

# CONDITION MONITORING:

## VentGuard™ 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

# The 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.

#### 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.

## 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.



# Technical Specs

## Breather Materials & Components:

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

Filter Media: Polyurethane, polyester

Hydrophilic Media: Silica gel

## Filter Efficiency:

( $\beta_{0.5}$  absolute ( $\beta_{0.5} \geq 200$ ))

## 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:

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 13.5cm	2.5in 6.4cm
DC-IL-VG-4	1" Multi-Fit (NPT, BSPP, NPSM)	10in 25.7cm	4.1in 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)

## 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, RoHS

## 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

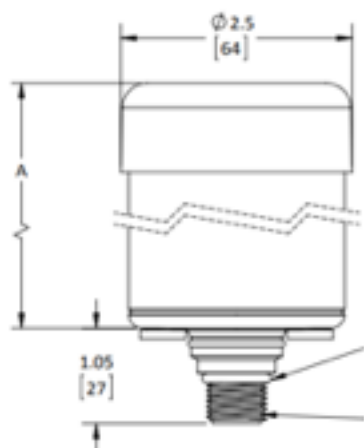
Stores 365 days of hourly data points

## App Download:

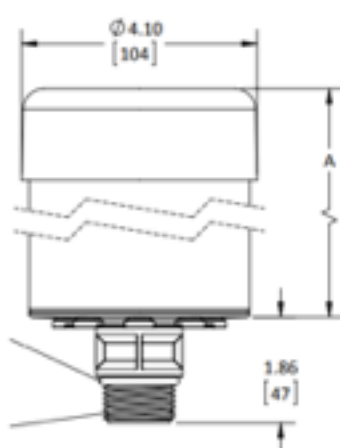


# CHARTS & GRAPHS

DC-IL-VG-1-R



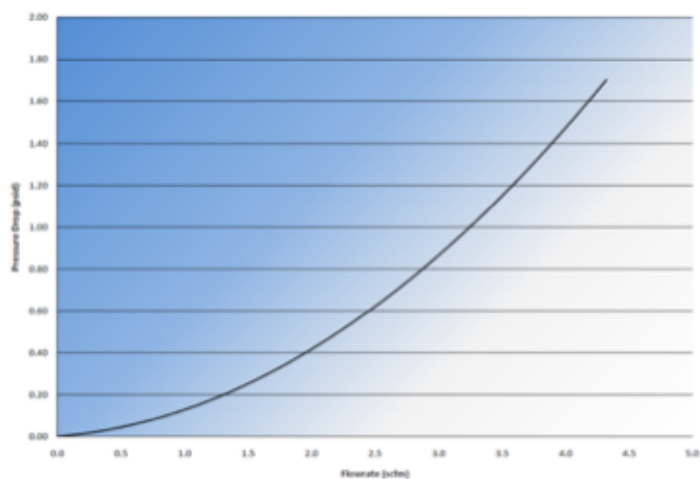
DC-IL-VG-4-R



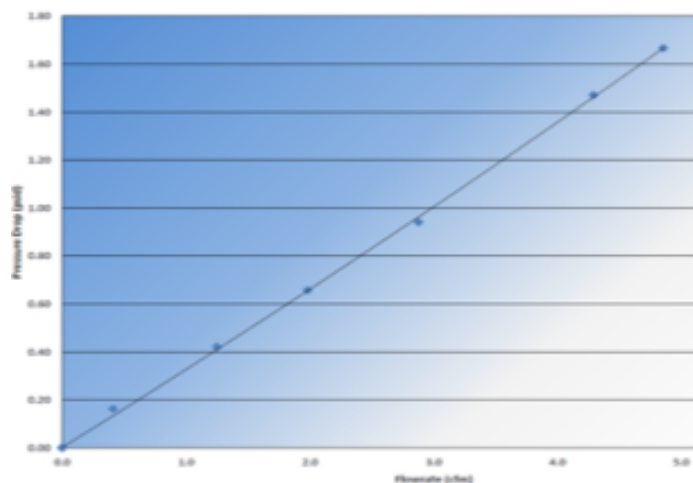
## Breather Height:

Model	A
DC-IL-VG-1-R	0.28 lbs / 0.127 kg
DC-IL-VG-4-R	1.88 lbs / 0.85 kg

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

