

Single Column Breather

Streamlined Design – Robust, Quality Construction

Our new Single Column Breather is the economical solution for all your breather needs! Using the same technology as our proven dual column design, this breather efficiently dehydrates the air coming into your transformer then regenerates the desiccant while the transformer is not “inhaling,” thereby keeping moisture out.



Customer Configurable

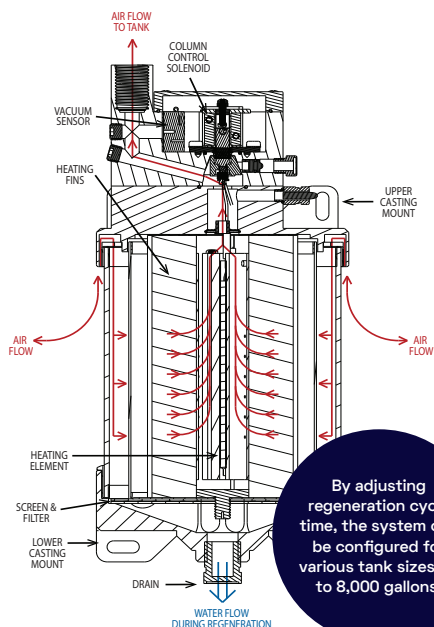
SEE BACK SIDE FOR PART NUMBER CONFIGURATION TOOL.

VACUUM SWITCH TECHNOLOGY WITH SELF-LEARNING FIRMWARE

Breathers have a long history and serve a critical role in the health of a transformer. First generation breathers required routine replacement of silica gel to provide dry air, increasing maintenance expense.

Next generation breather design provided silica gel regeneration, using heat to dry out the silica. The challenge then is to prevent free-breathing during regeneration, which could introduce moist air into the transformer or LTC oil.

Our single column breather utilizes vacuum switch technology to sense when the transformer is inhaling, ensuring that moist air is not introduced into the oil. If this interruption occurs, the control firmware “teaches” the breather to shift the next regeneration to an ideal time.



By adjusting regeneration cycle time, the system can be configured for various tank sizes up to 8,000 gallons.

A vertical mounted latching solenoid in the breather will not overheat the electronics inside and ensures that the airflow stops when regeneration of the silica is safe.

To avoid condensation damage to the internals of the breather, the Single Column Breather is designed with a straight-through air path with no catch basins for condensate to accumulate.

SINGLE COLUMN BREATHER FEATURES

Construction

- Sealed/Latching solenoid for improved reliability
- Aluminum and stainless steel construction for durability
- Borosilicate glass globes resist weather-related etching
- Sealed, super bright 10,000 mcd LED indicators on control box provide easy visual indication of breather status, even in direct sunlight

Performance

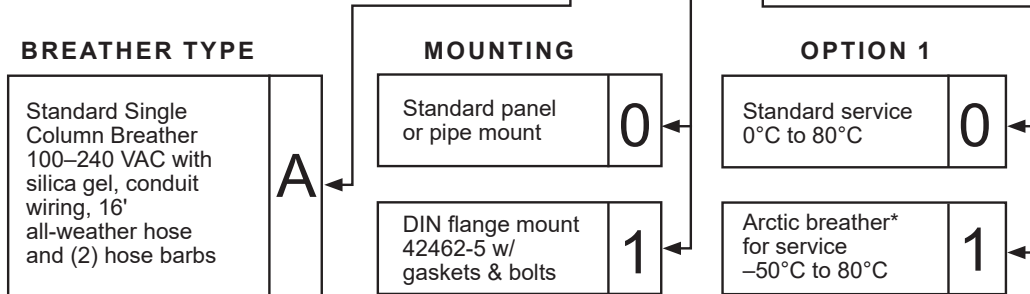
- Time-based regeneration settings included

Convenience

- Standard alarm contacts for remote alerts
- Adapter plate enables easy upgrade from ARDB2
- Conduit wiring does not require adapter box
- Silica gel ships installed

Build Your Own Part Number Using Configuration Below

S C B - X X X



ALL KITS INCLUDE THE FOLLOWING:

