



## 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 Characteristics<sup>1</sup> (@ 25 °C)

VDD Supply Voltage	5 V ± 10 %
Supply Current <sup>2</sup>	
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 <sup>3</sup>	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)

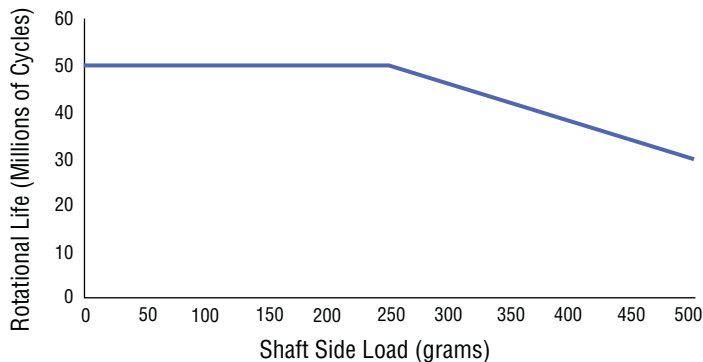
Mechanical Angle	3960 ° min.
Shaft/RPM	500 RPM max.
Torque (Starting & Running)	1.77 N-cm. (2.5 oz-in.) max.
Shaft Material	Stainless steel
Terminal Pins	Phos. Bronze, 100 % tin plated (e3)
Bearing	Bronze sleeve
Housing and Rear Lid	UL94V0
Soldering Condition	
Manual Soldering	96.5Sn/3.0Ag/0.5Cu solid 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

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

<sup>2</sup> See "Processing Speed" in How to Order selection guide.

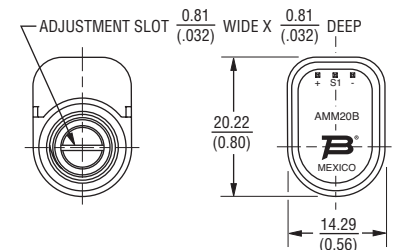
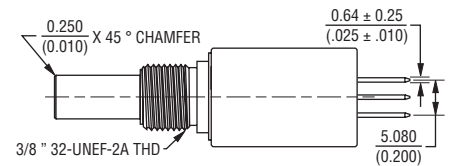
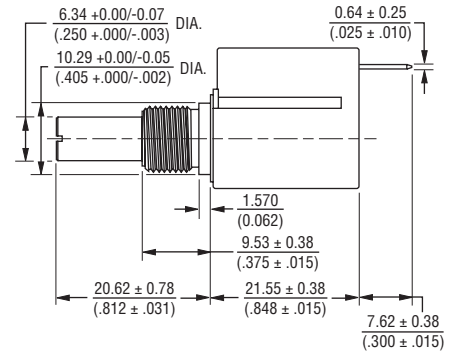
<sup>3</sup> Other Effective Electrical Angles available. See How to Order selection guide.

### 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:  $\frac{MM}{(INCHES)}$

## BOURNS®

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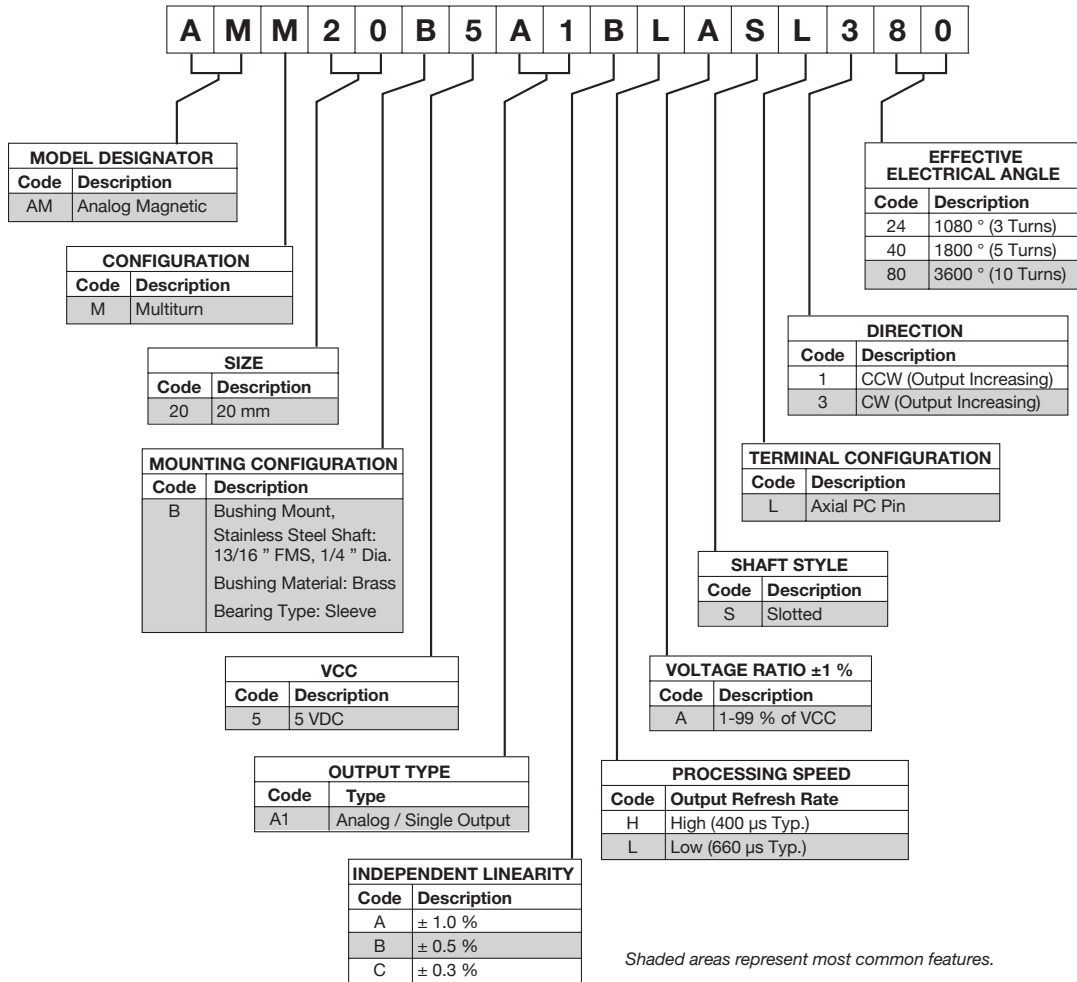
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# AMM20B Multiturn Magnetic Position Sensor

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## How To Order



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

