

CONDITION MONITORING

Extended Series[®] Breathers

featuring IsoLogic™ Sensor Technology

Take a proactive approach to water ingress 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.

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 ($\beta_3 \geq 200$))

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

Sizing Recommendations:

Model	Max. Airflow at 1psid	Recommended Max. Volume	
		Gearbox/Storage Tank	Hydraulic Reservoir
DC-IL-EX-4	24cfm/680lpm	1000gal/3785L	400gal/1514L

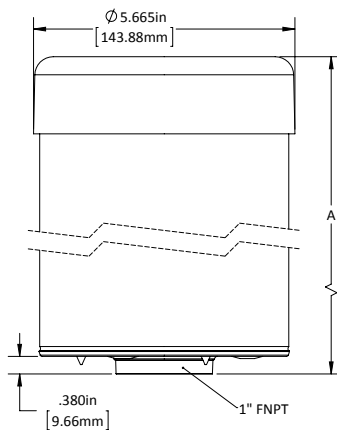
Water Absorption Capacity:

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

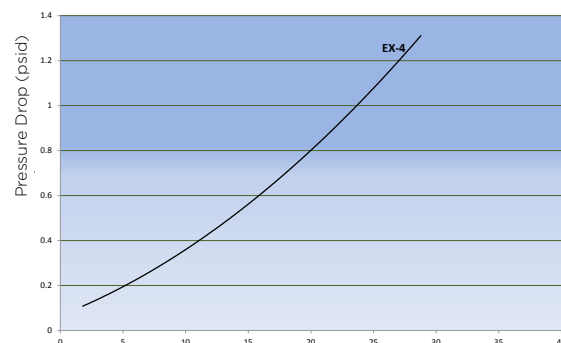
Dimensions & Connections:

Model	Connection	lbs of Desiccant	Shipping Weight (unit/case)
DC-IL-EX-4	1" Female (FNPT)	4.2lb/1.91kg	6.5lbs/40lbs 2.95kg/18.14kg

Measurements:



Airflow:



Breathers	Height (A)
DC-IL-EX-4	10.0in/254mm

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

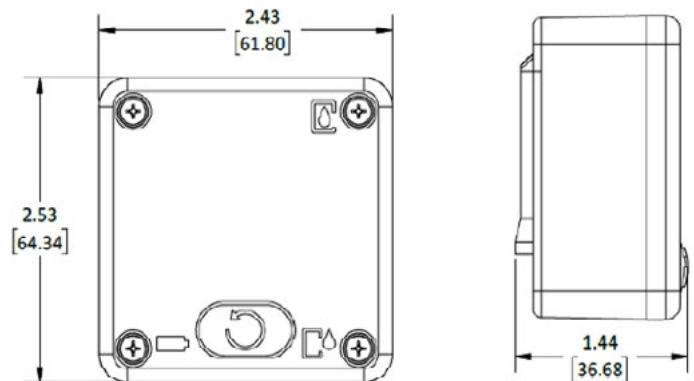
Bluetooth 4.0 and higher
Android OS 5.0 and higher

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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- Improved Safety
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Overview

VentGuard™ Breathers

featuring IsoLogic™ Sensor Technology:

Typical Industries

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

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

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.

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.

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Filter Housing: Polycarbonate, nylon, polypropylene, Buna-N, silicone

Filter Media: Polyurethane, polyester

Hydrophilic Media: Silica gel

Filter Efficiency:

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Most Hydraulic Fluids

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Not Recommended:

Phosphate Ester

Hydrogen Sulfide

Sulfuric Acid

Highly Alkaline Cleaners

Breather Sizing Recommendations:

Model	Max. Airflow at 1psid	Recommended Max. Volume
		Gearbox/Storage Tank
DC-IL-VG-1	1.45cfm/41lpm	35gal/132L
DC-IL-VG-4	2.98cfm/84lpm	500gal/1893L

Breather Water Adsorption Capacity:

Size	Maximum Water Retention
DC-IL-VG-1	50ml / 1.68fl. oz
DC-IL-VG-4	353ml / 11.3 fl. oz

Breather Dimensions & Connections:

