



Mill Duty - Magnetic - Hollow Shaft Encoder: 1/2"-1" [12mm-25mm]

#### Magnetic Durability in a Compact Encoder

Fits Shafts 1/2" to 1" [12mm-25mm] IP66 Seals Up to 10,000 PPR Replaces Competitive Models Without Rewiring -40°C to +100°C Operation 2 Year No-Hassle Warranty Full Protection from Miswiring Onboard Diagnostics with LED Drives up to 1000 feet [330m] cable

### HS35X

Finally--the breakthrough you have been waiting for--a HS35 magnetic encoder, high IP rating AND a super-competitive price! The HS35X is dropin compatible with all competitive HS35 size encoders, making replacements a breeze!

HS35X encoders fit shafts from 1/2" to 1" [12mm-25mm] easily, using a durable shaft insert\*. Units may be resized by replacing or removing the insert, enabling our factory, distributors, and customer stockrooms to swiftly meet any need. The shaft insert and isolated bearings also provide isolation from motor shaft currents.

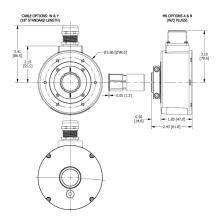
Optical encoders suffer so many failures--broken glass disks, misaligned masks, vibration problems, condensing liquids that confuse the optics...the list never ends! Our magnetic technology is fully protected against dust, dirt, liquids and condensation. Our Wide-Gap electronics prevent rotor-sensor crashes too!

Who needs 6 different connector types on their machinery! Use the HS35X universal cable adapter system to use the same connector on every encoder!

Wondering if your encoder is working right? The HS35X has full diagnostics, informing you of signal quality, and ensuring there are no shorts in the wiring to or from the encoder.

Step up to the HS35X without paying more than your current price for a weak optical encoder!

# **OUTLINE DRAWING**



### **MORE HS35X ADVANTAGES**

- All digital, fully integrated design
- No extra charge for signal complements and marker pulse (A,A/,B,B/,Z,Z/)
- · Insulated from motor shaft currents
- · Models can be resized by interchanging inserts
- Optional basket guard adds even more protection
- Shaft ring retains clamping collar during installation
- Wide-Gap Technology: Up to 10X larger gap between sensor and rotor
- · Fits End of Shaft and Through Shaft Applications

# MORE HS35X SPECIFICATIONS

**MORE HS35X SPECIFICATIONS** Operating Power: Volts: 6-30 VDC; Current: 80mA, no load; 5V option available.Output Format: A Quad B with gated marker (A,/A, B,/B, Z,/Z)Frequency Range: 0 to 250 kHz @ 6V & 1m cablePPR: 4 - 10000 standard\* (for other PPR needs, consult factory)Speed: 6000 RPM Max., (for higher speeds, consult factory)Temperature: -40° to 100°C\*\*Environmental: IP66\* enclosureShaft Current Isolation: 2500VRMSVibration: 10-2000Hz, 17GsShock: 275G, 6mS durationAxial Bearing Load: 500 NRadial Bearing Load: 1200 NWeight: 2.5 lbs. [635 g] approx.Certifications: CE, UL Fire & Safety (pending)All dimensions are in inches [millimeters]Specifications and features are subject to change without notice.\*Requires special ordering code\*\* Derating for higher speeds may apply

