MODEL **HS25-P**   # Programmable Hollow Shaft Encoder
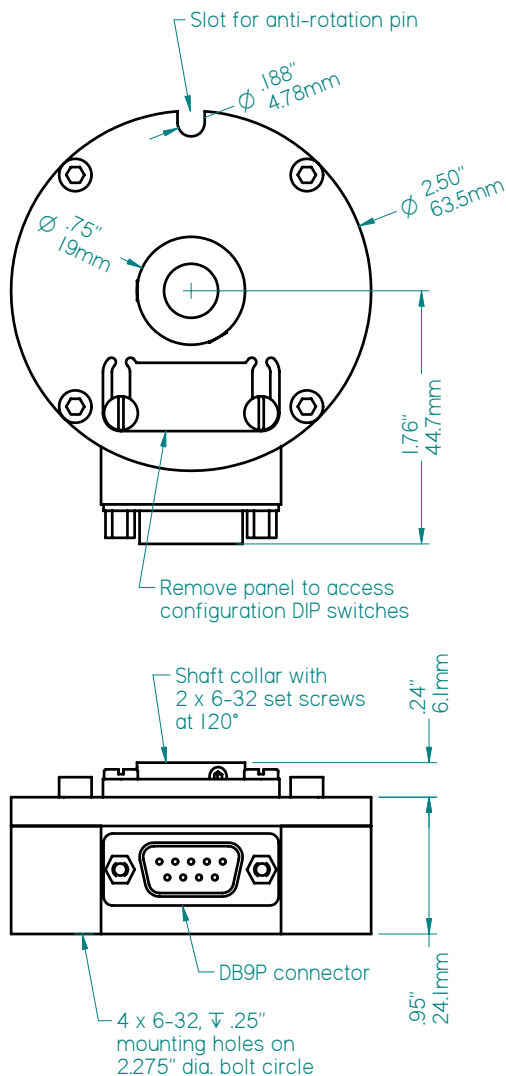
FEATURES

- Up to 3/8" or 10mm shaft bore diameter
- DIP switch selectable pulses per revolution
- Single and quadrature pulse outputs
- Direction indicator output option
- Anti-jitter feature option
- ESD and short circuit protection on most models
- 5 vdc and 8 to 30 vdc supply voltages
- Fixed output model available - see Model HS25

DIMENSIONS
(shown with 3/8" shaft bore)

Slot for anti-rotation pin
Ø .188" 4.78mm
Ø 2.50" 63.5mm
Ø .75" 19mm
1.76" 44.7mm
Remove panel to access configuration DIP switches

Shaft collar with 2 x 6-32 set screws at 120°
.24" 6.1mm
DB9P connector
.95" 24.1mm
4 x 6-32, ▽ .25" mounting holes on 2.275" dia. bolt circle

SPECIFICATIONS

Mechanical

Shaft Bore: Any up to 3/8", 10mm diameter
Maximum Speed: 3,000 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

Pin No.	Function	Wire Color
1	Common	Black
2	+vdc	Red
3	Output A	White
4	Output B	Green
5	Output Z	Brown*
6-9	not used	-

* Output Z is green if Output B is 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
— 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
Programmable Features: Factory configured program that offers one or more advanced features. DIP switches set program options.
(for more details, call or see our website)
— Selectable Pulses per revolution
— Quadrature (A/B) outputs
— Direction outputs
— Anti-Jitter feature
— Enhanced anti-jitter feature
Program: (specify when ordering)
Following are examples of available programs
64AJ - Single pulse output on A with selectable ppr from 1 through 64, and the anti-jitter feature.
64Q - Quadrature pulse outputs (A and B) with selectable ppr from 1 through 64
270AJB - Single pulse output on A with selectable ppr (2,3,4,5,6,7,8,9,10,12, 15,16,18,20,24,30,54,60) and the anti-jitter feature. Direction output on B with selectable direction logic.

MODEL NUMBER

HS25	—	P	/				

Model Number

Shaft Bore: 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. See the program specific datasheet for feature descriptions and DIP switch settings.

Supply Voltage: **5**=5vdc, **8-30**=8 to 30 vdc

Output Circuit: leave blank for push/pull C=NPN open collector

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-P64Q/8-30** - 3/8" shaft bore, programmable model factory configured with the 64Q program, 8-30 vdc, push/pull output

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