

# AERCAL® end plug for radiators with automatic air vent

## 507 series



01032/22 EN  
replaces 01032 GB/10



### Function

The end plugs for radiators with automatic air vents are designed to automatically expel any air trapped inside heat emitters, both during the system filling phase and during normal operation. This helps to prevent undesirable effects such as noisy operation and inefficient performance of the heat emitters themselves. All models in the 507 series are supplied complete with a hygroscopic safety cap.

### Product range

Code 507611	End plug for radiator with air vent, chrome plated, with hygroscopic safety cap	size 1" M right
Code 507621	End plug for radiator with air vent, chrome plated, with hygroscopic safety cap	size 1" M left
Code 507711	End plug for radiator with air vent, chrome plated, with hygroscopic safety cap	size 1 1/4" M right
Code 507721	End plug for radiator with air vent, chrome plated, with hygroscopic safety cap	size 1 1/4" M left

### Technical specifications

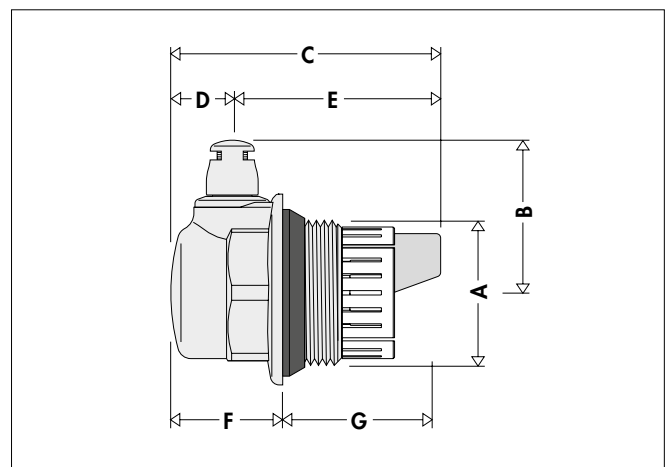
#### Materials

Body:	brass EN 12165 CW617N, chrome plated
Float:	high-resistance polymer
Obturator:	silicone rubber
Spring:	stainless steel EN 10270-3/1.4310 NS (AISI 302)
Protective cage:	POM
Air vent seal:	silicone rubber
Heater unit seal:	EPDM

#### Performance

Medium:	water and glycol solutions
Max. percentage of glycol:	30%
Max. working pressure:	10 bar
Max. discharge pressure:	6 bar
Max. working temperature:	100 °C
Connections:	1"-1 1/4" M

### Dimensions

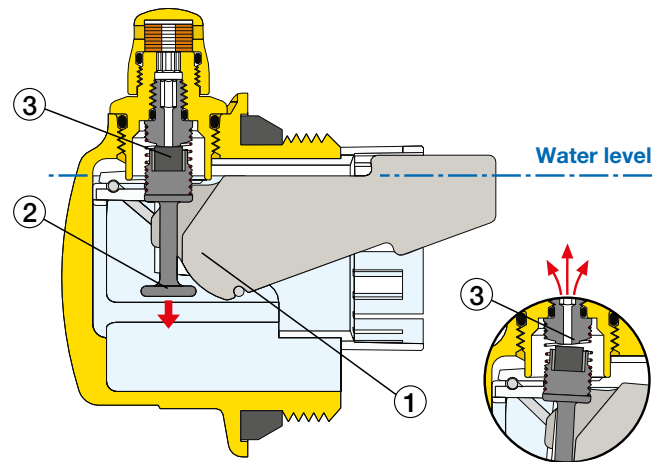


Code	A	B	C	D	E	F	G	Mass (kg)
507611	1"R	35	61,5	14	47,5	25,5	36	0,13
507621	1"L	35	61,5	14	47,5	25,5	36	0,13
507711	1 1/4"R	39,5	63	15,5	47,5	27	36	0,17
507721	1 1/4"L	39,5	63	15,5	47,5	27	36	0,17

## Operating principle

The water almost entirely fills the inside of the valve body and keeps the float (1), totally immersed in it, in a horizontal position. The build-up of air bubbles inside the valve makes the float end (1) rotate downward. This motion puts the float into contact with the control stem and rim (2), strictly connected to the control stem, this opening the obturator (3).

