GORE® Automotive Vents
for screw-in and snap-fit installation



INCREASE DURABILITY AND PERFORMANCE OF AUTOMOTIVE ELECTRONICS

Choose rugged GORE® PolyVents for screw-in and snap-fit installation to help improve the reliability and longevity of automotive electrical and electronic modules (EEMs), including those used in high-voltage applications. These durable, easy-to-integrate vents rapidly equalize pressure imbalances and provide sustained protection against water, automotive fluids, salts, dirt and mud.

GORE® Automotive Vents for screw-in installation

For power control units, converters, inverters, on-board chargers, ISGs, and e-axles/traction motors

- Can be removed for component maintenance
- UL94 V-0 rated housing and o-ring
- IPx9k rating — no protective wall needed
- For 3.0 mm housing walls with a counter nut, or 5.0 mm walls without a counter nut.

Standard Series: withstands typical automotive fluids and continuous temperatures up to 125 °C.

High Airflow Series: has 8x the typical airflow of our Standard Series, for very large components/electric motors/batteries for hybrids.

Both screw-in and snap-fit formats offer an independently-certified "Cleanliness Protected" (CP) option.

Ask us how that can help in high-voltage or ADAS applications, or anywhere you need to meet OEM Technical Cleanliness requirements.

GORE® Automotive Vents for snap-fit installation

For controllers, sensors/actuators, motors and hybrid/electric components.

- Secure, permanent installation
- UL94 HB rated housing and o-ring
- Chamfered through-hole
- IPx9k rating with a protective wall
- For 3.5–4.0 mm thick housing walls

Standard Series: withstands typical automotive fluids and continuous temperatures up to 125 °C.

High Temperature Series: for long-lasting resistance to chemicals and mineral oils even after extended exposure to temperatures up to 150 °C.

High Airflow Series: has 5x the typical airflow of our Standard Series, for very large components/electric motors/batteries for hybrids.

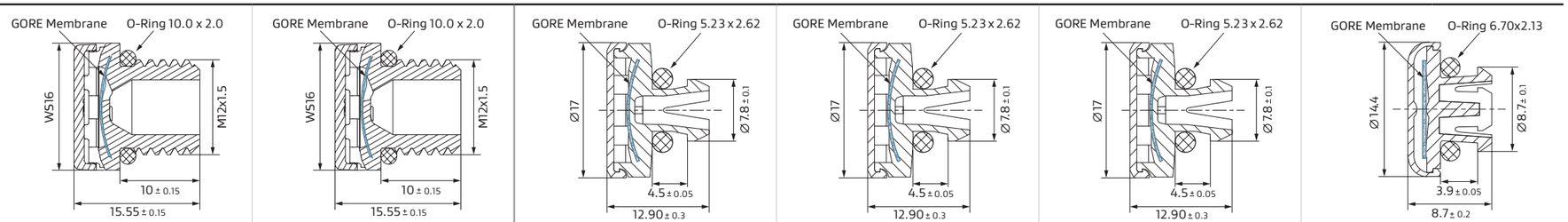
Compact Series: robust protection in a low-profile design, for extremely small components. Scannable Digital Matrix Code (DMC) for 100% airflow check and enhanced traceability.

Together, improving life

	Screw-In Standard Series	Screw-In High Airflow Series	Snap-Fit Standard Series	Snap-Fit High Temperature Series	Snap-Fit High Airflow Series	Snap-Fit Compact Series	
Product Name (order number for samples)	**AVS 1190**	**AVS 1191**	**AVS 14**	**AVS 67**	**AVS 70**	**AVS 200**	**AVS300FG**
Product Number (order number for series production)	AMF301190	AMF301191	AMF300114	AMF300167	AMF300070	AMF300200	AMF300300
							
