

FLOWING EXPERTISE

2025



NEW ZEALAND  
**GENERAL PRODUCT GUIDE**

POWERED BY   
**WATERWARE**

# WATERWARE, PROUD PARTNERS WITH CALEFFI FOR OVER 35 YEARS

Waterware has been a leading name in New Zealand for plumbing, central heating and cooling, and bathroomware since 1984. Our mission goes beyond simply providing these products – we aim to create successful environments for everyone involved, from the tradespeople who install them to the homeowners who enjoy them.

Throughout our history, we've been at the forefront of innovation. We were the first to introduce the Caleffi brand to New Zealand, raising the standards for quality and performance. Today, Waterware continues to push boundaries with hydraulic radiant heating and cooling technology, high-performance plumbing fittings, and beautiful, on-trend bathroomware.

Sustainability is a core value for Waterware. We partner with Caleffi to offer environmentally friendly solutions, including low-lead products that contribute to a greener future for New Zealand and the world. Our ultimate goal is to provide functional, beautiful, and user-friendly solutions that enhance your life and contribute to a more sustainable future.

## THE ORIGINAL PLUMBING VALVE



Original 520 series



521 series



521AUS series



521AUS Low lead series

Waterware introduced the Caleffi 520 series tempering valves in 1984, focusing on safety and basic functionality. In the 1990s, we upgraded to the more enhanced durability and precision of the 521 series design, which saw multiple developments with adjustable settings and compliance in the following years.

By the 2010s, Caleffi integrated smart technology for remote monitoring and control. Today, their valves feature advanced low-lead materials, enhanced safety features, and smart building integration, which we will see in the New Zealand market in 2025.

# THE CALEFFI & WATERWARE STORY



1960s

Caleffi founded by Francesco Caleffi in Gozzano, Italy in 1961. Initial focus started with manufacturing manifold and fittings and valves (made of brass).

Caleffi moved its head office to Fontaneto d'Agogna, where it still is today. Introduced first zone valves and balancing valves for hydronic systems.

1970s



1980s

Acquired Pressco, a brass hot forging company and the first foreign subsidiary, Caleffi Armaturen GmbH, was opened near Frankfurt in Germany.



**1984: Waterware began its successful partnership with Caleffi introducing the 520 series tempering valve.**

The 1990's also saw rapid growth in Italy and on export markets. In 1996 To secure space for future expansion of manufacturing, Caleffi acquired the factory in Gattico. The factory was 13,000 m<sup>2</sup> in size at the time, and occupied grounds of 135,000 m<sup>2</sup>. This site permitted extension of the factory to over 38,750 m<sup>2</sup> in several steps until 2024.

1990s



**1990: Waterware started supplying central heating products.**

**1992: Waterware developed the first combo valve kit for the New Zealand market.**



2000s

New commercial initiatives ensured that the Caleffi name and trade mark are recognised throughout the world. Among the latest is the opening of sales offices in South America, China and Russia, three markets with tremendous potential.

2009

Caleffi continues to invest in innovations which benefit its customers. The new Automatic Vertical Warehouse (MAV), located near the existing premises in Fontaneto d'Agogna, was opened; this will improve customer service by optimising logistics processes.

Introduced modular hydronic systems and high-efficiency circulators. 2011 Celebrated 50 years in business and Italy's top mid-sized employer award.

2010s



2020s

Expanded IoT connectivity and remote control features on products. 2023 and beyond - Continued focus on sustainable and smart hydronic solutions.

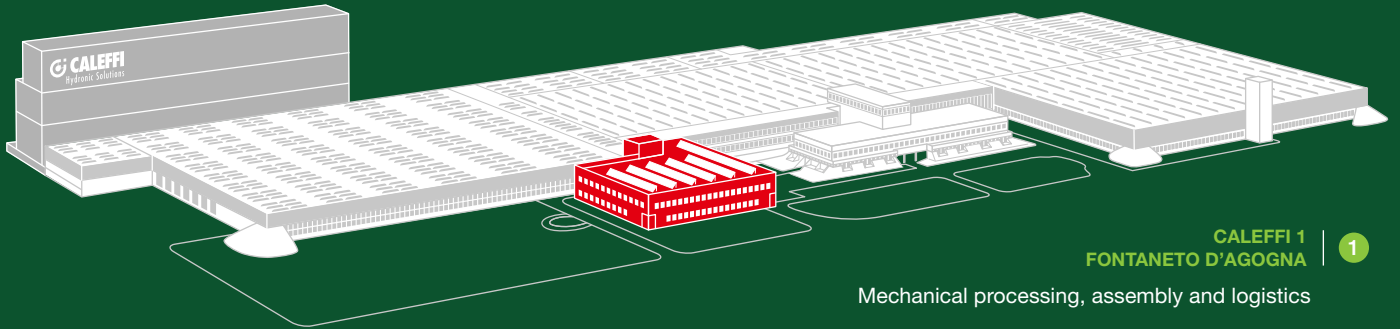
**By the end of 2025 the overall Fontaneto factory extensions will be over 50,000m<sup>2</sup>.**



**2023: Waterware relaunches a consolidated Caleffi range, focusing on the highest quality product for the New Zealand market.**

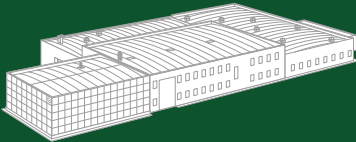
# WE ARE FLOWING EXPERTISE

Caleffi Hydronic Solutions has been redesigning comfort with its HVAC and plumbing solutions.



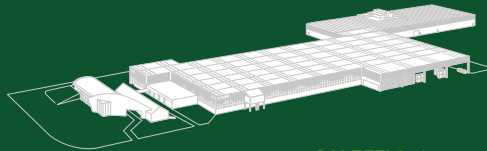
**CALEFFI 1**  
**FONTANETO D'AGOGNA** | 1

Mechanical processing, assembly and logistics



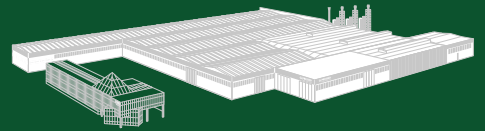
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**FONTANETO D'AGOGNA** | 2

Engineering



**CALEFFI 3**  
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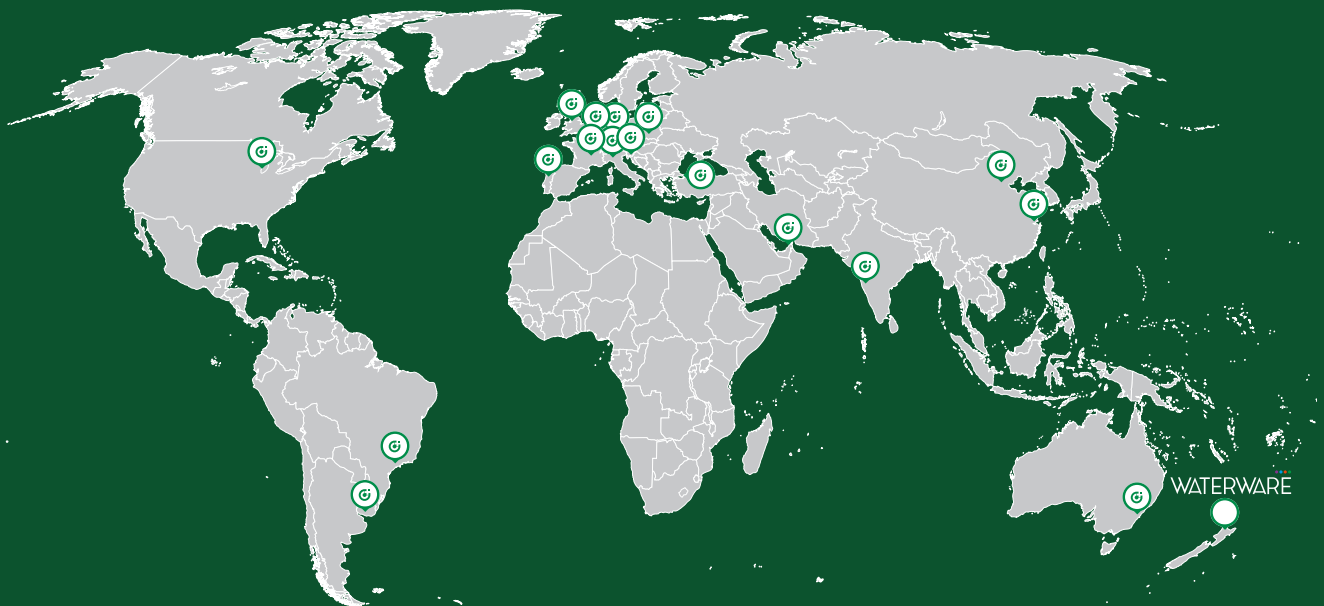
Plastics moulding



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**INVORIO** | 4

Hot forging

## WHERE WE ARE WORLDWIDE



# THE CALEFFI GREEN



## OUR SUSTAINABLE COMMITMENT

The Caleffi Green means facing a future capable of sustaining the needs of today's and tomorrow's people in terms of climate, sustainable comfort, energy saving and the protection of water and people's health.

IN OUR  
PRODUCTION  
PLANTS



**-60%**  
EXPANDED  
POLYURETHANE  
FROM PRODUCT  
PACKAGING

**85%**  
RAW MATERIALS  
FROM ITALY

**98,7%**  
RAW MATERIALS  
FROM EUROPE

**+90%**  
OF OUR  
BRASS  
IS FROM RECYCLED  
MATERIALS



**+11% USE OF  
LOW LEAD  
BRASS**  
IN 5 YEARS



**SUBSTANTIALLY  
INCREASING  
INVESTMENTS ON  
LOW LEAD BRASS  
COMPONENTS**  
FOR PLUMBING  
SYSTEMS

**100%**  
BRASS SCRAP  
RECOVERED



**98,5%**  
PLASTIC SCRAP  
RECOVERED

**100%**  
POLYETHYLENE  
ELIMINATED  
FOR OUTGOING  
PACKAGING

DOWNLOAD OUR  
SUSTAINABILITY  
REPORT 2023



**FOCUSING  
ON SYSTEMS**

Our products contribute to  
GREEN REVOLUTION  
deliver the right climate for life.