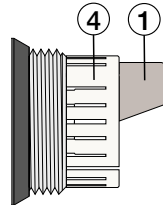
**This action, as well as correct valve operation, is ensured as long as the water pressure remains under the maximum discharge pressure value.**



## Construction details

### Protective cage

The acetal resin cage (4) protects the float (1) from knocks when the plug is screwed into the heater unit.

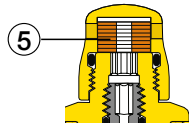


### Hygroscopic safety cap

All models are supplied with a hygroscopic safety cap.

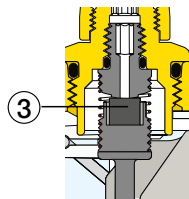
The operating principle is based on the properties of the cellulose fibre discs forming the sealing cartridge (5).

These discs increase in volume by 50% when they come into contact with water, thus closing the valve.



### “Dry” obturator

The position of the float and the other internal parts allow the obturator (3) to always remain clear of the water, so as to limit the risks caused by the infiltration of impurities present in the water.

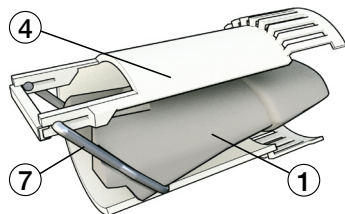


### Leverage system

The float (1) is moved by the stainless steel rod (6) supporting it, which rotates on supports built into the cage (4) holding the float.

Therefore, friction is minimised in the event of limescale build-up.

This system ensures correct operation of the device over long periods of time.



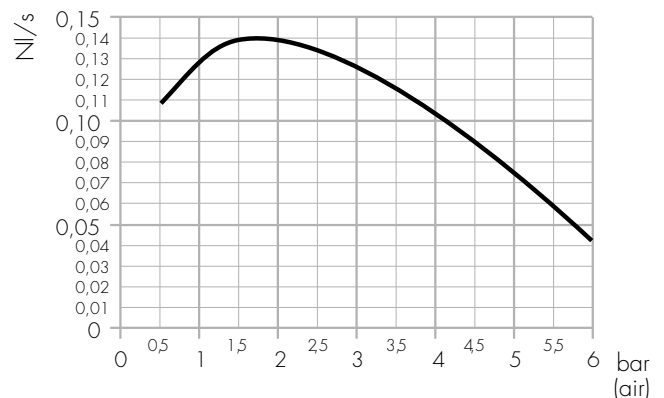
## Installation

The plug performs its function correctly when the valve is in a vertical position.

The hygroscopic cap functions correctly **when fully screwed on** (as supplied by the manufacturer). We also recommend it is replaced regularly.

## Hydraulic characteristics

### Discharge capacity (system filling phase)



## Accessories

The hygroscopic safety cap is available as spare part, code R59720.



## SPECIFICATION SUMMARIES

### 507 series

End plug for radiators with automatic air vent. Threaded 1" M (and 1 1/4" M) right and left connection. Brass body, chrome plated. High-resistance polymer float. Silicone rubber obturator. Stainless steel spring. POM protective cage. Silicone rubber air vent seal. EPDM seal to heater unit. Medium water and glycol solutions; maximum percentage of glycol 30%. Maximum working pressure 10 bar. Maximum discharge pressure 6 bar. Maximum working temperature 100 °C.

### Code R59720

Hygroscopic safety cap. Brass body, chrome plated. EPDM hydraulic seal. Cellulose fibre discs sealing cartridge; fibre volume increase on contact with water 50%. Maximum working pressure 10 bar. Maximum working temperature 110 °C.

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