Technical Data Sheet

Relief valves

VS

14/04/2021

Function

Relief valves are used to control pressure in heat generators in heating systems and hot water build-ups in sanitary installations and water facilities. Once the set pressure is reached, the valve opens and discharges in the atmosphere, thus preventing the pressure in the system to rise to levels which may be dangerous for its components.

Technical data

Nominal pressure:	PN 10
Temperature range:	5 ÷ 110 °C
Opening overpressure:	20%
Blowdown:	20%
Working fluids:	water in compliance with UNI 8065:2019

Calibrations

VS 910:	1.5 – 1.8 – 2 – 2.5 – 3 – 3.5 – 4 – 5 – 6 – 7 – 8 – 10 bar
VS 911:	1.5 – 1.8 – 2 – 2.5 – 3 – 3.5 – 4 – 5 – 6 – 7 – 8 – 10 bar
VS 920:	1.5 – 1.8 – 2 – 2.5 – 3 – 3.5 – 4 – 6 – 7 – 8 – 10 bar
VS 930:	1.5 – 1.8 – 2.5 – 3 – 4 – 6 bar
VS 912:	1.5 – 1.8 – 2 – 2.5 – 3 – 3.5 – 4 – 6 bar
VS 913:	1.5 – 1.8 – 2 – 2.5 – 3 – 3.5 – 4 – 6 bar

Materials

Valve body:	CW 617 N – UNI-EN 12165:2016
Stem:	Polypropylene
Spring:	C72 stainless steel
Disk:	Acetal resin
Knob:	Red ABS
Washer:	Acetal resin
Spring stop:	Polyamide 66
Gaskets:	Vulcanized fiber
Cylindrical seal:	EPDM 70

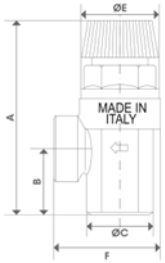
Surface treatment

Sandblasted

Dimensional Drawings

VS 910

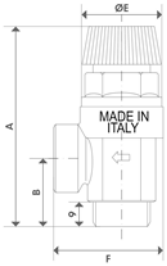
Ordinary relief valve with diaphragm 1/2 x 1/2 F/F.



Code	Size	A	B	C	E	F
All	1/2x1/2	74.5	26	25.5	31.5	41.5

VS 911

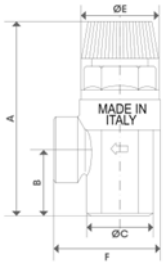
Ordinary relief valve with diaphragm 1/2 x 1/2 M/F.



Code	Size	A	B	C	D	E
All	1/2x1/2	74.5	26	-	31.5	41.5

VS 920

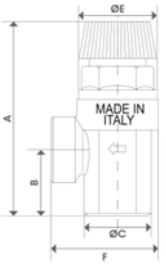
Ordinary relief valve with diaphragm 3/4 x 3/4 F/F.



Code	Size	A	B	C	D	E
All	3/4x3/4	76	26	32.5	31.5	47.5

VS 930

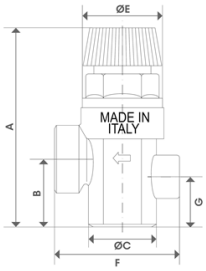
Ordinary relief valve with diaphragm 1” x 1” F/F.



Code	Size	A	B	C	D	E
All	1”x1”	85	32	38	38.5	54

VS 912

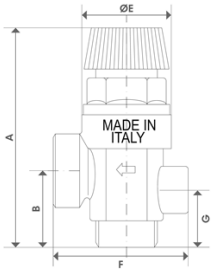
Ordinary relief valve with diaphragm 1/2 x 1/2 F/F with 1/4 socket for manometer.



Code	Size	A	B	C	E	F	G
All	1/2x1/2	74.5	26	25.5	31.5	46	19.5

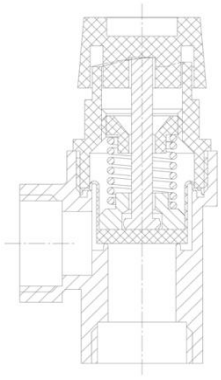
VS 913

Ordinary relief valve with diaphragm 1/2 x 1/2 M/F with 1/4 socket for manometer.