**SUPPORTING  
ENERGY  
TRANSITION**



**HEAT PUMP COMPONENTS**

**BETTER WATER  
MANAGEMENT**



**WATER TREATMENT DEVICES**

**SMART DESIGN**



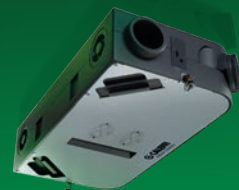
**CIRCUIT BALANCING DEVICES**

**WE CARE  
FOR WATER  
AND PEOPLE'S  
HEALTH**



**DOMESTIC WATER DEVICES**

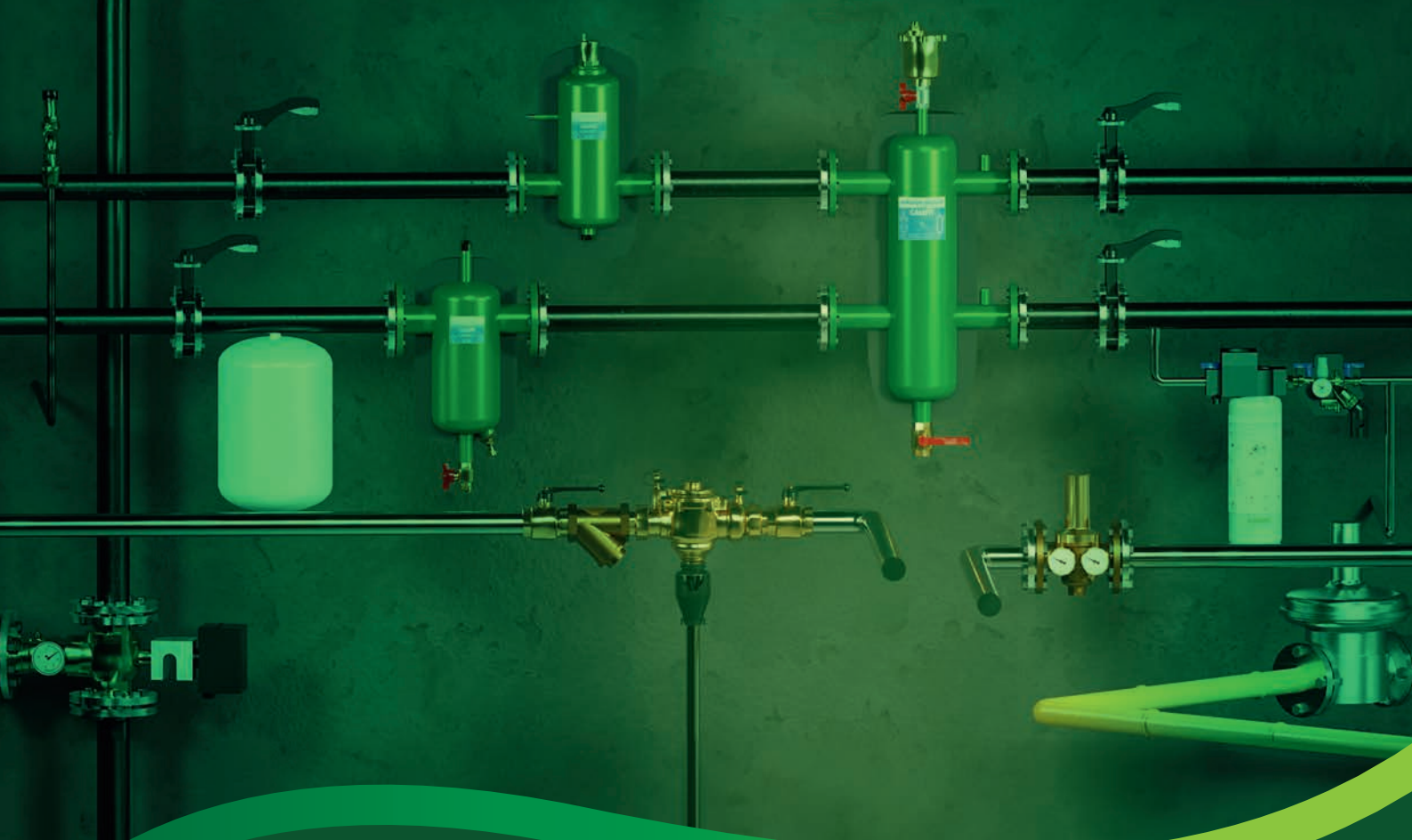
**SUSTAINABLE  
COMFORT**



**HRV AND HVAC SYSTEM COMPONENTS**

# 100% BIM

## WE SHARE OUR EXPERTISE



 **+6000**  
professionals  
registered

 **+10 years**  
expertise

 **+4000**  
codes

**THE BETTER  
YOU DESIGN  
THE MORE  
YOU CARE FOR THE  
ENVIRONMENT**

Explore [bim.caleffi.com](http://bim.caleffi.com), the portal for MEP design professionals. Download virtual models of our products with constantly updated essential data and parameters. Find families (RFA), projects (RVT), and templates for the MEP sector, as well as models in IFC and BOL formats. Join over 6000 professionals who have already chosen our smart design solutions.



## COMPONENTS FOR DOMESTIC WATER SYSTEMS

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## COMPONENTS FOR DOMESTIC WATER SYSTEMS



### 6000 SERIES LEGIOMIX



The electronic mixing valve is used in centralised systems that produce and distribute domestic hot water. Its function is to guarantee and maintain the temperature of the domestic hot water delivered to the user when there are variations in the temperature and pressure of the hot and cold water at the inlet or in the draw-off flow rate.

- PRESSURE REDUCING VALVES
- THERMOSTATIC MIXING VALVES
- ELECTRONIC MIXING VALVE WITH THERMAL DISINFECTION, LEGIOMIX
- BACKFLOW PREVENTERS
- COMPONENTS FOR DOMESTIC WATER SYSTEMS

**PRESSURE REDUCING VALVES FOR HIGH -RISE BUILDINGS**



**5335..HS**



Inclined pressure reducing valve. Replaceable cartridge and strainer. Piston operation. CR dezincification resistant alloy body "LOW LEAD". Max. inlet pressure: 2000 kPa. Downstream setting pressure range: 100–600 kPa. Max. working temperature: 80 °C. With 1/4" F pressure gauge connection. For applications with higher pressure reduction ratio in hot and cold water distribution system.



Code			
PR53355HS	3/4"	1	25

**INCLINED PRESSURE REDUCING VALVES WITH HIGH TEMPERATURE**



**5335..H**



Inclined pressure reducing valve. Replaceable cartridge and strainer. CR dezincification resistant alloy body "LOW LEAD". Max. inlet pressure: 2000 kPa. Downstream setting pressure range: 100–600 kPa. Max. working temperature: 80 °C. With 1/4" F pressure gauge connection.



Code			
CPR15	1/2"	1	25
CPR20	3/4"	1	25
CPR25	1"	1	10

**PRESSURE REDUCING VALVES FOR FIRST STAGE CONTROL**



**5360**

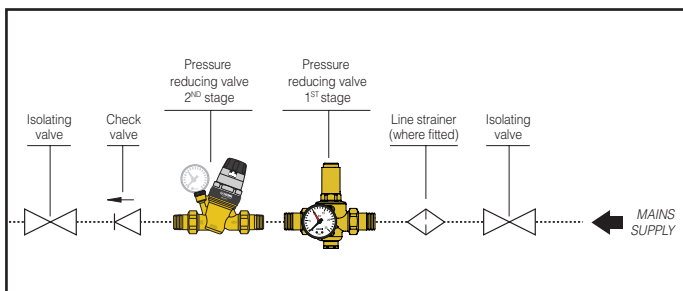


Pressure reducing valve for first stage control, with replaceable cartridge. Piston operation. CR dezincification resistant alloy body "LOW LEAD". Male union connections. Max. upstream pressure: 2500 kPa. Downstream setting pressure range: 600–1000 kPa. Pressure gauge: 0–2500 kPa. Max. working temperature: 80 °C.



Code			
PR536043	1/2"	1	5
PR536053	3/4"	1	5
PR536063	1"	1	5
PR536073	1 1/4"	1	4
PR536083	1 1/2"	1	4

Application diagram of pressure reducing valve code 5360.3 AUS



**5330..H**

Spare cartridge for pressure reducing valves 5335H series.

Code			
PR533000H	1/2" - 3/4" - 1"	1	100
PR53300HS	3/4" (for code PR53355HS)	1	-

**PRE-ADJUSTABLE PRESSURE REDUCING VALVES FOR HIGH TEMPERATURE**



**5350..H**



Pressure reducing valve with self-contained replaceable cartridge. For high temperature. CR dezincification resistant alloy body "LOW LEAD". With pressure regulating scale for manual pressure adjustment. Male union connections. With 1/4" F pressure gauge connection. Max. upstream pressure: 2000 kPa. Downstream setting pressure range: 100–600 kPa. Max. working temperature: 80 °C.



Code			
PR535050H	3/4"	1	5
PR535060H	1"	1	5
PR535070H	1 1/4"	1	4
PR535080H	1 1/2"	1	4
PR535090H	2"	1	4

**5350..H**

Spare cartridge for pressure reducing valves 5350H series.

Code			
PR535006H	1/2" - 3/4" - 1"	1	8
PR535009H	1 1/4" - 1 1/2" - 2"	1	-

COMBINED GROUP FOR PRESSURE CONTROL IN DOMESTIC WATER SYSTEMS

539..H



Combined group for pressure control in domestic water systems with self-contained replaceable cartridge. For high temperature. **CR** dezincification resistant alloy body "LOW LEAD". Shut-off valve with extended lever. EA type check valve.



Max. upstream pressure: 16 bar.  
Downstream setting pressure range: 1-5,5 bar.  
Max. working temperature: 80 °C.  
With G 1/4" upstream and downstream pressure test ports.

**Pressure reducing valve certified to EN 1567.**

**Check valve certified to EN 13959. Complete with BNR2520 1" to 3/4" Hex nipple. PATENT PENDING**



Code



**CPR4IN1** Rp 3/4" x G 1" with captive nut

1 5

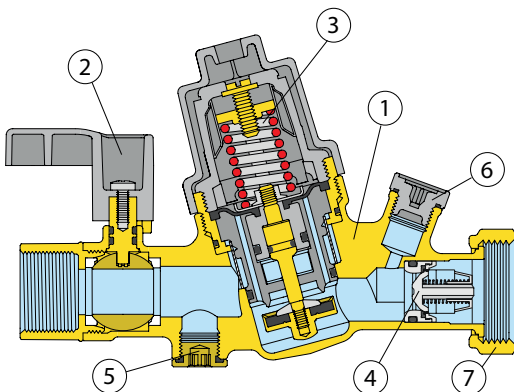
Function

The combined group for pressure control in domestic water systems combines three different devices in a single component: a ball shut-off valve, a pressure reducing valve with filter and a EA type check valve. Installed on the pipe supplying hot or cold water to the users, it reduces the pressure of the water coming from the mains network, prevents the backflow of water into the mains system and allows users to be shut off during testing and maintenance procedures.

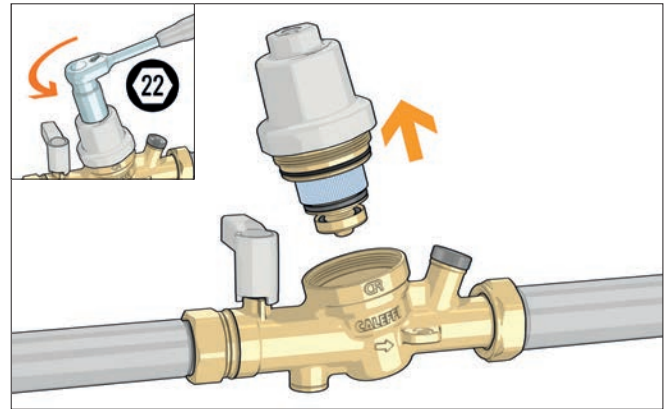
The cartridge containing the diaphragm, strainer, seat, obturator and compensating piston is pre-assembled as a self-contained unit with a cover. It is easy to remove, simplifying inspection and maintenance procedures. The internal strainer, cleanable, is part of the cartridge and cannot be removed.

Characteristic components

1. Compact, self-contained body
2. Shut-off valve
3. Pressure reducing valve with filter (EN 1567)
4. Check valve, EA type (EN 13959)
5. Upstream test port
6. Downstream test port
7. Captive nut



Removable self-contained cartridge



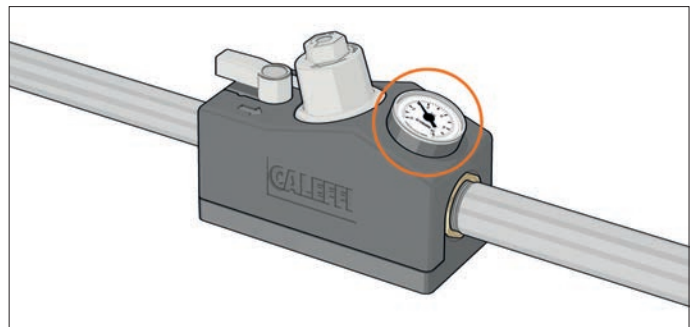
Insulation for 539H series combined group.

