



Magnetic Light Mill Duty Hollow Shaft Encoder, [36, 42, 58mm body size]

Magnetic Durability in a Compact Encoder

Bore Sizes Include 6-15mm and 3/8", 1/2" and 5/8"

No Optical Glass Disk

Resists Dust, Dirt, and Liquids: IP69K Available

Up to 16384 PPR

Drop-in Mechanical Replacement for Any Optical Encoder

Compatible Pinouts: No Rewiring

-40°C to +85°C Operation

2 Year No-Hassle Warranty

HS4

Avtron HS4 encoders are setting THE industry standard for incremental quadrature hollow shaft rotary encoders. This versatile lineup fits the same mounting patterns on all motors and machines as competitor units, but that's where the similarities end.

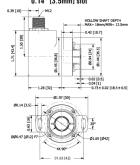
We've incorporated Avtron magnetic sensing technology to this affordable set of encoders! This makes HS4 more resistant to dust, dirt, oil and other liquids that make ordinary optical encoders fail.

Our Wide-Gap technology provides for 10-20X larger air gap between sensor and rotor than ordinary optical encoder designs. Consider the resistance to vibration when you compare our 0.060" air gap to the typical 0.004" clearance from the thin, often flexible, optical disk spinning at full motor speeds. Our high-accuracy magnetic sensors provide high quality quadrature signals for precise velocity and position control with the durability of magnetic sensing technology.

Our magnetic HS4 encoders are setting a new standard for quality, durability, and performance. Select an Avtron HS4 today!

OUTLINE DRAWING

Tether Option "A" - Dual-Tab Tether: 1.65" [42mm] BC, 0.14" [3.5mm] slot



FOR COMPLETE LIST OF FLANGE STYLES PLEASE REFER
TO INSTRUCTION SHEET

MORE HS4 ADVANTAGES

- Digital mapping technology for high accuracy
- All-digital design, no trim pots or adjustments for longer life
- · Advanced magnetic sensor technology

MORE HS4 SPECIFICATIONS

Operating Power: Volts: 5 - 30 VDC; Current: 140mA @ 5V, 70mA @ 10V

DC, 40mA @ 24V DC, no load

Output Format: A Quad B with marker (A,/A, B,/B, Z,/Z) available

Frequency Range: 0 to 1MHz

PPR: 1 - 16,384 Standard (for other PPR needs consult factory)
Speed: 6000 RPM Max., (for higher speeds, consult factory)

Axial Load: 9lbs [40 N]
Radial Load: 25lbs [110 N]
Max.Temperature: -40° to +85°C

Vibration: 10 g (10 Hz – 1000 Hz, EN 60068-2-6) **Shock:** 100 g (half sine 6 ms, EN 60068-2-27)

Weight: 0.44-1.76 lbs [200-800g]

Check out our website for more detailed specifications, drawings, and installation instructions. www.avtronencoders.com



SELECTION GUIDE

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MODEL	PPR	LINE DRIVER	HOLLOW SHAFT BORE SIZE	CONNECTOR OPTIONS	SEALS	HOUSING SIZE	PROTECTIVE BASKET	TETHER	CHANNELS	MODIFICATIO NS
HS4	AD - Special PPR BB- 1 PPR BB- 25 PPR BB- 25 PPR BB- 30 PPR AB- 30 PPR AB- 32 PPR AB- 32 PPR AB- 32 PPR AB- 32 PPR AB- 42 PPR AB- 42 PPR AB- 42 PPR AB- 250 PPR AB- 480 PPR AB- 5000 PPR AB- 5000 PPR AB- 5000 PPR AB- 1800 PPR AB-	1 - 5-30v In/Out HTTL Line Driver (IC-HD2) 4 - 5-30v In, 5v Out Regulated Line Driver (IC-HD2) 6 - 5-24v In/out Line Driver (7272) 9 - 5-24v In/out Out Regulated Line Driver (7272)	D - 1/4" (0.25 in.) L - 6mm M - 8mm, Clamping Collar F - 8mm, Set Screw N - 10mm 2 - 11mm P - 12mm Q - 14mm R - 15mm Z - All Marticles 6-15mm A - 39" (0.375 in.) B - 1/2" (0.5 in.) C - 5/8" (0.625 in.) Y - All US Hollow Shaft Sizes 1/4" - 5/8"	A - 10 pin MS style No Plug, Std. Pin Out B - 10 pin MS style No Plug, Reverse Phasing C - 10 pin MS style with Plug, Avtron pin out D - 10 pin MS style with Plug, Reverse Phasing E - 6 pin MS style with Plug, Reverse Phasing G - 6 pin MS style No Plug Reverse Phasing G - 6 pin MS style No Plug, Reverse Phasing H - 6 pin MS style No Plug, Reverse Phasing G - 6 pin MS style No Plug, Reverse Phasing M - 10 pin MS style No Plug, Reverse Phasing H - 10 pin MS style No Plug, Reverse Phasing M - 7 pin MS style No Plug, Avtron pin out M - 7 pin MS style No Plug, Avtron Pin out K - 7 pin MS style No Plug, Avtron Pin out K - 7 pin MS style No Plug, Reverse Phasing M - 7 pin MS style No Plug, Reverse Phasing P - 4-pin DIN Form Style With Plug, Style with plug, Style No Plug, Style pin Out T - M12 8 Pin, Turck pin out T - M12 8 Pin, Turck pin out T - M12 8 Pin, Turck pin out S - M12 5 Pin out S - Pin Out	A - Shaft Seals, IP85, Aluminum Housing G - Shaft Seals, IP87, Aluminum Housing K - Shaft Seals, IP89K, Stanless Steel Housing X - No Shaft Seals, IP85, NOT RECOMMENDED	3 - 36mm OD with 18mm Hollow Shaft Depth 4 - 42mm OD with 22mm Hollow Shaft Depth 5 - 58mm OD with 28mm Hollow Shaft Depth 5 - 58mm Do with 28mm Hollow Shaft Depth 18mm Hollo	0 - No Basket 1 - Protective Basket	X - No Tether A - Dual Tab Tether, 1.65 in BC, 0.14 in. slot, fits 36mm housings B - Dual Tether, 2.48 in. BC, 0.14 in. slot, fits 58mm housings D - Fan Cover Table, 1.57 in. 10 2.48 in. BC, 0.14 in. slot, 36mm & 42mm housings D - Fan Cover Table, 1.57 in. 10 2.95 in. BC, 0.45 Slot, fits 58mm housings D - Fan Cover Tether, 1.57 in. 10 2.95 in. BC, 0.14 in. slot, fits 58mm housings W set serves what bores	A - All Signals A, V, B, B/, Z, Z/B - A, A/B, B/, A/B, B/, No Marker Pulse E - A, B, Z No Complements F - A, B No Complements F - A, B No Complements P - A, B No Complements, No Marker Pulse	000 - No Special Features 905 - 5 ft./1.5m Cable Built into Encoder 910 - 10 ft./3m Cable Built into Encoder 915 - 15 ft./4.5m Cable Built into Encoder 915 - 15 ft./4.5m Cable Built into Encoder 933 - 33 ft./10m Cable Built into Encoder 00W - Connector on Cable, 1m