Code	Size	A	B	E	F	G
All	1/2x1/2	74.5	26	31.5	46	19.5

Operating principle



The obturator is opposed by a C72 steel calibrated spring which is preloaded according to the set pressure chosen depending on the system's maximum allowable operating pressure. Once the set pressure is reached, the obturator rises and opens the outlet completely. If the pressure decreases, the valve closes within the set tolerance values.
The diameter of the outlet connection shall be equal to the valve size or higher, so as to facilitate the needed discharge of potential.
According to Italian standards, ordinary relief valves may be installed on generators with a potential of less than 35 kW.

Installation

Relief valves may be installed either vertically or horizontally, but not upside down, in order to prevent impurities from depositing and causing malfunctioning.
Relief valves must be installed on the top of the generator, on the nearest inlet pipe or within the maximum distance prescribed by applicable standards. No shut-off valve shall be installed between the relief valve and the generator.
The valve must be sized properly before the installation in accordance with existing regulations governing specific applications.
Relief valves shall not be employed for purposes other than their intended use.
Relief valves must be installed by qualified technical personnel in accordance with current regulations.
The relief valve must be installed respecting the direction of flow shown by the arrow on the valve body.

Item Specifications

VS 910

Standard diaphragm safety relief valve. Threaded connections 1/2” F x 1/2” F. Brass body valves CW617N UNI EN 12165. Diaphragm and seal in EPDM. Control knob in ABS. Calibrations available: 1.5 – 1.8 – 2 – 2.5 – 3 – 3.5 – 4 – 5 – 6 – 7 – 8 – 10 bar. Operating temperature range 5 ÷ 110 °C. Opening overpressure 20%, blowdown 20%.

VS 911

Standard diaphragm safety relief valve. Threaded connections 1/2” F x 1/2” M. Brass body valves CW617N UNI EN 12165. Diaphragm and seal in EPDM. Control knob in ABS. Calibrations available: 1.5 – 1.8 – 2 – 2.5 – 3 – 3.5 – 4 – 5 – 6 – 7 – 8 – 10 bar. Operating temperature range 5 ÷ 110 °C. Opening overpressure 20%, blowdown 20%.

VS 920

Standard diaphragm safety relief valve. Threaded connections 3/4” F x 3/4” F. Brass body valves CW617N UNI EN 12165. Diaphragm and seal in EPDM. Control knob in ABS. Calibrations available: 1.5 – 1.8 – 2 – 2.5 – 3 – 3.5 – 4 – 6 – 7 – 8 – 10 bar. Operating temperature range 5 ÷ 110 °C. Opening overpressure 20%, blowdown 20%.

VS 930

Standard diaphragm safety relief valve. Threaded connections 1” F x 1” F. Brass body valves CW617N UNI EN 12165. Diaphragm and seal in EPDM. Control knob in ABS. Calibrations available: 1.5 – 1.8 – 2.5 – 3 – 4 – 6 bar. Operating temperature range 5 ÷ 110 °C. Opening overpressure 20%, blowdown 20%.

VS 912

Standard diaphragm safety relief valve with pressure gauge connection. Threaded connections 1/2” F x 1/2” F. Brass body valves CW617N UNI EN 12165. Diaphragm and seal in EPDM. Control knob in ABS. Calibrations available: 1.5 – 1.8 – 2 – 2.5 – 3 – 3.5 – 4 – 6 bar. Operating temperature range 5 ÷ 110 °C. Opening overpressure 20%, blowdown 20%.

VS 913

Standard diaphragm safety relief valve with pressure gauge connection. Threaded connections 1/2” F x 1/2” M. Brass body valves CW617N UNI EN 12165. Diaphragm and seal in EPDM. Control knob in ABS. Calibrations available: 1.5 – 1.8 – 2 – 2.5 – 3 – 3.5 – 4 – 6 bar. Operating temperature range 5 ÷ 110 °C. Opening overpressure 20%, blowdown 20%.

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