Code



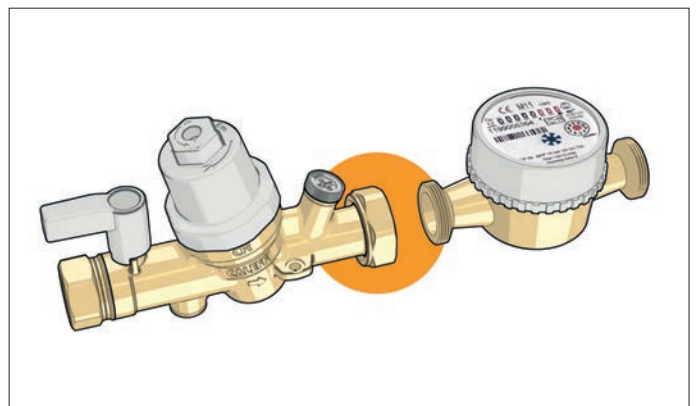
**CPR4IN1CLAM**

1 8



Component connection

The group is constructed to make installing a water meter and other downstream equipment easier.



## COMBINED GROUP FOR PRESSURE AND TEMPERATURE CONTROL IN DOMESTIC WATER SYSTEMS



### 539H

Combined group for pressure and temperature control in domestic water systems.

**CR dezincification resistant alloy body "LOW LEAD".**

Consisting of:

- 539H series combined unit, cold water circuit
- 539H series combined unit, hot water circuit
- adjustable thermostatic mixing valve with advanced thermal performance and anti-scald function

**Certified to EN 1111 and EN 1287.**

- connection tee complete with check valve
- pressure gauges (optional).



#### Mixing valve performance

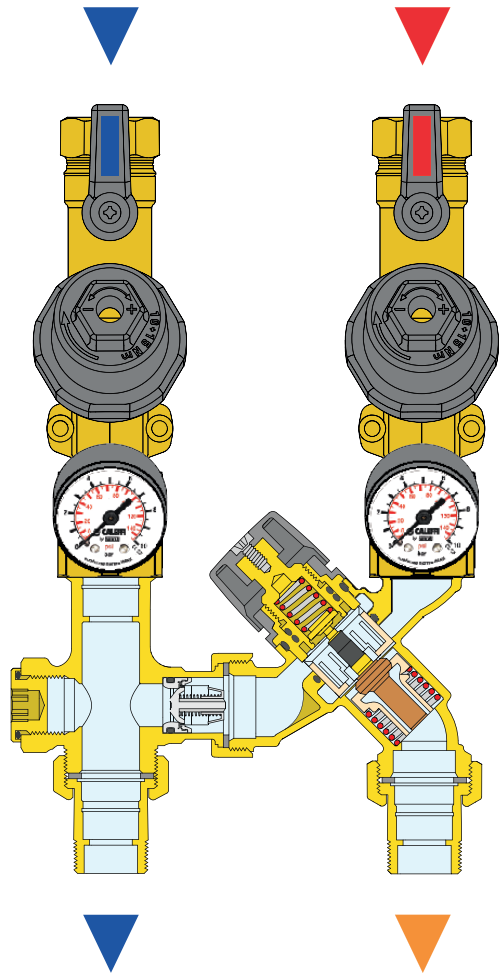
Max. working pressure: 10 bar.

Inlet Tmax: 90 °C.

Temperature adjustment range:

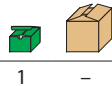
35-65°C.

Kv: 1,7 m³/h.



Code

**PRTV539500H** Rp 3/4" x G 3/4" with union



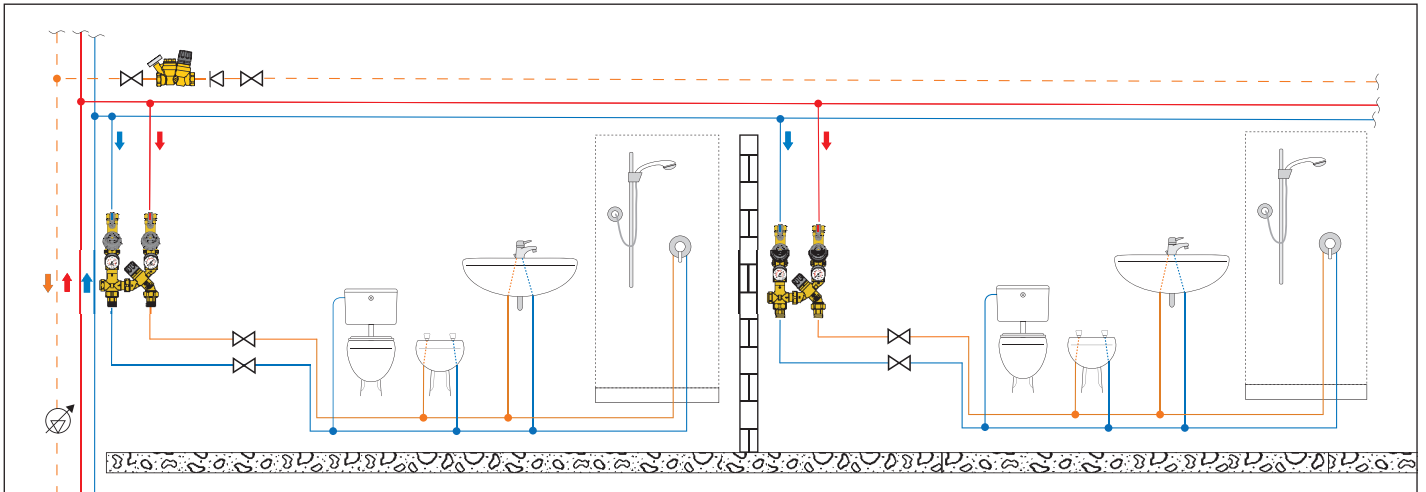
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### Function

It is essential to install various components capable of fulfilling all the required functions at the inlet of individual housing units, hotel rooms or hospital rooms, where it is necessary to control both the pressure and the temperature. The function of the combined unit is to keep the pressure and temperature of the mixed water supplied to the user constant at the set value, in spite of variations in the hot and cold water supply conditions at the inlet, thereby making pipe connections easier.

### Application diagram of combined group



**MULTI-POINT ANTI-SCALD TEMPERING VALVES**



**5213**



Adjustable anti-scald tempering valve with check valves and strainers at the inlets. **CR** dezincification resistant alloy body. **"LOW LEAD"**. Male union connections. Max. working pressure: 1400 kPa. Max. inlet temperature: 85 °C. **Certified to AS 4032.2.**



Code		Temperature adjustment	Kv (m³/h)		
<b>CTV15</b>	DN 15	30–50 °C	1,5	1	10
<b>CTV20</b>	DN 20	30–50 °C	1,7	1	10
<b>CTV25</b>	DN 25	20–50 °C	4,2	1	10



Pre-formed shell insulation for 1/2" and 3/4" thermostatic mixing valves 5213 series.

Code			
<b>TV521814</b>	1/2"	1	25
<b>TV521815</b>	3/4"	1	25



**5213**



Adjustable anti-scald tempering valve with isolating valves, check valves and strainers at the inlets. **CR** dezincification resistant alloy body. **"LOW LEAD"**. Max. working pressure: 1400 kPa. Max. inlet temperature: 85 °C. **Certified to AS 4032.2.**



Code		Temperature adjustment	Kv (m³/h)		
<b>TVI521319AU</b>	3/4"	30–50 °C	1,4	1	10

**SINGLE POINT THERMOSTATIC MIXING VALVES**



**5213**



Adjustable thermostatic mixing valve with isolating valves, check valves and strainers at the inlets. Enhanced thermal performance device with anti-scald safety function. **CR** dezincification resistant alloy body. **"LOW LEAD"**. Max. working pressure: 1400 kPa. Max. inlet temperature: 85 °C. **Certified to AS 4032.1.**



Code		Temperature adjustment	Kv (m³/h)		
<b>TMVI521312AU</b>	1/2"	30–50 °C	1,3	1	10
<b>TMVI521319AU</b>	3/4"	30–50 °C	1,4	1	10



**5213**

Adjustable thermostatic mixing valve with check valves and strainers at the inlets. Enhanced thermal performance device with anti-scald safety function.



**CR** dezincification resistant alloy body. **"LOW LEAD"**. Max. working pressure: 1400 kPa. Max. inlet temperature: 85 °C. **Certified to AS 4032.1.**



Code		Temperature adjustment	Kv (m³/h)		
<b>TMVU521312AU</b>	DN 15	30–50 °C	1,5	1	10
<b>TMVU521319AU</b>	DN 20	30–50 °C	1,7	1	10

**THERMOSTATIC MIXING VALVES FOR MEDIUM-LARGE APPLICATIONS**

**5231**

Adjustable thermostatic mixing valve, for centralised systems.  
 CR dezincification resistant alloy body.  
 Antiscale inner regulator in technopolymer.  
 Max. working pressure: 14 bar.  
 Max. inlet temperature: 90 °C.



Code		Temperature adjustment	Kv (m <sup>3</sup> /h)		
<b>TV523150</b>	3/4"	35–65 °C	4,5	1	5
<b>TV523160</b>	1"	35–65 °C	5,5	1	–
<b>TV523170</b>	1 1/4"	35–65 °C	7,6	1	–
<b>TV523180</b>	1 1/2"	35–65 °C	11,0	1	–
<b>TV523190</b>	2"	35–65 °C	13,3	1	–

**THERMOSTATIC MIXING VALVES FOR SOLAR SYSTEM**

**2521**

Adjustable thermostatic mixing valve, **with check valves**, for solar thermal systems.  
 CR dezincification resistant alloy body "LOW LEAD". Chrome plated.  
 Male union connections.  
 Max. working pressure: 14 bar.  
**Max. inlet temperature: 100 °C.**



Code		Temperature adjustment	Kv (m <sup>3</sup> /h)		
<b>TV252150C</b>	3/4"	30–65 °C	2,6	1	10

**ELECTRONIC MIXING VALVE WITH THERMAL DISINFECTION - 24 V**  
 Suitable for BACS with MODBUS-RTU management

**6000 LEGIOMIX®**

Electronic mixing valve with programmable thermal disinfection and check on disinfection. Male threaded connections with union.  
 Consisting of:  
 - **three-way ball valve,**  
 - **actuator,**  
 - **regulator,**  
 - **flow temperature probe,**  
 - **return temperature probe.**

With auxiliary microswitches for disinfection management and other devices. Fitted for remote control connection with RS-485 and MODBUS-RTU protocols.  
 Electric supply: 24 V - 50/60 Hz - (6,5+6) VA.  
 Max. working pressure: 10 bar.  
 Max. inlet temperature: 100 °C.  
 Adjustment temperature range: 20–85 °C.  
 Disinfection temperature range: 40–85 °C.  
 Protection class: IP 65 (actuator).  
 PATENT.



Code		Kv (m³/h)		
<b>TV600051</b>	3/4"	8,4	1	-
<b>TV600061</b>	1"	10,6	1	-
<b>TV600071</b>	1 1/4"	21,2	1	-
<b>TV600081</b>	1 1/2"	32,5	1	-
<b>TV600091</b>	2"	41,0	1	-

Correct valve sizing to min. and Max. flowrate is require, contact Waterware or refer to the technical data sheet.



