

→ **Type 647**

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Double non-return valve  
made of gunmetal



■ SUITABLE FOR

Liquids	neutral	
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■ EXAMPLES OF USE

For automatic shut-off in closed-circuit piping systems with gravitational circulation in the warm water distribution circuit.

- distribution of drinking- and process water

■ SIZE DETERMINATION

In order to avoid erratic movements of the valve disc while in use, it is essential to choose the right nominal size of the double non-return valve in relation to the rate of output. The rates of flow should be according to the following table:

Type 647: Flow volumes						
Nominal diameter	DN	15	20	25	32	40
Connection DIN EN ISO 228	G	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)
Flow volume	l/min	5–25	20–50	40–75	65–120	100–200

■ MATERIAL



■ SPECIFICATION



1/2" – 1 1/2"



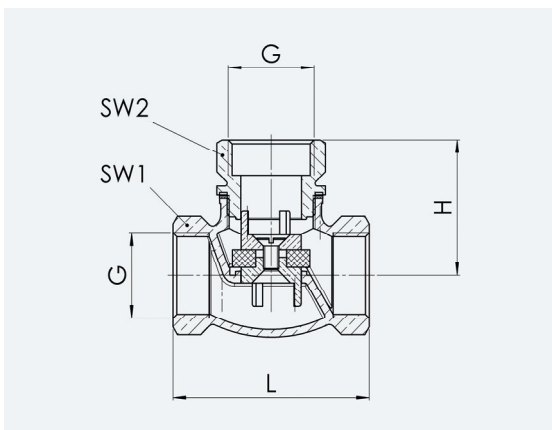
from –10°C  
to +95°C



pressure-tight  
up to 10 bar

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Type 647: Connection, Installation dimensions, Weight						
Nominal diameter	DN	15	20	25	32	40
Connection DIN EN ISO 228	G	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)
Installation dimensions in mm	L	54	64	76	95	108
	H	35	45	51	73	78
Weight	SW1	26	31	40	51	59
	SW2	26	31	38	51	58
Weight	kg	0,25	0,35	0,55	1,2	1,7



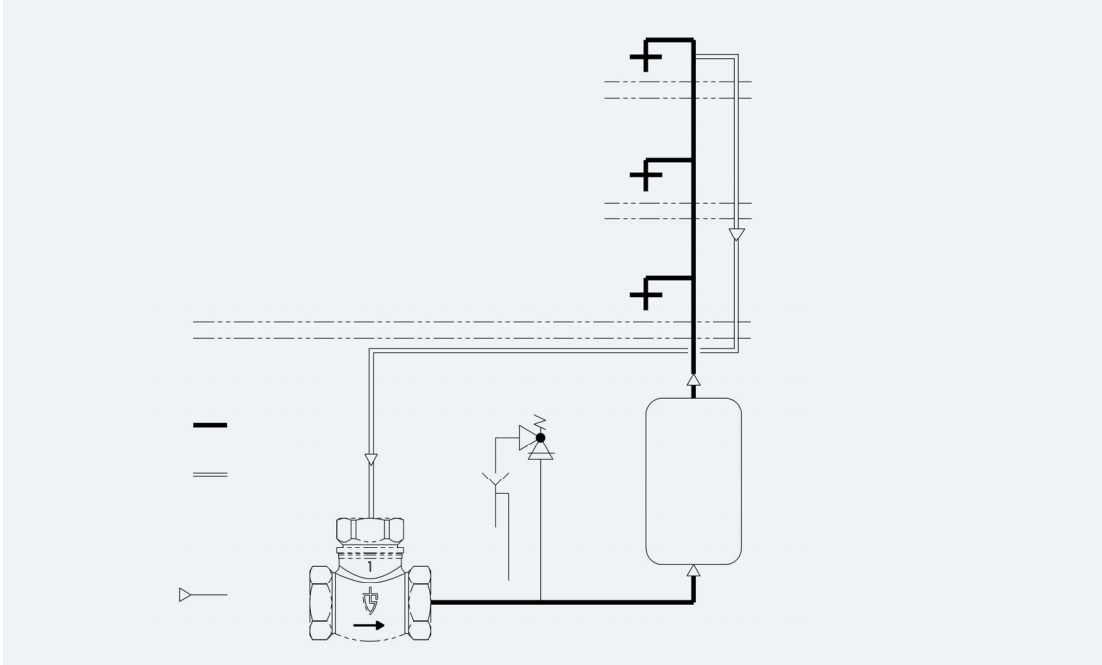
■ MATERIALS

Component	Material	DIN EN	ASME
Body	Gunmetal	CC499K	CC499K
Internal parts	Brass	CW614N	CW614N
Seal	NBR		

## ■ INSTALLATION NOTE FOR DOUBLE NON-RETURN VALVES

To achieve the best functional effect, the piping system should be connected to the boiler in the lowest possible position. This is assured by the non-return valve. For hot water heaters with gravity circulation it offers these **Advantages:**

- Hot water at any time
- No entry of cold water into hot water pipe
- No return flow of the hot water into the cold water pipe, the pressure reducer and water meter are protected against calcification
- Economization of energy and drinking water



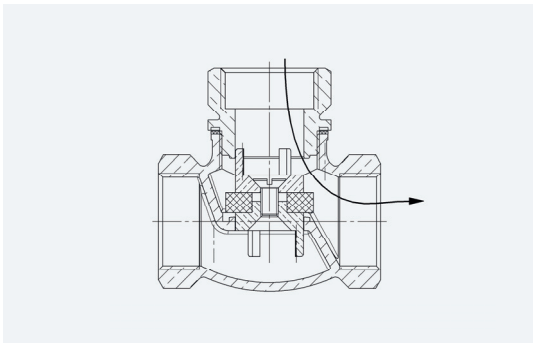
### Function:

Open circulation pipe (picture 1)

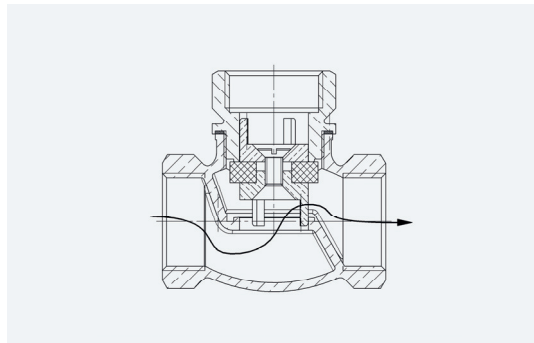
If no hot water is drawn the cold water is shut off by lower part of the valve cone.

Closed circulation (picture 2)

If hot water is drawn the valve cone is lifted by the water flow from the cold water pipe to the boiler. The upper part of the cone blocks the circulation pipe so that no cold water can enter into the warm water pipe.



Picture 1



Picture 2