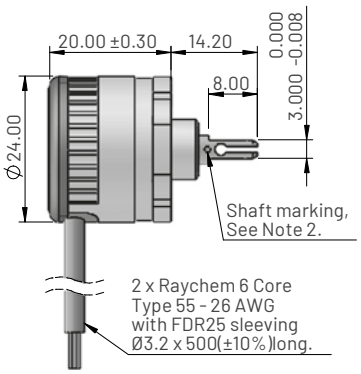
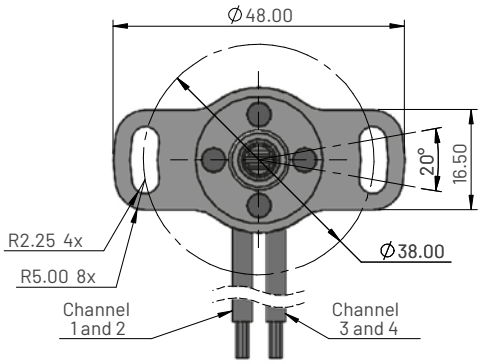
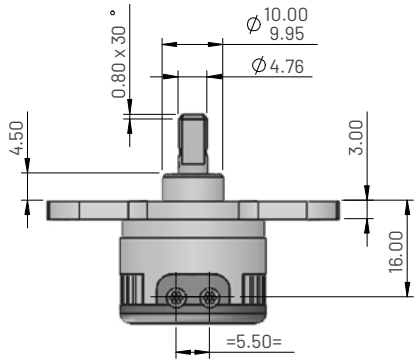
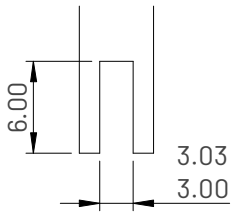
Dimensions for MHR5810 - Flange mounting with a sprung shaft







Driving side detail



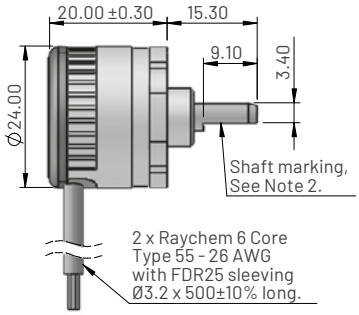
Ordering code

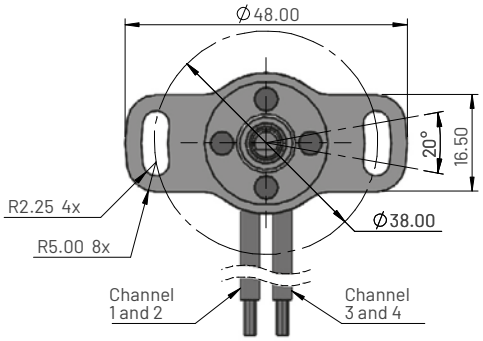
MHR5810 XV-XXX

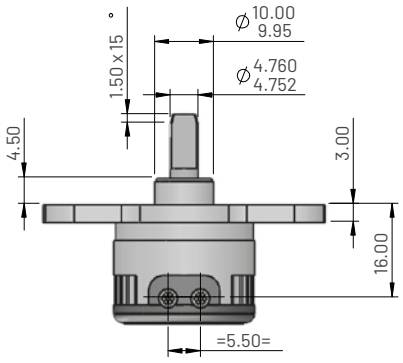
Output direction (viewed on shaft)
- C = Clockwise
- A = Anticlockwise
- D = Channel 1 output anticlockwise
  Channel 2 output clockwise

