Water, dust, dirt, cleaning agents and most oils are repelled by the oleophobic membrane, thereby protecting expensive and sensitive electronics.

The free-flow of gases makes **GORE**

TM

Membrane Vents indispensable when it comes to designing a water proof battery powered device. By allowing hydrogen gas to diffuse through the membrane vent, the concentration of hydrogen inside the case is kept below potentially explosive levels.

With over 50 million vents installed worldwide in automotive and electronic applications, **GORE**

TM

Membrane Vents are proven to be a reliable, rugged and cost effective solution.

Water proof and dust proof to IP69K, protecting sensitive electronics.

High airflow allows pressure equalization to prevent stress on enclosure seals, ultimately lowering enclosure design and manufacturing costs.

Water and oil repellant ePTFE membrane is inert, non-shedding, chemically resistant, UV resistant and enclosed in a tough polyamide housing to ensure a long trouble-free service life even in extreme conditions.

The microporous structure of the ePTFE membrane even keeps salt crystals from passing, minimizing electrical malfunctions caused by salt corrosion.

Moisture vapor permeable to help aid in condensation and fogging reduction.

Screw-in housing for easy installation.

**GORE**

TM

Membrane Vents are designed to enhance the ingress protection (IP) of gasketed enclosures. The microporous expanded polytetrafluoroethylene (ePTFE) membrane continuously allows the free passage of gases and vapors, equalizing the pressure differential between the enclosure and ambient before it builds to the point that a seal is compromised.

Hermetically sealing and potting are excellent sealing methods, but they make board level repairs or board swaps impossible. Gasketed enclosures provide the serviceability, but getting a water-tight housing and seal design can be difficult, especially in applications that will see thermal or altitude cycling.

**GORE**

TM

Membrane Vents incorporate the unique **GORE-TEX** expanded PTFE membrane from the world leaders in ePTFE technology, W. L. Gore & Associates.
**Membrane Characteristic** (AATCC 118-1989ASTM)
Hydrophobic and Oleophobic
Oil Rating 6
Water entry pressure of the membrane ≥ 0,6 bar/ 60 sec

**Ingress Protection class of the installed POV/M12x1**
IP65 - Waterjets
IP67 - 1 meter water submersion for 30 minutes
IP69K - High pressure spray

**Moisture Transfer Rate (typical value) 0,036 g/ 24h**
Temperature 20°C
Test Chamber 100% r.H.
Environment 45% r.H.

**Temperature Resistance (DIN IEC 68-2-14, Na)**
Cycle test
Cycles 400
\[ T_{dwell} = 20 \text{ min, } t_{change} < 10 \text{ sec.} \]

POV/ M12x1 vents are designed for service temperature range of -40°C to 125°C.

**UV and Climate Resistance**
Industrial climate test (DIN 50-0-18)  Test criteria SFW 2.0 S Cycle 9
UV and climate resistance: other than a little yellowing of the top surface, no significant change in mechanical characteristics.

**Salt Spray Test (DIN 50-0-21)**
No penetration of salt crystals through the membrane into the housing. Maximum applied torque: 0.6 – 0.8 Nm

**85/ 85 Storage Test (DIN IEC 60068-2-1: 85°C, 85% r.H. dwell time 1000 hours)**
No significant change in mechanical characteristics.

**Available Designs**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Plastic</th>
<th>Color</th>
<th>O-Ring</th>
<th>Typical Airflow @ dp = 70mbar in ml/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMF100318</td>
<td>PA6 GF10 / UL-V0</td>
<td>Black</td>
<td>Silicone 50° Shore A / UL-V0</td>
<td>400</td>
</tr>
<tr>
<td>PMF100319</td>
<td>PA6 GF10 / UL-V0</td>
<td>Gray</td>
<td>Silicone 50° Shore A / UL-V0</td>
<td>400</td>
</tr>
</tbody>
</table>

For customized design please contact us

---

Note: The optimal performance of any GORE™ Membrane Vent is dependent on how it is handled and incorporated into the final product. This includes such elements as the device design, sealing method and assembly method. While Gore is able to provide general guidelines based upon our experience with the GORE™ Membrane Vent, it is ultimately the responsibility of the device manufacturer to validate each product and its performance for its intended electronic application. Contact one of our technical sales associates today for assistance in determining the best GORE™ Membrane Vent for your specific electronic application. Specifications are subject to change without notice.

GORE-TEX®, Gore® and designs are registered trademarks of W. L. Gore & Associates. All rights reserved. © Copyright 2002