**6000 LEGIOMIX®**

Electronic mixing valve with programmable thermal disinfection and check on disinfection. Flanged connection PN 16. Consisting of:  
 - **three-way ball valve,**  
 - **actuator,**  
 - **regulator,**  
 - **flow temperature probe,**  
 - **return temperature probe.**

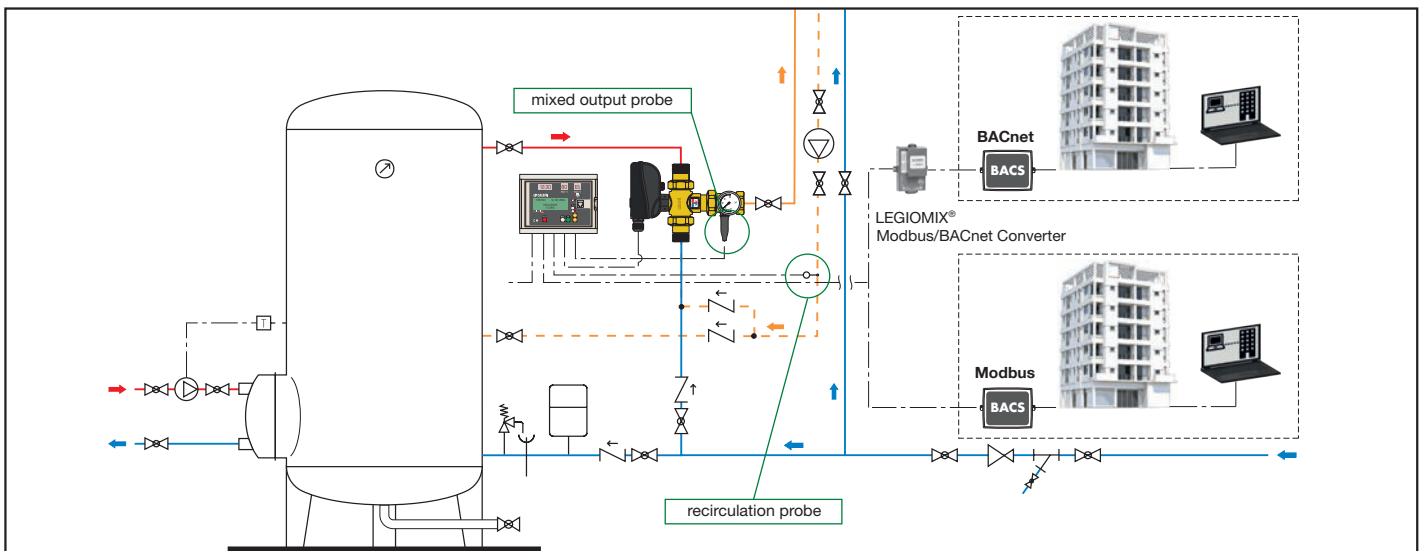
With auxiliary microswitches for disinfection management and other devices. Fitted for remote control connection with RS-485 and MODBUS-RTU protocols.  
 Electric supply: 24 V - 50/60 Hz - (6,5+10,5) VA.  
 Max. working pressure: 10 bar.  
 Max. inlet temperature: 100 °C.  
 Adjustment temperature range: 20–85 °C.  
 Disinfection temperature range: 40–85 °C.  
 To be coupled with counterflanges EN 1092-1  
 Protection class: IP 65 (actuator).  
 PATENT.



Code		Kv (m³/h)		
<b>TV600016FL</b>	DN 65	90,0	1	-
<b>TV600018FL</b>	DN 80	105,0	1	-

Correct valve sizing to min. and Max. flowrate is require, contact Waterware or refer to the technical data sheet.

**Application diagram of electronic mixing valve 6000 series**



MULTI-FUNCTION THERMOSTATIC REGULATOR



**116**  
Thermostatic regulator for domestic hot water recirculation circuits. With temperature gauge for circuit temperature check.  
**CR** dezincification resistant alloy body "LOW LEAD".  
Female connections.  
Max. working pressure: 16 bar.



Code	DN	Conn.	Temperature adjustment		
MTR116451	20	Rp 3/4"	40-65 °C	1	20



**116**  
Thermostatic regulator for domestic hot water recirculation circuits. Fitted for automatic or controlled thermal disinfection function. With pocket for temperature gauge.  
**CR** dezincification resistant alloy body "LOW LEAD".  
Female connections.  
Max. working pressure: 16 bar.



Code	DN	Conn.	Temperature adjustment		
MTR116150	20	Rp 3/4"	35-65 °C	1	10
MTR116160	25	Rp 1"	35-65 °C	1	-
MTR116170	32	Rp 1 1/4"	35-65 °C	1	-



Insulation for multifunction thermostatic regulator 116 series.

Code	Use		
CBN116160	1" - 1 1/4"	1	20



**116**  
Accessory temperature gauge for thermostatic regulators 116 series. Temperature gauge scale: 0-80 °C.

Code		
GA116010	1	20

Function

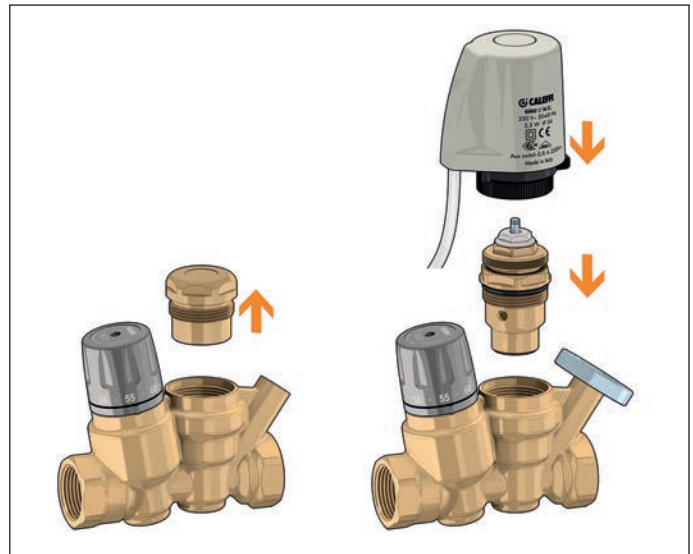
In domestic hot water distribution circuits, to respect modern plant requirements for the prevention of Legionnaires' disease, it is essential to ensure that all sections are kept at the correct temperature. The recirculation network must be balanced, to avoid non-uniform temperature distribution, with cold sections at risk of Legionella proliferation.

The thermostatic regulator, installed on each return branch of the recirculation circuit, automatically maintains the set temperature. This device modulates the medium flow rate in accordance with the water inlet temperature by means of the action of a dedicated internal thermostatic cartridge. When the water temperature approaches the set value, the obturator progressively reduces the passage. The medium flow rate supplied by the recirculation pump is thus distributed to the other network branches, resulting in effective automatic thermal balancing.

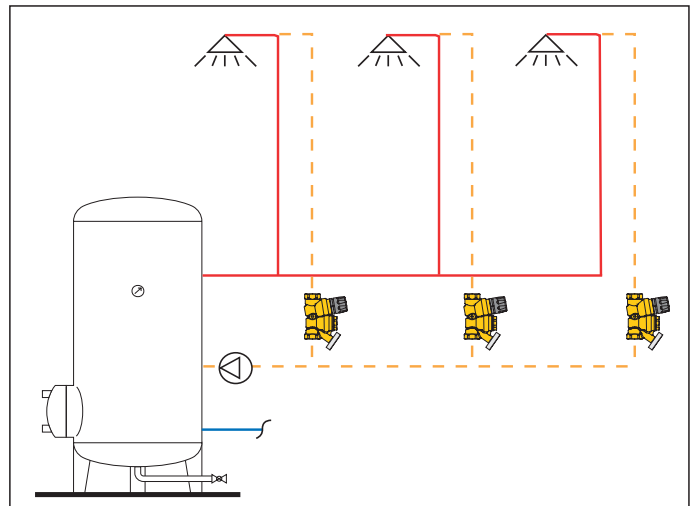
If necessary, the regulator is already equipped with a thermal disinfection function, which is useful if the system temperature is to be increased to values over 55-60 °C.

This function can be completely automatic, activated by a dedicated second thermostatic cartridge that trips at 70 °C, or controlled with a thermo-electric actuator.

Cartridge replacement for electrically controlled disinfection



Application diagram of thermostatic regulator 116 series

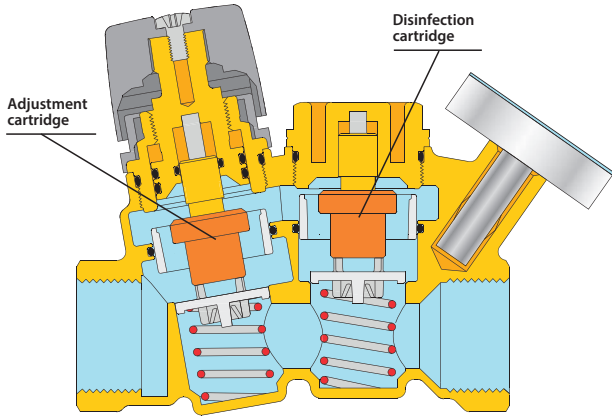




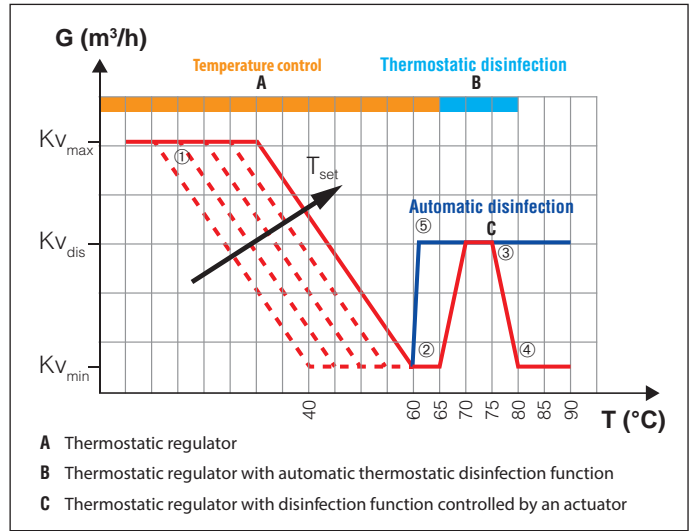
**MULTI-FUNCTION THERMOSTATIC REGULATOR**

**Operating modes**

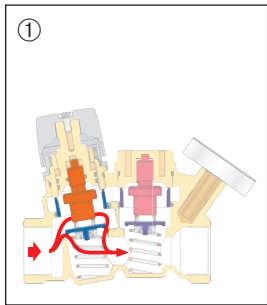
Here following the regulator's operating modes according to the variation of the water temperature of the circuit it is installed on.



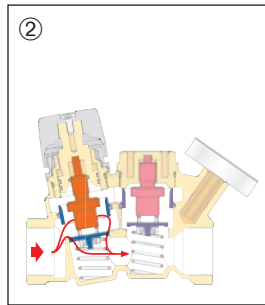
**Diagram of thermostatic regulator 116 series**



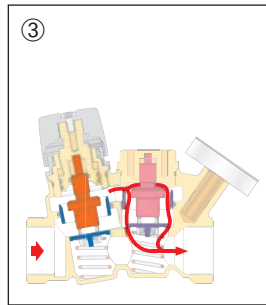
**Thermostatic adjustment**



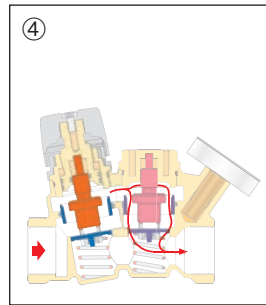
**Minimum flow rate**



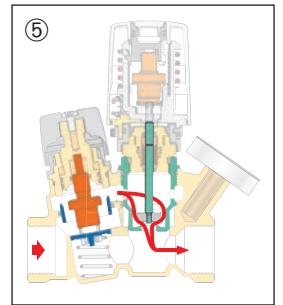
**Thermostatic disinfection**



**Thermal closing**



**Electrically controlled disinfection**





**TEMPERATURE AND PRESSURE RELIEF VALVES**



**309**

Temperature and pressure relief valve.  
**CR** dezincification resistant alloy body.  
**For domestic water system, to protect the hot water storage.**  
 Setting temperature: 90 °C.  
 Discharge rating: 1/2" - 3/4" x Ø 15: 10 kW.  
 3/4" x Ø 22: 25 kW.  
 Settings: 7 - 10 bar.  
**Settings certified to EN 1490: 7 - 10 bar.**  
**With GLC15L Copper gland.**



Code			Probe length (mm)		
<b>CTPR15-10</b>	1/2" M x Ø 15	10 bar	100	1	20
<b>CTPR15-7</b>	1/2" M x Ø 15	7 bar	100	1	20
<b>CTPR20-10</b>	3/4" M x Ø 22	10 bar	100	1	20
<b>CTPR20-7</b>	3/4" M x Ø 22	7 bar	100	1	20

**WATER HAMMER ARRESTERS**



**525 ANTISHOCK**

Water hammer arrester.  
 Brass body.  
 Chrome plated.  
 Max. working pressure: 10 bar.  
 Max. working temperature: 90 °C.  
 PTFE seal on thread.