- Two 1/2 NPT hose barbs (for breather and end use location)
- 16 ft of all-weather hose
- Silica gel/Desiccant: ~4.4 lbs/2 kg clear, non-indicating gel (ships installed)

MOUNTING:

- Panel mount or DIN flange
- Adapter plate to convert from ARDB2 available
- 1/4" mounting hardware NOT supplied with kit

LOCAL ALARM/LED INDICATORS:

- Solid Green — Normal Operation
- Blinking Green — Fast Mode (debug only)
- Yellow — Regeneration Mode
- Blinking Yellow — Humidity Sensor Error

REMOTE ALARM/LED INDICATORS:

- Solid Red — Solenoid Valve Failure
- Blinking Red — Regeneration Heater Failure
- None — Power Failure

REGENERATION:

- Primary — User adjustable time-based

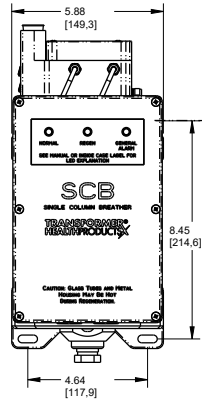
TESTS PERFORMED:

- Low Temperature (IEC 60068-2-1): –50°C for 24 hours
- Dry Heat (IEC 60068-2-2): 80°C for 24 hours
- Steady State Damp Heat (IEC 60068-2-78)
- Vibration (IEC 60068-2-6), sinusoidal: 0.1 Hz to 5000 Hz
- Shock, EMC (IEC 60068-2-27), x, y, z: 5 to 10 G
- Salt Mist, Cyclic (IEC 68-2-52)
- Common Carrier Vibration (MIL-STD-810G, Cat. 4)
- Electrostatic Discharge (EN 61 000-4-2): 2 kV
- Surge Immunity (EN 61 000-4-5): 500 V
- Power Frequency Magnetic Immunity (EN 61 000-4-8)
- Immunity to Conducted Disturbances (EN 61 000-4-6)
- Electrical Fast Transient/Burst Immunity (EN 61 000-4-4)
- Solenoid Reliability: 150,000 cycles over a wide temperature range

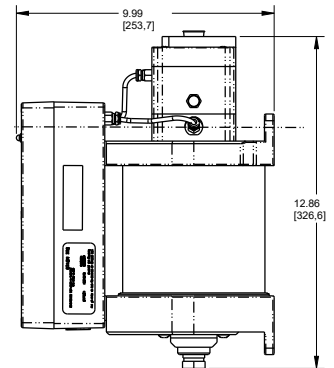
*Arctic Breather

- Fully functional between –50°C and 80°C
- From –50°C to 0°C, the heated filter vent prevents freezing of water generated from the regeneration process, allowing complete drainage
- Applies to breather models SCB-A01 & SCB-A11 on the configurator above

FRONT VIEW



SIDE VIEW



GENERAL SPECIFICATIONS

Regeneration Timing	5, 10, 20 or 40 days
Heating Time	3 hours, full power
Cooling Time	60 minutes before standby mode
Power Requirements	100–240 VAC, 50/60 Hz
Regenerating	Inrush 4.0 A max, steady 1.2 A
Non-Regenerating	Steady 0.2 A
Temperature Range	Standard: 0°C through 80°C Arctic: –50°C through 80°C

PARTNERSHIP VALUE

Capital budgets run thin. O&M budgets face pressure from rising costs and organizational desire to reduce spend. Prolec GE Waukesha helps you stretch your budget by providing better-than-original solutions that can lengthen duty cycles and reduce maintenance spend. We serve as an extension of your organization's capabilities, providing resources to help maximize your budgets and reduce the burden on your internal engineering and maintenance resources.

Contact us for more information. To download a technical manual, field maintenance manual and/or technical paper, visit our website.



Dual Column Breather

For applications greater than 8,000 gallons, ask about our Dual Column Breather!

To continually improve its products and services, Prolec-GE Waukesha, Inc. reserves the right to change specifications and features without notice. Please contact us for certified dimensions and drawings.

transformers | service | training | components

LOCATION

Prolec-GE Waukesha, Inc.
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