SCREW-FIT ENCLOSURE PROTECTION VENTS

Integrated Venting Solutions

Screw-Fit enclosure protection vents provide protection from particles, water, oils, and liquids while allowing pressure and temperature equalization of enclosures. This durable, threaded vent is easily integrated into existing equipment and can be used in a variety of applications including sensors, protective cases, lighting enclosures, appliances and general enclosures where protective venting is required.

TYPICAL APPLICATIONS

Automotive:

- Motors & Pumps
- ECUs
- SCR
- Battery Packs
- Sensors
- Powertrain

Electronics:

- Air Quality Sensors
- Outdoor Lighting
- Telecommunications
- Outdoor Electronics

FEATURES & BENEFITS

- Robust design provides maximum protection from harsh environments
- Hydrophobic vent meets water repellency ratings up to IP69K
- Oleophobic vent meets oil repellency ratings up to 8
- Provides dust and liquid protection while equalizing pressure
- Screw-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 environment
- Prevent the passage of harmful particles and liquids into the device
- Allow for constant pressure equalization during altitude and temperature fluctuations

TYPICAL CONSTRUCTION

Screw-Fit vents are comprised of an automotive-grade plastic that is resistant to chemicals, solvents, and high temperatures. They incorporate one of many different filter media choices that are puncture resistant and protected from moisture. Typical Screw-Fit vents include:

- A secure vent cap that will not separate from the body during installation or application
- A selection of media grades designed to fit your requirements and budget
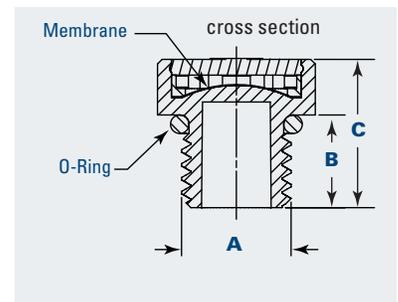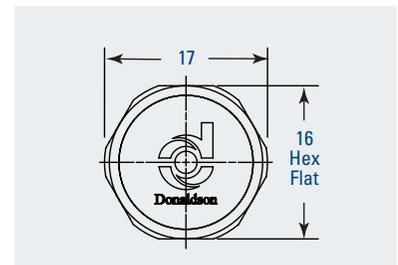- Hydrophobic and oleophobic media options
- Hex nut available upon request

PRODUCT OFFERINGS

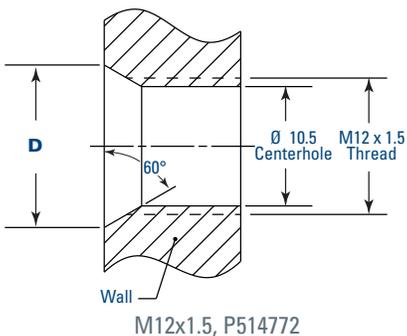| Part Number	Plastic	Color*	O-Ring	Typical Airflow (ml/min) @ 70 mbar	Minimum Water Entry Pressure (mbar @ 45 sec)	IP Rating**				Oleophobic	Water Vapor Transmission (grams/hr x m²)
						66	67	68	69K		
P514772	Nylon	Gray	Silicone	700	500	X	X	X	X	Yes	40
P515690	Nylon	Gray	Silicone	400	500	X	X	X	X	Yes	40
P515678	Nylon	Light Gray	Silicone	2200	200	X	X	X		Yes	40
P516029	Nylon	Gray	Silicone	1700	200	X	X	X		Yes	40
P516960 Hex Nut (Optional)	Nylon	Black	N/A	N/A						N/A	N/A

*Standard color is gray. Other colors are available upon request.

**IP68 tests resistance to 2 meters of water for 60 minutes.

SPECIFICATIONS

Description (See diagram)	Screw-Fit Vent P514772, P515690, P515678, P516029
A	M12x1.5
B	10 mm
C	16 mm
Chamfer Specifications for O-Ring Seal (when using hex nut)	
D	Wall Thickness > 3 mm 14.3 ±0.2
	Wall Thickness < 3 mm (Ask for guidance)
Through Hole Installation (Bulkhead Mounting)	
Through Hole (± 0.2mm)	12.2
Hex Nut Part Number	516960
Torque Specification	
0.6 - 1.0 Nm (5 - 10 in-lb)	

RECOMMENDED INTERNAL THREADS

M12x1.5, P514772

TEST SPECIFICATIONS

- DIN40050.9: Degree of Protection (IP-Code); Protection against water and dust
- ASTM B117-09: Salt Spray Resistance - 100 hours spray at elevated temperature and pressure
- ASTM G155-05: UV resistance - 10 days extreme exposure
- IEC 60068-2-78: High Temperature and RH - 10 days exposure
- ASTM E96-10: Water Vapor Transmission Rate - Desiccant method
- Temperature resistance: 48 hours at -45°C and 48 hours at 80°C
- IEC 60068-2-10: Antimicrobial activity grade 2b
- UL 94: Flammability of Plastic Housing – V-0 Rated

HANDLING & INSTALLATION GUIDELINES

- Clean mounting surface and area where Screw-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.
- Insert the Screw-Fit vent into the housing with the threads aligned properly and screw into the housing.
- After ensuring that the vent is threaded properly, tighten the vent to 0.6 - 1.0 Nm (5-10 in-lb).
- Optional hex nut (P516960) is available for M12x1.5 Screw-Fit vents.
- Chamfer recommended for optimal O-Ring seal when wall thickness is suitable.

For more information regarding proper handling and installation of Donaldson Screw-Fit vents, view our YouTube video at **http:youtu.be/Z0NPWmqMdrM**

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.