



R624

Description

The protection of the water supply is fundamental in modern systems. To protect the supply, it is necessary to install devices in the domestic system to prevent any flow-back of potentially polluted water. These devices are called back flow preventers. The non-controllable backflow preventer with different pressure zones, R624 series, is used upstream from users that contain polluted water (e.g. boiler rooms, tanks containing chemical products in a water solution, lab equipment, etc.). When correctly fitted, the back flow preventer can, for example, stop the heating system water (containing chemical additives) from reaching the domestic taps or - even worse - the public water system in the event of reflux due to lower supply pressure or damaged check valves.

Versions and product codes

Product code	Connections
R624Y003	1/2" F
R624Y004	3/4" F

Technical data

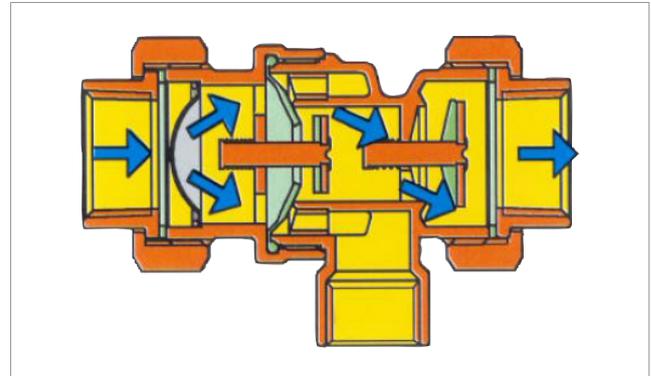
- Female threaded connections with tail piece (ISO 228 - from Standard EN 14367)
- Temperature range: 5÷90 °C
- Max. working pressure: 10 bar
- A.S.S.E. type-approval 1012 - CSA
- CA type (UNI EN 1717)
- Protection against fluids of categories: 1 - 2 - 3 (UNI EN 1717)
- In compliance with EN 14367

Materials

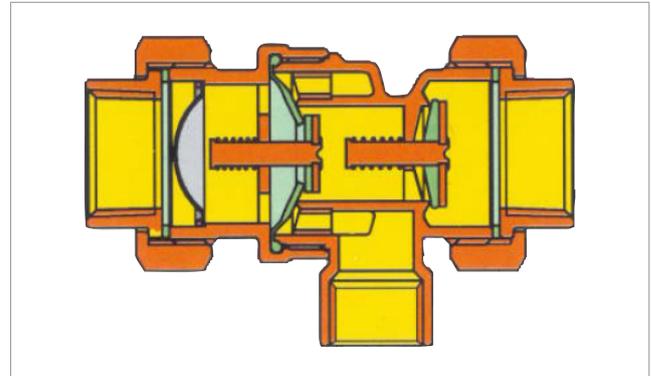
- Body in brass UNI EN 12165 CW617N
- Internal filter in stainless steel
- Internal stems in brass UNI EN 12164 CW614N
- Gaskets in EPDM
- Spring in stainless steel
- Elastic ring in phosphorous bronze

Operation

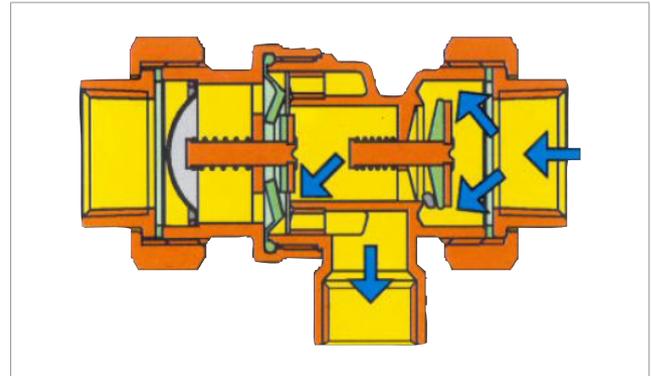
The transit sections are calculated so as to limit the pressure losses of the back flow preventer, thereby guaranteeing optimum flow rates. When the water flows normally, the check valves open to allow transit. The ventilation conduit connected to the outlet remains closed.