Code			
<b>WH525040</b>	1/2"	1	25



**EXPANSION VESSELS FOR HOT WATER SYSTEMS**



**568**

Welded expansion vessel, for hot water systems, EC certification.  
 Bladder membrane.  
 Max. working pressure: 10 bar.  
 System working temperature range: -10–70 °C.  
 Membrane working temperature range: -10–70 °C.  
 Conformity to EN 13831 standard.





Code	Litres	Conn.	Precharge (bar)		
<b>EV568012</b>	12	3/4"	2,5	1	-
<b>EV568018</b>	18	3/4"	2,5	1	-
<b>EV568025</b>	25	3/4"	2,5	1	-



**568**

Welded expansion vessel, for hot water systems, EC certification.  
 Bladder membrane (can be replaced for volumes from 60 to 500 litres).  
 Max. working pressure: 10 bar.  
 System working temperature range: -10–70 °C.  
 Membrane working temperature range: -10–70 °C.  
 Conformity to EN 13831 standard.





Code	Litres	Conn.	Precharge (bar)		
<b>EV568080</b>	80	1"	2,5	1	-
<b>EV568200</b>	200	1 1/4"	2,5	1	-

ANTIFREEZE SAFETY DEVICE



603  
ICECAL

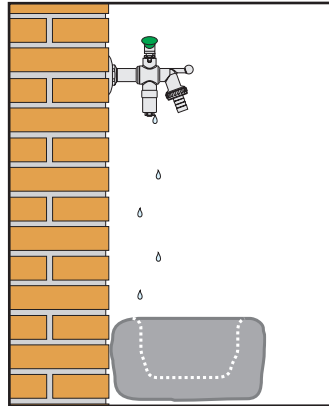
Garden tap, ball type, with antifreeze safety device. Brass body. Chrome plated. Stainless steel lever and fixing nut. Hose connection for Ø 15 mm pipe. Max. working pressure: 10 bar. Ambient temperature range: -30–90 °C. Opening temperature: 3 °C. Closing temperature: 4 °C.

Code    
**AFV603450** 1/2" M x 3/4" M with hose connection 1 10

Function

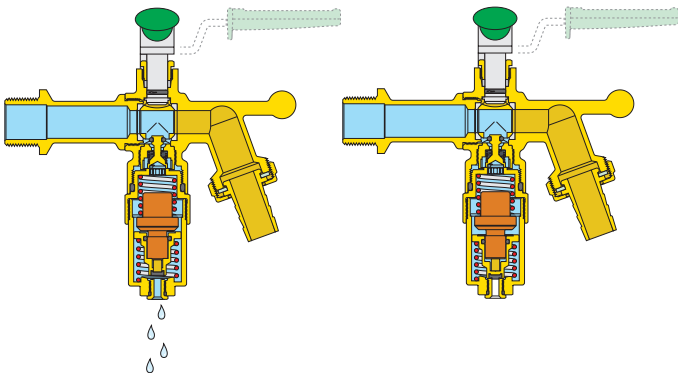
The antifreeze safety device prevents ice build-up in domestic water circuits, avoiding possible damage to pipes in hydraulic and irrigation systems. When the minimum intervention temperature is reached, it automatically opens so that a minimum quantity of water may flow toward the drain, enabling a small continuous inflow of water; this prevents the circuit from freezing.

A particular product has been developed by combining the antifreeze safety device with a garden tap ball type, specifically constructed for these installations. The valve is fitted with ball with blow-out proof design, O-ring seal and packing gland; the control lever and fixing nut are made of stainless steel, for total resistance against corrosion in different climatic conditions.





Antifreeze safety device open

Antifreeze safety device closed



antifreeze group spare part, chrome plated for code AFV603450.

Code    
**AFF89046C** 1 -



603  
ICECAL®

Antifreeze safety device. For solar thermal systems, to protect the hot water storage. CR dezincification resistant alloy body. Max. working pressure: 10 bar. Ambient temperature range: -30–90 °C. Opening temperature: 3 °C. Closing temperature: 4 °C.

Code    
**AFV603040** 1/2" F with nut 1 50

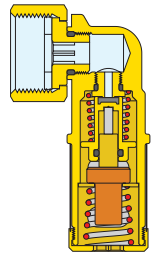
Function

The antifreeze safety device prevents ice build-up in domestic water circuits, thereby avoiding potential damage to storage tanks and pipes

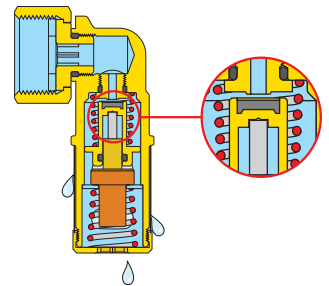
When the minimum ambient intervention temperature is reached, it automatically opens a minimum passage of water toward the drain, enabling a small continuous flow of water at the inlet; this prevents any risk of freezing.

When the ambient temperature increases or in the event of contact with warmer water, the opposite action occurs, causing the device to shut off and circuit normal operating conditions to be restored.

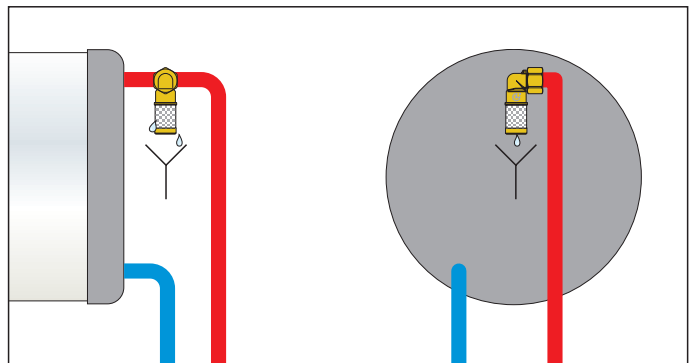
Closed position



Open position



Application diagram of device 603 series on a domestic water circuit



BACKFLOW PREVENTERS



574

Controllable, reduced pressure zone backflow preventer. **BA type.** CR dezincification resistant alloy components "LOW LEAD". PN 10. Male union connections. Max. working temperature: 65 °C. Discharge opening differential pressure to: 14 kPa. **Certified to standard EN 12729.** **Upstream of the backflow preventer is mandatory to install a strainer.**



Code			
BF574600	1"	1	-
BF574700	1 1/4"	1	-
BF574800	1 1/2"	1	-

BACKFLOW PREVENTERS WITH MULTIFUNCTION GEOMETRY

580



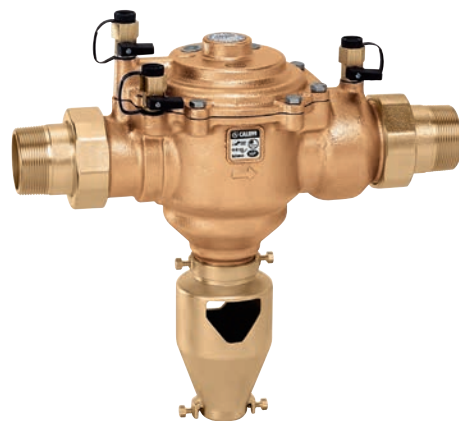
Backflow preventer with multifunction geometry. **BA type.** CR dezincification resistant alloy body. Threaded union connections. For linear installation on horizontal or vertical pipes. Complete with strainer at the inlet. Max. working pressure: 10 bar. Max. working temperature: 65 °C. **Certified to EN 12729 standard.**



Code			
BF580040	1/2" M	1	5
BF580050	3/4" M	1	5

574

Controllable, reduced pressure zone backflow preventer. **BA type.** Bronze body. PN 10. Male union connections. Max. working temperature: 65 °C. Discharge opening differential pressure to: 14 kPa. **Certified to standard EN 12729.** **Upstream of the backflow preventer is mandatory to install a strainer.**



Code			
BF574900	2"	1	-

**SAFETY RELIEF VALVES**



**312**

Safety relief valve. M x Ø 15 compression end. CR dezincification resistant alloy body. With stainless steel seat. Temperature range: 5–110 °C.



Code

<b>DSV312407</b>	1/2" M x Ø 15	600 kPa	green knob	1	50
<b>DSV312480</b>	1/2" M x Ø 15	8 bar		1	50



**314**

Safety relief valve. Male - female connections. Discharge overpressure 20 %. Closing differential 20 %. PN 10. Temperature range: 5–110 °C. Max. pressure gauge temperature: 90 °C.



Code

<b>DSV314480</b>	1/2"	8 bar		1	50
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**SAFETY RELIEF VALVES FOR SOLAR THERMAL SYSTEMS**



**253**

Safety relief valve for solar thermal systems. Brass body. Chrome plated. Female connections. PN 10. **Temperature range: -30–160 °C.** **Max. percentage of glycol: 50 %.** Oversized discharge outlet. Discharge rating: 1/2" - 50 kW; 3/4" - 100 kW. TÜV certified to TRD 721 - SV 100 § 7.7. Settings: 2,5 - 3 - 4 - 6 - 8 - 10 bar.



www.tuv.com ID 0000013604



Code

<b>DSV253040</b>	1/2" F x 3/4" F	10 bar		1	50
<b>DSV253043</b>	1/2" F x 3/4" F	3 bar		1	50
<b>DSV253044</b>	1/2" F x 3/4" F	4 bar		1	50
<b>DSV253046</b>	1/2" F x 3/4" F	6 bar		1	50
<b>DSV253048</b>	1/2" F x 3/4" F	8 bar		1	50

**SAFETY RELIEF VALVES FOR DOMESTIC WATER SYSTEMS**



**531**

Safety relief valve **for domestic water systems.** Female connections. Discharge overpressure 20 %. Closing differential 20 %. Medium: water. Temperature range: 5–95 °C.



Code

<b>DSV531410</b>	1/2" x 3/4"	10 bar		1	50
<b>DSV531440</b>	1/2" x 3/4"	4 bar		1	50
<b>DSV531460</b>	1/2" x 3/4"	6 bar		1	50
<b>DSV531480</b>	1/2" x 3/4"	8 bar		1	50
<b>DSV531510</b>	3/4" x 1"	10 bar		1	25
<b>DSV531540</b>	3/4" x 1"	4 bar		1	25
<b>DSV531560</b>	3/4" x 1"	6 bar		1	25
<b>DSV531580</b>	3/4" x 1"	8 bar		1	25



**531**

Safety relief valve **for domestic water systems.** Female connections. Discharge overpressure 20 %. Closing differential 20 %. Medium: water. Temperature range: 5–95 °C. Settings: 4 - 6 - 8 - 10 bar.



Code

<b>DSV531610</b>	1" x 1 1/4"	10 bar		1	25
<b>DSV531640</b>	1" x 1 1/4"	4 bar		1	25
<b>DSV531660</b>	1" x 1 1/4"	6 bar		1	25
<b>DSV531680</b>	1" x 1 1/4"	8 bar		1	25
<b>DSV531710</b>	1 1/4" x 1 1/2"	10 bar		1	10
<b>DSV531740</b>	1 1/4" x 1 1/2"	4 bar		1	10
<b>DSV531760</b>	1 1/4" x 1 1/2"	6 bar		1	10
<b>DSV531780</b>	1 1/4" x 1 1/2"	8 bar		1	10

**TEMPERATURE AND PRESSURE GAUGES AND ACCESSORIES**



**688**

**Temperature gauge.**  
1/2" central back connection.  
With pocket.  
Ø 80 mm.  
Accuracy class: UNI 2.

Code	Pocket length	°C		
<b>GA688001</b>	45 mm	0-120	1	10



**688**

**Temperature gauge.**  
1/2" bottom connection.  
With pocket.  
Ø 80 mm.  
Accuracy class: UNI 2.

Code	Pocket length	°C		
<b>GA688100</b>	45 mm	0-120	1	10



**657**

**Temperature gauge fitting.**  
Temperature gauge 0-80 °C, Ø 40 mm.

Code			
<b>GA657400</b>	1/2" M x 1/2" F	5	-



**392**

**Temperature gauge fitting.**  
For distribution manifolds 592 and 350 series.  
Temperature gauge 0-80 °C, Ø 40 mm.

Code				
<b>GA392600</b>	1" F x M	with PTFE seal	1	-
<b>GA392700</b>	1 1/4" F x M	without PTFE seal	1	-



**503**

**Temperature/pressure gauge.**  
1/2" central back connection.  
With shut-off pocket.  
Ø 80 mm.  
Accuracy class:  
- temperature gauge UNI 2;  
- pressure gauge UNI 2,5.

