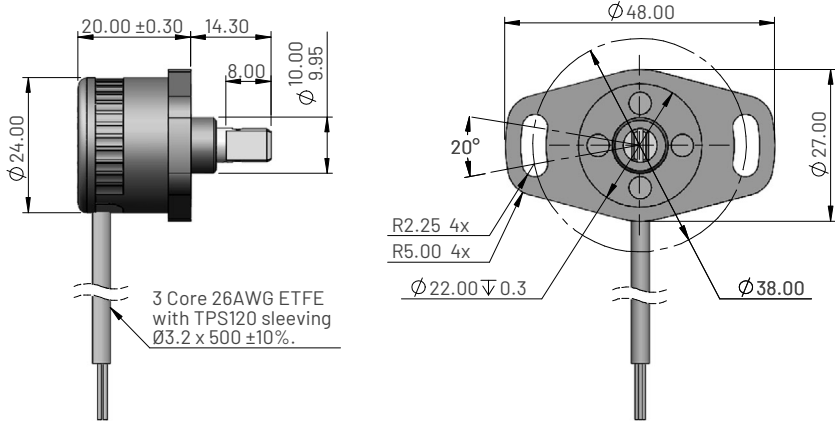


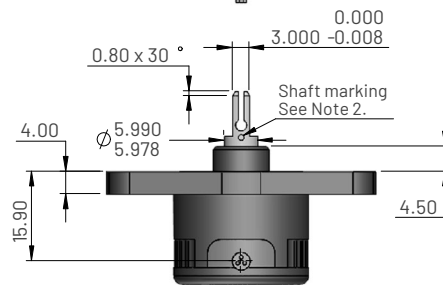
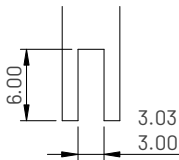
MHR5100 XI Series - Magnetic-Hall rotary position sensor

General-purpose series, Current output

Dimensions for MHR511X XI - Flange mounting, sprung shaft



Drive shaft detail



Ordering information

MHR511X XI-XXX

Heatshrink boot

0 = Unbooted

1 = Heatshrink boot

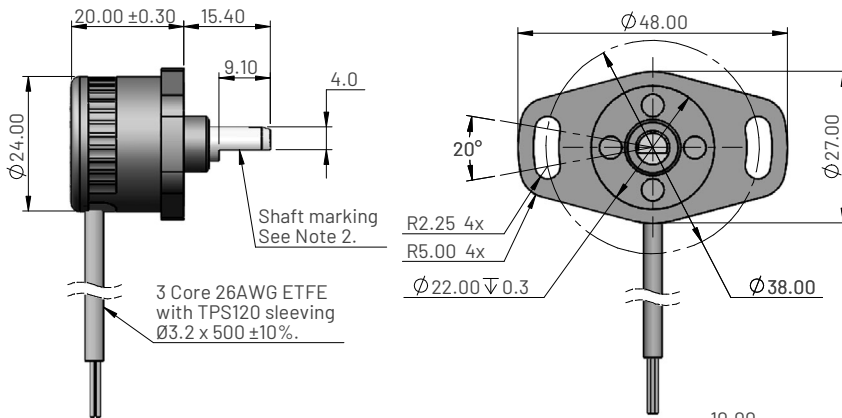
Output direction (viewed on shaft)

C = Clockwise

A = Anticlockwise

Electrical angle in degrees

Dimensions for MHR512X XI - Flange mounting, sprung shaft



Ordering information

MHR512X XI-XXX

Heatshrink boot

0 = Unbooted

1 = Heatshrink boot

Output direction (viewed on shaft)

