



CE 1115



R140R

R140RM

R140R1

Description

The Giacomini safety valves of the R140R/RM/R1 range are used to avoid overpressure on the heat generators of the heating system, sanitary water system (protecting the hot water accumulation) and water systems (cold water drainage). The valves comply with Directive 97/23/EC (PED Directive).

Operation

The Giacomini safety valves are used in hot water thermal systems with a closed expansion tank, to ensure that the pressure of the fluid in the heat generator does not exceed the project limits; when the thrust of the pressurised fluid triggers a return spring on the shutter, the valve discharges a specific amount of fluid to prevent the defined pressure level from being exceeded, and then re-closes within the permitted closure range. They can also be used to drain off cold water in water systems. They are factory-calibrated and the drainage pressure value cannot be altered.

Versions and product codes

Series	Product code	Connections	Calibration pressure [bar]
R140R	R140RY101	1/2" F x 1/2" F	1,5
R140R	R140RY102		2,5
R140R	R140RY103		3
R140R	R140RY013	1/2" F x 3/4" F	3
R140RM	R140SY102	1/2" M x 1/2" F	2,5
R140RM	R140SY103		3
R140R1	R140TY102	1/2" F x 1/2" F + 1/4" F manometer connection	2,5
R140R1	R140TY103		3

Technical data

- Fluids: hot water, cold water, air
- Temperature range: 5÷110 °C
- Nominal pressure: 10 bar
- Open overpressure 20%
- Closure range 20%
- PED cat.: IV

Materials

- Body in brass UNI EN 12165 CW617N
- Membrane in EPDM
- Separator in IXEF
- Membrane guide ring in IXEF
- Spring in steel
- Spring presser and separator in IXEF
- Knob in polyamide PA66

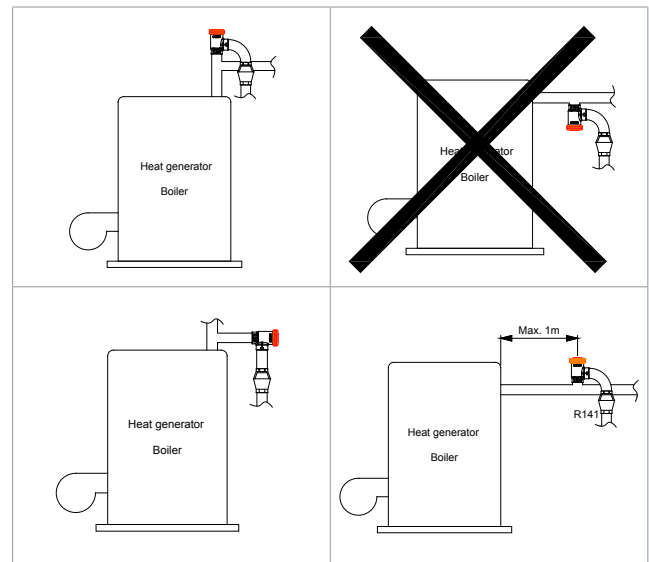
Installation

Before installing any safety valve, the technical personnel in charge of the system must size it correctly, in accordance with the current regulations. The safety valves must be installed in the highest part of the heat generator, or on the delivery pipe, no more than 1m from the generator. They must be clearly visible and easy to check. The pipe connecting the safety valve to the generator must be free of any interception and with a diameter no less than that of the valve itself. The safety valve drainage must be clearly visible and channelled into a pipe with a diameter no less than that of the valve itself, using a funnel (R141) if necessary.



Warning.

The safety valves can be assembled vertically or horizontally, but not upside down (to prevent system impurities from settling); respect the flow direction indicated by the arrow on the body.



Maintenance

The valve must be checked at least once a year, by increasing the system pressure to induce drainage. If this is not possible, you can rotate the knob and check the drainage visually. Any impurities that form on the housing can be removed by means of regular purging.


