



Stoneridge, Inc., Control Devices Division

Canister Vent Solenoid Valves and Filters used in Reduction of Evaporative Emissions

The Stoneridge Advantage:

Stoneridge, Inc. is a publicly traded company (NYSE: SRI) which offers highly engineered sensors and controls for applications in the global transportation industry. SRI has manufacturing facilities located in North America, Europe, South America, India and China. The Control Devices Division of SRI with technical design centers located in Lexington, OH USA, Canton, MA USA and Suzhou, China has been designing and manufacturing sensors and controls for vehicle applications such as evaporative emissions for over 40 years.



Product Features/Benefits:

- Supports OBD (On-board Diagnostics) for Evaporative Emissions Control Systems
- Hose connection (ported) and Canister Integrated Valve styles
- Adaptable to different port directions & different port connection types to a common valve design
- Mounting location flexibility
 - Ported version can be mounted +/- 15 degrees vertical
 - Integrated version mounted horizontal and vertical
- Improved environmental resistance by reducing leak paths in design
- Quieter operation with integrated style
- Magnetic modeling (Ansoft) used in valve design
- Highly automated manufacturing

Canister Vent Solenoid Valve Operating Environment:

- Operating temperature: -40° to 90° C typical
- Compatible with standard fuels and blends of Methanol or Ethanol with iso-octane and iso-octane/toluene fuels
- Mounted to frame or underbody, customer specific
- Salt spray exposure to 960 hours
- Zinc and Calcium Chloride compatibility

Canister Vent Solenoid Valves

Functional Descriptions

Solenoid Vent Valve Functional Descriptions:

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Solenoid Vent Valves Filter functional description:



Basic Valve with Filter Type	Filter Dust Capacity	Flow Capability (Pressure Drop)	Leak Capability when Closed (Pressure on Canister Port)	Resistance (23° C)	Operating Voltage and Temperature	Canister Port	Fresh Air Port
2" round filter; 51MM	35g	0.35 kPa @ 60 LPM 0.47 kPa @ 70 LPM	0.015 LPM @ -2.5 kPa	20.8 +/- 1.5 Ohms (min. 15 Ohms @ -40° C)	10 - 16 Volts -20 - 90° C	5/8" Q/C, barb port, or hose port	5/8" Q/C or barb port
2" round filter; 51MM	35g	0.35 kPa @ 60 LPM 0.47 kPa @ 70 LPM	0.015 LPM @ -2.5 kPa	20.8 +/- 1.5 Ohms (min. 15 Ohms @ -40° C)	10 - 16 Volts -20 - 90° C	1/4 turn twist lock direct to canister	5/8" Q/C or barb port
2.5" round filter; 65MM	70g	0.30 kPa @ 60 LPM 0.42 kPa @ 70 LPM	0.015 LPM @ -2.5 kPa	20.8 +/- 1.5 Ohms (min. 15 Ohms @ -40° C)	10 - 16 Volts -20 - 90° C	5/8" Q/C, barb port, or hose port	none
Rectangular filter	10g	0.30 kPa @ 60 LPM 0.42 kPa @ 70 LPM	0.015 LPM @ -2.5 kPa	20.8 +/- 1.5 Ohms (min. 15 Ohms @ -40° C)	10 - 16 Volts -20 - 90° C	5/8" hose bead	none

Canister Integrated Solenoid Vent Valves Functional Description:



Basic Valve Type	Filter Dust Capacity	Flow Capability (Pressure Drop)	Leak Capability when Closed (Pressure on Canister Port)	Resistance at 23° C	Operating Voltage and Temp.	Canister Port	Fresh Air Port
Low noise, integrated	No filter	0.21 kPa @ 60 LPM 0.26 kPa @ 70 LPM	0.015 LPM @ +/- 2.5 kPa	20.8 +/- 1.5 Ohms (min. 15 Ohms @ -40° C)	9 - 16 Volts -20 - 90° C	none	none
Low noise, integrated	No filter	0.20 kPa @ 57 LPM	0.020 LPM @ +/- 1.9 kPa	27.0 +/- 1.5 Ohms (min. 21 Ohms @ -40° C)	10 - 16 Volts -30 - 100° C	none	none

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
- Emission Sensors
- Solenoid Coil Valves
- Powertrain Switches and Sensors
- Pressure Switches
- Speed Sensors
- Temperature Sensors
- Position Sensors
- Torque Sensors