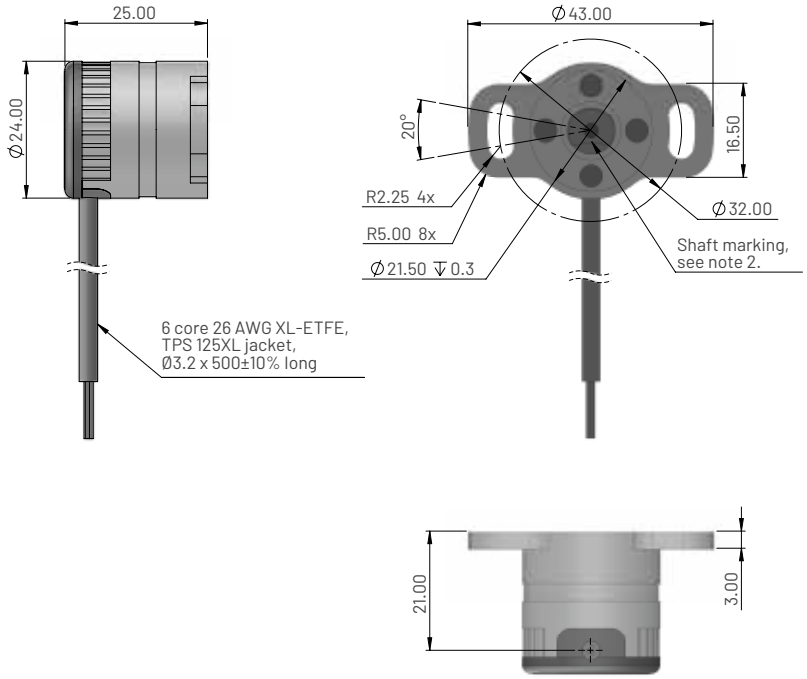
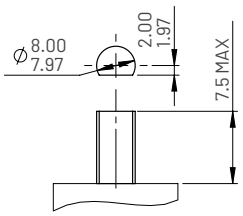
Dimensions for MHR5450 - Flange mounting with a D-type socket



Driving side detail



Ordering code

MHR5450 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 MHR5450 Series

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 (Iout)	0-Vs (+5)	0 - 5.0	mA
Line regulation	Ratiometric with Vs	<0.01	%FS
Monotonic range	Linear Range (see note 6)		
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 4)	<±0.25		%FS
Phasing (Note 5)	<0.5		%FS
Temperature coefficient (Vout)	<±0.003	<±0.011	%FS/°C
Update rate (nominal)	500		Hz
Max operating speed	600		RPM
General specification			
Weight (approx.)	28		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: Peek		

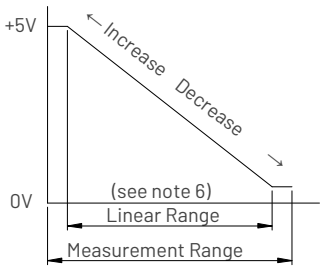
Notes

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. Non-linearity is calculated from least squares best fit method over the Linear Range.
5. Phasing for the MHR5450 DV-XXX option is at mid-travel only.
6. Linear Range = Measurement range x 0.995 Nom.
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 ±0.25.

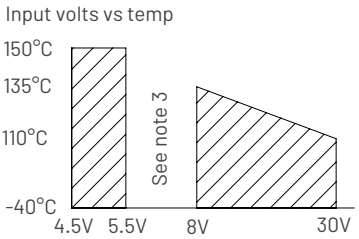
Electrical connections (see note 1)

	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

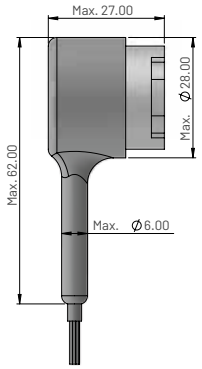
Typical output



Input voltage de-rating graph



Accessories



Boot dimensions when fitted
(Boot supplied seperately)

Boot
Part No: JN025-002

Material
Polyolefin

Contact (Europe)
Active Sensors Ltd,
Unit 12, Wilverley Road,
Christchurdch, Dorset,
BH23 3RU, UK

Contact (North America)
Active Sensors Inc,
8520 Allison Pointe Blvd, Suite 220,
Indianapolis,
IN 46250, USA