Profactor Armaturen GmbH

EN

PROFACTOR®
DER DEUTSCHE QUALITÄTSSTANDARD

TECHNICAL DATA SHEET AND USER MANUAL

PRODUCT CODE

PF DV 571P

AUTOMATIC AIR VENT VALVE

1. PURPOSE AND SCOPE

The float air vent valve is used for the automatic removal of air and other gases from pipelines and air collectors of internal systems (heating systems, cold and hot water supply systems, heat supply systems of ventilation units, air conditioners, and manifolds).

It protects closed pipeline systems from corrosion, cavitation, and the formation of air locks. The air vent valve can be used in pipelines transporting liquid media that are non-aggressive to the materials of the product (water, solutions of propylene and ethylene glycols with concentrations up to 40%).

2. TECHNICAL SPECIFICATIONS

Product Code	PF DV	571P
Connection size	DN	15
	G	1/2"
Maximum operating pressure	bar	10
Minimum operating pressure	bar	0,05
Operating medium temperature	°C	0°C to +90°C
Maximum temperature of the working medium (short-term)	°C	+120°C
Maximum ambient temperature	°C	+60°C
A	mm	82
B	mm	46
Weight	g	115
Average service life	years	20

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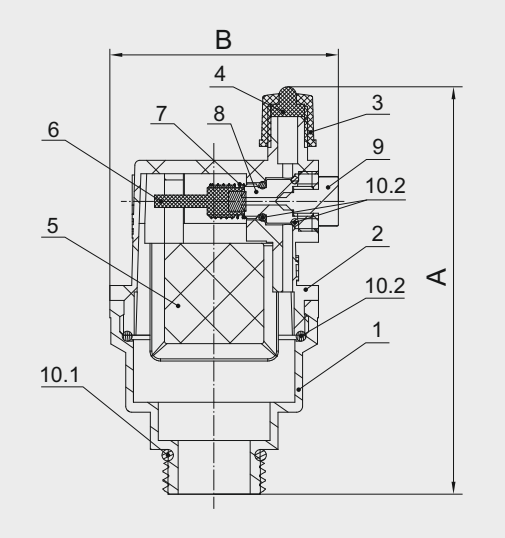
3. DESIGN



1 – Lower body

2 – Upper body

3 – Protective cap

4 – Seal

5 – Float

6 – Lever

7 – Spring

8 – Bushing

9 – Plug

10.1–10.3 – Sealing rings

The air vent valve has a connection port with an external thread located at the bottom of the body.

All connection ports are in an accordance with ISO 228-1:2000, DIN EN 10226-2005. The upper part of the body is equipped with a metric thread according to ISO 261:1998 for screwing on the cap.

4. MATERIALS

Lower body (1), Bushing (8) — Brass CW617N

Upper body (2), Protective cap (3), Float (5), Lever (6), Plug (9) — Plastic Pa66

Spring (7) — Stainless steel SS304

Seal (4), Sealing rings (10.1–10.3) — EPDM

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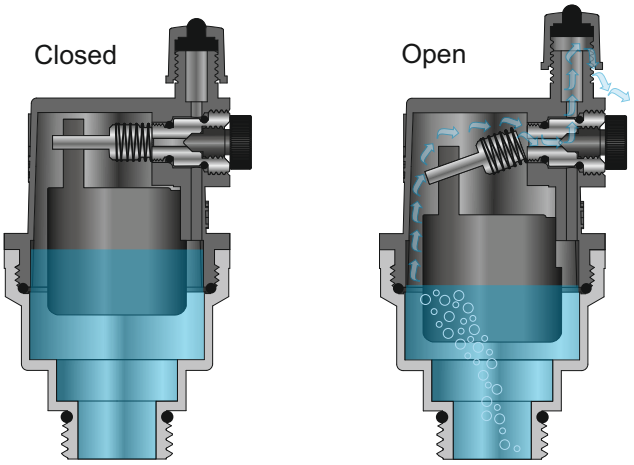
5. PRINCIPLE OF OPERATION

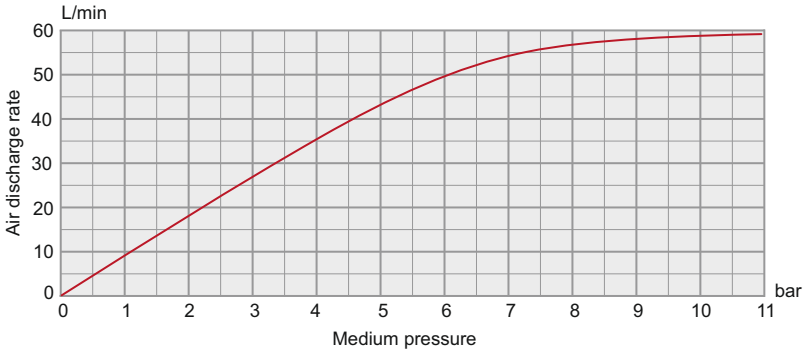
When there is no air present, the body of the air vent valve is filled with liquid, and the float keeps the discharge valve closed.

