



60 YEARS OF ITALIAN TRADITION

Luxor is an important industrial reality, world wide and European market leader in the production of flexible hoses and components for hydro and thermo-sanitary installations. Luxor has been the expression of the most prestigious made in Italy and the great Italian high technology mechanical workings tradition for fifty years; a quality certified and recognized by the most prestigious International Certification Institutes all over the world.

Our mission is the complete customer satisfaction through a process of continuous technological research in order to make high quality, reliable products, anticipating the market evolutions by innovative partnership with both customers and suppliers. Luxor mission takes

place in its own Research and Development Centre in which new and advanced technologies are constantly analyzed and researched with continuous investments to offer the most innovative and reliable solutions for the international markets at competitive costs, ensuring strict quality controls on each single piece.

Luxor entirely plans and realizes each product, thanks to its decennial know how. The great production strength, a "slender" innovative and advanced industrial organization together with a modern logistic conception, make Luxor able to satisfy every kind of request, even customized, with fast deliveries all over the world.



Luxor is certified
ISO 9001:2015
by DEKRA Group
certification body

CERTIFICATION



Please contact our offices for information about technical specifications and certified products or visit the website of the corresponding certification body for the latter.

Please refer to www.nsf.org for a complete list of NSF approved products.
Please refer to www.iapmort.org for a complete list of UPC/cUPC approved products.



3 / VALVES

BALL VALVES



CONSTRUCTIVE FEATURES

All of Luxor ball valves are manufactured in CW 617 N brass and compatible with Luxor manifolds and components. Given the wide range of dimensions and models, they suit a variety of application needs.

Luxor ball valves' pivot pin is installed from the inside. This system, known as "explosion-proof", prevents the pivot pin and its sealing system from escaping, while making external tampering impossible as well. Ball valves feature two elastomeric O-ring seals, chosen for their high resistance to ageing. As prescribed by Italian decree on drinking water supply D.M. 174/2004, the valves are machined after the nickel-plating phase, thus ensuring hygiene and an appreciable aesthetic result.

TECHNICAL DATA



Max temperature

90 °C



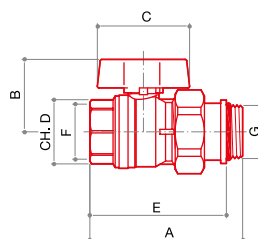
Max pressure

10 bar



Materials

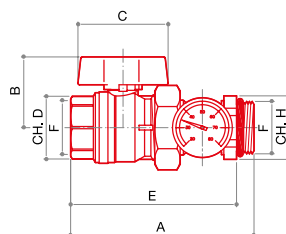
CW617N



VC 471

Nickel plated full-flow ball valve, blue or red handle, with fitting article CR 498 with o-ring for connection to manifold.

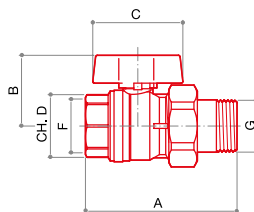
CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559772B	G 1/2	69	40	48	25	61	G 1/2	G 1/2	-	-	210	10	80
68559772R	G 1/2	69	40	48	25	61	G 1/2	G 1/2	-	-	210	10	80
68559805B	G 3/4	90	39	60	33	80	G 3/4	G 3/4	-	-	370	10	80
68559805R	G 3/4	90	39	60	33	80	G 3/4	G 3/4	-	-	370	10	80
68559807B	G 1"	89	43	60	41	78	G 1"	G 1"	-	-	467	5	40
68559807R	G 1"	89	43	60	41	78	G 1"	G 1"	-	-	467	5	40
68559825B	G 1 1/4	123	53	72	50	109	G 1 1/4	G 1 1/4	-	-	907	3	24
68559825R	G 1 1/4	123	53	72	50	109	G 1 1/4	G 1 1/4	-	-	907	3	24



VC 471/A

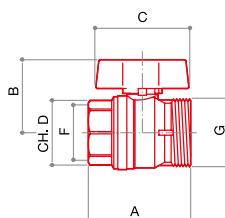
Ball valve with blue or red handle and thermometer (range 0 °C÷80 °C) for connection to manifolds CD series.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559800B	G 1"	115	43	60	41	104	G 1"	-	37	-	562	4	32
68559800R	G 1"	115	43	60	41	104	G 1"	-	37	-	562	4	32

**VC 472**

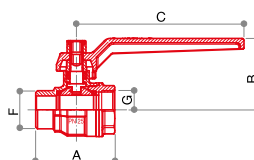
Nickel plated full-flow ball valve, with blue or red handle and fitting.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559774B	G 1/2	73	40	48	25	-	G 1/2	G 1/2	-	-	205	10	80
68559774R	G 1/2	73	40	48	25	-	G 1/2	G 1/2	-	-	205	10	80
68559806B	G 3/4	91	39	60	33	-	G 3/4	G 3/4	-	-	365	10	80
68559806R	G 3/4	91	39	60	33	-	G 3/4	G 3/4	-	-	365	10	80
68559808B	G 1"	95	43	60	41	-	G 1"	G 1"	-	-	487	5	40
68559808R	G 1"	95	43	60	41	-	G 1"	G 1"	-	-	487	5	40
68559818B	G 1 1/4	126	53	72	50	-	G 1 1/4	G 1 1/4	-	-	904	3	24
68559818R	G 1 1/4	126	53	72	50	-	G 1 1/4	G 1 1/4	-	-	904	3	24

**VC 475**

Nickel plated full-flow ball valve, without pipe union, with blue or red handle.

