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

RoHS compliant*

AMS22S Non-Contacting Analog Rotary Position Sensor

**Electrical Characteristics**

- VDD Supply Voltage: 5 V ± 10 %
- Supply Current:
  - For Low Speed Processing (Code L): 10 mA max.
  - For High Speed Processing (Code H): 20 mA max.
- Output Signal (Single): 1 to 99 % VDD ± 1 %
- Independent Linearity: ±0.5 %
- Hysteresis: ±0.5 % (available on request)
- Effective Electrical Angle: 340 °
- Programmable Electrical Angle: 10 ° to 360 ° (10 ° increments)
- Voltage Output (Programmable): 1.57 V ± 0.04 V
- Output Resolution: 12 bit @ 360 °
- Load Resistance Recommended: 10 K ohms to ∞
- Overvoltage Protection: ±20 VDC

**Environmental Characteristics**

- Operating Temperature: -40 ° to +125 °C
- Insulation Resistance @ 500 VAC: 50 MΩ min.
- Rotational Life (Shaft Revolutions): 50 million
- Shock: 50 G
- ESD Rating: IP50
- Bearing: Bronze sleeve

**Mechanical Characteristics**

- Mechanical Angle: Continuous
- Shaft/RPM: 200 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: Bronze sleeve
- 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 ux; 260 °C (500 °F) max. for 5 seconds
- Wash processes: Not recommended

**Rotational Life vs. Shaft Side Load**

Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.