Product Performance Characteristics							
Minimum Water Entry Pressure (WEP)[1] at standard ambient temperature and pressure	≥ 60 kPa/30 sec	> 20 kPa/30 sec	> 60 kPa/30 sec	> 60 kPa/30 sec	> 30 kPa/30 sec	> 80 kPa/60 sec	
Minimum/Maximum Airflow (by conversion to the normalized state 0 °C, 1013 hPa)	Minimum: > 15 l/h at 7 kPa Maximum: < 60 l/h at 7 kPa	Minimum: > 205 l/h at 7 kPa Maximum: < 520 l/h at 7 kPa	Minimum: > 15 l/h at 7 kPa Maximum: < 60 l/h at 7 kPa	Minimum: > 15 l/h at 7 kPa Maximum: < 60 l/h at 7 kPa	Minimum: > 105 l/h at 7 kPa Maximum: < 260 l/h at 7 kPa	Minimum: > 15 l/h at 7 kPa Maximum: < 45 l/h at 7 kPa	
Typical Airflow (by conversion to the normalized state 0 °C, 1013 hPa)	~ 35 l/h at 7 kPa	~ 285 l/h at 7 kPa	~35 l/h at 7 kPa	~35 l/h at 7 kPa	~160 l/h at 7 kPa	~28 l/h at 7 kPa	
Ingress Protection (IP)	• IP68 (1 m for 1 h) • IPX6K, IPX9K	• IP68 (1 m for 1 h) • IPX6K • Depending on housing geometry: IPX9K	• IP68 (1 m for 1 h) • Depending on housing geometry: IPX6K, IPX9K	• IP68 (1 m for 1 h) • Depending on housing geometry: IPX6K, IPX9K	• IP68 (1 m for 1 h) • Depending on housing geometry: IPX6K	• IP68 (1 m for 1 h) • Depending on housing geometry: IPX6K, IPX9K	
Operating temperatures	Tmin = -40 °C Tmax = +125 °C	Tmin = -40 °C Tmax = +125 °C	T_{min} = -40 °C T_{max} = +125 °C (+140 °C for max 168 hrs)	T_{min} = -40 °C T_{max} = +150 °C	T_{min} = -40 °C T_{max} = +125 °C	T_{min} = -40 °C T_{max} = +140 °C	
Membrane characteristic	Hydrophobic and oleophobic	Hydrophobic and oleophobic	Hydrophobic and oleophobic	Hydrophobic and oleophobic	Hydrophobic and oleophobic	Hydrophobic and oleophobic	
Housing material	Polyamide (PA66+PA6 Blend)	Polyamide (PA66+PA6 Blend)	PBT-I-GF30 hydrostabilized	PBT-I-GF30 hydrostabilized	PBT-I-GF30 hydrostabilized	PBT-I-GF30 hydrostabilized	
O-ring material	Silicone	Silicone	EPDM 40 IRHD-M	Silicone 50 IRHD-M	EPDM 45 IRHD-M	Silicone 50 Shore A	
O-ring color	Dark gray	Dark gray	Black	Red	Black	Red	
Laser marking for increased traceability	Yes	Yes	Yes	Yes	Yes	Yes	

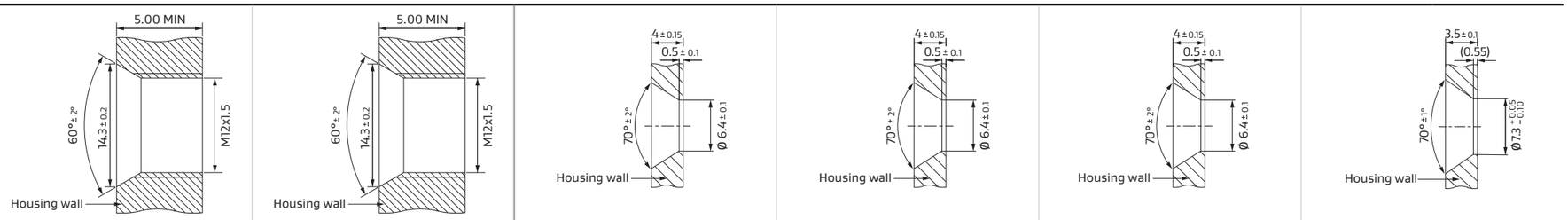
Design & Dimensions

Units are in mm



Recommended Installation

Please contact your Gore representative for more detailed installation drawings.



1. WEP (Water Entry Pressure) Resistance: WEP Resistance measures how much pressurized water a membrane can withstand before it leaks.

Environmental Performance

GORE® Automotive Vents for screw-in and snap-fit installation have been extensively tested according to the following performance standards. Please contact your Gore representative for more detailed information.

Thermal Shock Resistance Test

Vent durability under changing temperature conditions

METHOD: ISO 16750-4

TEST CONDITIONS:
- cycling temperatures between T_{min} and T_{max} within 30 seconds
- 30 minutes conditioning at each temperature
- minimum 500 cycles

Ice-Water-Shock Resistance Test

(not applicable for AMF300070)

Vent resistance to repeated thermal shock by submersion in ice water

METHOD: ISO 16750-4

TEST CONDITIONS:
- heating to T_{max} for 60 minutes
- rapid submersion in 5% NaCl ice water for 5 minutes
- 20 cycles

Climate Resistance Test

Vent durability in hot, humid environments

METHOD: DIN-EN-60068-2-67

TEST CONDITIONS:
- 85 °C temperature
- 85% relative humidity
- 1,000 hours

Vibration and Mechanical Shock Resistance Test

Vent performance after exposure to mechanical shocks at various temperatures

METHOD: ISO 16750-3

Product performance depends on sinusoidal and temperature profile, pulse shape and duration, number of shocks and peak acceleration. Compact Series meets the harshest severity levels.

Fluid Resistance Test

Vent protection against typical automotive chemical loads

METHOD: ISO 16750-5

Product performance depends on application method (i.e., cotton cloth, brush, spray, immersion, pouring) and the specific contaminant applied.

Temperature Resistance Test

Vent durability under high and low temperature conditions

METHOD: ISO 16750-4

TEST CONDITIONS:
- T_{max} for 2,000 hours
- T_{min} for 168 hours

Salt Spray Resistance Test

Vent resistance to salt, water and mist over an extended period

METHOD: DIN EN 60068-2-11

TEST CONDITIONS:
- Profile Ka

Contact Us

To discuss options and solutions for your newest application, call your local Gore representative or send your inquiry from our website: **gore.com/autovents**

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