In static conditions, the check valves are closed.



In the event of counter-pressure or depression upstream, the ventilation conduit connected to the outlet will open and, if the second check valve is obstructed for any reason, the polluted water is expelled.



Whatever the operating conditions, the water cannot flow back into the main supply system.



Applications

According to UNI EN 1717, the R624 back flow preventer falls within category type CA. "C" indicates the protection family (uncontrollable disconnection) and "A" indicates the type of protection of that family (vacuum breaker valve with various uncontrollable pressure areas).

The fluids that the system must be protected against are divided into categories on the basis of their use (UNI EN 1717):

Standard EN 14367 defines the application field and size, chemical/physical and mechanical characteristics of the non-adjustable area back flow preventer with reduced pressure - family C, type A. According to this Standard, the R624 back flow preventer offers protection against fluids of categories 1, 2, 3.

For waters of category 4, you must insert a BA-type back flow preventer.

1	WATER DESTINED FOR CONSUMPTION	CATEGORY
1,1	Drinking water	1
1,2	High pressure water	1
1,3	Stagnant water	2
1,4	Iced water	2
1,5	Hot sanitary water	2
1,6	Steam (in contact with foodstuffs; additive-free)	2
1,7	Purified water (inside buildings)	2
2	WATER WITH ADDITIVES, OR IN CONTACT WITH LIQUID OR SOLID ELEMENTS OTHER THAN THOSE IN CATEGORY 1	CATEGORY
2,1	Softened water not destined for human consumption	3/4*
2,2	Water + anti-corrosive, not destined for human consumption	3/4*
2,3	Water + antifreeze	3/4*
2,4	Water + algicide	3/4*
2,5	Water + liquid foodstuffs	2
2,6	Water + solid foodstuffs	2
2,7	Water + alcoholic drinks	2
2,8	Water + cleaning products	3/4*
2,9	Water + surface-active products	3/4*
2,10	Water + disinfectants not destined for human consumption	3/4*
2,11	Water + detergents	3/4*
2,12	Water + coolant	3/4*
3	WATER FROM OTHER USES	CATEGORY
3,1	Water for cooking food	2
3,2	Water used for cleaning fruit and vegetables (catering system)	3 / 5**
3,3	Water for pre-washing and washing dishes and cooking utensils	5
3,4	Water for rinsing dishes and cooking utensils	3
3,5	Water from the central heating system, without additives	3
3,6	Refluent water from sewers	5
3,7	Water used for personal hygiene	5
3,8	Water from the toilet tank	3
3,9	Water from the toilet	5
3,10	Drinking water for animals	5
3,11	Water for swimming pools	5
3,12	Water used for cleaning clothes	5
3,13	Sterilised water	2
3,14	Demineralised water	2

(*) the boundary between categories 3 and 4 refers to the EU Directive 93/21/EEC of 27/04/1993.

(**) category 5 for water for pre-washing and washing - category 3 for rinsing water.

Installation

The R624 back flow preventer must be installed on the supply pipes, in a horizontal position with vertical drainage, and in an accessible place to facilitate maintenance and checks along with any possible antifreeze protection.

When assembling the device, make sure the flow direction corresponds with the direction indicated by the arrow on the device itself.

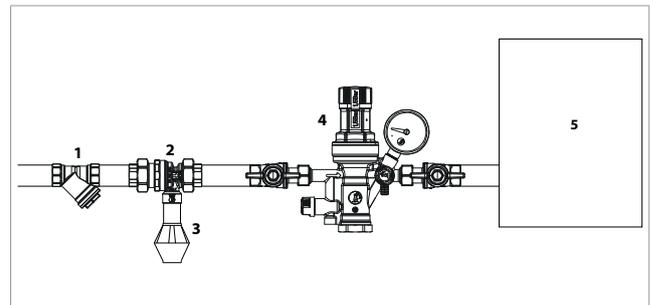
Use the hexagonal tail piece seats to fit the device, and don't squeeze the body with tools that could damage it.

