



# SNAP-FIT ENCLOSURE PROTECTION VENTS

Integrated Venting Solutions

## TYPICAL APPLICATIONS

- Control Units – Powertrain, engine, ESC (electronic stability control), climate control, safety, steering
- Lighting – Headlights, fog lamps, tail lights
- Sensors and Actuators - Humidity, temperature, pressure, and gas sensors
- Motors – Wipers, radiator fans, electric water pumps
- Hybrid – Inverters, chargers, power modules, batteries, traction motors
- Fluid Reservoirs – DEF tanks, DEF fill caps, windshield washer fluid tanks

## FEATURES & BENEFITS

- Robust design provides maximum protection from harsh environments
- Hydrophobic vents meet water repellency ratings up to IP69K
- Oleophobic vent meet oil repellency ratings up to 8 per AATCC Spec 118-1992
- Provides dust and liquid protection while equalizing pressure
- Snap-fit design integrates easily into your device for quick assembly
- Secure vent cap design will not separate from the body during installation or application
- Durable automotive-grade glass-filled PBT plastic provides high strength and resistance to harsh environments

## TYPICAL CONSTRUCTION

### STANDARD PROFILE

- Dual slope inlets ensure water drainage and protect vent from high pressure water spray
- Vent supported by arched support-ribs and encourages liquid roll-off and allows continuous air flow

### LOW PROFILE

- Low profile snap-fit vent is available for space optimization
- Incorporates features with support-ribs to protect the membrane from high pressure water spray



**STANDARD  
SNAP-FIT VENT**

(Enlarged to show detail)



**LOW PROFILE  
SNAP-FIT VENT**

(Enlarged to show detail)

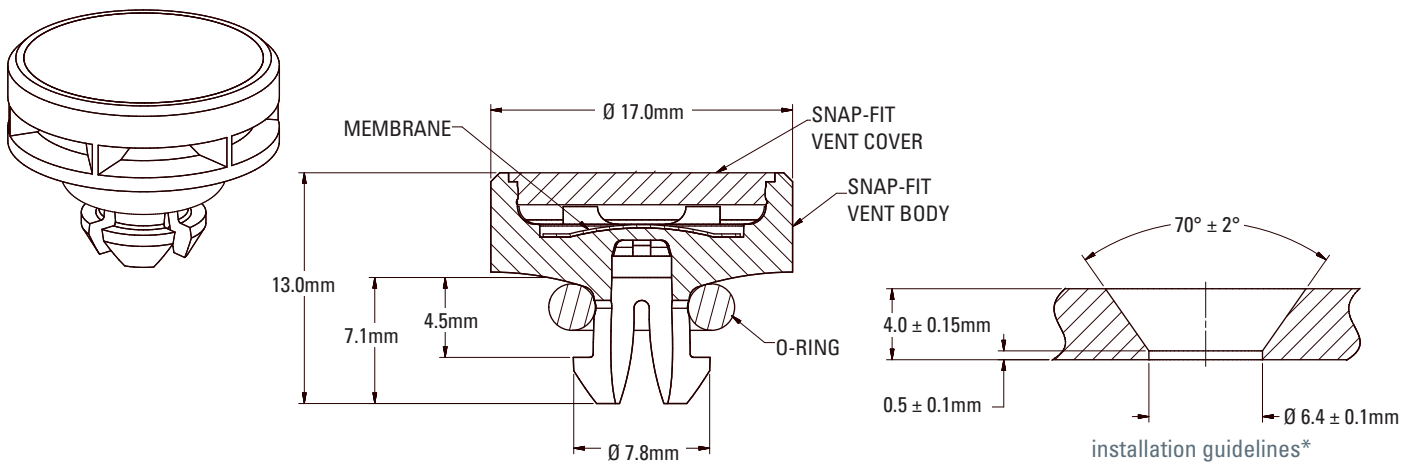
## PRODUCT OFFERINGS, DESIGN & DIMENSIONS

### STANDARD SNAP-FIT VENT

| Part Number | Typical Airflow ml/min @ 70 mbar | Minimum Water Entry Pressure (mbar @ 45 sec) | Temp Rating (°C) | IP Rating |    |     | Oleo-phobic | O-ring   |
|-------------|----------------------------------|----------------------------------------------|------------------|-----------|----|-----|-------------|----------|
|             |                                  |                                              |                  | 67        | 68 | 69K |             |          |
| P515708     | 250                              | 1,100                                        | -40° to 125°     | X         | X  | X   | Yes         | EPDM     |
| P516447     | 2,160                            | 280                                          | -40° to 125°     | X         | X  | X   | Yes         | EPDM     |
| P516450     | 2,400                            | 320                                          | -40° to 150°     | X         | X  | X   | No          | Silicone |
| P516391     | 250                              | 1,100                                        | -40° to 150°     | X         | X  | X   | Yes         | Silicone |

IP68 tests resistance to 2 meters of water for 60 minutes

- All vents passed Mechanical Vibration tests
- Housing material: Black PBT GF30 (Hydrolysis Resistant)
- O-Ring Durometer: 50 Shore A

