

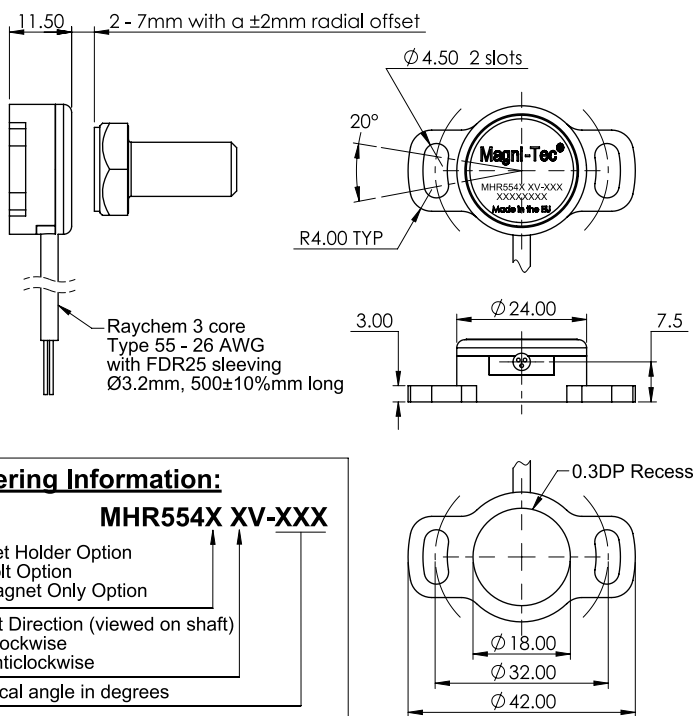
MHR5500 Magni-Hall® Rotary Position Sensors are compact, robust and, with the absence of any mechanical linkages, maintenance free. The sensor is suitable for use in harsh environments where debris, fluids and vibration are present. The measurement range is specified by the customer when ordering (in 1° increments).

Key Features & Benefits

- Measurement range from 20° to 360°
- Flange mounted with multiple shaft options
- Single output model
- Operating temperature 150°C (302°F)
- Suitable for high dither vibration and high duty-cycle applications
- Superior accuracy ($\pm 0.25\% \text{ FS}$)
- IP68 and IP69K sealing
- Both 5 Vdc and 8-30 Vdc operation



MHR5540 - Model dimensions and mounting



Ordering Information:

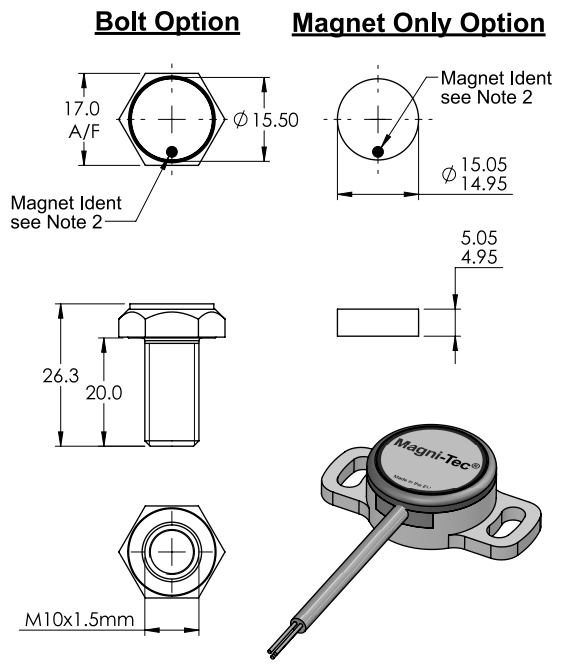
MHR554X XV-XXX

Magnet Holder Option
 1 = Bolt Option
 2 = Magnet Only Option

Output Direction (viewed on shaft)
 C = Clockwise
 A = Anticlockwise

Electrical angle in degrees

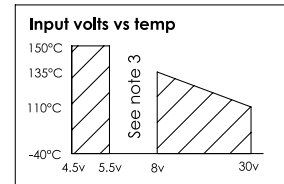
MHR554X XV-XXX Magnet Holder Options



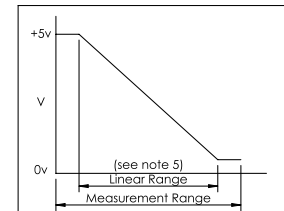
MHR5500 - Electrical & mechanical specification

Input Specification			
Supply voltage (Vs)	5.0±10% regulated	8 to 30 unregulated	V DC
Over voltage protection	Up to 50		V DC
Supply current	<15		mA
Reverse polarity protection	Up to -10		VDC
Power on settlement time	<100		mS
Input voltage rise time	0.25 minimum		V/mS
Output Specification			
Output type	Analogue		
Output direction	Clockwise or Anticlockwise (specified at time of order)		
Voltage output (Vout)	0-Vs (+5v)	0 - 5.0	V DC
Line regulation	Ratiometric with Vs	<0.01% FS/V	
Monotonic range	0 - 100% measurement range		
Load resistance	>10K		Ohms
Output noise	<5		mV rms
Performance Specification			
Measurement range	20 to 360±2 in 1° increments		°
Resolution	0.025		% of measurement
Non-Linearity (see note 4)	<±0.25%		FS
Temperature coefficient (Vout)	<±0.003%	<±0.011%	FS/°C
Update rate	500 Nom		Hz
Max operating speed	600		rpm
General Specification			
Weight	17		grams
Protection/sealing	Electronic housing IP68 & IP69K.		
Life	Virtually infinite		(dependant on environment)
Dither life	Contactless - no degradation due to shaft dither		
Operational temperature	-40 to +150	See de-rating graph	°C
Storage temperature	-55 to +150		°C
Materials	Case - Aluminium 6026 Top Cap - GF Polymer Magnet Holder - Stainless steel 316		

Operational Temp



Typical Output



Electrical Connection (see note 1)	
Wire Colour	Function
Black	Ground
Red	Supply Voltage (Vs)
White	Output Voltage (Vout)

Notes:

1. Incorrect wiring may cause internal damage.
2. When magnet ident is facing cable exit, instrument is mid-travel (2.5 output).
3. Do not operate between 5.5V and 8V.
4. Non-linearity is calculated from Least Squares Best Fit method over the Linear Range.
5. Linear Range = Measurement Range x 0.995 Nom.

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