No sealing material should be applied to the thread of the nuts that join the body with the tail pieces, as the seal is guaranteed by internal gaskets.

The R624 back flow preventer has a stainless steel mesh filter inside, but correct operation is only guaranteed if another filter is installed first to eliminate any impurities in the water.

The drainage point must be connected to a visible relief funnel - R141 series + R189D 1/2" nipples - so that any operating faults can be noted immediately. For boiler supply, install the back flow preventer before the automatic filling unit. In this way, if the back flow preventer is not working properly (due to impurities that may settle in the check valve seats) the check valve inside the filling unit prevents the drainage of the system.

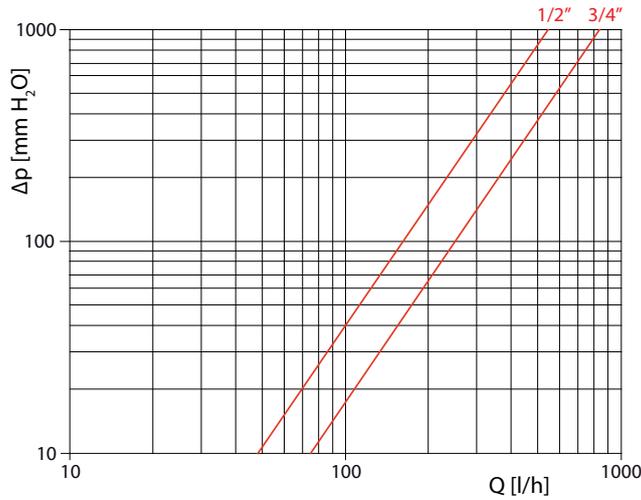
You are advised to disassemble the body at regular intervals, to make sure the internal filter is clean.