Code	bar	°C		
<b>GA503060</b>	0-6	0-120	1	10



**503**

**Temperature/pressure gauge.**  
1/2" bottom connection.  
With shut-off pocket.  
Ø 80 mm.  
Accuracy class:  
- temperature gauge UNI 2;  
- pressure gauge UNI 2,5.

Code	bar	°C		
<b>GA503160</b>	0-6	0-120	1	20



**557**

**Pressure gauge.**  
Bottom connection.  
Accuracy class: UNI 2,5.  
Temperature range: -20-90 °C.

Code	bar	Ø		
<b>GA557706</b>	0-6	3/8" 80	1	-



**Pressure gauge.**  
Central back connection 1/4".  
Ø 62 mm.

Code			
<b>GA593110</b>	0-10 bar downstream	1	-
<b>GA593315</b>	0-25 bar upstream	1	-



**689**

**Flow gauge.**  
3/8" bottom connection.  
Ø 80 mm.  
Accuracy class: UNI 2,5.  
Temperature range: -20-90 °C.

Code	m w.g.		
<b>GA689016</b>	0-16	1	20



**561**

[tech. broch. 01054](#)

**Automatic shut-off cock.**  
For automatic air vents 502. series.  
PTFE seal on thread.  
Max. working pressure: 10 bar.  
Max. working temperature: 110 °C.

Code			
<b>GA561400</b>	1/2" x 1/2" M	10	-

## COMPONENTS FOR HEATING SYSTEMS



**577 SERIES  
XF**

The CALEFFI XF filter separates impurities in the system right from the first passage. Its large filtration surface and impurity separation upstream of the filter also minimises the problem of mesh clogging. System water is treated in three distinct steps: through an initial impurity separation mesh, using magnets located on the central stem and, finally, by passing through an outlet filter. CALEFFI XF continuously protects the generator and devices from any impurities that form in the hydraulic circuit. It can be adjusted for horizontal or vertical installation. Internal cleaning brushes mean that maintenance can be carried out without shutting off the device.

- AUTOMATIC AIR VENTS
- SAFETY RELIEF VALVES
- FILLING GROUPS
- EXPANSION VESSELS
- MANIFOLDS
- PUMPING STATION

**AUTOMATIC AIR VENTS**



**5025  
ROBOCAL**

Automatic air vent.  
In hot-stamped brass.  
With automatic shut-off cock.  
Max. working pressure: 10 bar.  
Max. discharge pressure: 4 bar.  
Max. working temperature: 110 °C.



Code				
<b>AV502530</b>	3/8" M		10	50



**5026  
ROBOCAL**

Automatic air vent.  
In hot-stamped brass.  
Max. working pressure: 10 bar.  
Max. discharge pressure: 6 bar.  
Max. working temperature: 115 °C.



Code				
<b>AV502630</b>	3/8" M		10	50
<b>AV502640</b>	1/2" M	Without O-Ring seal	10	100



**5027  
ROBOCAL**

Automatic air vent.  
In hot-stamped brass.  
With automatic shut-off cock.  
Max. working pressure: 10 bar.  
Max. discharge pressure: 6 bar.  
Max. working temperature: 110 C.



Code				
<b>AV502730</b>	3/8" M		10	100



**5622**  
Anti-vacuum cap.  
For automatic air vents  
5026 and 5027 series.



Code				
<b>AV562200</b>			100	-

**BALLSTOP**



**327  
BALLSTOP**

Ball valve with built-in check valve  
for heating systems.  
Low head losses.  
Max. working pressure: 16 bar.  
Temperature range: 5–110 °C.



Code				
<b>BSV327400</b>	1/2"	butterfly handle	10	-
<b>BSV327500</b>	3/4"	butterfly handle	10	-
<b>BSV327600</b>	1"	lever handle	4	-
<b>BSV327700</b>	1 1/4"	lever handle	4	-
<b>BSV327800</b>	1 1/2"	lever handle	2	-
<b>BSV327900</b>	2"	lever handle	1	-



**AUTOMATIC AIR VENTS**



**250**

Consisting of:  
 - Automatic air vent for solar thermal systems.  
 Brass body. Chrome plated.  
 Max. working pressure: 10 bar.  
 Max. discharge pressure: 5 bar.  
**Temperature range: -30-180 °C.**  
**Max. percentage of glycol: 50 %.**

- Shut-off cock complete with seal.  
 Brass body. Chrome plated.  
 Max. working pressure: 10 bar.  
**Temperature range: -30-200 °C.**  
**Max. percentage of glycol: 50 %.**



Code			
<b>AV250031</b>	3/8" M without cock	1	25




**250**

Shut-off cock complete with seal.  
 Brass body. Chrome plated.  
 Max. working pressure: 10 bar.  
**Temperature range: -30-200 °C.**  
**Max. percentage of glycol: 50 %.**



Code			
<b>AV250300</b>	3/8" M x 3/8" F - butterfly handle	1	10

**The automatic air vent must be shut off after the system has been filled.**




**251 DISCALAIR®**

High-performance automatic air vent for solar thermal systems.  
 Brass body. Chrome plated.  
 Female connections.  
 Max. working pressure: 10 bar.  
 Max. discharge pressure: 10 bar.  
**Temperature range: -30-160 °C.**  
**Max. percentage of glycol: 50 %.**

Code			
<b>AV251004</b>	1/2" F	1	10



**504 AERCAL**

Automatic air vent for radiators.  
 In hot-stamped brass.  
 Chrome plated.  
 With hygroscopic safety cap.  
 Max. working pressure: 10 bar.  
 Max. discharge pressure: 2,5 bar.  
 Max. working temperature: 100 °C.

Code			
<b>AV504401</b>	1/2" M	1	25



**501 MAXCAL**

Automatic air vent for heating, cooling and refrigeration.  
 High discharge capacity.  
 Brass body and cover, stainless steel internal components.  
 Max. working pressure: 16 bar.  
 Max. discharge pressure: 6 bar.  
 Temperature range: -20-120 °C.



Code			
<b>AV501500</b>	3/4" F x 3/8" F	1	5



**5022 VALCAL**

Automatic air vent.  
 In hot-stamped brass.  
 Chrome plated.  
 Max. working pressure: 10 bar.  
 Max. discharge pressure: 4 bar.  
 Max. working temperature: 120 °C.



Code			
<b>AV502241</b>	1/2" M	1	25

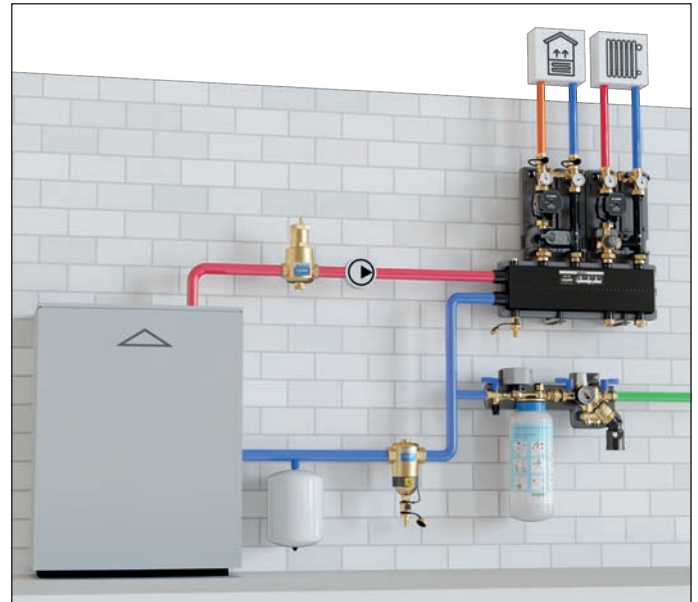
DEAERATORS FOR MEDIUM SYSTEMS





**551  
DISCAL®**

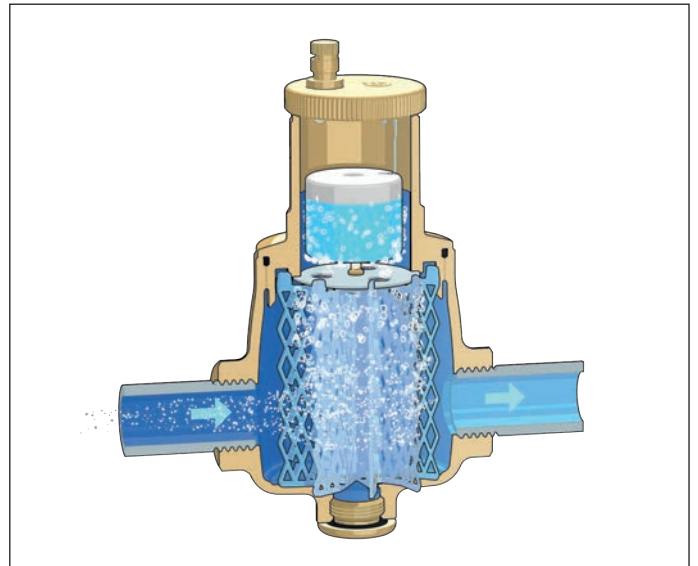
Deaerator. Brass body.  
**Female connections.**  
**With drain.**  
 Max. working pressure: 10 bar.  
 Max. discharge pressure: 10 bar.  
 Temperature range: 0–110 °C.

Code			
<b>AV551005</b>	3/4" F	1	6
<b>AV551006</b>	1" F	1	6
<b>AV551007</b>	1 1/4" F	1	6
<b>AV551008</b>	1 1/2" F	1	6
<b>AV551009</b>	2" F	1	-





Insulation for deaerators  
 DISCAL® 551 series.

Code	Use		
<b>CBN551005</b>	AV551005-AV551006	1	-
<b>CBN551007</b>	AV551007-AV551008	1	-
<b>CBN551009</b>	AV551009	1	-



**551  
DISCALSLIM®**

Deaerator. Technopolymer body.  
**Female connections.**  
**Adjustable for horizontal and vertical pipes.**  
 With hygroscopic safety cap.  
 Max. working pressure: 3 bar.  
 Max. working temperature: 110 °C.  
 PATENT PENDING.

Code			
<b>AV551805</b>	3/4" F	1	10
<b>AV551806</b>	1" F	1	10



## Deaerators-Dirt separators

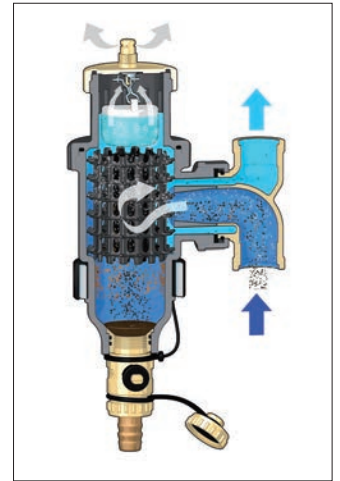
These are made by assembling, in a single product, a deaerator and a dirt separator. A single product can therefore be used both to separate air and to separate the impurities present in the system water.