Model	Connection	Unit Height	Unit Width
DC-IL-VG-1	3/8" Multi-Fit (NPT, BSPP, BSPT)	5.351in	2.5in
		13.5cm	6.4cm
DC-IL-VG-4	1" Multi-Fit (NPT, BSPP, NPSM)	10in	4.1in
		25.7cm	10.2cm

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)

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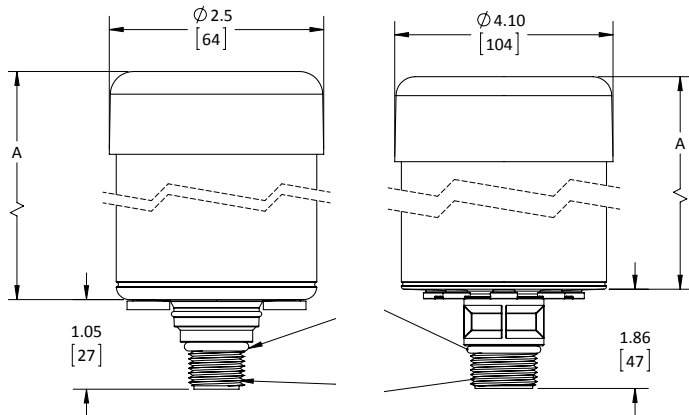
App Download:



Specifications

DC-IL-VG-1-R

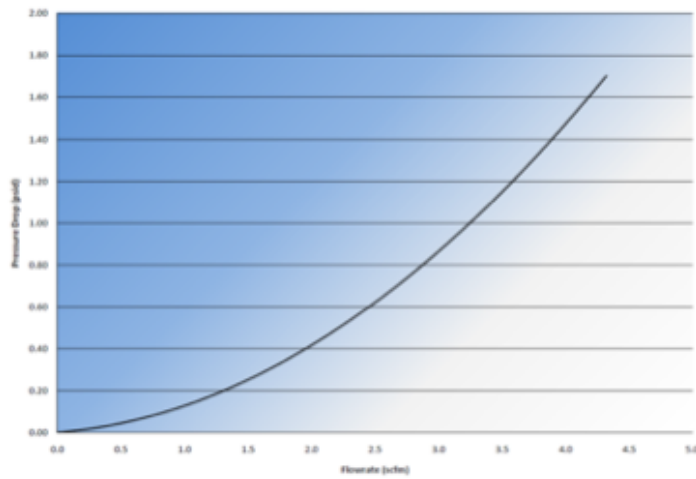
DC-IL-VG-4-R



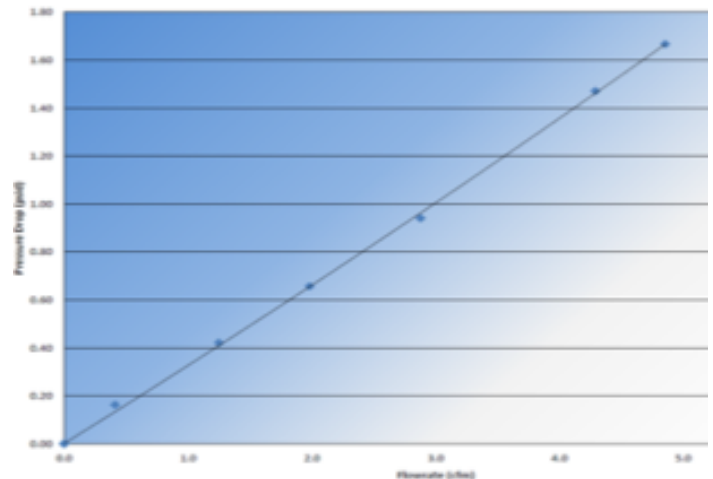
Breather Height:

Model	A
DC-IL-VG-1-R	5.35 in / 13.5 cm
DC-IL-VG-4-R	10 in / 25.7 cm

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



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



Model	Max Flow Rate (cfm)	Max Flow Rate (lpm)
DC-IL-VG-1-R	1.45 at 1 psid	41.06
DC-IL-VG-4-R	1.8 at 1 psid	50.9

