



**R623**

**Description**

The protection of the water supply plays a major role in modern systems. To protect these water supplies, equipment must be installed on domestic systems to prevent backflow of potentially polluted water. These devices are called backflow valves. The R623 series double-check backflow valve is usually fitted downstream of the water meter to protect the public network, at the base of the upright columns on the sanitary water distribution manifolds, to protect other tenants in a shared building, and within individual apartments to isolate the supply to bathrooms or independent heating systems.

**Versions and product codes**

Product code	Connections
R623Y004	3/4" F
R623Y005	1" F

**Technical data**

- Female threaded connections
- Temperature range: 5÷80 °C
- Max. working pressure: 10 bar
- ED Type (UNI EN 1717)
- Only suitable for some domestic uses
- Complies with EN 13959

**Materials**

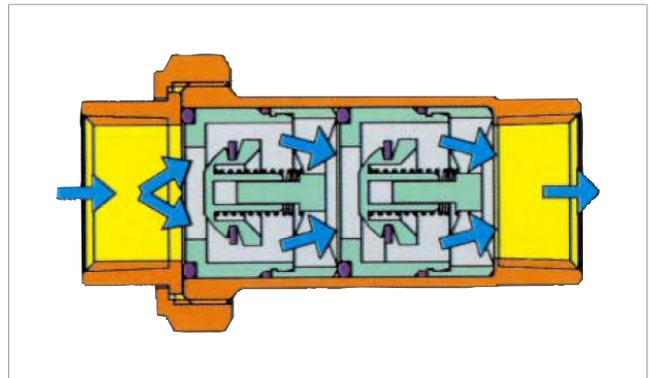
- Body in brass UNI EN 12165 CW617N
- Brass nut UNI EN 12165 CW617N
- Seals in food-grade EPDM
- Check valves in food-grade POM plastic material

**Operation**

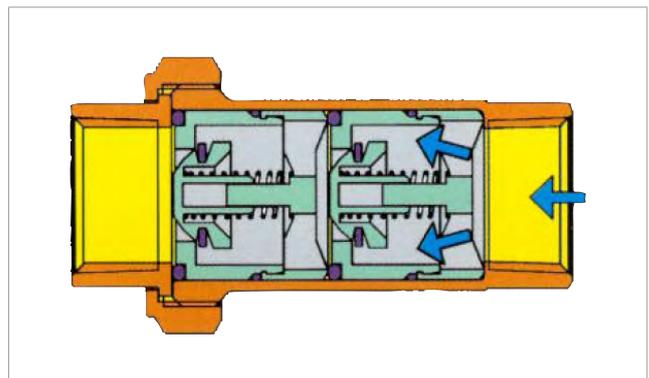
The two plastic internal check valve modules guarantee a perfect seal, eliminating the risk of fluid return.

The internal stainless steel springs and passage sections have been designed to limit losses of pressure from the backflow valve.

The modules can be easily replaced, in cases where impurities in the fluid alter functionality. The drawings below show how the backflow valve operates: when the water is flowing normally, the check valves open.



In the case of depression upstream or increase in pressure downstream, the check valves are immediately closed, preventing downflow.



**Applications**

In accordance with UNI EN 1717, the R623 backflow valve falls under the ED category. It is part of the protection family (anti-pollution check valves). D - the type of protection within the above-mentioned family (non-controllable dual anti-pollution check valve).

The fluids from which protection is required are divided into categories based on their use (UNI EN 1717):

The standard EN 13959 defines the scope, the dimensions, and the physico-chemical and mechanical characteristics of the non-controllable backflow preventer with different pressure zones, E family, type D. On the basis of this standard, the R623 backflow valve is indicated only for certain domestic uses.

EQUIPMENT	CATEGORY	AUTHORISED UNIT LEVEL
Taps with jet spray in sinks, showers and baths; excluding lavatory and bidet	5	Appropriate units of protection of category 2 and EB, ED, HC



**Installation**

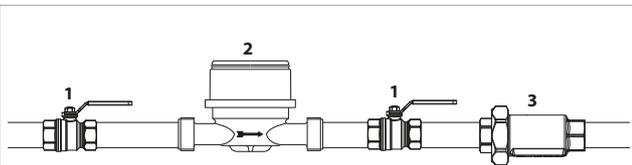
The R623 backflow valve can be installed either horizontally or vertically on drinking water supply pipes. The backflow valve must be installed in an easily accessible position to allow for maintenance and frost protection, if necessary. When installing, ensure that the flow direction corresponds with that indicated by the arrow on the body of the backflow valve.

When fitting, use the special hexagonal holders on the body and on the tail piece; avoid tightening the backflow valve whilst squeezing the cylindrical body, as twisting this could prevent it from operating fully.

No sealing material should be applied to the thread on the nut which connects the body to the tail piece; seal is guaranteed by means of the O-ring seal. Proper function of the backflow valve is assured provided the water does not contain impurities or sand. In the case of water carrying material in suspension, it is essential to install appropriate filters at the point at which the system connects to the network.

