

Venting and ingress protection for electrified and traditional powertrain components

Venting for Protection

As packaging constraints push e-drivetrain components closer to the road surface, they are more frequently challenged by – and more vulnerable to – extremes of weather, submersion or contaminants like water, dirt, dust and debris. To maintain component reliability requires a high-performance venting solution.

For high performance in a compact, rugged design, rely on GORE® Automotive Vents for Drivetrain & Driveline Components (Series AVS 41/Product Number VE2048). These vents offer a single solution to multiple challenges in designing, validating, installing and protecting both electrified and traditional powertrain components.

A Single Solution with Multiple Benefits

Improve component reliability

Unlike other methods, our venting performance can enhance component reliability. Gore's Series AVS 41 (VE2048) has an integrated membrane that effectively blocks contaminants – like water, dust and dirt – that can degrade the performance of oil-cooled e-motors and other e-drivetrain components. The integrated pre-filter protects the membrane from internal oil aerosol that would quickly degrade a standard membrane vent.

Preserve seal integrity

At the heart of these vents is our breathable GORE Membrane: It equalizes pressures under both normal and extreme operating conditions, to avert stress on seals.

Meet global OEM standards

Tests prove Gore's Series AVS 41 (VE2048) delivers performance that complies with OEM standards including water wading, vehicle rollover and fluid containment.

Streamline validation and reduce design cycles

These waterproof vents can eliminate vent-related wading test "fails" and associated engineering redesign time.

Global support resources

Every GORE® Automotive Vent is backed by our global network that includes deep expertise in materials technology and worldwide application support capabilities





Product Information

| Product name (order number for samples) | AVS 41 |
|---|--------|
| Order number (order number for series production) | VE2048 |

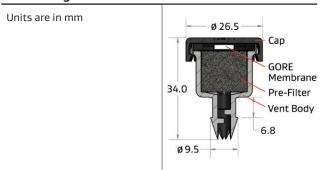
Product performance characteristics

| - rouses periodical and accompany | |
|--|--|
| Minimum airflow (per part) at 70 mbar (1 psi) | 64 l/h |
| Water Entry Pressure (assembly) | > 345 mbar (> 5.0 psi) for 60 seconds |
| Operating temperatures | -40 °C to +125 °C |
| Membrane characteristic | Hydrophobic and oleophobic |

Materials of construction

| Cap material | PA6.6 Impact modified |
|-----------------|--------------------------------|
| Body material | PA6.6 – GF33 |
| Membrane type | GORE Membrane oleophobic ePTFE |
| Pre-filter type | Sorbent |

Vent design and dimensions



Typical Applications



Traditional components:

- Transfer Case
- Power Transfer Unit
- Solid Beam
- Rear/Front Drive Module

E-Drivetrain:

- e-Axles
- · Oil-Cooled e-Motor

Vent Positioning and Installation

These rugged tube-mount vents are compact and easy to install. To ensure successful integration of these vents, several design considerations must be addressed. Contact your local Gore representative for guidance and additional design details



Learn more here:

<u>GORE[®] Automotive Vents for Drivetrain and Driveline</u> <u>Components</u>

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