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AERCAL
Automatic air vent for radiators

series 504

cert. n° 0003
ISO 9001

01055/05 GB

Function

Automatic air vents with external float are designed to remove the air that is released from the water when it is heated and which accumulates at the top of radiators, limiting the normal heat exchange process and giving rise to noise and corrosion.
The air vent has been constructed so that it can be installed on any type of heating emitters ranging from the traditional cast iron radiators to the thin steel panel radiators. All models are equipped with a hygroscopic safety cap.

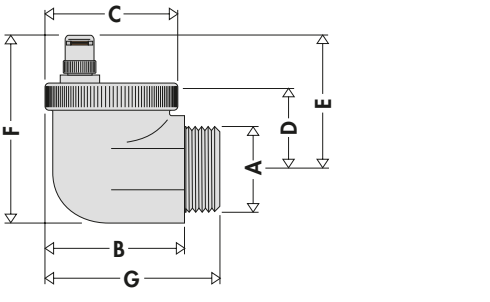
Product range

Series 504 Automatic air vent for radiators, chrome plated, with hygroscopic safety cap ____ Sizes 1/2", 3/4", 1" right and left

Technical specification

Materials: - Body and cover:	brass EN 12165 CW617N, chrome plated
- Float:	PP
- Obturator stem:	brass EN 12164 CW614N
- Spring:	stainless steel
- Seals:	EPDM
- Hygroscopic safety cap seal:	NBR
- Hygroscopic safety cap discs:	cellulose fibre
Medium:	water and glycol solutions
Max. percentage of glycol:	30%
Max. working pressure:	10 bar
Max. discharge pressure:	2,5 bar
Max. working temperature:	100°C
Connections:	1/2" - 3/4" - 1"M right and left

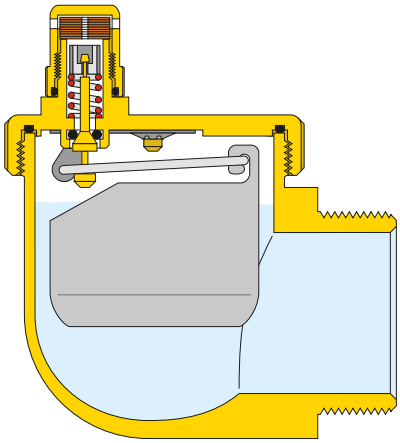
Dimensions



Code	A	B	C	D	E	F	G	Weight (kg)
504401	1/2"	51	48	37	63	76	88,5	0,28
504501	3/4"	51	48	34	60	76	88,5	0,27
504611	1" R	51	48	30	56	76	88,5	0,33
504621	1" L	51	48	30	56	76	88,5	0,33

Operating principle

The accumulation of air bubbles in the valve body causes the float to drop and thus the obturator to open. This phenomenon occurs, and consequently the valve functions correctly, as long as the water pressure remains below the maximum discharge pressure.



Construction details

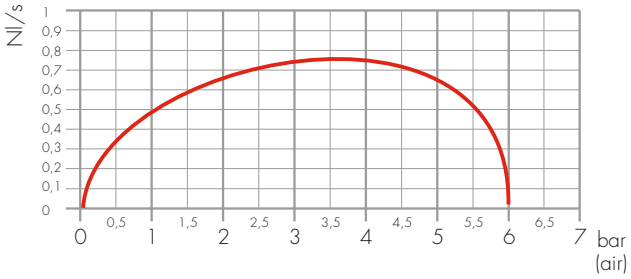
Hygroscopic cap
All models are equipped with a hygroscopic safety cap. Its functionality is based on the properties of the cellulose fibre discs that serve as the seal cartridge and whose volume increases by 50% as soon as they become wet and thus cause the valve to close.

Cover
The removable cover has a strong opening mechanism to vent the air.

Float
The location of the float and other internal parts means that the water never reaches the obturator, thus limiting the harmful effects from the impurities contained in the liquid.

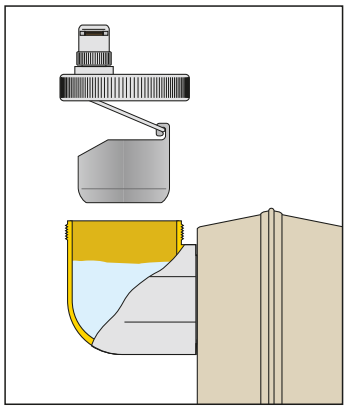
Flow curves

Air flow (when the system is being filled)



Installation

The valve must be installed in a vertical position.
The hygroscopic safety cap must be screwed tight when the system is operating.



Maintenance

The valve can be inspected as follows if the water contains impurities that jeopardize the correct functioning of the system:

a) isolate the heating emitter by closing the valve and lockshield;

b) unscrew the valve cover with the O-ring seal.

The valve has been constructed so that this operation can be performed without leakage of water.

SPECIFICATION SUMMARIES

Series 504
Automatic air vent valve for radiators. Threaded connections, 1/2" M (3/4" M, 1" M right or 1" M left). Hygroscopic safety cap. Chrome plated brass body and cover, stainless steel spring, PP float, EPDM O-ring seals. Hygroscopic safety cap seal in NBR. Medium: water and glycol solutions. Maximum percentage of glycol 30%. Maximum operating pressure 10 bar. Maximum discharge pressure 2,5 bar. Maximum working temperature 100°C.

We reserve the right to change our products and their relevant technical data, contained in this publication, at any time and without prior notice.