1	Filter, R74A
2	Back flow preventer, R624
3	Drainage with funnel, R141
4	Filling unit, R150N
5	Boiler

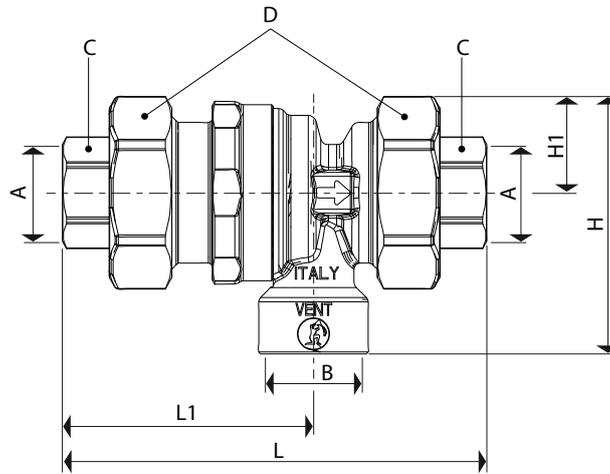


Losses of pressure



Product code	Connections	Kv
R624Y003	1/2" F	1,7
R624Y004	3/4" F	2,6

Dimensions

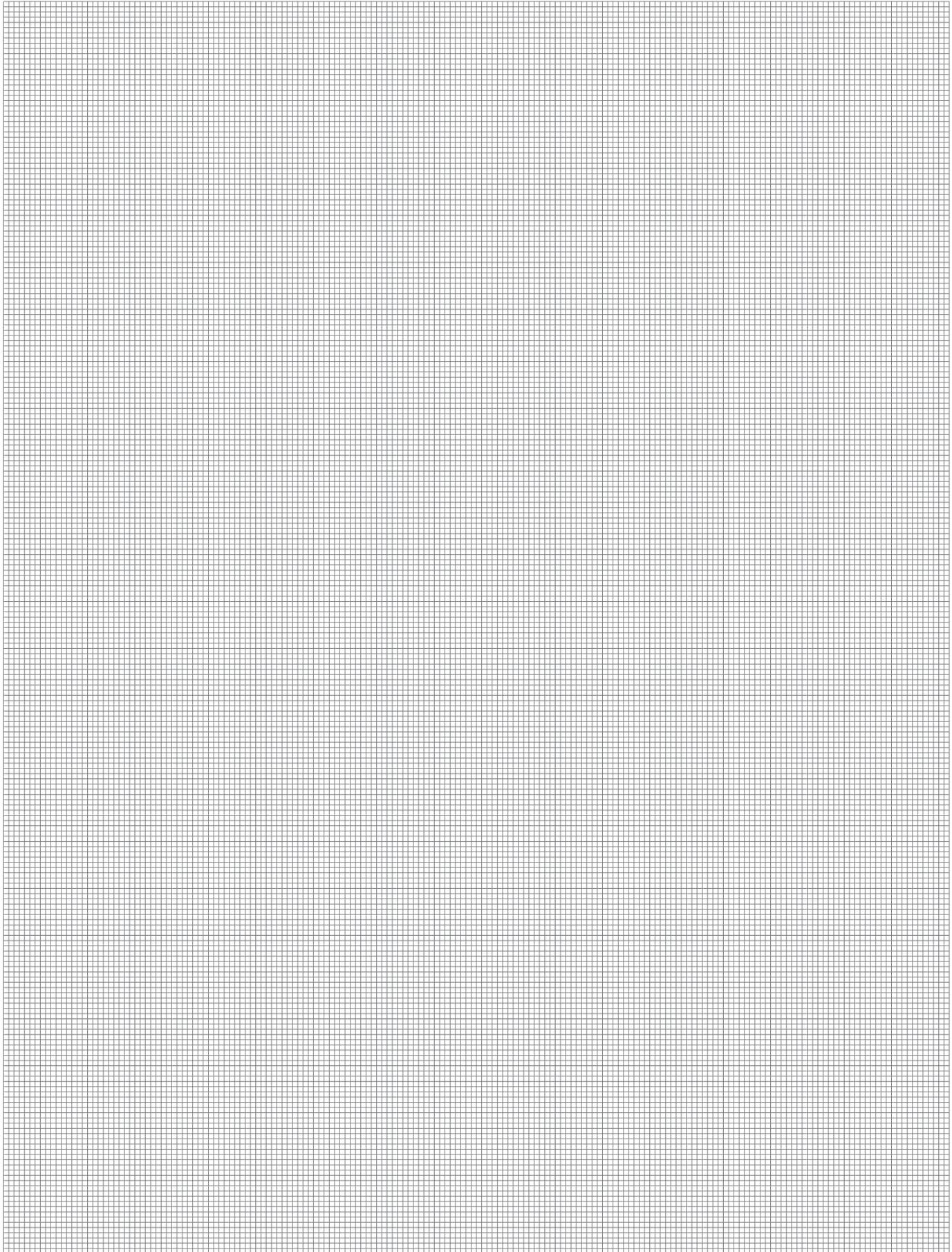


Product code	Connections A	Drainage B	C (hexagon)	D (hexagon)	L	L1	H	H1
R624Y003	1/2" F	1/2" F	25	43	105	62	64	24
R624Y004	3/4" F	1/2" F	31	43	105	62	64	24

Product specifications

R624

Non-controllable backflow preventer with different pressure zones. CA type (UNI EN 1717). Protection against fluids of categories 1, 2, 3 (UNI EN 1717). Threaded connections 1/2"F or 3/4"F, with tail piece (ISO 228 - from Standard EN 14367). Drainage 1/2"F. Body in brass UNI EN 12165 CW617N. Internal filter in stainless steel. Internal stems in brass UNI EN 12164 CW614N. Gaskets in EPDM. Spring in stainless steel. Elastic ring in phosphorous bronze. Temperature range 5÷90 °C. Max. working pressure 10 bar. A.S.S.E. type-approval 1012 - CSA. In compliance with EN 14367.



Additional information

For additional information please check the website www.giacomini.com or contact the technical service: ☎ +39 0322 923372 📠 +39 0322 923255 ✉ consulenza.prodotti@giacomini.com
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