

AGRO pressure balance elements

The impact-resistant innovation with high-performance membrane.

The clever, compact and innovative solution





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Preventing pressure differences and water condensation due to temperature fluctuations

Whether traffic control and signalling technology, street lighting, railway vehicles, distributor housings in power distribution networks, or solar energy systems: they must all be able to withstand wind and weather, heat and rain. The same applies to their electronics and electrics. **Air pressure, temperature and humidity** are constantly changing.

Many electrotechnical housings are watertight and dust-tight (IP 68) but not gas-tight. Due to heating – for example, from solar radiation or enclosed electronics – a pressure difference can build up between the housing and the external environment, resulting in the flow of air between the internal and external areas. This allows the entry of air moisture, which begins to condense when the air temperature falls below the dew point. The water that is now present can result in corrosion and defects/malfunctions. This can be prevented by installing AGRO pressure balance elements.

Some products in this field are made of stainless materials for their strength and their resistance to corrosion. **AGRO has developed a new, innovative pressure balance element of A4 stainless steel** (EN 1.4404 / AISI 316L) for use in stainless housings (patent pending), which is unsurpassed in terms of robustness and offers **the highest impact resistance in accordance with IEC EN 62262, Class IK10**. It combines high-quality materials with an innovative design and is able to enduringly withstand the most challenging conditions – from

demanding industrial processes involving aggressive cleaning agents and chemicals to harsh environmental conditions in coastal regions or on the ocean.

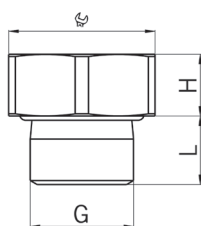
A high-performance membrane ensures rapid, reliable air exchange with flow rates that are second to none. It is made of PTFE (polytetrafluoroethylene) and has pores that are hundreds of times bigger than water vapour molecules, but thousands of times smaller than water droplets. The membrane, which is water- and oil-repellent, offers a very high **degree of protection: IP66 / IP68 (0.5bar/1h) / IP69 / IP6K9K**. The most effective air exchange (circulation) can be achieved by installing two pressure balance elements opposite one another with an offset between them. The **wide temperature range, from -40 °C to +150 °C, is another highlight** of the new pressure balance element, which is unique on the market and fulfils every need. The product features an **M12x1.5** entry thread. The membrane is RoHS- and REACH-compliant, and free of PFOA and PFOS.





Video



Pressure balance element with membrane of A4 stainless steel





Material:	A4 stainless steel (EN 1.4404 / AISI 316L)
Membrane:	PTFE (polyterafluoroethylene)
Seal:	Silicone
O-ring:	Silicone
Operating temperature:	-40°C / +150°C
Degree of protection:	IP 66 / IP68 (0.5bar/1h) / IP69 / IP6K9K
Air flow:	> 1'800 ml/min (dp = 70 mbar)
Impact test:	IK10 in accordance with IEC EN 62262

G	 mm	H	L	Art.-No.	E-No.	
M12x1.5	17	7	8	2460.12.97.34	126 244 600	10

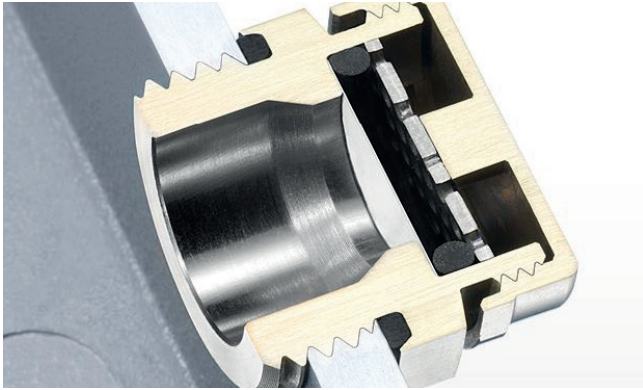
Accessories: A4 stainless steel locknuts



G	 mm	M	Art.-No.	E-No.	
M12x1.5	17	3	8012.98	126 358 300	50

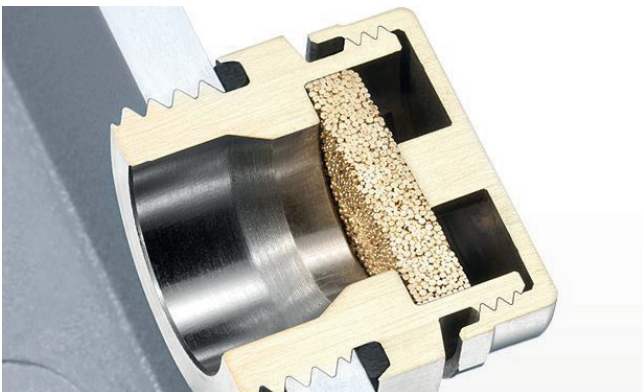
AGRO pressure balance elements with membrane or sintered filter.

Designed to enable enclosed electronics to work in any weather. AGRO pressure balance elements and drainage elements prevent pressure differences, temperature fluctuations and water condensation.



Plastic or brass pressure balance elements with membrane

The structure of the special polyethersulfone (PES) membrane makes these AGRO pressure balance elements permeable to air but not to water. Protection class IP 68 is maintained up to a pressure of 0.5 bar. Pressure balance elements with membrane are also available with an Ex e II design for enhanced protection.



Pressure balance elements with sintered filter

The relatively coarse material structure of the sintered disc facilitates significantly higher air exchange rates. Extreme fluctuations in pressure and humidity in very large housings can be easily balanced. The sintered disc is splash-proof and insect-proof.



Drainage elements with mesh

Drainage elements are used where condensation of water is to be expected due to environmental conditions. A special stainless-steel mesh enables water to drain away quickly while also, thanks to its fine mesh size, protecting the enclosed area from insects and dirt particles larger than 0.2 mm.

Technical information and advice

For further information about our products, system solutions and communication media, please visit our website: www.agro.ch

Our team of technical advisors will be happy to answer any questions you may have or to provide further information, and looks forward to hearing from you.