When air accumulates in the float chamber, the water level inside decreases, causing the float to drop to the bottom of the body. This movement, through the lever mechanism, opens the discharge valve, allowing the air to be released into the atmosphere.

After the air is expelled, the water refills the float chamber, lifting the float, which in turn closes the discharge valve. These opening and closing cycles repeat until all air is vented from the nearby section of the pipeline and no more air collects in the float chamber.



Air performance chart:



6. INSTALLATION INSTRUCTIONS

The device is supplied to the customer fully ready for operation and does not require additional adjustment.

Before installing the air vent valve, the pipeline must be cleaned of rust, dirt, scale, sand, and other foreign particles that could affect the device's performance. Heating, heat supply, cold and hot water supply systems, and boiler pipelines must be flushed with water after installation until the water runs clear and free of suspended solids.

The air vent valve must be installed vertically, with the protective cap facing upward at locations where air and gases are likely to accumulate — the highest points of piping systems, air collectors, boilers, manifolds, and heating devices.

The air vent valve must not be subjected to external loads such as vibration or uneven tightening of fasteners. It is recommended to install a shut-off valve between the air vent valve and the pipeline (or air collector).

Hydraulic testing of the system must not be performed while air vents are installed or when shut-off valves in front of them are open. No load should be applied to the protective cap. The air vent valve must be securely fastened to the pipeline; leakage of the working medium through the threaded section is not permitted.

After installation, the system should be pressure-tested for tightness using a manometric test. This test ensures the system's leak-tightness and prevents potential damage from leaks.

To put the air vent valve into operating mode, slightly loosen (but do not remove) the protective cap of the discharge fitting.

7. OPERATING AND MAINTENANCE

The air vent valve must be operated without exceeding the pressure and temperature limits specified in the technical specifications table. Installation, dismantling, as well as any repair or adjustment operations, must be carried out only when the system is not under pressure.

Allow the equipment to cool to ambient temperature before handling. The air vent valve's operability should be checked regularly, at least once every 12 months.

During inspection, the overall condition of the device should be checked, including the state of fastening connections, and the tightness of seals and gaskets. Maintenance of the device consists of removing accumulated dirt from the body and from the air discharge fitting.

8. WARRANTY OBLIGATIONS

The warranty period is 24 months from the date of sale to the end consumer. Throughout the entire warranty period, the manufacturer guarantees the proper functioning of the product and its compliance with safety requirements, provided that the consumer follows the rules for storage, transportation, installation, operation, and maintenance of the product. The warranty covers all defects arising through the manufacturer's fault.

The warranty does not cover defects resulting from:

— Violation of storage, transportation, installation, operation, or maintenance conditions;
— Exposure to substances aggressive to the materials of the product;
— Signs of mechanical damage;
— Damage caused by fire, natural disasters, or other force majeure circumstances;
— Damage caused by improper actions of the user;
— Evidence of unauthorized interference with the product design.

The product described in this technical manual is a technically complex device that must be installed by a qualified specialist with appropriate experience working with this type of equipment.

Installation and commissioning must be carried out by an authorized and certified company.

Profactor Armaturen GmbH reserves the right to make changes to the product design that do not affect its technical characteristics or functional features.

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INTERNATIONAL WARRANTY CARD

NAME OF THE PRODUCT _____

PRODUCT CODE, SIZE _____ **QUANTITY** _____

SELLER NAME AND ADDRESS _____

DATE OF PURCHASE _____

SELLER STAMP

SELLER SIGNATURE _____

For the warranty term refer to the Warranty obligation clause in the technical manual

FOLD LINE FOLD LINE

In case of any claims to the product quality the following documents should be submitted:

1. Application with customer and product detailes:
- Name of the customer, actual address and phone number
- Article of the product
- Reason for the claim and photo
- Plumbing system where installed (name, address, phone number)

2. Invoice copy and receipt

3. Warranty card

RETURN/EXCHANGE COMMENTS _____

DATE _____ **SIGNATURE** _____

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