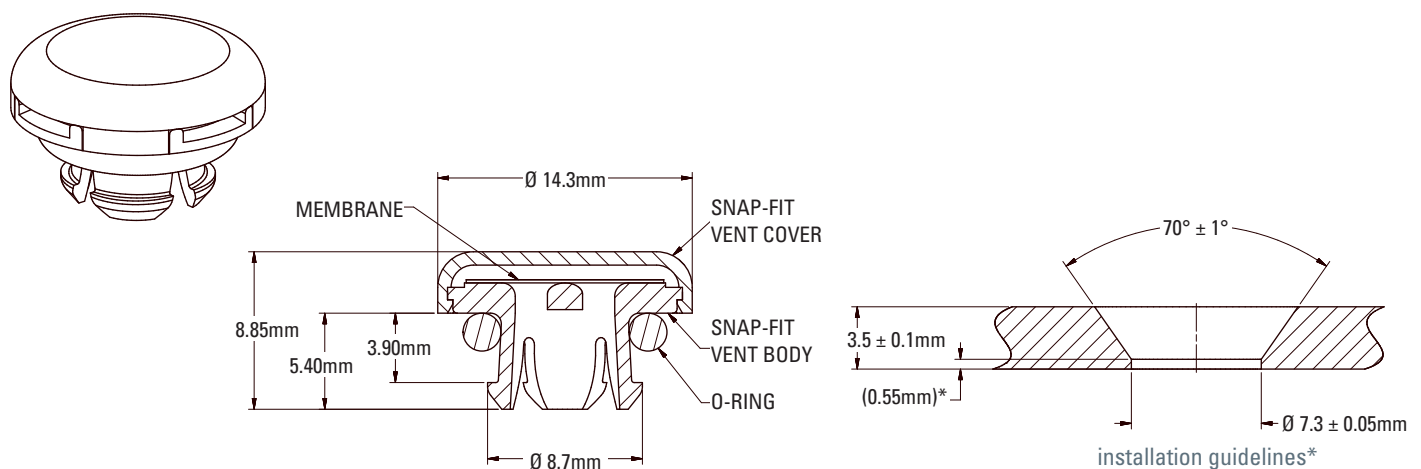


### LOW PROFILE SNAP-FIT VENT

| Part Number | Typical Airflow ml/min @ 70 mbar | Minimum Water Entry Pressure (mbar @ 45 sec) | Temp Rating (°C) | IP Rating |    |     | Oleo-phobic | O-ring   |
|-------------|----------------------------------|----------------------------------------------|------------------|-----------|----|-----|-------------|----------|
|             |                                  |                                              |                  | 67        | 68 | 69K |             |          |
| P515955     | 250                              | 1,100                                        | -40° to 150°     | X         | X  | X   | Yes         | Silicone |

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- All vents passed Mechanical Vibration tests
- Housing material: Black PBT GF30 (Hydrolysis Resistant)
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\*Please contact your Donaldson representative for more detailed installation drawings.

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## TEST SPECIFICATIONS

| Performance              | Description                             | Specification   |
|--------------------------|-----------------------------------------|-----------------|
| Environmental Protection | IP Rating                               | IEC 60529-2013  |
| Salt Spray Protection    | 100 hours at Elevated Temp and Pressure | ISO 9227: 2012  |
| Temperature Resistance   | -40° C to 125° C, 20 cycle, 10 day test | Per Description |
| Mechanical Vibration     | Fatigue Resistance                      | MIL-STD-202G    |

## HANDLING & INSTALLATION GUIDELINES

- Clean mounting surface and area where snap-fit vent will be installed to remove any contamination. Allow surface to dry after cleaning.
- Ideal location for installation is on a flat, vertical surface on an exterior housing wall. This location will prevent any liquids from collecting.
- Chamfer recommended for optimal O-Ring seal when wall thickness is suitable.
- Install vents between 150 N (33.7 lbf) and 300 N (67.4 lbf), until an audible click is heard. This will ensure a proper seal.

Donaldson is IATF 16949:2016 certified and our focus is on high quality manufacturing, responsive customer service, and tailored solutions that can be easily integrated into our customer's device or application. Our unique, proprietary membrane and oleophobic treatment processes allow us to select the best types of materials to meet your application requirements.

Donaldson Company is a leading global provider of filtration products, with sales and manufacturing of venting products in the U.S., Europe and Asia. Let Donaldson be your partner in problem-solving.

### Important Notice

Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, product specifications, availability and data are subject to change without notice, and may vary by region or country.



Donaldson Company, Inc.  
Venting Solutions  
PO Box 1299  
Minneapolis, MN 55440-1299 U.S.A.

[donaldsonventing.com](http://donaldsonventing.com)

United States of America:  
952-887-3874  
[ivs@donaldson.com](mailto:ivs@donaldson.com)

Europe, Middle East, and Africa:  
+32 16 38 3710  
[venting.solutions@donaldson.com](mailto:venting.solutions@donaldson.com)

Greater China:  
+86 21 2313 7080  
[Info.CN@Donaldson.com](mailto:Info.CN@Donaldson.com)

Japan:  
+81 42 540 4119  
[jp-ndl.ivs@donaldson.com](mailto:jp-ndl.ivs@donaldson.com)

Korea:  
+82 2 517 3333  
[ivs.korea@donaldson.com](mailto:ivs.korea@donaldson.com)

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