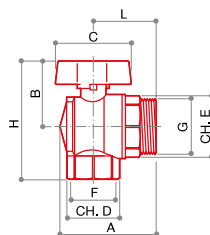
CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559770B	G 1/2F x G 3/4M	45	40	48	25	-	G 1/2	G 1/2	-	-	138	10	80
68559770R	G 1/2F x G 3/4M	45	40	48	25	-	G 1/2	G 1/2	-	-	138	10	80
68559811B	G 3/4F x G 1"M	59	39	60	33	-	G 3/4	G 1"	-	-	252	10	80
68559811R	G 3/4F x G 1"M	59	39	60	33	-	G 3/4	G 1"	-	-	252	10	80
68559809B	G 1"F x G 1 1/4M	61	43	60	41	-	G 1"	G 1 1/4	-	-	311	5	40
68559809R	G 1"F x G 1 1/4M	61	43	60	41	-	G 1"	G 1 1/4	-	-	311	5	40
68559804B	G 1 1/4F x G 1 1/2M	87	53	72	50	-	G 1 1/4	G 1 1/2	-	-	666	3	24
68559804R	G 1 1/4F x G 1 1/2M	87	53	72	50	-	G 1 1/4	G 1 1/2	-	-	666	3	24

**VC 476**

Nickel plated full-flow ball valve, without pipe union, with blue or red lever.


CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559829B	G 1 1/2	91	75	150	-	-	G 1 1/2	G 1 1/2	-	-	1400	2	16
68559829R	G 1 1/2	91	75	150	-	-	G 1 1/2	G 1 1/2	-	-	1400	2	16

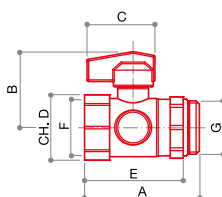
VALVES

**VS 470**


Nickel plated full-flow ball valve, without pipe union, with blue or red handle.

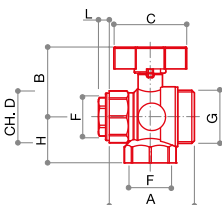
***ARTICLE DISCONTINUED.**

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559810B	G 1"F x G 1"1/4M	72	50	57	39	43	G 1"	G 1"1/4	90	47	582	5	40
68559810R	G 1"F x G 1"1/4M	72	50	57	39	43	G 1"	G 1"1/4	90	47	582	5	40
68559776B*	G 1"1/4F x G 1"1/2M	-	-	-	-	-	G 1"1/4	G 1"1/2	-	-	810	3	24
68559776R*	G 1"1/4F x G 1"1/2M	-	-	-	-	-	G 1"1/4	G 1"1/2	-	-	810	3	24

**VCG 480**

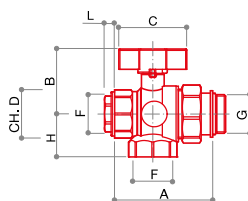
Nickel-plated ball valve with swivel male and blue or red handle.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559719B	G 1"	71	42	42	38	61	G 1"	G 1"	-	-	368	5	40
68559719R	G 1"	71	42	42	38	61	G 1"	G 1"	-	-	368	5	40

**VCS 476**

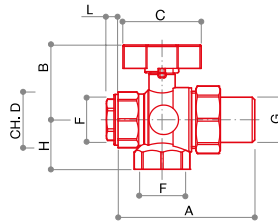
Straight and angle nickel plated ball valve with blue or red handle.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559711B	G 1"F x G 1"1/4M	66,5	55	62	38	-	G 1"	G 1"1/4	36	9	510	5	40
68559711R	G 1"F x G 1"1/4M	66,5	55	62	38	-	G 1"	G 1"1/4	36	9	510	5	40

**VCS 478**

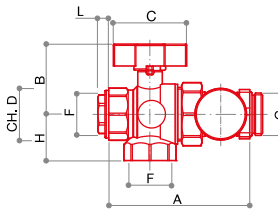
Straight and angle nickel plated ball valve with red/blue handle and fitting CR 498 with o-ring for connection to manifold.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559715B	G 1"	82	55	62	38	-	G 1"	G 1"	36	9	658	5	40
68559715R	G 1"	82	55	62	38	-	G 1"	G 1"	36	9	658	5	40

**VCS 477**

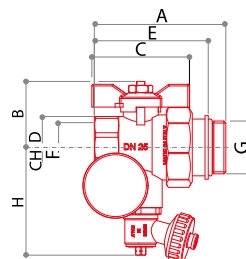
Straight and angle nickel-plated ball valve with blue or red handle and fitting.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559713B	G 1"	99	55	62	38	-	G 1"	G 1"	36	9	684	5	40
68559713R	G 1"	99	55	62	38	-	G 1"	G 1"	36	9	684	5	40


**VCS 479**

Straight and angle nickel-plated ball valve with blue or red handle and thermometer (range 0 °C ÷ 80 °C) for manifolds CD series.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559717B	G 1"	110	55	62	38	-	G 1"	G 1"	36	9	766	4	32
68559717R	G 1"	110	55	62	38	-	G 1"	G 1"	36	9	766	4	32

**VC 481**

Multipurpose water inlet ball valve with manual air vent, blue or red butterfly handle and CR 498 fitting with O-ring for manifold connection, complete with 0°C ÷ 80°C thermometer.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68559722B	G 1"	81	41	60	38	70	G 1"	G 1"	70	-	645	4	32
68559722R	G 1"	81	41	60	38	70	G 1"	G 1"	70	-	645	4	32

BYPASS VALVES FOR HEATING SYSTEMS



TECHNICAL DATA



Brass parts
materials
CW614N



Gaskets OR
EPDM



Spring
AISI 302

FUNCTION

Bypass valves are essential in all distribution systems with 2-way zone valves or heating bodies with adjustment valves, which enable, under certain circumstances, to bypass a circuit.

The recirculation guaranteed by the valve prevents the pump from working under improper conditions, thus avoiding imbalances among circuits operating in parallel and annoying noise caused by the increased speed of the fluid flowing through the adjustment devices.

Bypass valves VB 755 was specifically designed to be easily used with Luxor manifolds and their accessories.

