Stoneridge, Inc., Control Devices Division
Electric Wastegate Actuator - Rotary Design
Brushed DC Motor

Preliminary Data Sheet

Features / Benefits

- Provides precise control of the wastegate for greater position accuracy over pneumatic wastegate valves
- Field proven gear train
- High temperature non-contact position sensing technology
- Lightweight materials with high temperature capability
- Rotary actuation (linear optional)
- Compact package
- Fully sealed version is available

Performance Characteristics

Electrical

Supply Voltage: 9 - 16 VDC Max. Operating Current: <5.0 Amps
Holding Current at 2.7Nm Torque <1.5 Amps
Rotational Travel: 120°
Linear travel
Up to 16 mm

Mechanical

Peak Torque (12.6VDC, 25°C): 5.4 Nm
Loaded (5.4Nm) Full Travel <200 ms (12.6 VDC)
Hold Torque along Rod/Arm Up to 2.7Nm at 160°C
Mounting Features: Customer specified
Connector: Customer specified
Envelope: Customer specified

Durability

Strokes >7 Mill, Full load Power Strokes (Incremental) Targeting >10 Mill.

Environmental

Vibration: Random - 15 g, 50 hrs./plane
Mechanical Shock: 30 g, 10 ms half-sine pulse
Operational Temperature Range: -40°C to 160°C
Thermal Shock: -50°C to 160°C
Humidity: 95% RH @ 30° - 80°C, 9 days
Solvent Resistance: All normal under hood fluids
Salt Fog: ASTM-B117 340 hrs. (240 hrs, no red rust)
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Dimensions

Stoneridge is an independent designer and manufacturer of highly engineered electrical and electronic components, modules and systems principally for the automotive, light/medium/heavy-duty truck, agricultural and off-highway vehicle markets. Our products provide engineered solutions that improve the efficiency and performance of electric and electronic systems.

The Control Devices Group focuses on products that sense, switch and control a specific function. Our key technologies include:

- Electromechanical Actuators
- Customer Actuated Switches
- Emissions Sensors
- Solenoid Coil Valves
- Powertrain Switches and Sensors
- Pressure Switches and Sensors
- Speed Sensors
- Temperature Sensors
- Position Sensors
- Torque Sensors