Performance

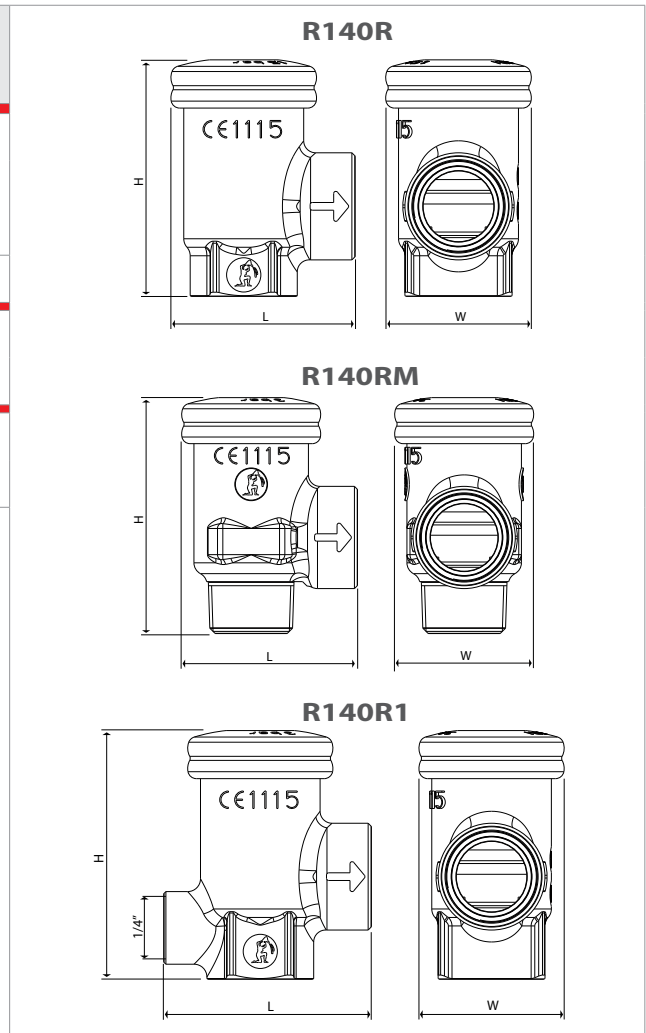
Product code	Connections	Orifice diameter [mm]	Calibration pressure [bar]	HEATING - HOT SANITARY WATER			WATER SYSTEMS	
				Outflow coefficient K_v	Drainage capacity [kg/h]	Maximum generator potential [kW]	Outflow coefficient K_l	Drainage capacity [kg/h]
R140RY101	1/2" F x 1/2" F	13	1,5	0,69	213	124	0,45	3941
R140RY102			2,5		300	174		5088
R140RY103			3		344	200		5573
R140RY013	1/2" F x 3/4" F		3		344	200		5573
R140SY102	1/2" M x 1/2" F	2,5	0,69	300	174	0,45	5088	
R140SY103		3		344	200		5573	
R140TY102	1/2" F x 1/2" F + 1/4" F pressure gauge connection	2,5	0,69	300	174	0,45	5073	
R140TY103		3		344	200		5557	

Data calculated in accordance with UNI EN ISO 4126-1. Maximum generator power calculated as the product of the drainage capacity multiplied by the fluid vaporisation heat, at ambient pressure $W = 1,013$ bar



Dimensions

Series	Product code	Connections	Dimensions (LxHxW) [mm]	Suitable relief funnel
R140R	R140RY101	1/2" F x 1/2" F	43 x 55 x 34	R141Y003
R140R	R140RY102			
R140R	R140RY103			
R140R	R140RY013	1/2" F x 3/4" F	49 x 60 x 34	R141Y014
R140RM	R140SY102	1/2" M x 1/2" F	43 x 58 x 34	R141Y003
R140RM	R140SY103			
R140R1	R140TY102	1/2" F x 1/2" F + 1/4" F pressure gauge connection	49 x 58 x 34	R141Y003
R140R1	R140TY103			



Accessories

It is a good idea to channel the fluids drained by the safety valves with the aid of a funnel R141 (to be ordered separately).



Note.
the use of the R141 relief funnels (plus curved couplings R19 and R189 if necessary) prevents any spray from reaching the electric components.

Normative references

"R" collection

INAIL (I.S.P.E.S.L.) "R" collection for boiler room safety, protection and checks: Italian D.M. 1.12.75.

PED

European Pressure Equipment Directive (97/23/EC).

