □ | □ | □ | □ | 204 | □ | □ | □ | □ | □ |
| 40 | □ | □ | □ | □ | □ | 124 | □ | □ | □ | □ | □ | 208 | □ | □ | □ | □ | □ |
| 44 | □ | □ | □ | □ | □ | 128 | □ | □ | □ | □ | □ | 212 | □ | □ | □ | □ | □ |
| 48 | □ | □ | □ | □ | □ | 132 | □ | □ | □ | □ | □ | 216 | □ | □ | □ | □ | □ |
| 52 | □ | □ | □ | □ | □ | 136 | □ | □ | □ | □ | □ | 220 | □ | □ | □ | □ | □ |
| 56 | □ | □ | □ | □ | □ | 140 | □ | □ | □ | □ | □ | 224 | □ | □ | □ | □ | □ |
| 60 | □ | □ | □ | □ | □ | 144 | □ | □ | □ | □ | □ | 228 | □ | □ | □ | □ | □ |
| 64 | □ | □ | □ | □ | □ | 148 | □ | □ | □ | □ | □ | 232 | □ | □ | □ | □ | □ |
| 68 | □ | □ | □ | □ | □ | 152 | □ | □ | □ | □ | □ | 236 | □ | □ | □ | □ | □ |
| 72 | □ | □ | □ | □ | □ | 156 | □ | □ | □ | □ | □ | 240 | □ | □ | □ | □ | □ |
| 76 | □ | □ | □ | □ | □ | 160 | □ | □ | □ | □ | □ | 244 | □ | □ | □ | □ | □ |
| 80 | □ | □ | □ | □ | □ | 164 | □ | □ | □ | □ | □ | 248 | □ | □ | □ | □ | □ |
| 84 | □ | □ | □ | □ | □ | 168 | □ | □ | □ | □ | □ | 252 | □ | □ | □ | □ | □ |
| | | | | | | | | | | | | 256 | □ | □ | □ | □ | □ |

MODEL NUMBER

| | | | | | | | | |
|-----------------------------|---|------------------------|--|--|--|--|--|--|
| HS25 | | P | 256Q | | | | | |
| Model Number | A = 5/16", B = 3/8", C = 1/4", .188 = 3/16", M6 = 6mm, M8 = 8mm, M10 = 10mm | P = Programmable model | Program: name of factory configured program. | | | | | |
| Supply Voltage: | 5 = 5vdc, 8-30 = 8 to 30 vdc | | | | | | | |
| Output Circuit: | leave blank for push/pull C = NPN open collector | | | | | | | |
| Connector: | leave blank for 9-pin D-Sub, S3 = 4-pin M12 connector | | | | | | | |
| Modification Number: | optional modification or special feature ID. Call or see our website. | | | | | | | |
| Accessories: | leave blank for no accessories. Call or see our website for more information. | | | | | | | |

Example: **HS25B-P256Q/8-30** - 3/8" shaft bore, programmable model factory configured with the 256Q program, 8-30 vdc, push/pull output, 9-pin D-Sub connector



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