### Operating principle

The device makes use of the combined action of the deaerator and the dirt separator. The internal element creates swirling movements that facilitate the release of micro-bubbles and the subsequent creation of bubbles that then rise to the top of the device, from which they are evacuated by means of an automatic air vent with float. Moreover, the impurities in the water, striking against the surfaces of the internal element, are separated and fall to the bottom of the valve body.

Deaerators-dirt separators fitted with a magnet offer greater efficiency in the separation and collection of ferrous impurities. The impurities are captured inside the dirt separator body by the strong magnetic field created by the magnets inserted in the special outer ring.

With respect to the solutions that call for the installation of separate deaerators and dirt separators, the deaerators-dirt separators present the following advantages: they take up less space and require a smaller number of connections, and are therefore ideal for systems where it is not possible to install the two separate components. Nevertheless, two separate devices will always guarantee a higher performance level.



### Sizing

Sizing a deaerator-dirt separator mainly depends on the speed at which the medium flows through the device, since an excessive speed would not allow correct separation of air and impurities.

As is known, the medium flow speed depends on the flow rate and the cross section. Remaining within the speed limits therefore means not exceeding certain **maximum permissible flow rates** for each size.

## DEAERATORS-DIRT SEPARATORS WITH MAGNET



### 5464 DISCALDIRTMAG

Deaerator-dirt separator **with magnet**.  
Technopolymer body.  
**Female connections.**  
**Adjustable for horizontal and vertical pipes.**  
With hygroscopic safety cap.  
Drain cock with hose connection.  
Max. working pressure: 3 bar.  
Temperature range: 0–90 °C.



Code

Code	Size	Box	Carton
ADV546405	3/4"	1	5
ADV546406	1"	1	5
ADV546407	1 1/4"	1	5



Insulation  
for deaerators-dirt separators 5461 series.

Code

Use

Code	Use	Box	Carton
ADVCBN546002	ADV546005-ADV546006-ADV546105-ADV546106	1	–
ADVCBN546007	ADV546007-ADV546107	1	–



### 5461 DISCALDIRTMAG

Deaerator-dirt separator **with magnet**.  
Brass body.  
**Female connections.**  
Drain cock with hose connection.  
Max. working pressure: 10 bar.  
Max. discharge pressure: 10 bar.  
Temperature range: 0–110 °C.  
Particle separation rating down to 5 µm.



Code

Code	Size	Box	Carton
ADV546105	3/4"	1	–
ADV546106	1"	1	–
ADV546107	1 1/4"	1	–



### 5461 DISCALDIRTMAG

Deaerator-dirt separator **with magnet**.  
Epoxy resin coated steel body.  
**Female union connections.**  
**With insulation.**  
Drain cock with hose connection.  
Max. working pressure: 10 bar.  
Max. discharge pressure: 10 bar.  
Temperature range: 0–100 °C.  
Particle separation rating down to 5 µm.



Code

Code	Size	Box	Carton
ADV546118	1 1/2"	1	–
ADV546119	2"	1	–

**SAFETY RELIEF VALVES**



**311**

Safety relief valve.  
Female connections.  
Discharge overpressure 20 %.  
Closing differential 20 %.  
PN 10.  
Temperature range: 5–110 °C.



Code					
<b>DSV311430</b>	1/2"	3 bar		1	50
<b>DSV311440</b>	1/2"	4 bar		1	50
<b>DSV311460</b>	1/2"	6 bar		1	50
<b>DSV311470</b>	1/2"	7 bar		1	50
<b>DSV311480</b>	1/2"	8 bar		1	50
<b>DSV311530</b>	3/4"	3 bar		1	50



**312**

Safety relief valve.  
Male - female connections.  
Discharge overpressure 20 %.  
Closing differential 20 %.  
PN 10.  
Temperature range: 5–110 °C.



Code					
<b>DSV312430</b>	1/2"	3 bar		1	50



**527 EST**

Safety relief valve.  
Female connections.  
Discharge overpressure 10 %.  
Closing differential 20 %.  
PN 10.  
Temperature range: 5–110 °C.



Code					
<b>DSV527630</b>	1" x 1 1/4"	3 bar		1	10
<b>DSV527730</b>	1 1/4" x 1 1/2"	3 bar		1	10

**INSTRUMENT HOLDER**



**302**

Combined air separator with heating system accessories. Equipped with air vent, safety relief valve and pressure gauge.  
Max. working temperature: 110 °C.  
Up to 50 kW.

Code				
<b>HS302631</b>	1" 3 bar with pre-formed insulation		1	10



**336**

Assembled instrument holder for heating systems. Equipped with air vent, safety relief valve, pressure gauge and automatic shut-off cock for expansion vessel.  
Max. working temperature: 110 °C.  
Up to 50 kW.

Code				
<b>HS336630</b>	3/4" 3 bar with automatic shut-off cock		1	5

**BOILER FILLING LOOP**



**3006**  
 filling loop set, manual.  
 Complete with:  
 - n. 2 **Cod. BV15M**  
 - n. 1 **Cod. FW882**

Code		
<b>HS300600</b>	1	10



**3006**  
 filling loop set, automatic.  
 Complete with:  
 - n. 1 **Cod. 553540**  
 - n. 1 **Cod. FW8822**  
 - n. 1 **Cod. BV15M**

Code		
<b>HS301600</b>	1	10

**AUTOMATIC COMPACT CHARGING UNIT**

**580011**

Automatic compact charging unit to EN 1717 standard with **BA type** backflow preventer, shut-off valve, strainer, pressure test ports for controlling the backflow preventer, pressure reducing valve. For horizontal or vertical installations. Brass body.



**With insulation.**  
 Filling unit setting pressure range: 0,8–4 bar.  
 Max. working pressure: 10 bar.  
 Max. working temperature: 65 °C.  
 Backflow preventer certified to EN 12729 standard.  
 Pressure reducing valve certified to EN 1567 standard.  
 PATENT.



Code		
<b>HS580011</b>	1/2"	1 5

**AUTOMATIC FILLING UNITS**



**553**  
 Pre-adjustable automatic filling unit, anti-scale, inspectionable, with pressure setting indicator, manual cock, strainer, check valve. Setting pressure range: 0,2–4 bar. Max. inlet pressure: 16 bar. Max. working temperature: 65 °C.

Code		
<b>HS553540</b>	1/2" with pressure gauge connection	1 10
<b>GA557306</b>	1/2" with pressure gauge	1 10

**ACCESSORIES FOR BOILERS**



**538**

Drain cock with hose connection and cap. Max. working pressure: 10 bar. Max. working temperature: 110 °C.



Code		
<b>MA538400</b>	1/2" M	1 100



**337**

Drain cock. **Adjustable outlet.** PTFE seal on thread. Max. working pressure: 6 bar. Max. working temperature: 85 °C. Medium: water, glycol solutions. Max. percentage of glycol: 30 %.



Code		
<b>AV337121</b>	1/4"	50 200

## EXPANSION VESSELS FOR HEATING SYSTEMS



### 556

Welded expansion vessel, for heating systems, EC certification. Diaphragm membrane. Max. working pressure: 6 bar. System working temperature range: -10-120 °C. Membrane working temperature range: -10-70 °C. Max. percentage of glycol: 50 %. Conformity to EN 13831 standard.



Code	Litres	Conn.	Precharge (bar)		
EV556008	8	3/4"	1,5	1	-
EV556012	12	3/4"	1,5	1	-
EV556018	18	3/4"	1,5	1	-
EV556025	25	3/4"	1,5	1	-



### 556

Welded expansion vessel, for heating systems, EC certification. Diaphragm membrane. Max. working pressure: 6 bar. System working temperature range: -10-120 °C. Membrane working temperature range: -10-70 °C. Max. percentage of glycol: 50 %. Conformity to EN 13831 standard.



Code	Litres	Conn.	Precharge (bar)		
EV556050	50	3/4"	1,5	1	-
EV556080	80	1"	1,5	1	-
EV556140	140	1"	1,5	1	-
EV556200	200	1"	1,5	1	-
EV556500	500	1"	1,5	1	-

## SHUT-OFF COCK FOR EXPANSION VESSELS



### 558

Automatic shut-off cock, for expansion vessels. **For domestic water circuit.** Max. working pressure: 10 bar. Max. working temperature: 110 °C.

Code			
EV558500	3/4"	1	50

## FLOW SWITCHES



### 626

Flow switch. Suitable for 1" to 8" pipes. 250 V (AC) - 15 (5) A. Max. working pressure: 10 bar. Temperature range: -30-120 °C. Protection class: IP 54.



Code			
HS626600	1"	1	5
HS626009	set of blades	1	-

## THERMOSTATS



### 621

Adjustable contact thermostat. Temperature range: 20-90 °C. Protection class: IP 20.



Code			
TH621000		1	10



### 622

Adjustable immersion thermostat. Temperature range: 0-90 °C. With 1/2" connection pocket. Protection class: IP 40.





Code			
TH622000		1	10

## HYDRAULIC SEPARATOR



### 548

Hydraulic separator.  
Epoxy resin coated steel body.  
**With pre-formed insulation.**  
Female union connections.  
Max. working pressure: 10 bar.  
Temperature range: 0–100 °C.  
Complete with:  
air vent with automatic shut-off cock,  
drain cock.



Code		Max. recommended flow rate m <sup>3</sup> /h		
HS548006	1"	2,5	1	–
HS548007	1 1/4"	4	1	–
HS548008	1 1/2"	6	1	–
HS548009	2"	8,5	1	–

## MANIFOLD FOR CENTRAL HEATING SYSTEM

### 550 2

Manifold for heating and cooling systems.  
Steel body. **With pre-formed insulation.**  
1 1/4" M main connections.  
Outlet connections:  
1 1/2" F with captive nut.  
Max. working pressure: 10 bar.  
Temperature range: 5–110 °C.



Code	Outlet centre distance		
HS550020	125 mm	1	–

### 550 3



Manifold for heating and cooling systems.  
Steel body. **With pre-formed insulation.**  
1 1/2" M main connections.  
Outlet connections:  
1 1/2" F with captive nut.  
Max. working pressure:  
10 bar.  
Temperature range:  
5–110 °C.



Code	Outlet centre distance		
HS550030	125 mm	1	–

Insulation for manifolds  
for central heating system 550 series.  
For heating and cooling systems.



Code			
HSCBN550020	for manifold 2	1	–
HSCBN550030	for manifold 3	1	–

DIRECT SUPPLY, THERMOSTATIC AND MOTORISED REGULATING UNITS



DN 25



165 

Direct supply unit for **heating and cooling systems**.  
 With pre-formed insulation.  
 Max. working pressure: 10 bar.  
 Primary inlet temperature range: 5–100 °C.  
 Supply: 230 V - 50/60 Hz.  
 System side connection: 1" F.  
 Boiler side connection: 1 1/2" M.  
**Outlet centre distance: 125 mm**

 RH to LH convertible

Code	Pump	Flow rate with residual head 4 m w.g.		
HS165640HE3	PARA 25/7	1,6 m³/h	1	-



DN 32



165 

Direct supply unit for **heating and cooling systems**.  
 With pre-formed insulation.  
 Max. working pressure: 10 bar.  
 Primary inlet temperature range: 5–100 °C.  
 Supply: 230 V - 50/60 Hz.  
 System side connection: 1 1/4" F.  
 Boiler side connection: 1 1/2" M.  
**Outlet centre distance: 125 mm**

 RH to LH convertible



Code	Pump	Flow rate with residual head 4 m w.g.		
HS165641HE4	PARA 25/9	2,7 m³/h	1	-



166 

Thermostatic regulating unit for **heating systems**.  
 With pre-formed insulation.  
 Max. working pressure: 10 bar.  
 Max. working temperature: 100 °C  
 Supply: 230 V - 50/60 Hz.  
 System side connection: 1" F.  
 Boiler side connection: 1 1/2" M.  
**Outlet centre distance: 125 mm**

 RH to LH convertible



Code	Pump	Temperature adjustment range	Flow rate with residual head 4 m w.g.		
HS166600HE3	PARA 25/7	25–50 °C	1,4 m³/h	1	-



166 

Thermostatic regulating unit for **heating systems**.  
 With pre-formed insulation.  
 Max. working pressure: 10 bar.  
 Max. working temperature: 100 °C  
 Supply: 230 V - 50/60 Hz.  
 System side connection: 1 1/4" F.  
 Boiler side connection: 1 1/2" M.  
**Outlet centre distance: 125 mm**

 RH to LH convertible

Code	Pump	Temperature adjustment range	Flow rate with residual head 4 m w.g.		
HS166601UPM	UPML 25-105	25–50 °C	2,4 m³/h	1	-





167 

Motorised regulating unit for **heating and cooling systems**.  
 With pre-formed insulation.  
 Regulation with sector three-way valve.  
 Max. working pressure: 10 bar.  
 Primary inlet temperature range: 5–100 °C.  
 System side connection: 1" F.  
 Boiler side connection: 1 1/2" M.  
**Outlet centre distance: 125 mm**

 RH to LH convertible

Actuator with 0(2)–10 V control signal

Supply: 24 V.  
 Operating time: 75 s (90° rotation).  
 Feedback signal: 0–10 V.  
 Can be connected to digital regulators code 161010 (for actuator electric supply use 230 V / 24 V transformer).

