



Features

- Non-contacting magnetic technology
- Highly resistant to vibration/shock
- Highly resistant to fluid/dust ingress
- Programmable slope
- Robust design for industrial applications
- Ideal memory positioning sensor
- RoHS compliant*

AMM20B Multiturn Magnetic Position Sensor

Electrical Characteristics¹ (@ 25 °C)

VDD Supply Voltage	5 V ± 10 %
Supply Current ²	
For Low Speed Processing (Code L)	12 mA max.
For High Speed Processing (Code H)	15 mA max.
Output Signal (Single)	Analog
Independent Linearity	±0.5 % (±0.3 % available on request)
Backlash	< 5 ° typ.
Effective Electrical Angle ³	1080 °, 1800 ° or 3600 °
Voltage Output (Programmable)	1 to 99 % VDD ±1 %
Output Resolution	12 bit @ 3600 °
Load Resistance Recommended	10K ohms to ∞
Overvoltage Protection	+20 VDC
Reverse Voltage Protection	-10 VDC

Environmental Characteristics

Operating and Storage Temperature	-40 ° to +125 °C
Rotational Life (Shaft Revolutions)	50 million
Vibration	15 G
Shock	50 G
IP Rating	IP50

Mechanical Characteristics (@ 25 °C)

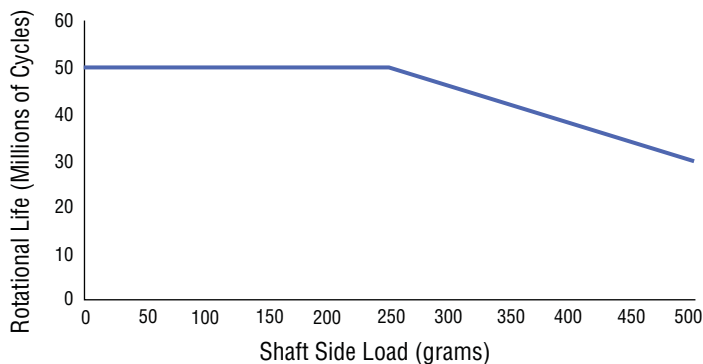
Mechanical Angle	3960 ° min.
Shaft/RPM	500 RPM max.
Torque (Starting & Running)	1.77 N-cm. (2.5 oz-in.) max.
Shaft Material	Stainless steel
Terminal Pins	Phos. Bronze, 100 % tin plated (e3)
Bearing	Bronze sleeve
Housing and Rear Lid	UL94V0
Soldering Condition	
Manual Soldering	96.5Sn/3.0Ag/0.5Cu solid wire or no-clean rosin cored wire; 370 °C (700 °F) max. for 3 seconds
Wave Soldering	96.5Sn/3.0Ag/0.5Cu solder with no-clean flux; 260 °C (500 °F) max. for 5 seconds
Wash processes	Not recommended

¹At room ambient: +25 °C nominal and 50 % relative humidity nominal, except as noted.

² See "Processing Speed" in How to Order selection guide.

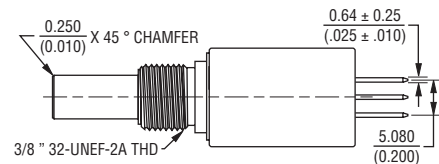
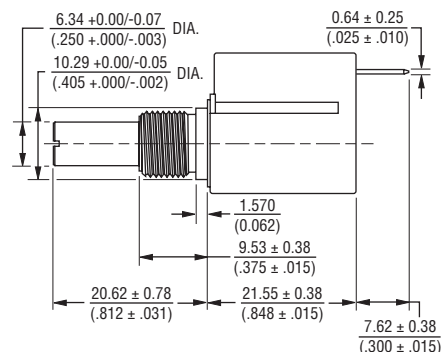
³ Other Effective Electrical Angles available. See How to Order selection guide.

Rotational Life vs. Shaft Side Load



*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

Product Dimensions



TOLERANCES EXCEPT WHERE NOTED

DECIMALS: .XX ± $\frac{.50}{.02}$.XXX ± $\frac{.127}{.005}$

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

BOURNS®

Asia-Pacific:
Tel: +886-2 2562-4117
Fax: +886-2 2562-4116

Europe:
Tel: +41-41 768 5555
Fax: +41-41 768 5510

The Americas:
Tel: +1-951 781-5500
Fax: +1-951 781-5700

www.bourns.com

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How To Order



Standard Output: 10-Turn CW Increasing (Code 380 Shown)

