

Pressure Compensation Element

Technical information

Pressure Compensation Elements 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

- Sensors
- Protective cases
- Lighting enclosures
- General enclosures
- Appliances
- Arena & events lighting
- Industrial lighting
- Electrical and communication junction boxes/outdoor enclosures

FEATURES & BENEFITS

Pressure Compensation Elements extend the life of the device and improve reliability because they:

- Prevent the passage of harmful particles and liquids into the device.
- Allow for constant pressure equalization during altitude and temperature fluctuations.

TYPICAL CONSTRUCTION

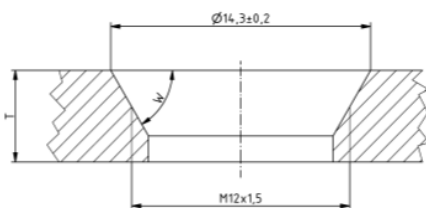
Pressure Compensation Elements are comprised of an automotive-grade plastic that is resistant to chemicals, solvents, and high temperatures. They incorporate one of many different filter media choices that are puncture resistant and protected from moisture. The Pressure Compensation Element consists of a two-part housing, which encloses the filter medium safely.

PRODUCT OFFERINGS

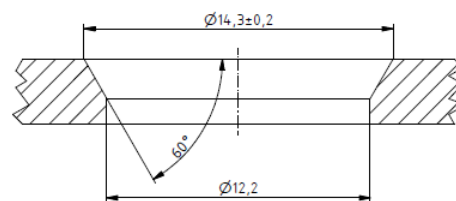
Part number	Plastic	Color	O-ring	Typical Airflow (ml/min) @ 70 mbar	IP Rating*				Oleophobic	Water Vapor Transmission (Grams/hr x m ²)
					66	67	68	69K		
52041000	Nylon	RAL7035	Yes	400	✓	✓	✓	✓	Yes	40
52042000	Nylon	RAL9005	Yes	400	✓	✓	✓	✓	Yes	40

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

RECOMMENDED INTERNAL THREADS



*for direct
assembly*



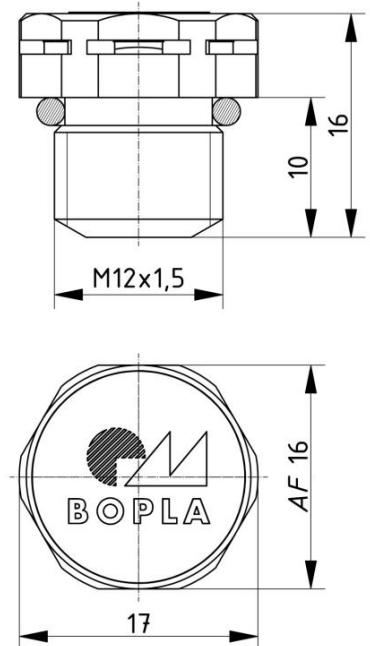
*for assembly
with counter
nut 2)*

T	W ¹⁾
from 3 - 4 mm	30°
from 4 - 5 mm	45°
from 5 mm	60°

- 1) At chamfer angles below 60 ° is the seal in the mounted state still visible.
- 2) For wall thicknesses of less than 3mm in any case use counter nut.

SPECIFICATIONS

Description (see diagram)	
External thread length	M12 x 1.5
Thread length	10 mm
Total length	16 mm
Chamfer specifications for o-ring seal	
T	Wall Thickness > 3mm M12 x 1,5
	Wall Thickness < 3 mm (Hex Nut mandatory)
Through hole (bulkhead mounting) installation	
Through Hole (± 0.2mm)	12.2
Hex Nut Part Number RAL7035	52090100
Hex Nut Part Number RAL9005	52090101
Torques specification 60-80 Ncm	



TEST SPECIFICATIONS

- DIN 40050.9: 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 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 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 60-80 Ncm.
- Chamfer recommended for optimal O-Ring seal when wall thickness is suitable.