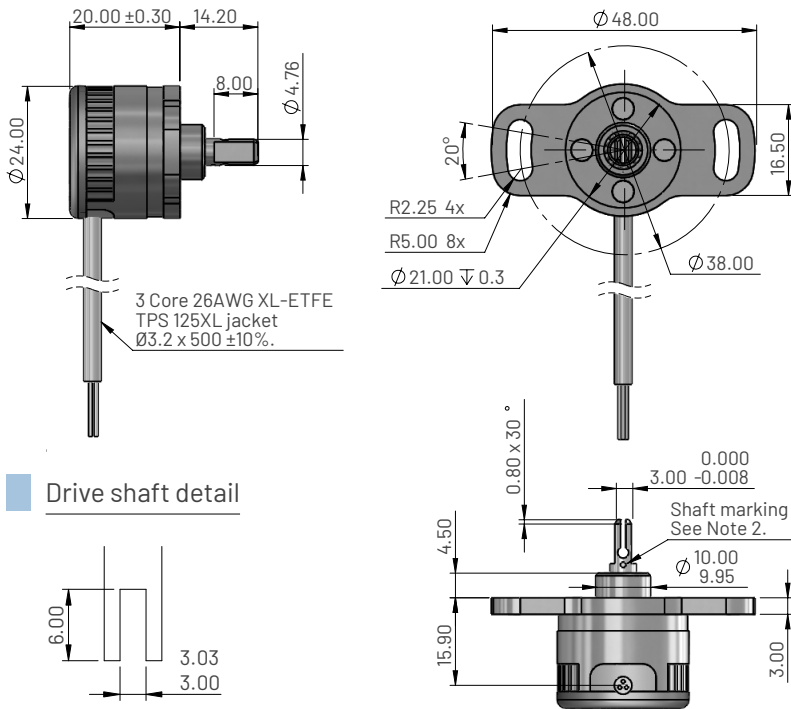


MHR5200 XI Series - Magnetic-Hall rotary position sensor

High performance series, Current output

Dimensions for MHR521X XI - Flange mounting, sprung shaft

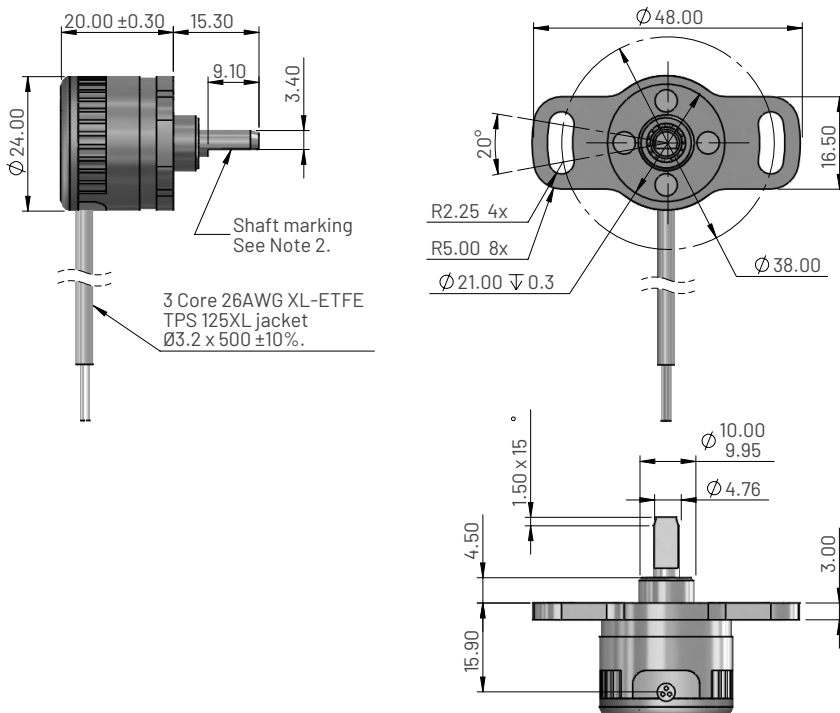


Ordering information

MHR521X XI-XXX

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

Dimensions for MHR522X XI - Flange mounting, sprung shaft



Ordering information

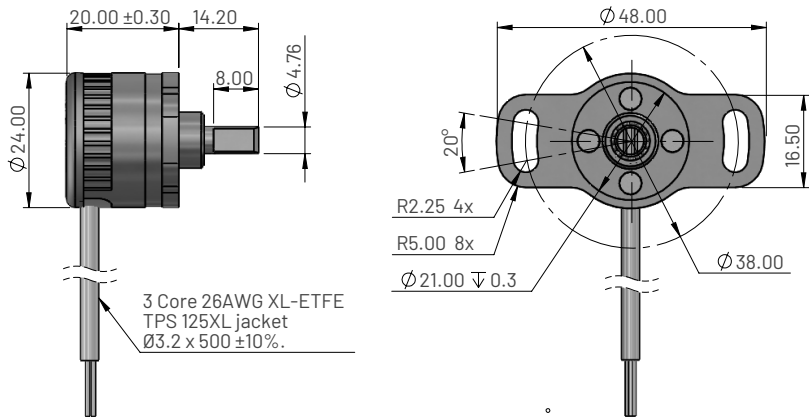
MHR522X XI-XXX

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

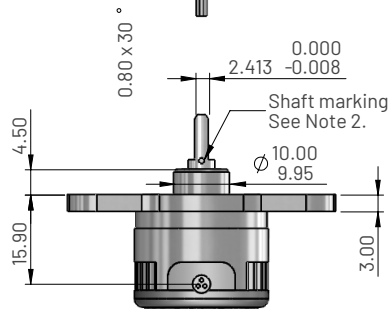
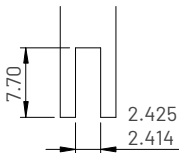
MHR5200 XI Series - Magnetic-Hall rotary position sensor

High performance series, Current output

Dimensions for MHR523X XI - Flange mounting, blade shaft



Drive shaft detail



Ordering information

MHR523X 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 MHR5200 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)	
Load resistance (max)	(Vs/0.25)/20mA	Ohms
Output noise	(with filter) <8, (without filter) <80	µA RMS
Performance specification		
Measurement range	20 to 360 ± 2 in 1° increments	°