Product specifications

R140R

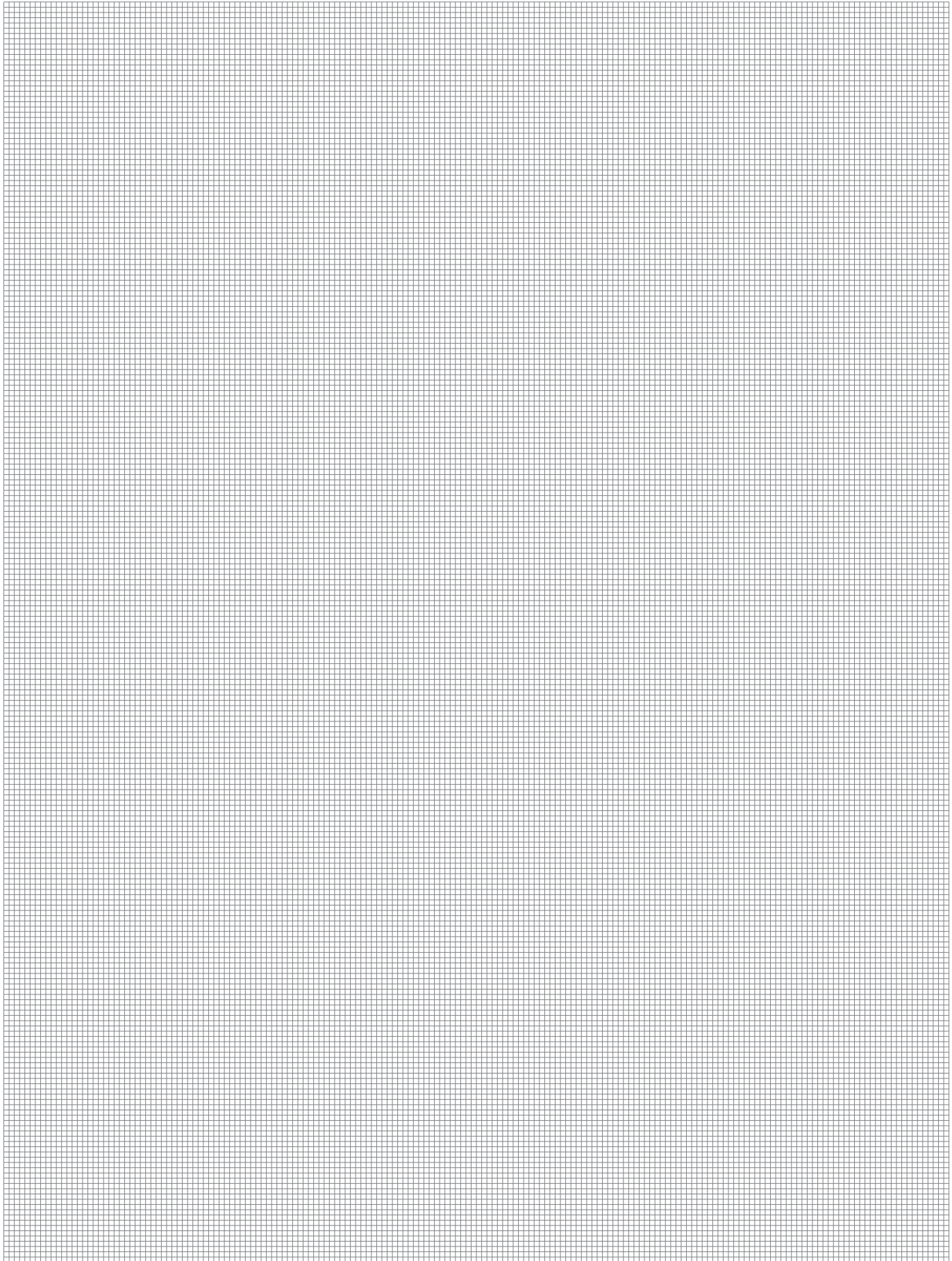
Compact membrane safety valve. Female-female threaded connections of 1/2" F x 1/2" F or 1/2" F x 3/4" F. Fluids: hot water, cold water, air. Body in brass UNI EN 12165 CW617N. Membrane in EPDM. Separator in IXEF. Membrane guide ring in IXEF. Spring in steel. Spring presser in IXEF. Knob in polyamide PA66. Temperature range 5÷110 °C. Nominal pressure 10 bar. Open overpressure 20%. Closure range 20%. Compliance with "PED" directive 97/23/EC (cat.IV). Factory calibration: 1,5 - 2,5 - 3 bar.

R140RM

Compact membrane safety valve. Male-female threaded connections of 1/2" M x 1/2" F. Fluids: hot water, cold water, air. Body in brass UNI EN 12165 CW617N. Membrane in EPDM. Separator in IXEF. Membrane guide ring in IXEF. Spring in steel. Spring presser in IXEF. Knob in polyamide PA66. Temperature range 5÷110 °C. Nominal pressure 10 bar. Open overpressure 20%. Closure range 20%. Compliance with "PED" directive 97/23/EC (cat.IV). Factory calibration: 2,5 - 3 bar.

R140R1

Compact membrane safety valve with 1/4" F connection for pressure gauge. Female-female threaded connections of 1/2" F x 1/2" F. Fluids: hot water, cold water, air. Body in brass UNI EN 12165 CW617N. Membrane in EPDM. Separator in IXEF. Membrane guide ring in IXEF. Spring in steel. Spring presser in IXEF. Knob in polyamide PA66. Temperature range 5÷110 °C. Nominal pressure 10 bar. Open overpressure 20%. Closure range 20%. Compliance with "PED" directive 97/23/EC (cat.IV). Factory calibration: 2,5 - 3 bar.



Additional information

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