This bypass valve can be installed on a variety of devices, the only requirement is the presence of two opposed G 1/2 female threads.

INSTALLATION INSTRUCTIONS

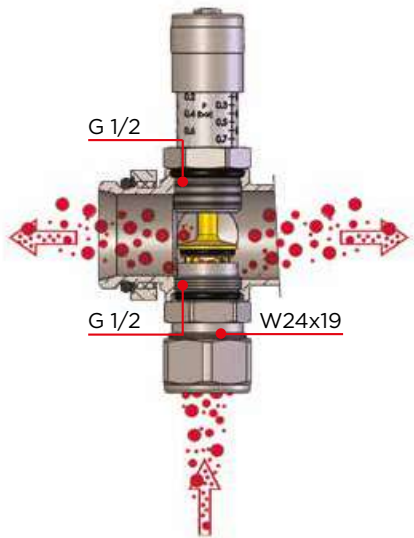
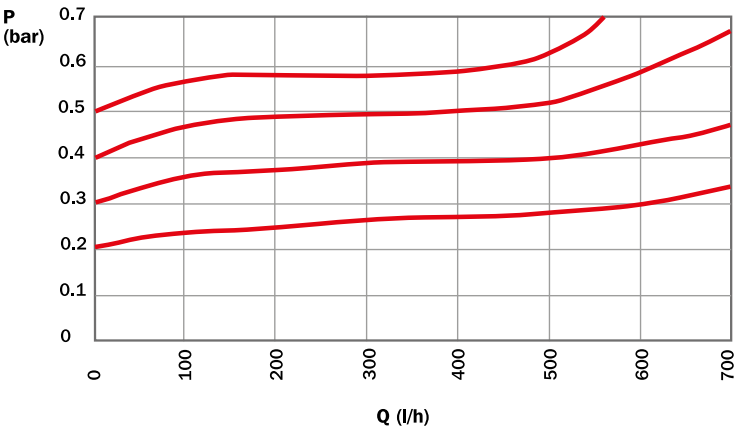
Insert the bypass valve between the inlet and the outlet pipe, downstream of the circulation pump.

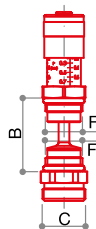
As shown in the above picture, the valve consists of two parts:

- valve seat with inlet fitting;
 - adjusting element with scale from 0,2 to 0,7 bar.
- Please note: the fitting must be exclusively installed on the fluid inlet side.




ADJUSTMENT

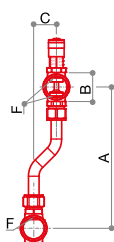
Turn the knob until the edge is aligned with the required value on the graduated scale marked on the valve body.








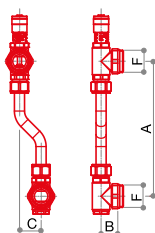
VB 755
Bypass valve.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68512109	CD G 1"	-	41	W24x19	-	-	G 1/2	-	-	-	158	10	80
68512110	CD G 1 1/4"	-	51	W24x19	-	-	G 1/2	-	-	-	182	10	80






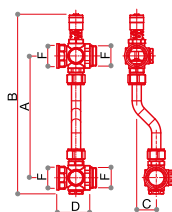
VB 750
Bypass valve.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68512101	CD G 1" x 200 mm	200	41	32	-	-	G 1/2	-	-	-	330	8	64
68512115	CD G 1" x 250 mm	250	41	32	-	-	G 1/2	-	-	-	350	8	64
68512102	CD G 1 1/4" x 200 mm	200	51	32	-	-	G 1/2	-	-	-	330	8	64






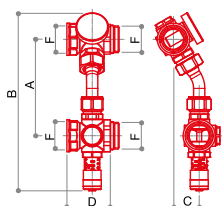
VB 751
Bypass valve with terminals for manifolds.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68512103	G 1" x 200 mm	200	25	32	-	-	G 1"	-	-	-	400	5	40
68512116	G 1" x 250 mm	250	25	32	-	-	G 1"	-	-	-	420	4	32






VB 752
Bypass valve with pipe unions for ball valve with or without thermometer.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68512105	G 1" x 200 mm	200	295	32	54	-	G 1"	-	-	-	766	3	24
68512117	G 1" x 250 mm	250	295	32	54	-	G 1"	-	-	-	820	3	24



VB 753
Bypass valve kit for high temperature GM 1192.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68512108	G 1"	120	223	32	54	-	G 1"	-	-	-	784	3	24

AIR VENT VALVES



TECHNICAL DATA



Max temperature
110 °C



Max temperature
(solar system
version)
200 °C



Max pressure
10 bar



Max discharge
pressure
6 bar

INSTALLATION AND USE

VS air vent valves boast an excellent air flow rate and are essential to release air bubbles from heating systems. Whilst providing a high air flow capacity, their compact size enables to install VS air vent valves on gas wall-hung boilers as well as on manifolds and wherever air needs to be released from piping.

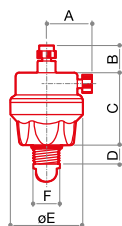
The valve allows for full air evacuation either automatically or manually, depending on the model.

The valve shall be installed in an upright position at all points in the heating system where air is likely to collect.

In order for automatic valves to operate, the brass plug shall be loosened.




When combined with check valve VS 605, automatic air vent valves may be removed without draining the system.

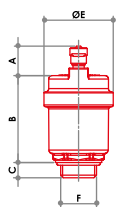
Automatic air vent valves are also available in a version for solar systems with a maximum operating temperature of 200°C.



VS 602

G 3/8 automatic and manual float air vent valve reduced type.
Nickel plated.




CODE	SIZE	A	B	C	D	E	F	G	H	L			
67790310N	G 3/8	25	15	40	10	40	G 3/8	-	-	-	148	15	120

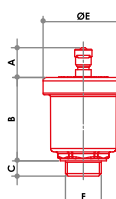


VS 604/A

Automatic air vent valve.