C = Clockwise

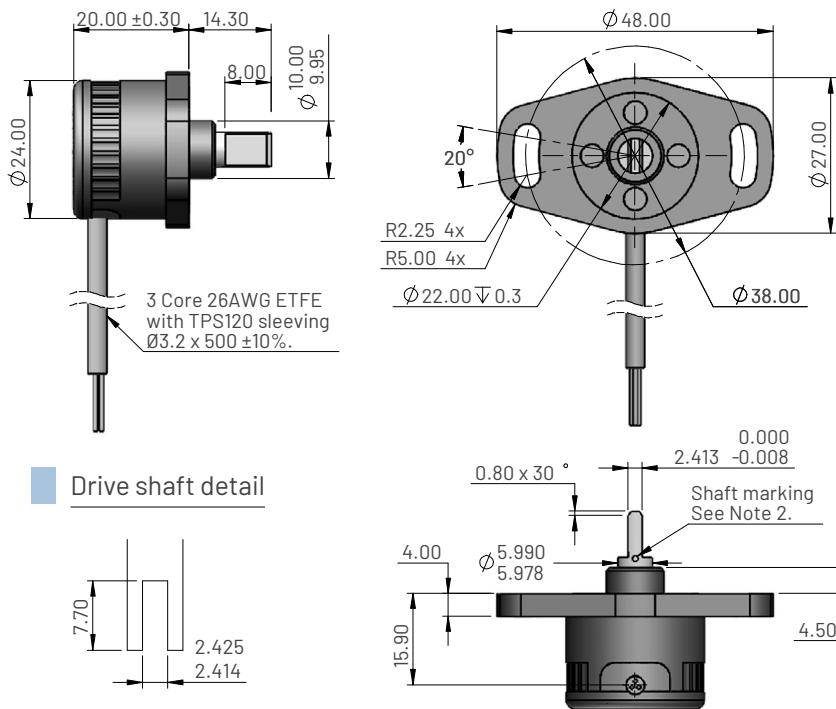
A = Anticlockwise

Electrical angle in degrees

MHR5100 XI Series - Magnetic-Hall rotary position sensor

General-purpose series, Current output

Dimensions for MHR513X XI - Flange mounting, blade shaft



Ordering information

MHR513X XI-XXX

- Heatshrink boot
 - 0 = Unbooted
 - 1 = Heatshrink boot
- Output direction (viewed on shaft)
 - C = Clockwise
 - A = Anticlockwise
- Electrical angle in degrees

Electrical and mechanical specification for MHR5100 XI

Parameters	Values	Units
Input specification		
Supply voltage (Vs)	8 to 40 unregulated	VDC
Over voltage protection	Up to 44	VDC
Supply current	<40	mA
Reverse polarity protection	Up to -10 TBD	VDC
Power on settlement time	<100	ms
Input voltage rise time	0.25 minimum	V/ms
Output specification		
Output type	Analogue current	
Output direction	Clockwise or anticlockwise (specified at time of order)	
Voltage output (Vout)	4 -20	mA
Line regulation	<0.01	%FS
Monotonic range	Linear range (Note 4)	
Max load resistance (R load)(Note 6)	Vs/0.022	Ohms
Output ripple (Note 5)	<5 TBD	µA RMS
Performance specification		
Measurement range	20 to 360 in 1° increments	°
Resolution	0.025	% of measurement range
Non-linearity (Note 3)	<±0.25	%FS
Temperature coefficient (Vout)	<±0.011 TBD	%FS/°C
Update rate (nominal)	500 Nom.	Hz
Max operating speed	600	RPM
General specification		
Weight (approx.)	29	grams
Protection/sealing	Electronic housing IP68 and IP69K	
Life (shaft in bush bearing)	>20 million cycles	dependent on environment
Dither life	Contactless - no degradation due to shaft dither	
Operational temperature	See de-rating graph	°C
Storage temperature	-55 to +150	°C
Materials	Case: Glass filled polymer, Shaft: Stainless steel 316	
	Sensor	
	Top cap	GF polymer
Max torque for fixing screw (M4 with washer)	1.8	Nm

MHR5100 XI Series - Magnetic-Hall rotary position sensor

General-purpose series, Current output

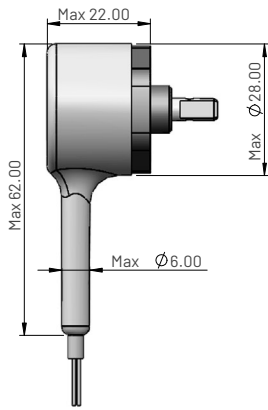
Notes

1. Incorrect wiring may cause internal damage.
2. When shaft marking is facing cable exit, instrument is mid-travel (12mA 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.

Electrical connections (see note 1)

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

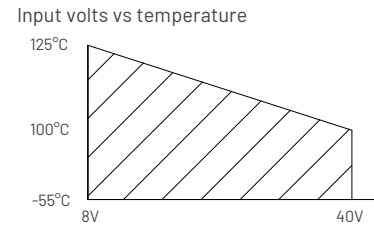
Accessories



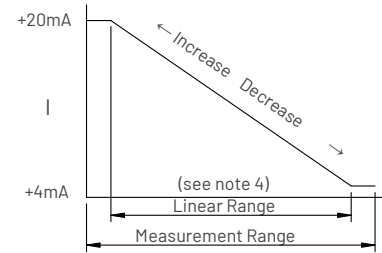
Boot
Part No: JN025-002

Material
Polyolefin

Input voltage de-rating graph



Typical output



External filter circuit

