



# Automotive Vents

FOR POWERTRAIN COMPONENTS — SERIES: AVS 41



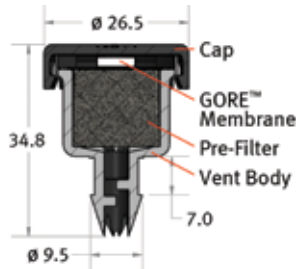
## Single venting solution simplifies design challenges, reduces overall costs and increases reliability of powertrain components

### DESCRIPTION

This pressure-equalization and contaminant protection vent is comprised of an expanded polytetrafluoroethylene (ePTFE) membrane along with an integrated pre-filter technology, which is contained in a black molded housing.

### MATERIALS OF CONSTRUCTION

Cap Material: PA6.6 Impact Modified  
Body Material: PA6.6 – GF33  
ePTFE Membrane: AM6XX  
Pre-Filter Material: FS-16



Vent Cross Section Dimensions: mm

### PHYSICAL PROPERTIES

Membrane Characteristics: Hydrophobic and Oleophobic  
Operating Temperature: -40°C to 125°C  
Typical Airflow: 150 L/h @ 70 mbar (1 psi)  
Water Entry Pressure (assembly): > 345 mbar (> 5.0 psi) for 60 seconds

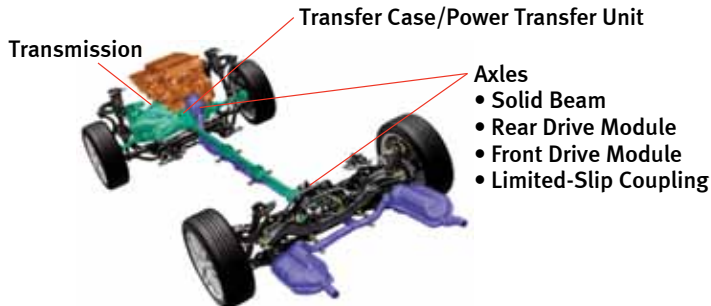
### VENT POSITIONING AND INSTALLATION

There are several design considerations that must be addressed to ensure successful integration of a GORE® Powertrain Vent, Series: AVS 41. Please contact a Gore representative to discuss your application's unique requirements and needs.



GORE® Powertrain Vents, Series: AVS 41

### TYPICAL APPLICATIONS



### REALIZE THE BENEFITS OF GORE® POWERTRAIN VENTS:

- Meets Global Standards for water wading, vehicle rollover and fluid containment
- Equalizes pressure within the component and reduces stress on gaskets and seals
- Reduces design, validation and installation complexity and costs by offering a standard, compact venting solution
- Extends product life by reliably blocking environmental challenges such as water, dust, dirt and automotive fluids from causing premature component failure
- Backed by Gore's technical expertise and global support team

SAMPLE SERIES

AVS 41

PRODUCTION SERIES

VE2048



# Automotive Vents

SERIES: AVS 41

**SUPERIOR PERFORMANCE AND PROTECTION INCREASE RELIABILITY OF CRITICAL POWERTRAIN COMPONENTS**



**Transmissions** experience temperature changes during normal operation, heavy loading, and water exposure, which lead to an increase in pressure. If the pressure is not equalized with a correct venting solution, gaskets and seals can fail. This can cause transmission fluid to leak and/or allow contamination such as dust, mud, sand, and water to enter the transmission causing reduced performance and reliability. The Series: AVS 41 equalizes pressure and protects against environmental challenges in order to maintain performance and long term reliability.



**Transfer cases and power transfer units** often have small internal volumes and are required to withstand high temperature differentials. These design requirements dictate the airflow necessary to quickly equalize internal pressure. The Series: AVS 41 addresses this requirement while also protecting sensitive fluids and components from harmful environmental contaminants such as dust, mud, sand, and water.



**Axles and limited-slip couplings** are often located near road-level and can be subjected to harsh environmental conditions and suspension vibration. They must perform reliably under rigorous operating conditions including: towing, water submersion, ice, mud, and weather extremes. Traditional venting approaches to protect these components such as custom, long-tube assemblies or pressure-building spring-loaded vents often have shortcomings that can compromise reliability. The Series: AVS 41 is engineered not only to reliably equalize pressure in these conditions, but also provide internal fluid and component protection from outside contamination extending lifetime.



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