CODE	SIZE	FINISH	A	B	C	D	E	F	G	H	L			
67790300	G 3/8	YELLOW	17	50	9	-	40	G 3/8	-	-	-	138	10	100
67790700	G 1/2	YELLOW	17	50	9	-	40	G 1/2	-	-	-	138	10	100
67790300N	G 3/8	NICKEL PLATED	17	50	9	-	40	G 3/8	-	-	-	138	10	100
67790700N	G 1/2	NICKEL PLATED	17	50	9	-	40	G 1/2	-	-	-	138	10	100

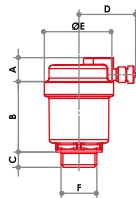


VS 601

Automatic air vent valve medium type.




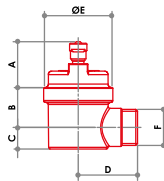
CODE	SIZE	A	B	C	D	E	F	G	H	L			
67790117	G 3/8	17	50	9	-	46	G 3/8	-	-	-	154	10	100
67790121	G 1/2	17	50	9	-	46	G 1/2	-	-	-	154	10	100
67790127	G 3/4	17	50	9	-	46	G 3/4	-	-	-	154	10	100

**VS 603**

Automatic air vent valve with side discharge.

Testing
100%

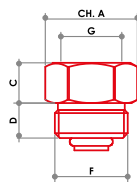
CODE	SIZE	A	B	C	D	E	F	G	H	L			
67790417	G 3/8	14	41	9	34	40	G 3/8	-	-	-	160	10	100
67790421	G 1/2	14	41	9	34	40	G 1/2	-	-	-	160	10	100

**VS 606**

Automatic air vent valve with side discharge.

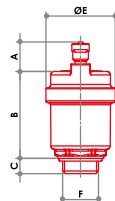
Testing
100%



CODE	SIZE	A	B	C	D	E	F	G	H	L			
67790517	G 3/8	27	23	13	35	40	G 3/8	-	-	-	162	10	100
67790521	G 1/2	27	23	13	35	40	G 1/2	-	-	-	162	10	100

**VS 605**

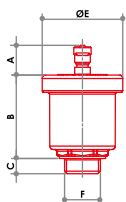
Check valve for automatic air vent valve.

CODE	SIZE	FINISH	A	B	C	D	E	F	G	H	L			
67791200	G 3/8F x G 3/8M	YELLOW	19	-	12	9	-	G 3/8	G 3/8	-	-	18	100	800
67791400	G 3/8F x G 1/2M	YELLOW	23	-	12	9	-	G 1/2	G 3/8	-	-	40	100	800
67791600	G 1/2F x G 1/2M	YELLOW	23	-	12	9	-	G 1/2	G 1/2	-	-	30	100	800
67791200N	G 3/8F x G 3/8M	NICKEL PLATED	19	-	12	9	-	G 3/8	G 3/8	-	-	18	100	800
67791400N	G 3/8F x G 1/2M	NICKEL PLATED	23	-	12	9	-	G 1/2	G 3/8	-	-	40	100	800
67791600N	G 1/2F x G 1/2M	NICKEL PLATED	23	-	12	9	-	G 1/2	G 1/2	-	-	30	100	800

**VS 604/S**Automatic air vent valve.
200°C - 10 bar.Testing
100%

CODE	SIZE	A	B	C	D	E	F	G	H	L			
67791017	G 3/8	17	50	9	-	40	G 3/8	-	-	-	138	10	100
67791021	G 1/2	17	50	9	-	40	G 1/2	-	-	-	138	10	100

VALVES

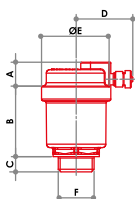
**VS 601/S**

Automatic air vent valve medium type.
200°C - 10 bar.



Testing
100%




CODE	SIZE	A	B	C	D	E	F	G	H	L			
67790817	G 3/8	17	50	9	-	46	G 3/8	-	-	-	154	10	100
67790821	G 1/2	17	50	9	-	46	G 1/2	-	-	-	154	10	100
67790827	G 3/4	17	50	9	-	46	G 3/4	-	-	-	154	10	100

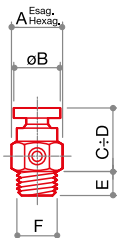
**VS 603/S**

Automatic air vent valve with side discharge. 200°C - 10 bar.



Testing
100%

CODE	SIZE	A	B	C	D	E	F	G	H	L			
67790917	G 3/8	14	41	9	34	40	G 3/8	-	-	-	160	10	100
67790921	G 1/2	14	41	9	34	40	G 1/2	-	-	-	160	10	100

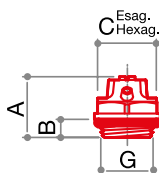
**VS 610**

Manual air vent valve with brass hand-wheel.



Testing
100%




CODE	SIZE	A	B	C	D	E	F	G	H	L			
67793000	G 1/8	13	14	20	23	7	G 1/8	-	-	-	20	100	800
67793500	G 1/4	13	14	17	19	7	G 1/4	-	-	-	20	100	800
67794000	G 3/8	16	14	17	19	7	G 3/8	-	-	-	30	100	800

**VS 620**

Manual air vent valve with white ABS upper part, o-ring on thread, rotating drain.



Testing
100%

CODE	SIZE	A	B	C	D	E	F	G	H	L			
67795417	G 3/8	21	7	19	-	-	-	G 3/8	-	-	21	100	800
67795421	G 1/2	21	8	22	-	-	-	G 1/2	-	-	24	100	800

**CH 620**





Butterfly key for valve VS 620.

CODE	SIZE			
67795400	-	1	200	-

RELIEF VALVES



TECHNICAL DATA

			
Temperature range	Operating pressure	Opening overpressure	Blowdown
5 ÷ 110 °C	according to setting	20%	20%

CONSTRUCTIVE FEATURES

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.