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



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# **SELECTION GUIDE**

MODEL	PPR	LINE DRIVER	HOLLOW SHAFT BORE SIZE	CONNECTOR OPTIONS	MOUNTING	PROTECTION	ANTI- ROTATIONAL TETHER	CHANNELS	MODIFICATIONS
HS35X	G - 100 PPR K - 200 PPR L - 240 PPR B - 360 PPR S - 600 PPR S - 600 PPR V - 1000 PPR V - 1000 PPR V - 1024 PPR 3 - 2000 PPR J - 1224 PPR 3 - 2000 PPR J - 1200 PPR J - 2048 PPR S - 2500 PPR D - 4096 PPR D - 4096 PPR D - 4096 PPR D - 5000 PPR C - 5192 PPR S - 5000 PPR C - 5192 PPR S - 5000 PPR C - 5192 PPR S - 5000 PPR C - 5000 PPR C - 5000 PPR C - 5000 PPR D - 5000 PPR C - 5000	1 - 6-30V In/SV Out 2 - 6-30V In/SV Out (Hx) 3 - 5V In/SV Out (Hx)	B - 1/2 in. bore via insert C - 5/8 in. bore via insert D - 3/4 in. bore via insert F - 1 in. native bore U - 1/2 in. thru 7/8 in. bore (Universal USA) N - 11mm via insert P - 12mm via insert Q - 14mm via insert C - 14mm via insert S - 16mm via insert V - 19mm via insert V - 20mm via insert V - 20mm via insert V - 20mm via insert Dore Z - 12mm thru 20mm bore (Universal metric)	A - 10 pin MS style w/o Plug, Avtron/BEI Pinout B - 10 pin MS style w/o Plug, Dynapar HS35 pinout C - 10 pin MS style w/ Plug, Dynapar HS35 pinout T - M12 Turck Pinout w/o Plug U - M12 US Pinout w/o Plug V - M12 US Pinout w/o Plug V - M12 US Pinout w/ Plug 2 - M12 Turck Pinout w/ Plug 2 - M12 Turck Pinout w/ Plug Cable with Flying Leads, BEI Color Code	U - Universal (Thru & End of Shaft)	0 - None 1 - Basket	X - No Tether A - 1/4 in - 20 - Feolt Fan Cover Tether B - 5/16 in - 18 T-Bolt Fan Cover Tether D - All T-bolt Fan Cover Tether B - 4.5 in .C-Face Tether M - Fan Cover & A-5° C-Face Mount N - Marker-pulse- orienting Tether R - Pin & Block, BEI U - A-F All Tethers	A - All Channels (A, /A, B, /B, Z, /Z)	000 - No Special Features CEE - Add 18" adapter 10 pin MS to 6 pin MKS, Single Ended, (A, B, Z only) CEB - Add 18" adapter 10 pin MS to 6 pin, Differential, No Marker Pulse (A, A/, B, B/ Only) CJE - Add 18" adapter 10 pin MS to 7 pin MS, Single Ended, (A, B, Z, Only) CJB - Add 18" adapter 10 pin MS to 7 pin MS, Differential, No Marker Pulse (A, A/, B, B/ only) CRA - Add 18" adapter 10 pin MS to 7 pin Mini Twist Lock, Al (Channels (A, A/, B, B/, Z, Z)) CRA - Add 18" adapter 10 pin MS to 5 pin Mini Twist Lock, Al (Channels (A, A/, B, B/, Z, Z)) CGA - Add 18" adapter 10 pin MS to 5 pin M12, Single Ended, (A, Z, B, Z, Z)) CGA - Add 18" adapter 10 pin MS to 5 pin M12, Single Ended, (A, Z, Z)) CGA - Add 18" adapter 10 pin MS to 8 pin M12, All Channels (A, A/, B, B/, Z, Z)) CUA - Add 18" adapter 10 pin MS to 8 pin M12, All Channels (A, A/, B, B/, Z, Z)) CUA - Add 18" adapter 10 pin MS to 8 pin M12, All Channels (A, A/, B, B/, Z, Z)) CUA - Add 18" adapter 10 pin MS connector with 18" [0.5m] flying (A, A, B, B/, Z, Z)) CWA - Add Mating 10 pin MS connector with 18" [0.5m] flying (A, A, B, B/, Z, Z)) CWA - Add Mating 10 pin MS connector with 18" [0.5m] flying (A, A, B, B/, Z, Z)) CWA - Add Mating 10 pin MS connector with 18" [0.5m] flying (A, A, B, B/, Z, Z) CWA - Add Mating 10 pin MS connector with 18" [0.5m] flying (A, B, B/, Z, Z) CWA - Add Mating 10 pin MS connector with 18" [0.5m] flying (A, A, B, B/, Z, Z) CWA - Add Mating 10 pin MS connector with 18" [0.5m] flying (A, A, B, B/, Z, Z) CWA - Add Mating 10 pin MS connector with 18" [0.5m] flying (A, A, B, B/, Z, Z) CWA - Add Mating 10 pin MS connector with 18" [0.5m] flying (A, C, B, B/, Z, Z) CWA - Add Mating 10 pin MS connector With 18" [0.5m] flying (A, C, B, B/, Z, Z) CWA - Add Mating 10 pin MS connector With 18" [0.5m] flying (A, C, B, B/, Z, Z) CWA - Add Mating 10 pin MS connector With 18" [0.5m] flying (A, C, B, B/, Z, Z) CWA - Add Mating 10 pin MS connector



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MODEL	PPR	LINE DRIVER	HOLLOW SHAFT BORE SIZE	CONNECTOR OPTIONS	MOUNTING	PROTECTION	ANTI- ROTATIONAL TETHER	CHANNELS	MODIFICATIONS
									417 - 1250 (Special) Output PPR 420 - 450 (Special) Output PPR 422 - 96 (Special) Output PPR 425 - 280 (Special) Output PPR 425 - 280 (Special) Output PPR 901 - 1 ft.0.3m Cable Built into Encoder 902 - 2 ft.0.6m Cable Built into Encoder 903 - 3 ft.0.9m Cable Built into Encoder 903 - 3 ft.0.8m Cable Built into Encoder 903 - 3 ft.0.5m Cable Built into Encoder 903 - 3 ft.0.45m Cable Built into Encoder 905 - 5 ft.71.5m Cable Built into Encoder 915 - 15 ft.45.5m Cable Built into Encoder 915 - 15 ft.45.5m Cable Built into Encoder 920 - 20 ft./6m Cable Built into Encoder 920 - 20 ft./6m Cable Built into Encoder 930 - 33 ft./10m Sign - 30 ft./9m Cable Built into Encoder 933 - 33 ft./10m Encoder 938 - Tether Bracket with threaded rod anti-rotation arm 108 - 10ft cable + 102- 200mm Anti-Ration arm 172 - 200 mm Anti- Rotation Arm Length



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