Electrical angle in degrees

Dimensions for MHR5820 - Flange mounting with a round shaft







Ordering code

MHR5820 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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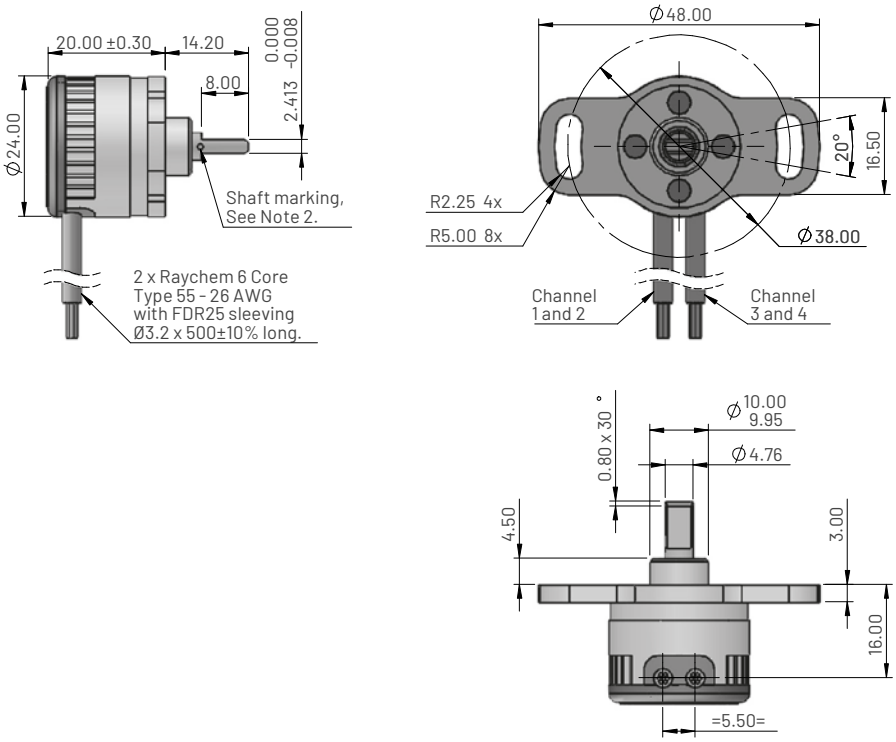
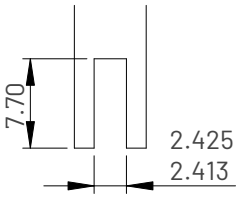
Dimensions for MHR5830 - Flange mounting with a sprung shaft



Driving side detail



Ordering code

MHR5810 XV-XXX

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

Electrical angle in degrees

Electrical and mechanical specification for MHR5800 Series

Input specification		
Supply voltage (Vs)	5.0±10% regulated	VDC
Over voltage protection	Up to 24	VDC
Supply current	<15	mA
Reverse polarity protection	Up to -12	VDC
Power on settlement time	<25	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 (Iout)	0-Vs	V DC
Line regulation	Ratiometric with Vs	
Monotonic range	0 - 100% measurement range	
Load resistance (max)	>10K	Ohms
Output noise	<5	mV RMS
Performance specification		
Measurement range	20 to 360 in 1° increments	°
Resolution	0.025	% of measurement range
Non-linearity (Note 5)	<±0.25	%FS
Phasing (Note 6)	<0.5	%FS
Temperature coefficient (Vout)	<±0.003	%FS/°C
Update rate (nominal)	500	Hz
Max operating speed	600	RPM
General specification		
Weight (approx.)	40	grams
Protection/sealing	Electronic housing IP68 and IP69K	
Life	>500 million cycles	dependant on environment
Dither life	Contactless - no degradation due to shaft dither	
Operational temperature	-40 to +150	°C
Storage temperature	-55 to +150	°C
Materials	Case: Aluminium 6082, Top cap: GF polymer, Bolt option: Stainless steel 316	

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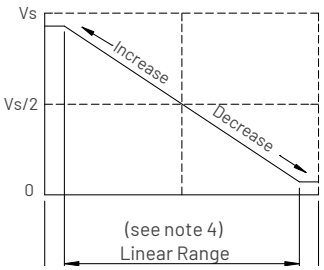
Notes

1. Incorrect wiring may cause internal damage.
2. When shaft marking is facing cable exit, instrument is mid-travel (2.5V output).
3. Non-linearity is calculated from least squares best fit method over the Linear Range.
4. Linear Range = Measurement range x 0.995 Nom.
5. Due to hall effect technology used in this device, ferrous materials and magnetic fields close to the sensor may influence output.
6. General dimension tolerance is ±0.25.

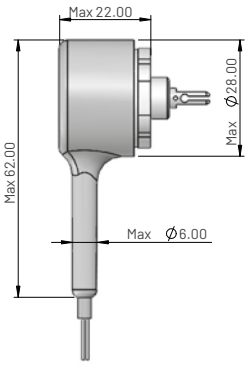
Electrical connections (see note 1)

	Channel	Wire Colour	Function
6 Core	1	Red	Supply Voltage (Vs)
		White	Output Voltage (Vout)
		Black	Ground
	2	Blue	Supply Voltage (Vs)
		Yellow	Output Voltage (Vout)
		Green	Ground
6 Core	3	Red	Supply Voltage (Vs)
		White	Output Voltage (Vout)
		Black	Ground
	4	Blue	Supply Voltage (Vs)
		Yellow	Output Voltage (Vout)
		Green	Ground

Typical output



Accessories



Boot dimensions when fitted
(Boot supplied seperately)

Boot
Part No: JN025-002

Material
Polyolefin

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