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.



VS 910




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

CODE	SIZE	bar			
67795001	1/2 x 1/2 F/F	1,5	110	10	100
67795002		1,8	110	10	100
67795003		2	110	10	100
67795004		2,5	110	10	100
67795005		3	110	10	100
67795006		3,5	110	10	100
67795007		4	110	10	100
67795008		5	110	10	100
67795009		6	110	10	100
67795010		7	110	10	100
67795011		8	110	10	100
67795012		10	110	10	100






VS 911

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

CODE	SIZE	bar			
67795014	1/2 x 1/2 M/F	1,5	120	10	100
67795015		1,8	120	10	100
67795016		2	120	10	100
67795017		2,5	120	10	100
67795018		3	120	10	100
67795019		3,5	120	10	100
67795020		4	120	10	100
67795021		5	120	10	100
67795022		6	120	10	100
67795023		7	120	10	100
67795024		8	120	10	100
67795025		10	120	10	100




**VS 920**

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

CODE	SIZE	bar			
67795027	3/4 x 3/4 F/F	1,5	170	10	100
67795028		1,8	170	10	100
67795029		2	170	10	100
67795030		2,5	170	10	100
67795031		3	170	10	100
67795032		3,5	170	10	100
67795033		4	170	10	100
67795034		6	170	10	100
67795035		7	170	10	100
67795036		8	170	10	100
67795037		10	170	10	100




**VS 930**

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

CODE	SIZE	bar			
67795039	1" x 1" F/F	1,5	250	10	100
67795040		1,8	250	10	100
67795041		2,5	250	10	100
67795042		3	250	10	100
67795043		4	250	10	100
67795044		6	250	10	100




**VS 912**

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

CODE	SIZE	bar			
67795046	1/2 x 1/2 F/F	1,5	130	10	100
67795047		1,8	130	10	100
67795048		2	130	10	100
67795049		2,5	130	10	100
67795050		3	130	10	100
67795051		3,5	130	10	100
67795052		4	130	10	100
67795053		6	130	10	100

**VS 913**

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

CODE	SIZE	bar			
67795055	1/2 x 1/2 M/F	1,5	135	10	100
67795056		1,8	135	10	100
67795057		2	135	10	100
67795058		2,5	135	10	100
67795059		3	135	10	100
67795060		3,5	135	10	100
67795061		4	135	10	100
67795062		6	135	10	100

THERMOSTATIC MIXING VALVE



TECHNICAL DATA



Maximum inlet
temperature
85 °C



Max static
pressure
10 bar



Max dynamic
pressure
5 bar



Max differential
pressure between
the inlets
0.5 bar



Adjustment
range
30 °C ÷ 65 °C



Adjustment
tolerance
± 2 °C



Press-forged parts
materials
CW617N
UNI EN
12165:2016



Stainless steel
parts materials
AISI 302



Gaskets OR
EPDM

CONSTRUCTIVE FEATURES

Press-forged parts consist of brass with limited lead content in compliance with the current regulations: CW617N UNI EN 12165:2016.

All o-rings are produced in peroxide cured EPDM.

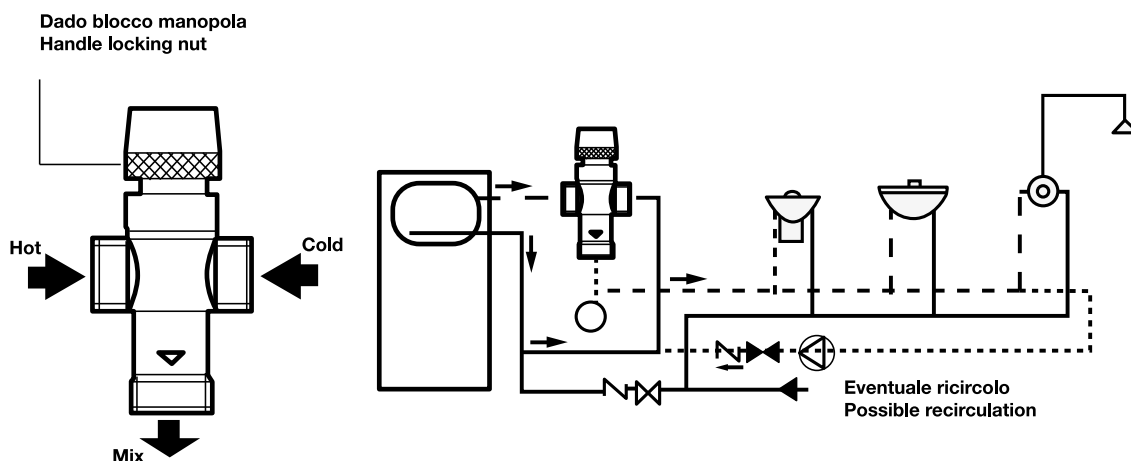
Stainless steel components in AISI 302.

Wax thermosensitive element.

APPLICATIONS

Thanks to its thermostatic element, the thermostatic mixing valve allows to maintain a constant pre-set water temperature in case of pressure and temperature variation at the inlets.

Its use is of great importance in distribution systems for sanitary water, where it is vital to prevent high temperature water coming from the boiler from causing burns to the users. The mixing valve is provided with a built-in anti-scald device which immediately stops the flow if cold water pressure drops.



FUNCTION

The thermostatic mixing valve can be installed either vertically or horizontally.

Observe the connections shown on the body and in the picture:

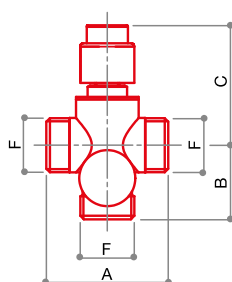
- Hot (H) red dot: Hot Water
- Cold (C) blue dot: Cold Water
- Mix: Mixed Water

If the water pressure is higher than 5 bar, it is advisable to

install a pressure reducer.

