GORE® Automotive Vents for Powertrain

Screw-In Type,

VE2048M16



ADVANCED VENTING FOR ENHANCED PROTECTION AND LIFETIME

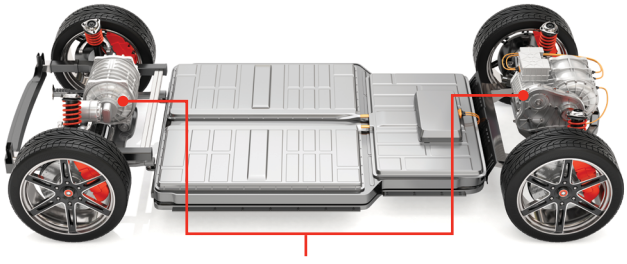
Next-Generation Powertrain Vent: Screw-In Type, VE2048M16

Venting for Protection

Electrified powertrain components require reliable protection — not only from external road-level contaminants like water and debris, but also from internal oil-rich aerosols generated by rotating gears, shafts, motors and high-voltage systems.

The next-generation GORE® Automotive Vents for Powertrain, VE2048M16 offers robust protection with screw-in interface engineered to meet these challenges head-on both for electrified and traditional powertrain components.

Typical Applications



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

E-Drivetrain:
- e-Axles
- Oil-Cooled e-Motor

The Gore Advantage

- **Improve component reliability**
  The GORE Membrane protects oil-cooled e-motors and other e-drive components from damaging external environmental contaminants, while Gore's highest-capacity pre-filter technology protects the Membrane from internal oil aerosols, potentially extending vent life.
- **Preserve seal integrity**
  Even under extreme operating conditions, the higher airflow in our breathable GORE Membrane allows for even better pressure equalization to reduce stress on seals.
- **Meet global OEM standards**
  Our vents' performance complies with OEM standards for water wading 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 network and local support**
  Every GORE® Automotive Vent is backed by our global network, materials technology expertise and application support.

Together, improving life

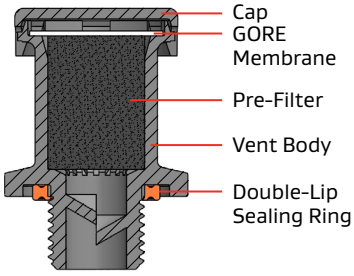
About Gore's Screw-in Powertrain Vents, VE2048M16

- Highest pre-filter capacity in Gore's portfolio enables the longest venting life.
- Higher airflow than our standard vents.
- Easy screw-in integration with a smaller thread size allowing for a smaller protrusion through the component housing.
- Replaceable for post installation quality checks when needed.

Structure of Gore's Screw-In Powertrain Vent, VE2048M16



TOP VIEW



SECTION VIEW



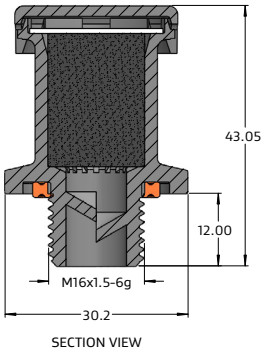
Item number	
Item number (order number for series production)	**VE2048M16**
Sample number (order number for samples)	**SMPL-VE2048M16**

Product performance characteristics	
Minimum airflow (per part) at 70 mbar (1 psi)	1500 ml/min
Water Entry Pressure (assembly)	> 345 mbar (> 5.0 psi) for 60 seconds
Ingress Protection (IP)	IPX9K, IPX6K, IPX8, IPX4, IP6KX
Operating temperatures	– 40 °C to +125 °C, +145 °C for 48 hrs
Membrane characteristic	Hydrophobic and oleophobic

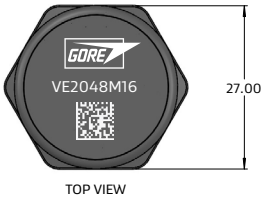
Materials of construction	
Cap material	Polyamide 6.6 GF30
Body material	Polyamide 6.6 GF30
Membrane type	GORE Membrane oleophobic ePTFE
Pre-filter material	Polymer fiber
O-ring seal	HNBR

Vent design and dimensions

Units are in mm



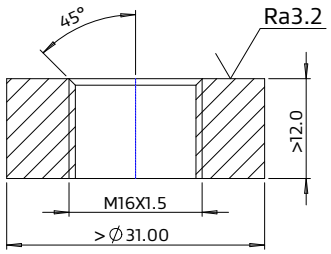
SECTION VIEW



TOP VIEW

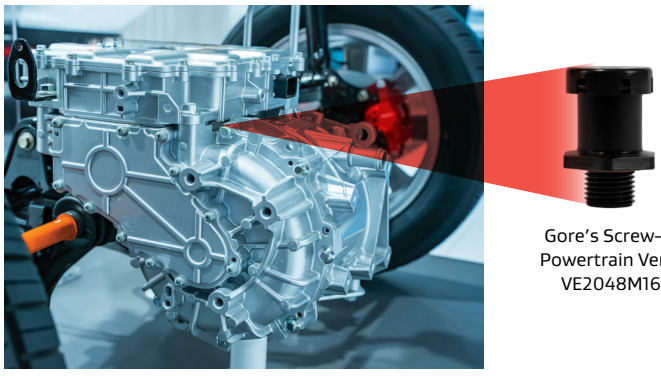
Vent positioning, installation and tolerances

For full details on integrating these vents into your components, ask your representative for the **Design and Installation Guidelines for Gore Powertrain Vents**.



Recommended component interface to maintain ingress protection. (Interface shown above was tested using aluminum housing material.)

Contact your Gore representative to request the complete **Design and Installation Guidelines for Gore Powertrain Vents**



Gore's Screw-In Powertrain Vent, VE2048M16

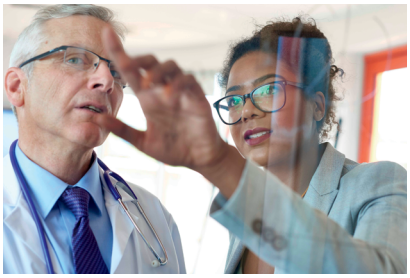
Use Torque-Controlled Installation

During installation, it's essential to use a wrench to keep installation torque — and the related stress on the O-ring — within the recommended range. **Gore-Recommended Torque: 5.5Nm+0.5/-0.5**

Gore has done all of durability tests with this mounting surface and installation torque. And all vents have passed.

Learn more

Contact your Gore representative or connect with us at GORE® Automotive Vents for Powertrain.



A materials science company dedicated to transforming industries and improving lives

About Gore

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Learn more at gore.com

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