**Protection of public networks**

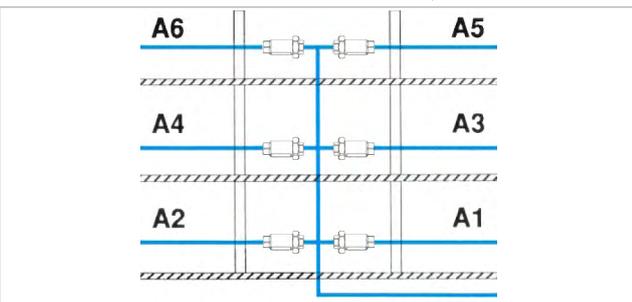
To avoid return of potentially polluted water in domestic systems in the case of reductions in water main pressure (e.g. bath containing soaps or chemicals, with immersed shower head), the R623 backflow valve should be installed downstream the water meter.



1	Ball valves
2	Sanitary water meter
3	R623 backflow valve

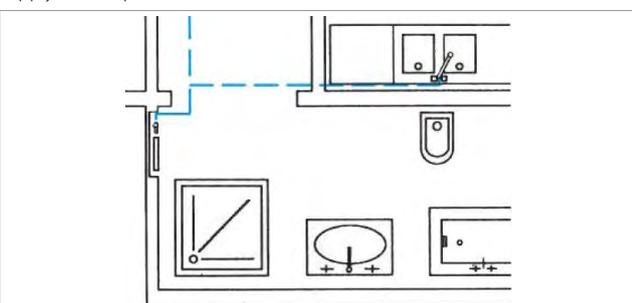
**Two-way protection in a shared building**

In order to ensure mutual protection in cases where multiple users are connected to the same distribution column, the R623 backflow valve should be fitted at the entrance of each apartment, after any flow meters.



**Protection in apartments**

To prevent polluted water from appearing in the kitchen sink, as reflux from the bathroom, the laundry room, or from the wall-mounted boiler, the backflow valves R623 should be fitted in the distribution cabinets or on the supply branch point.



**Maintenance**

When in use, the backflow valve should be checked regularly. To correctly perform maintenance operations, take the following steps:

- 1) Loosen the nut that keeps the body fastened to the tail piece.
- 2) Remove the body from the pipe and extract the two check valve modules, pushing them right to the bottom.



- 3) check that the two check valve modules are in perfect working order; there should be no impurities on the seal housing or on the closure spring. If the modules are worn, replace them.

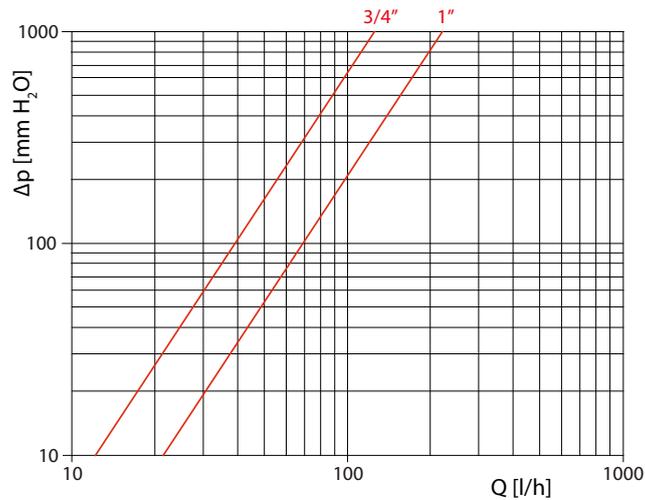


- 4) Insert the check valve modules one by one, ensuring that they are facing the right way: the spring must remain towards the end of the backflow valve, while the moving part should be facing towards the tail piece. When inserting these, do not forget to fit the O-rings, which are situated at the end of the modules.

- 5) Refit the body of the backflow valve on the pipe, using Allan keys, and tighten the connection nut to the tail piece.

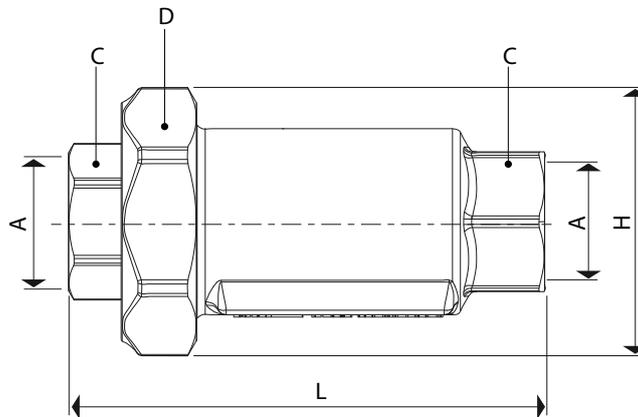


### Losses of pressure



Product code	Connections	Kv
R623Y004	3/4"F	4,1
R623Y005	1"F	6,8

### Dimensions



Product code	A connections	C (hexagon)	D (hexagon)	L	H
R624Y003	3/4"F	32	53	103	59
R624Y004	1"F	39	53	103	59

### Product specifications

**R623**

Double-check backflow valve for sanitary systems. ED Type (UNI EN 1717). 3/4"F or 1"F threaded connections. Body in brass UNI EN 12165 CW617N. Brass nut UNI EN 12165 CW617N. Seals in food-grade EPDM. Check valves in food-grade POM plastic material. Temperature range 5÷80 °C. Max. working pressure 10 bar. Complies with EN 13959.

**Additional information**

For additional information please check the website [www.giacomini.com](http://www.giacomini.com) or contact the technical service: ☎ +39 0322 923372 📠 +39 0322 923255 ✉ [consulenza.prodotti@giacomini.com](mailto:consulenza.prodotti@giacomini.com)  
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