If the difference of temperature between hot and cold water is considerably different, it is advisable to install check valves on the inlets. If there is dirt in the water supply, it is advisable to install filters art. RF 5008.

The valve can lock the set temperature simply by turning the nut towards the body. The screw is placed under the handle, in order to prevent tampering.



VM 660

Thermostatic mixing valve with mixing on the third way.

Integrated wax sensor with regulation range 30 °C ± 65 °C. In compliance with D.M. 174/2004.



CODE	SIZE	A	B	C	D	E	F	G	H	L			
68753420	G 1"	74	45	65	-	-	G 1"	-	-	-	690	1	-

MIXING VALVE



APPLICATIONS

The 3-way valve VM 652 can be used as a diverter or mixing valve in heating and air conditioning systems using water or water-glycol **max** 30%.

The valve VM 650 is specifically intended for use in radiant panel heating systems. It works similarly to a 2-way thermostatic valve with an open bypass on the return from the radiant panel. The way B-AB is always open.

3-way valves series VM are usually open and can be used in combination with the thermostatic valve art. TT 2351 as fixed point mixers in heating systems, or electrically controlled with heads series TE and actuators series SM.

SPECIAL FEATURES

VM valves offer:

- high Kvs values;
- a precise modulation thanks to the stroke and shape of the obturator, which can immediately open both the direct passage and the bypass, thus securing flow modulation all along the stroke. (VM 652)
- very low leakage even when used in systems with high differential pressure.

TECHNICAL DATA

Maximum allowed leakage with max ΔP

- 0.05% of the Kvs for the straight passage
- 0.1% of the Kvs for the bypass

Kvs through the lower bypass around 30% of the straight passage

Way A-AB flow Kvs 3.5 - maximum allowed ΔP 0.8 bar

Way B-AB flow Kvs 2.6 - maximum allowed ΔP 1.8 bar



Max temperature

120 °C



Max pressure

16 bar



Press-forged parts materials

CW617N
UNI EN
12165:2016



Obturator materials

CW614N
UNI EN
12164:2016



Stainless steel parts materials

AISI 303

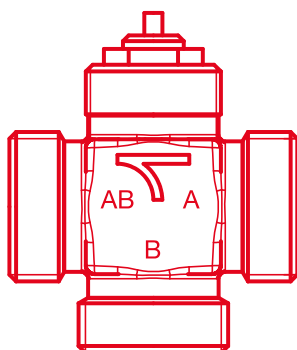


Gaskets OR

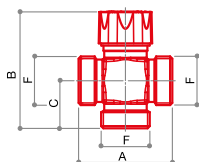
EPDM

FUNCTION

The mixing valves VM650-652 can be installed either vertically or horizontally position. Observe the connections on the body and in the picture.



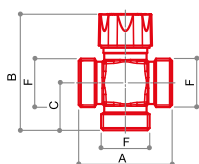
VM 650		VM 652			
MIXING VALVE		MIXING VALVE		DIVERTER VALVE	
A	inlet 1	A	inlet 1	AB	inlet
B	inlet 2	B	inlet 2	A	outlet 1
AB	mixed (bypass way B-AB)	AB	mixed	B	outlet 2
Kvs (m³/h)		Kvs (m³/h)		Kvs (m³/h)	
A-AB = 3,5		A-AB = 3,5		AB-A = 3,9	
B-AB = 2,6		B-AB = 2,6		AB-B = 2,8	
ΔP MAX (bar)		ΔP MAX (bar)		ΔP MAX (bar)	
A-AB = 0,8		A-AB = 0,8		AB-A = 3,5	
B-AB = -		B-AB = 1,8		AB-B = 1	



VM 650


Thermostatic mixing valve with lateral mixing and bypass.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68753411	G 1"	64	80	35	-	-	G 1"	-	-	-	346	1	30



VM 652

Thermostatic mixing valve with lateral mixing.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68753413	G 1"	64	80	35	-	-	G 1"	-	-	-	260	1	30




DIVERTING ZONE VALVES



CONSTRUCTIVE FEATURES

VZ diverting zone valves are solid brass valves, specifically designed to be easily and quickly automated through electric actuators; they are compact and can be installed even in 80 mm deep cabinets.

TECHNICAL DATA

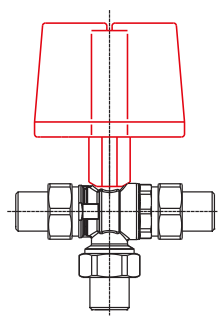
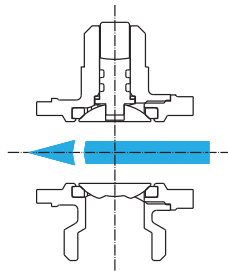
		
Temperature range (valve)	Temperature range (actuator)	Working pressure
-20 °C ÷ +130 °C	-20 °C ÷ +70 °C	according to model

