Take a proactive approach to water ingestion with the market’s first connected and most accurate breather.

- Longer Breather Life
- Improved Safety
- Shorter Lube Routes
- Proactive Diagnostic Tool
- Access Data Anywhere
Overview

Extended Series Breathers:
Typical Industries

- Wind Energy
- Storage
- Pulp & Paper
- Mining
- Aviation
- Manufacturing
- Petrochemical

Welcome to the Future
IsoLogic™ Sensor Technology adds value to any reliability program by detecting and recording spikes in humidity and water ingress.

Unlike any breather on the market, IsoLogic has eliminated the subjectivity of color-changing desiccant media, allowing you to know the exact moment your breather is fully spent and should be replaced. Shorten time-consuming, scheduled lube routes and decrease the risk of workplace injuries by monitoring breathers installed on remote or hard-to-access equipment.

Whether you’re on a plane, in the office or at home, view all breather statuses and trend data on the web platform from anywhere, anytime. All you need is the internet.

By the Numbers:

1-Sensors
Measures critical values to calculate the remaining breather life, temperature and saturation direction

2-Detachable Module
Calculates the remaining breather life, temperature and saturation direction and stores breather data

3-Threaded Mounting
Internal threads provide durability and stability and can be used with one of several adapters.

4-Recessed Check-Valves
High-quality umbrella check-valves that won’t clog or stick are recessed underneath the unit for added protection from washdown environments. Check-valves isolate equipment from ambient conditions, prolonging breather life.

5-Filter Element
Polyester filter element removes airborne contamination to 3-micron absolute. Unique loops allow particles to release during system exhalation, helping to increase breather life.

6-Resilient Polycarbonate Body
Shock-absorbing, clear casing provides reliable service and easy maintenance.

7-Water Adsorbent
Silica gel adsorbs water from incoming air and can hold up to 40% of its weight. Condition is indicated by change of color from blue to light pink.

8-Secondary Filter Element
Second polyester filter element protects against migration of desiccant dust, providing maximum efficiency.

9-Foam Pad
Foam filter captures any oil mist and disperses incoming air evenly over filtration and drying areas.
Breather Specifications

Materials & Components:
Filter Media: Polyurethane, polyester
Hydrophilic Agent: Silica gel
All Other Materials: Polycarbonate, nylon, polypropylene, PVC, Buna-N, silicon, EPDM

Filter Efficiency:
(3 micron absolute ($\beta_{0.3} \geq 200$)

Recommended Temperature Range:
-4°F to 129°F
-20°C to 54°C

Chemical Compatibility:
Recommended:
All Gear Oil
Most Hydraulic Fluid
Mineral & Synthetic Oil

Not Recommended:
Hydrogen Sulfide
Sulfuric Acid
Highly Alkaline Cleaners

Measurements:

<table>
<thead>
<tr>
<th>Breathers</th>
<th>Height (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-IL-EX-4</td>
<td>10.0in/254mm</td>
</tr>
</tbody>
</table>

Airflow:

Water Absorption Capacity:
Size  Maximum Water Retention
DC-IL-EX-4  27.0fl. oz./798ml

Sizing Recommendations:

<table>
<thead>
<tr>
<th>Model</th>
<th>Max. Airflow at 1psid</th>
<th>Recommended Max. Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Gearbox/Storage Tank</td>
</tr>
<tr>
<td>DC-IL-EX-4</td>
<td>24cfm/680lpm</td>
<td>1000gal/3785L</td>
</tr>
</tbody>
</table>

Dimensions & Connections:

<table>
<thead>
<tr>
<th>Model</th>
<th>Connection</th>
<th>lbs of Desiccant</th>
<th>Shipping Weight (unit/case)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-IL-EX-4</td>
<td>1&quot; Female (FNPT)</td>
<td>4.2lb/1.91kg</td>
<td>6.5lbs/40lbs/2.95kg/18.14kg</td>
</tr>
</tbody>
</table>
Module Specifications

Module Materials & Components:
- Casing: Polycarbonate, Steel (ball plunger)
- Cap: Thermoplastic elastomers (TPE), Steel (screws)
- Circuit Board: LED lights, FR4 Fiberglass
- Batteries: 1.5V alkaline AAA (Manganese Dioxide, Zinc, Potassium Hydroxide, Graphite)

Module Battery & Power:
- Supply Source: Three AAA Batteries (each rated 1.5 V d.c., Max 1200 mAh)
- Supply Voltage: 4.5 V d.c.
- Operational Current Rating: 30 mA
- Life Expectancy: 2 years (use and temperature dependent)

Module Environment:
- Intended for indoor and outdoor use
- Altitude up to 5,000 meters
- Maximum Relative Humidity: 100% at up to 54°C
- Dustproof / Waterproof (IP66)
- Hazardous Ratings: Not rated for hazardous locations
- FCC, CE, Reach

Wireless Syncing:
- 2402.0 - 2480.0 MHz Bluetooth 4.0 Low Energy
- 13.56 - 13.56 MHz RFID
- Communication Range: 100ft (30m) line of sight

Device Compatibility:
- Android
  - Bluetooth 4.0 and higher
  - Android OS 5.0 and higher
- Apple
  - iOS 10.0 and higher

Data Storage:
- Data readings every 60 minutes
- Stores 365 days of hourly data points

App Download:
CONDITION MONITORING

VentGuard™ Breathers featuring IsoLogic™ Sensor Technology

Take a proactive approach to water ingestion with the market’s first connected and most accurate breather.

