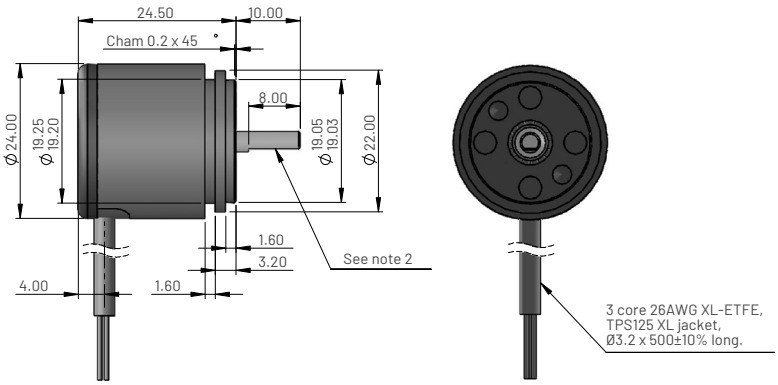
Dimensions for MHR0911 - Synchro mounting, single output



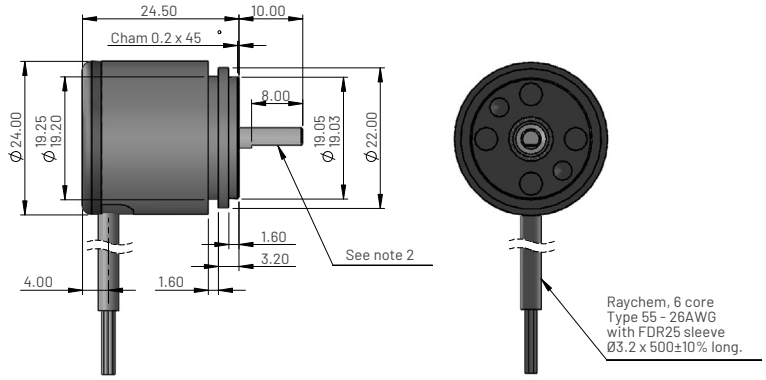
Ordering code

MHR0911 XV-XXX

Output direction (viewed on shaft)
- C = Clockwise
- A = Anticlockwise

Electrical angle in degrees

Dimensions for MHR0921 - Synchro mounting, dual output



Ordering code

MHR0921 XV-XXX

Output direction (viewed on shaft)
- C = Clockwise
- A = Anticlockwise
- D = Channel 1 output anticlockwise
  Channel 2 output clockwise

Electrical angle in degrees

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Electrical and mechanical specification for MHR0911 and MHR0921

Input specification			
Supply voltage (Vs)	5.0±10% regulated	8 to 30 unregulated	VDC
Over voltage protection	Up to 50		VDC
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 voltage		
Output direction	Clockwise or anticlockwise (specified at time of order)		
Voltage output (Vout)	0-Vs (+5)	0 - 5.0	VDC
Line regulation	Ratiometric with Vs	<0.01% FS	
Monotonic range	Linear range (see note 5)		
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 range
Non-linearity (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 (approx.)	23		grams
Protection/sealing	Electronic housing IP68 and IP69K		
Life (shaft in bush bearing)	>500 million cycles		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 6082, Top cap: GF polymer, Shaft: Stainless steel 316		

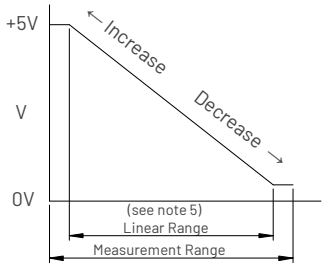
Notes

1. Incorrect wiring may cause internal damage.
2. When shaft marking is facing cable exit, instrument is mid-travel (2.5V output).
3. Do not operate between 5.5V and 8V.
4. Sensitivity and non-linearity are calculated from least squares best fit method.
5. Linear Range = Measurement range x 0.995 Nom.
6. Phasing on MHR0921-DV-XXX option is at mid-travel only.
7. Due to hall effect technology used in this device, ferrous materials and magnetic fields close to the sensor may influence output.
8. General dimension tolerance is ±0.25mm.

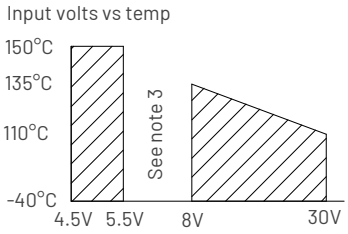
Electrical connections (see note 1)

	Wire Colour	Function
Channel 1	Red	Supply Voltage (Vs)
	White	Output Voltage (Vout)
	Black	Ground
Channel 2	Blue	Supply Voltage (Vs)
	Yellow	Output Voltage (Vout)
	Green	Ground

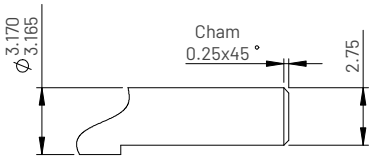
Typical output



Input voltage de-rating graph



Shaft and flat detail



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