HYDRAULIC SCHEMES

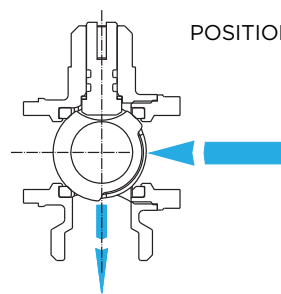
VZ702

Three-way bypass diagram

POSITION 1

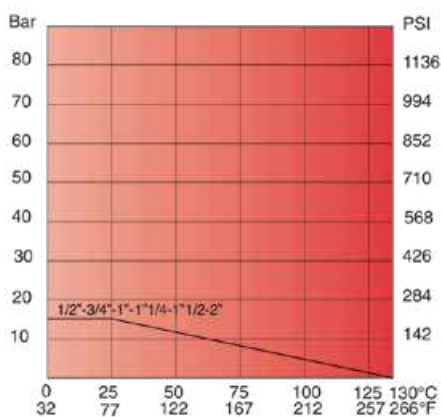


POSITION 2

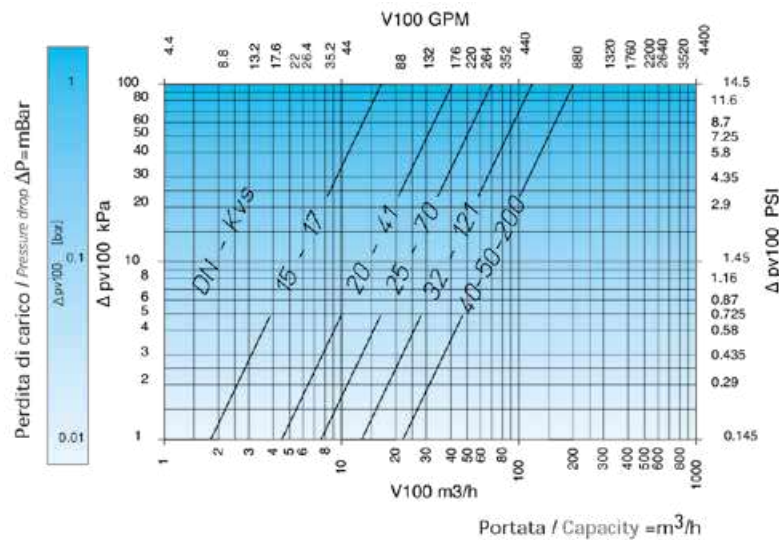


FLOW RATE CHART

PRESSURE / TEMPERATURE DIAGRAM (test carried out with water)



PRESSURE DROP DIAGRAM (for H₂O applications)



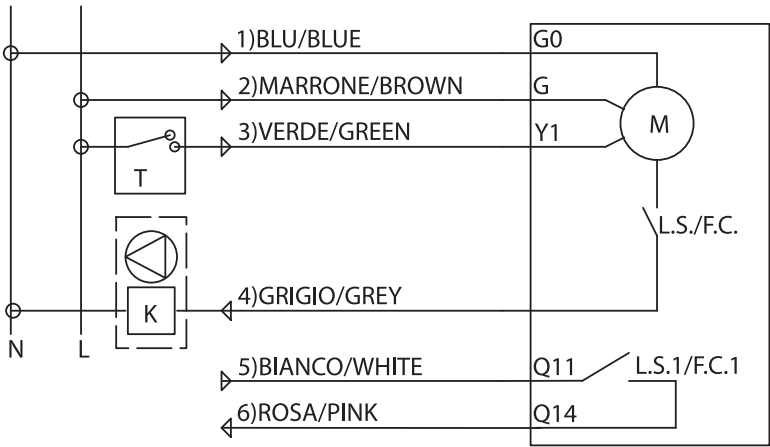
ACTUATOR FEATURES

Body and cover	Nylon 6
Electric supply	230V 50-60Hz
Power consumption	3,5 Watt
Input signal	2 Points / SPST / On-Off / with internal relay
Torque	13 Nm max
Valve connection	Quick Mounting
Run-time	60 Sec / 90°

Actuator type	Bidirectional
Angle of rotation	90°
Degree of protection	IP54
Working temperature	-20 / +70 °C
Connection	6 wires cable
Output signal	230V 50-60Hz 200VA
Aux. contact	250V 10A (AC1)

ELECTRICAL CONNECTIONS

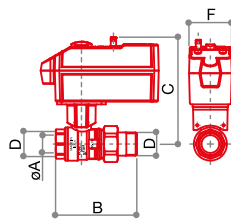
SM700






- 1 BLUE** - NEUTRAL 230V 50/60Hz
- 2 BROWN** - LINE 230V 50/60Hz (3,5W)
- 3 GREEN** - LINE TO OPEN / NO LINE TO CLOSE
- 4 GREY** - LINE WITH OPEN VALVE
- 5 WHITE** - COMMON AUX. CONTACT
- 6 PINK** - N.O. AUX. CONTACT

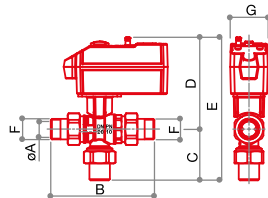
- N** - NEUTRAL (SN)
- L** - LINE (SP)
- T** - THERMOSTAT (RELAY)
- K** - PUMP RELAY
- F.C.** - LIMIT SWITCH 230VAC 10A (AC1)
- F.C.1** - AUX. CONTACT 250VAC 10A (AC1)
- M** - MOTOR

WIRE COLOUR	DIRECTION	DESCRIPTION	CONNECTION
1 BLUE	IN	Neutral	Power supply voltage neutral connection
2 BROWN	IN	Line	Power supply voltage line connection
3 GREEN	IN	Opening / Closing	When power supply voltage line is connected to green wire the valve opens, otherwise the valve closes
4 GREY	OUT	Phase With Opened Valve	With opened valve, presence of phase on grey wire
5 WHITE	COMMON	Limit Switch	Aux.contact switch common
6 PINK	OUT	Limit Switch	Aux.contact switch n.o.



**VZ 700**

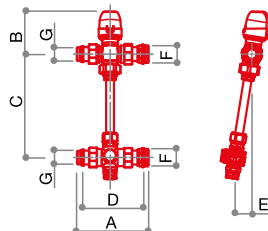
Zone valve F-M with compact electric actuator.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68812700	G 3/4	20	92	121	G 3/4	-	48	-	-	-	1250	1	-
68813400	G 1"	25	105	127	G 1"	-	48	-	-	-	1430	1	-
68814200	G 1 1/4	32	123	133	G 1 1/4	-	48	-	-	-	1720	1	-




**VZ 702**

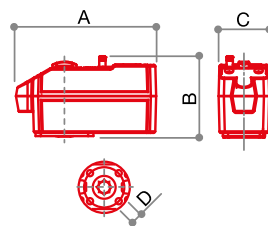
3-way zone valve with bypass on third way, with compact electric actuator.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68822700	G 3/4	20	133	66	118	183	G 3/4	48	-	-	1480	1	-
68823400	G 1"	25	151	70	122	192	G 1"	48	-	-	1950	1	-




**VZ 712**

Diverting kit for manifolds CD series with check valve on the bypass.
Max flow 1800 l/h (Kv 3.5).

