



Automatic air vent valve "Autovent", with hygroscopic cartridge technology patented "Hygroseal®".

Autovent valves are fully automatic, without need for manual adjustment.

Features

Automatic air vent valve "Autovent" with hygroscopic cartridge, "Hygroseal®" technology patent pending.

Technical features

Pressure max : 10 Bar

Max temp. : 100°C

Thread : UNI ISO 228/1

Construction

Body : brass EN 12165 -CW617N

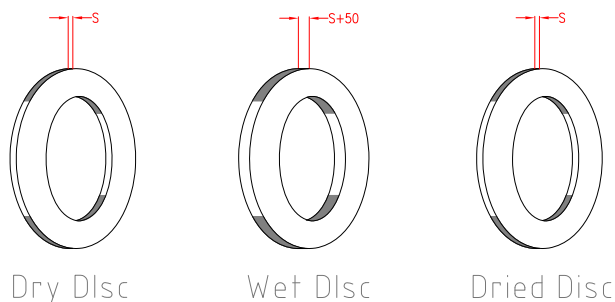
Seal rings : EPDM

Ci riserviamo il diritto di apportare miglioramenti e modifiche ai prodotti descritti ed ai relativi dati tecnici in qualsiasi momento e senza preavviso

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Operation of the air vent valve with hygroscopic action

These types of valves, exploit the principle HYGROSCOPIC, the operation is based on the swelling properties of a particular cellulose fiber (called presspahn) than wet-dry status increases by more than 50% of its volume



The closing times are very short (few seconds), while the drying time, that is re-opening, are in function of temperature.

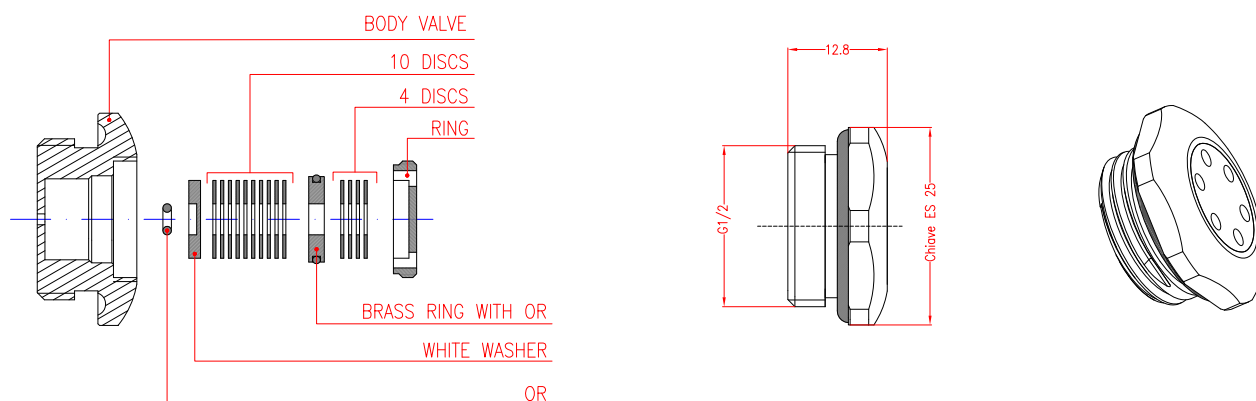
Drying time

Temperature water - degrees C	40	50	60	70	80	90
Vent times - hours	6	5	3	1.5	1	0.5

The table refers to a cycle of 1 bar pressure.

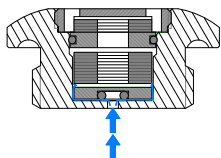
Looking at the data on the table, anyone could conclude that the time is high, especially at low temperature. It is not, because the amount of air that daily accumulation in a radiator is negligible. Therefore, the valve hygroscopic drying time allows easily to keep up the training cycle air / air elimination.

The valve has an average duration of 5 years, depending on how they are degraded over time the discs. In the presence of water is not filtered or particularly limestone.

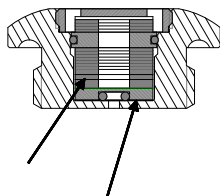


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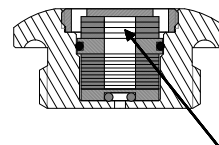
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Water entering the valve from the radiator expands the hygroscopic washers.



The expanded washers close the valve by pushing the plastic containing a vitol seal against the inlet port.



At the end of valve life the top safety washers expand and close the valve permanently.

Automatic venting devices have used this principle for over 70 years, but this valve uses the technology in two different ways.

These differences are protected by patent applications:

1. The traditional valves use a series of hygroscopic washers that all expand at the same time during operation - their useful life is approximately 2 years. At the end of life they fail open, so the valve leaks. Instead the "Autovent" valve uses the hygroscopic washer to close a 'valve port' and only the first 2 or 3 washers are required to do this job (as the pressure required to close port is very much reduced). The "Autovent" valve's operating life is much longer because, as each washer expires, the next 'new' washer takes over. This allows the "Autovent" valve to have a 5 year guaranteed operating life.

2. "Autovent" valves are unique in having a safety cap that activates at the end of their life which permanently closes the valve. This allows "Autovent" to have a life-time leak-free guarantee.

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