Resolution	0.025	% of measurement range
Non-linearity (Note 3)	<±0.25	%FS
Mid-position output tolerance	±5	°
Temperature coefficient (Vout)	<±0.011 TBD	%FS/°C
Update rate	500 Nom.	Hz
Max operating speed	600	RPM
General specification		
Weight (approx.)	30	grams
Protection/sealing	Electronic housing IP68 and IP69K	
Life (shaft in bush bearing)	>500 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	Sensor	Case: Anodised aluminium 6082 T6, Shaft: Stainless steel 316
	Top cap	GF polymer

MHR5200 XI Series - Magnetic-Hall rotary position sensor

High performance series, Current output

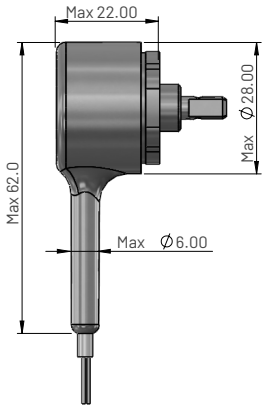
Notes

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.
5. For improved output ripple add low pass filter (Fc=1.6KHz) see external filter circuit diagram.
6. Includes all wiring and load resistance.

Electrical connections (see note 1)

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

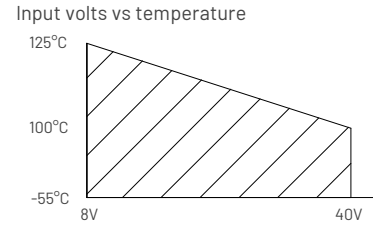
Accessories



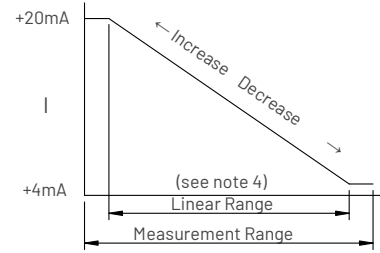
Boot
Part No: JN025-002

Material
Polyolefin

Input voltage de-rating graph



Typical output



External filter circuit