CODE	SIZE	A	B	C	D	E	F	G	H	L			
68763603	G 1"	138	83	200	118	32	G 1"	G 3/4	-	-	1400	1	8

**SM 700**

Electric actuator for zone valves VZ 700 and VZ 702.

CODE	SIZE	A	B	C	D	E	F	G	H	L			
69011720	230 V - ON/OFF	133	68	48	9	-	-	-	-	-	480	1	-

DEMAX

MAGNETIC DIRT SEPARATOR FOR HEATING SYSTEM



Energy-saving issues as well as the rational use of resources are very current topics; therefore it is necessary to keep the heating circuit efficient by using a magnetic dirt separator filter placed on the return pipe to capture the impurities present in the heat carrier fluid and avoid any damage they could cause to the heating system.

This device must be installed on the heating circuit, and once positioned, it is necessary to fill the heating system up again, emptying the air in excess.

The main technical data are:

- It prevents the risk of obstruction of the heating circuit pipes and its components.
- Should the boiler be replaced, the dirt separator filter can be mounted on the new one.

TECHNICAL DATA



Max temperature
65 °C



Room temperature
+5°C ...+ 50°C



Water working pressure
1,0 ÷ 2,0 bar



Maximum water pressure
3,0 bar

Water content in the heating circuit: ~ 0,2 l

Magnet: Ø12x60 mm, 4500 gauss

Width: 101,5 mm

Height: 116,5 mm

Net weight: 175 g

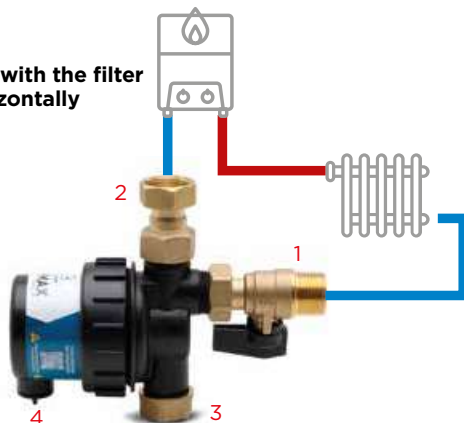
Fittings supplied: G3/4

OPERATING SCHEME

The dirt separator filter can be installed in two different ways (horizontally or vertically) in order to be suitable to the majority of the domestic hydraulic circuits already existing as well as the new ones.

- 1) Heating system return circuit / dirt separator filter inlet
- 2) Dirt separator filter outlet / towards the boiler
- 3) Position of G 3/4 brass female end cap
- 4) Position of M12 grey plastic end cap for filter's emptying.

Installation with the filter placed horizontally



Installation with the filter placed vertically



VALVES



OPERATING PRINCIPLE

The water flow returning from the heating system passes through the inlet fitting of the dirt separator filter, then it flows through the internal area where there is the magnet and the stainless steel metal mesh and goes out through the outlet fitting of the dirt separator filter.

MAGNETIC DIRT SEPARATOR FOR HEATING SYSTEM



DM 2018

Magnetic dirt separator for heating system.

CODE	SIZE			
68550010	G 3/4	542	1	6

CONDITION OF SALE

ORDERS

Contracts entered by agents or representative are not definitive until they are regularly accepted by supplier. The orders sent either through our Agents or directly, are accepted under the "General Sales Conditions" described in the present Price List terms, and will agree, without reservation, to the terms below.

INCOTERMS

The consignments are always Ex works unless differently agreed in the sales contract.

PAYMENT TERMS

The payment terms are those specified in the offers and the order confirmation and are binding.

In case of delay of payment with respect to the agreed due terms, the commercial interest shall be calculated. The delayed payment of previous supplies will authorize us to cancel all orders in progress. Agents and representative are not entitled to collect credits, unless clearly authorised in writing by the supplier.

CLAIMS

Claims on quantities will be accepted within 8 days from the date of receipt of goods. The supplier will not be responsible for missing or damaged packages, unless in the despatch note it is clearly written "accepted with reservation".

COURT

For any controversies the place of jurisdiction shall be: the Court of Low of Brescia.

PRICES

Prices indicated are those clearly agreed in the contract sales confirmed by our order confirmation.

DELIVERY TERMS

The articles part of this catalogue will be consigned within a term of 90 days from order acceptance. Any date inferior to this term is not to be considered accepted unless confirmed in order confirmation.

The delivery times are not binding for the supplier, who will not respond for any damages arising directly or indirectly from delivery delays, or from a total or partial interruption of the supply.

PACKAGING

The standard packaging is at suppliers charges.

The standard packaging does not include special out of size or particular. Where any special packaging is required this will be at customer's charges, unless previously agreed in writing in the contract sales.

RETURN OF GOODS

No goods will be accepted without our previous authorization.

MINIMUM ORDER VALUE

The supplier in addition to checking the feasibility will have the right to deliver orders with a minimum value of 500 Euro.

WARRANTY

The guarantee terms refer to article 3 and 5 of the 199/44/CE Directive. The guarantee is supported by an adequate insurance policy for the "Product Third Party Liability". The guarantee declines any responsibility whereas the installation and the test have not been correctly carried out. The wholesalers and the retailers are compelled to illustrate to their customers and installers all the useful care for a correct installation of our materials.

CATALOGUE VALIDITY

Illustrations, data and references published in this issue are not binding on the supplier who reserves the right to make reasonable changes, both technical and commercial, at his discretion at any time, still without lowering the design performance of the goods.