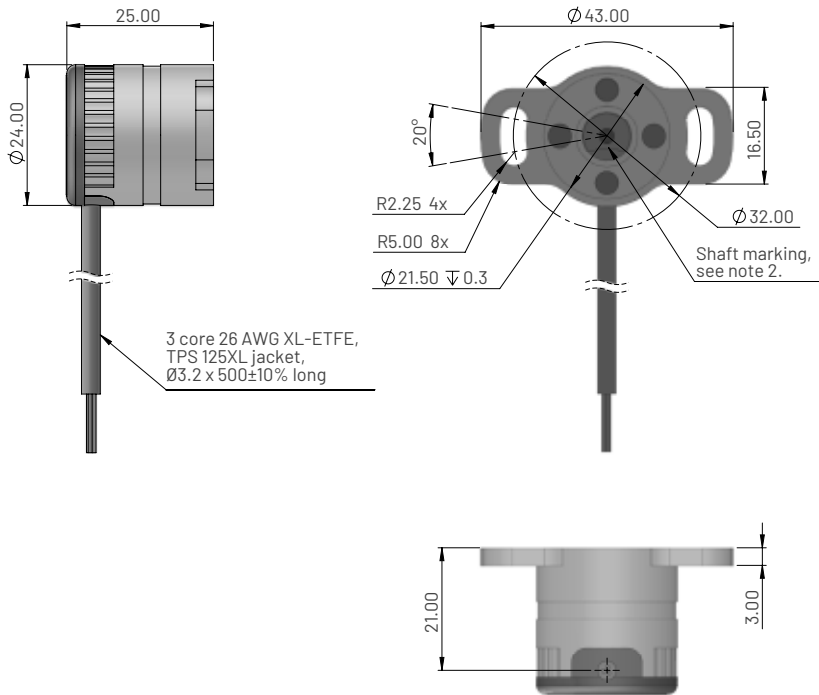
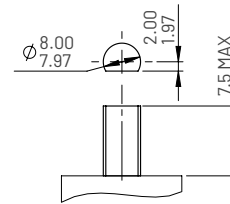


**Dimensions for MHR5250 - Flange mounting for a D-type socket**



**Driving side detail**



**Ordering code**

**MHR5250 XV-XXX**

Output direction (viewed on shaft) ↙  
 C = Clockwise  
 A = Anticlockwise  
 Electrical angle in degrees ↘

**Electrical and mechanical specification for MHR5250 Series**

Input specification			
Supply voltage (Vs)	5.0±10% regulated	8 to 40 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 5)		
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
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		

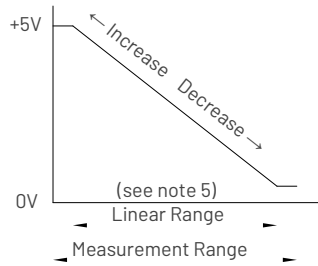
**Notes**

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. Linear Range = Measurement range x 0.995 Nom.
6. Due to hall effect technology used in this device, ferrous materials and magnetic fields close to the sensor may influence output.
7. General dimension tolerance is  $\pm 0.25$ .

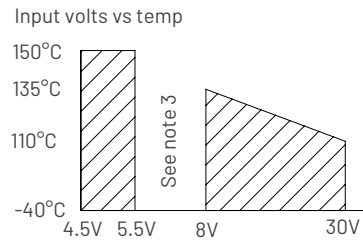
**Electrical connections (see note 1)**

Wire Colour	Function
Red	Supply Voltage (Vs)
White	Output Voltage (Vout)
Black	Ground

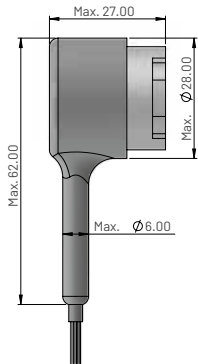
**Typical output**



**Input voltage de-rating graph**



**Accessories**



Boot dimensions when fitted  
(Boot supplied seperately)

Boot  
Part No: JN025-002

Material
Polyolefin