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Overview

VentGuard™ Breathers
featuring IsoLogic™ Sensor Technology:

Typical Industries
- Automotive
- Aviation
- Food & Beverage
- Pulp & Paper
- Manufacturing
- PetroChemical
- Steel
- Storage

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1-Sensors
Measures critical values to calculate the remaining breather life, temperature and saturation direction

2-Detachable Module
Calculates the remaining breather life, temperature and saturation direction and stores breather data

3-Threaded Mounting
Easily replaces standard filler/breather cap with multi-fit connection or one of several adapters.

4-Recessed Check-Valves
High-quality umbrella check-valves that won’t clog or stick are recessed underneath the unit for added protection from washdown environments. Check-valves isolate equipment from ambient conditions, prolonging breather life.

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Specifications

Breather Materials & Components:
Filter Housing: Polycarbonate, nylon, polypropylene, Buna-N, silicone
Filter Media: Polyurethane, polyester
Hydrophilic Media: Silica gel

Filter Efficiency:
(5μ absolute (β_{200}≥200)

Recommended Temperature Range:
-4°F to 129°F
-20°C to 54°C

Chemical Compatibility:
Recommended:
All Gear Oils
Most Hydraulic Fluids
Mineral & Synthetic Oil

Not Recommended:
Phosphate Ester
Hydrogen Sulfide
Sulfuric Acid
Highly Alkaline Cleaners

Breather Sizing Recommendations:

<table>
<thead>
<tr>
<th>Model</th>
<th>Max. Airflow at 1psid</th>
<th>Recommended Max. Volume Gearbox/Storage Tank</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-IL-VG-1</td>
<td>1.45cfm/41lpm</td>
<td>35gal/132L</td>
</tr>
<tr>
<td>DC-IL-VG-4</td>
<td>2.98cfm/84lpm</td>
<td>500gal/1893L</td>
</tr>
</tbody>
</table>

Breather Water Adsorption Capacity:

<table>
<thead>
<tr>
<th>Size</th>
<th>Maximum Water Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-IL-VG-1</td>
<td>50ml / 1.68fl. oz</td>
</tr>
<tr>
<td>DC-IL-VG-4</td>
<td>353ml / 11.3 fl. oz</td>
</tr>
</tbody>
</table>

Breather Dimensions & Connections:

<table>
<thead>
<tr>
<th>Model</th>
<th>Connection</th>
<th>Unit Height</th>
<th>Unit Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-IL-VG-1</td>
<td>⅜” Multi-Fit (NPT, BSPP, BSPT)</td>
<td>5.35in</td>
<td>2.5in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13.5cm</td>
<td>6.4cm</td>
</tr>
<tr>
<td>DC-IL-VG-4</td>
<td>1” Multi-Fit (NPT, BSPP, NPSM)</td>
<td>10in</td>
<td>4.1in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25.7cm</td>
<td>10.2cm</td>
</tr>
</tbody>
</table>

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Casing: Polycarbonate, Steel (ball plunger)
Cap: Thermoplastic elastomers (TPE), Steel (screws)
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Android
Bluetooth 4.0 and higher
Android OS 5.0 and higher
Apple
iOS 10.0 and higher

Data Storage:
Data readings every 60 minutes
Stores 365 days of hourly data points

App Download:
Specifications

Breather Height:

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-IL-VG-1-R</td>
<td>5.35 in / 13.5 cm</td>
</tr>
<tr>
<td>DC-IL-VG-4-R</td>
<td>10 in / 25.7 cm</td>
</tr>
</tbody>
</table>

DC-IL-VG-1 / DC-IL-VG-1-R Flowrate (cfm)

DC-IL-VG-4 / DC-IL-VG-4-R Flowrate (cfm)

<table>
<thead>
<tr>
<th>Model</th>
<th>Max Flow Rate (cfm)</th>
<th>Max Flow Rate (lpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-IL-VG-1-R</td>
<td>1.45 at 1 psid</td>
<td>41.06</td>
</tr>
<tr>
<td>DC-IL-VG-4-R</td>
<td>1.8 at 1 psid</td>
<td>50.9</td>
</tr>
</tbody>
</table>

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