

Features

- Non-contacting magnetic technology
- Highly resistant to vibration/shock
- Highly resistant to fluid/dust ingress
- Programmable at factory for zero position
- Robust design for industrial applications
- Highly repeatable

- Dual ball bearing
- RoHS compliant*

Product Dimensions

AMS22U Non-Contacting Analog Rotary Position Sensor

VDD Supply Voltage	5 V ± 10 %
Supply Current ²	
For Low Speed Processing (Code L)	10 mA max.
For High Speed Processing (Code H)	20 mA max.
Output Signal (Single)	Analog
Independent Linearity	
	(±0.3 % available on request)
Hysteresis	0.2 % VDD max
Effective Electrical Angle 3	340 °
Programmable Electrical Angle	10 ° to 360 ° (10 ° increments)
Voltage Output (Programmable)	
Output Resolution	
Load Resistance Recommended	10K ohms to ∞
Overvoltage Protection	+20 VDC
Reverse Voltage Protection	
Environmental Characteristics	
Operating Temperature	40 ° to +125 °C
Moisture Resistance	MIL-STD-202, Method 106
Insulation Resistance @ 500 VAC	500 MΩ min.
Rotational Life (Shaft Revolutions)	100 million
Vibration	
Shock	50 G
IP Rating	IP50
	2 kV max

Wolstare resistance		
Insulation Resistance @ 500 VAC	500 MΩ min.	
Rotational Life (Shaft Revolutions)	100 million	
Vibration		
Shock	50 G	
IP Rating	IP50	
ESD Safe		
Mechanical Characteristics (@ 25 °C)		

Mechanical Angle	
Shaft/RPM	1000 RPM max.
Torque (Starting & Running)	1.06 N-cm. (1.5 oz-in.) max.
Shaft Material	Stainless steel
Terminals	Brass / 100 % matte tin over Ni Strike (e3)
Bearing	Dual ball bearing
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	
Ğ	260 °C (500 °F) max. for 5 seconds
Wash Processes	

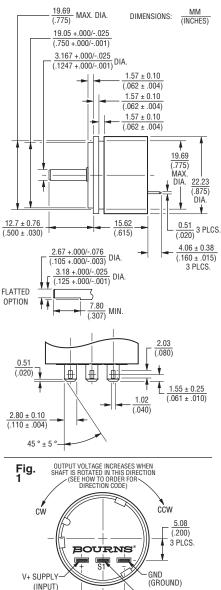
¹At room ambient: +25 °C nominal and 50 % relative humidity nominal, except as noted.

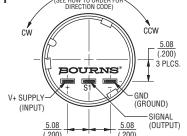
Rotational Life vs. Side Load 120 Rotational Life (Millions of Shaft Rotations) 100 80 60 40 20 0 100 200 300 350 Shaft Side Load (grams)

*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice.

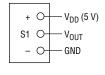
Users should verify actual device performance in their specific applications.

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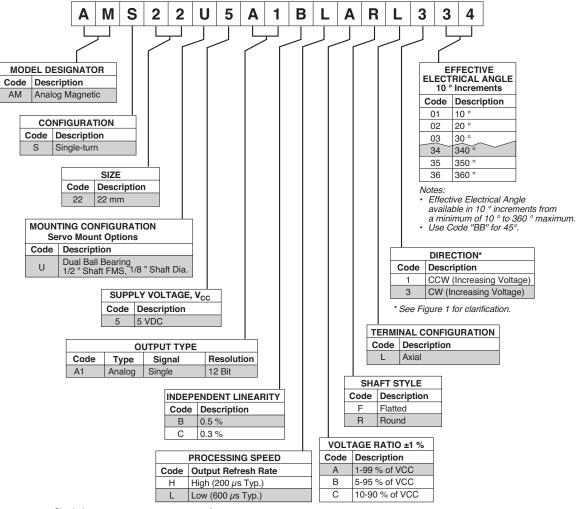
² See "Processing Speed" in How to Order selection guide.

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

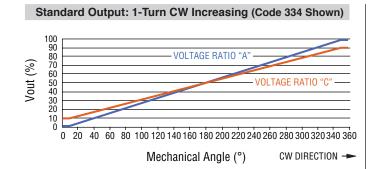
AMS22U Non-Contacting Analog Rotary Position Sensor

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How To Order



Shaded areas represent most common features.



Resolution

EEA	Resolution	EEA	Resolution
10	114	130	1479
20	228	140	1593
30	341	150	1707
40	455	160	1820
45	512	170	1934
50	569	180	2048
60	683	190	2162
70	796	200	2276
80	910	210	2389
90	1024	220	2503
100	1138	230	2617
110	1252	240	2731

250

2844

EEA	Resolution
260	2958
270	3072
280	3186
290	3300
300	3413
310	3527
320	3641
330	3755
340	3868
350	3982
360	4096

REV. 06/20

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