Profactor Armaturen GmbH

EN

PROFACTOR®
DER DEUTSCHE QUALITÄTSSTANDARD

TECHNICAL DATA SHEET AND USER MANUAL

PRODUCT CODE

PF DV 560
PF DV 561

MANUAL
AIR VENT VALVE

1. PURPOSE AND SCOPE

The Manual air vent valve is for the manual release of air from heating system radiators, thereby increasing their efficiency.

When installed in a sectional bimetallic radiator, the manual air vent valve allows air to be removed, ensuring emergency safety and long service life of the radiator.

The valve can be used in heating systems that transport liquid media non-aggressive to the materials of the product, as well as in systems using low-freezing heat-transfer fluids.

2. TECHNICAL SPECIFICATIONS

Product code	PF DV	560	561
Connection thread	G	1/2"	3/4"
Operating pressure	bar	10	
Maximum heat-transfer medium temperature	°C	110°C	
Maximum ambient temperature	°C	60°C	
Permissible relative air humidity	%	from 30 to 85	
Calibration orifice diameter	mm	2	
A	mm	19	
B	mm	24	28
Weight	g	19	28
Average service life	years	30	

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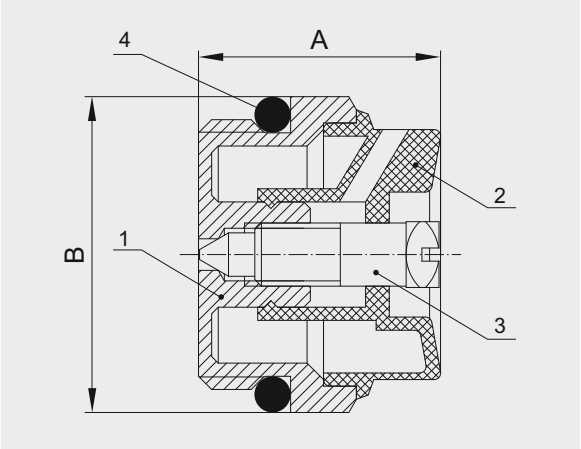
3. DESIGN



1 – Body
2 – Air vent cap
3 – Shut-off screw
4 – Sealing ring

The valve body (1) has a 2 mm calibrated orifice in the center, a metric thread with grooves for air discharge under the shut-off screw (3), and an external cylindrical thread for connection to a radiator.

The shut-off screw has a conical tip ensuring tight sealing of the closure. Both the body and the shut-off screw are made of brass grade CW614N (according to DIN EN 12165:2011), with nickel-plated surfaces.

An air vent cap (2) is press-fitted into the body; it contains an air discharge channel. The cap can rotate, allowing the outlet opening to be positioned in any desired direction. The cap is made of impact-resistant engineering thermoplastic (acrylonitrile butadiene styrene, ABS).

The connection between the Manual air vent valve and the radiator is sealed using a sealing ring (4) made of synthetic elastomer (ethylene-propylene rubber, EPDM).

All cylindrical pipe threads are in an accordance with ISO 228-1:2000, DIN 259, and all metric threads are in an accordance with ISO 261:1998.

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4. OPERATING PRINCIPLE

In the closed position, the shut-off screw (3) is fully screwed in, with its conical tip tightly pressed against the calibrated orifice in the valve body.

When the shut-off screw is unscrewed, the air and gases accumulated in the radiator pass through the grooves of the body thread into the air chamber of the cap, and then exit through the air outlet channel to the outside.

5. INSTALLATION INSTRUCTIONS

The Manual air vent valve is installed on a radiator using a plastic key designed for radiator adapters and plugs. The tightening torque must not exceed 18 Nm. Use of any additional sealing material is not required.

As a rule, the valve is installed together with a radiator adapter of the corresponding size.

6. OPERATION AND ADJUSTMENT INSTRUCTIONS

The Manual air vent valve must be operated without exceeding the parameters specified in the technical specifications table.

To release air from the radiator, unscrew the shut-off screw (3) using a flat-head screwdriver or a special key (S5).

It is recommended to turn the cap (2) so that access to the outlet opening is unobstructed and to place a small container underneath to collect a small amount of heat-transfer fluid.

Air should be released until heat-transfer fluid starts to flow from the outlet opening. After that, the shut-off screw must be tightened.

If the valve becomes clogged, the radiator must be shut off, and the heat-transfer fluid from its upper section drained. Then the valve should be removed and cleaned, using a wooden pointed stick to clear the outlet opening. Metal objects or wire must not be used for cleaning.

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7. WARRANTY OBLIGATIONS

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

The warranty does not cover defects resulting from:

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

The product described in this technical manual is a technically complex device that must be installed by a qualified specialist with appropriate experience in handling 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 design modifications to the device 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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