Code	Pump	Flow rate with residual head 4 m w.g.		
HS167654HE3	PARA 25/7	1,4 m³/h	1	-





167 

Motorised regulating unit for **heating and cooling systems**.  
 With pre-formed insulation.  
 Regulation with sector three-way valve.  
 Max. working pressure: 10 bar.  
 Primary inlet temperature range: 5–100 °C.  
 System side connection: 1 1/4" F.  
 Boiler side connection: 1 1/2" M.  
**Outlet centre distance: 125 mm**

 RH to LH convertible

Actuator with 0(2)–10 V control signal (see code 167654HE3)

Code	Pump	Flow rate with residual head 4 m w.g.		
HS167664HE4	PARA 25/9	2,2 m³/h	1	-



ACCESSORIES FOR DIRECT SUPPLY UNIT



165

Mounting bracket in stainless steel for units 165, 166 and 167 series.

Code

HS165001



1 -

6370

Actuator for unit 167 series.  
Supply: 230 V - 50 Hz or 24 V.  
Control signal:  
637042: 3 points,  
637044: 0(2)-10 V, 0(4)-20 mA, 0-5 V, 5-10 V.  
Power consumption: 637042: 3 VA, 637044: 2 W.  
Protection class: IP 44.  
Rotation 90°.  
Operating time: 150 s (code 637044 - 75 s).  
Ambient temperature range: 0-55 °C.  
Storage temperature range: -10-70 °C.  
Supply cable length: 1,5 m.



Code	Tension V	Control signal	Actuator torque (N·m)		
HS637042	230	3 points	5	1	-



Bag with insulating inserts for air conditioning operating mode.

Code

F0001773



1 -

ANTIFREEZE PROTECTION



108 iStop®

Antifreeze valve. Brass body.  
Max. working pressure: 10 bar.  
Ambient temperature range: -30-60 °C.  
Opening temperature: 3 °C.  
Closing temperature: 4 °C.

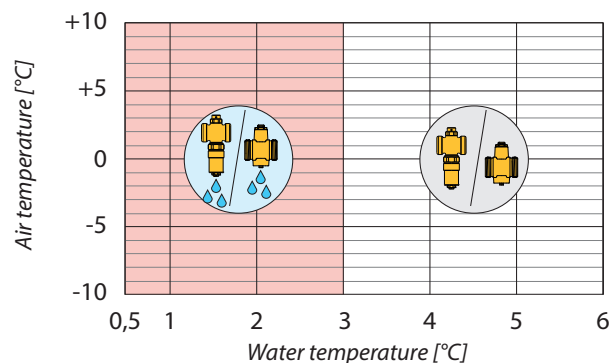
Code

Working temperature range

Code	Working temperature range		
HS108602	1" 0-90 °C	1	25
HS108702	1 1/4" 0-90 °C	1	20

Function

The antifreeze valve 108 series allows drainage of the medium in the circuit when the circuit temperature reaches an average value of 3 °C.



MOTORISED THREE-WAY BALL VALVES



6443

Motorised three-way diverter valve.  
Max. working pressure: 10 bar.  
Max. Δp: 10 bar.  
Temperature range: -5-110 °C.

**Equipped with actuator with 3-contact control.**  
**With auxiliary microswitch.**  
Supply: 230 V (AC) or 24 V (AC).  
Auxiliary microswitch contact rating: 0,8 A (230 V).  
Ambient temperature range: 0-55 °C.  
Protection class: IP 54.  
**Operating time: 10 s (rotation 90°).**  
Cable length: 100 cm.  
PATENT.



Code	Supply voltage V	Kv (m³/h)	Power consumption (VA)		
ZV644366	1" 230	9,0	4	1	5



638

Motorised three-way ball valve for high flow rates.  
**With auxiliary microswitch.**  
Supply: 230 V (AC) or 24 V (AC).  
Max. working pressure: 16 bar.  
Max. Δp: 10 bar.  
Temperature range: -10-110 °C.  
Ambient temperature range: -10-55 °C.  
Power consumption: 6 VA.  
Auxiliary microswitch contact rating: 6 (2) A - 230 V (AC).  
Protection class: IP 65.  
Operating time: 50 s (90° rotation).  
**(90° rotation - with "T" drilling - reduced bore).**



Code	Actuator torque (N·m)	Supply voltage V	Kv (m³/h)		
ZV638173	1 1/4" 15	230	24,7	1	-

**BALANCING VALVE WITH FLOW METER**





**132**

Balancing valve with flow meter. Direct reading of flow rate. Brass valve body and flow meter. Ball valve for flow rate adjustment. Graduated scale flow meter with magnetic movement flow rate indicator.

**With insulation.**

Max. working pressure: 10 bar. Temperature range: -10-110 °C. Max. percentage of glycol: 50 %. PATENT.



Code	Flow rate range (l/min)			
HS132402	1/2"	2- 7	1	5
HS132512	3/4"	5- 13	1	5
HS132522	3/4"	7- 28	1	5
HS132602	1"	10- 40	1	5
HS132702	1 1/4"	20- 70	1	5
HS132802	1 1/2"	30-120	1	5
HS132902	2"	50-200	1	5



**DIFFERENTIAL BY-PASS VALVES**



**519**

Differential by-pass valve, adjustable with graduated scale. Max. working pressure: 10 bar. Temperature range: 0-110 °C. Max. percentage of glycol: 30 %.



Code	Setting range m w.g.			
DBV519500	3/4"	1-6	1	50
DBV519700	1 1/4"	1-6	1	10



**DIRT SEPARATOR IN TECHNOPLYMER WITH MAGNET**



**5453 DIRTMAG®**

Dirt separator with shut-off valves and magnet. Technopolymer body. **Female connections. Adjustable for horizontal, vertical or 45° pipes.** Drain cock with hose connection. Max. working pressure: 3 bar. Temperature range: 0-90 °C.



Code	Max recommended flow rate m³/h			
HS545346	1"	1,3	1	5

**SEMI-AUTOMATIC SELF-CLEANING MAGNETIC FILTER**



**577 CALEFFI XF**

Semi-automatic self-cleaning magnetic filter. Technopolymer body. **Female connections. Adjustable for horizontal and vertical pipes.** Drain cock with hose connection. Max. working pressure: 3 bar. Temperature range: 0-90 °C. Mesh sized Ø = 0,16 mm.





Code			
HS577700	1 1/4"	1	-

**577 CALEFFI XF**



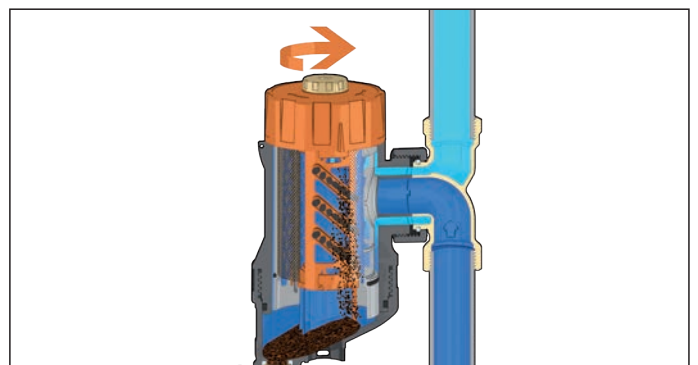
Semi-automatic self-cleaning magnetic filter **complete with by-pass.** Technopolymer body. **Female connections. Adjustable for horizontal and vertical pipes.** Drain cock with hose connection. Max. working pressure: 3 bar. Temperature range: 0-90 °C. Mesh sized Ø = 0,16 mm.



Code			
HS577800	1 1/2"	1	-
HS577900	2"	1	-

**Cleaning the filter mesh**

To clean the CALEFFI XF filter with the circulator stationary, there is no need to disassemble the component because it contains a mechanism with brushes to clean the filter mesh.



**HIGH-EFFICIENCY DEAERATOR FOR HEAT PUMP SYSTEMS**





**5516  
CALEFFI HED®**

High-efficiency deaerator.  
Technopolymer body.  
**Adjustable for horizontal, vertical and angled installations.**  
With hygroscopic safety cap.  
Max. working pressure: 3 bar.  
Temperature range: 0–90 °C.  
PATENT PENDING.

**PCT**  
INTERNATIONAL  
APPLICATION  
PENDING

**Threaded connections**

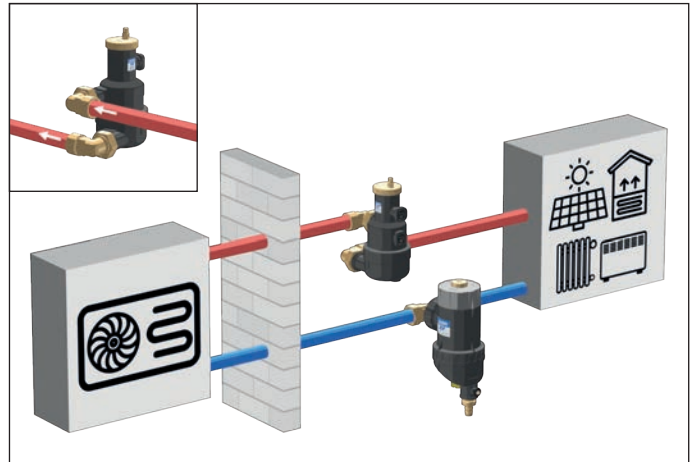
Code			
AV551606	1" F	1	-
AV551607	1 1/4" F	1	-
AV551617	1 1/4" M	1	-



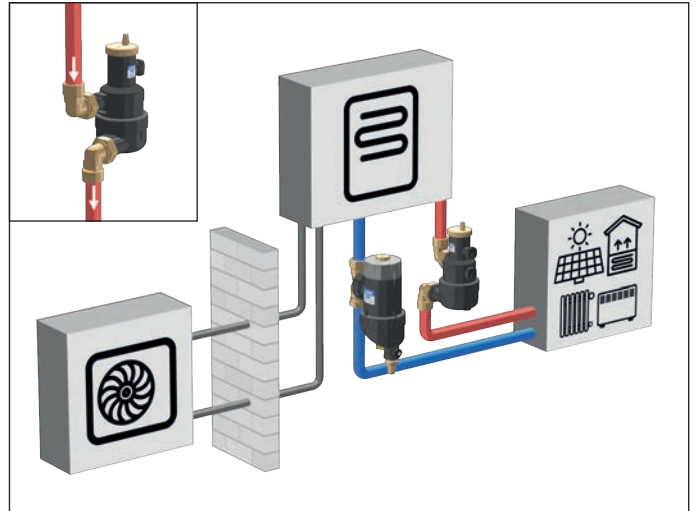
Insulation  
for high-efficiency deaerators.

Code	Use		
CBN551602	551606/607	1	-

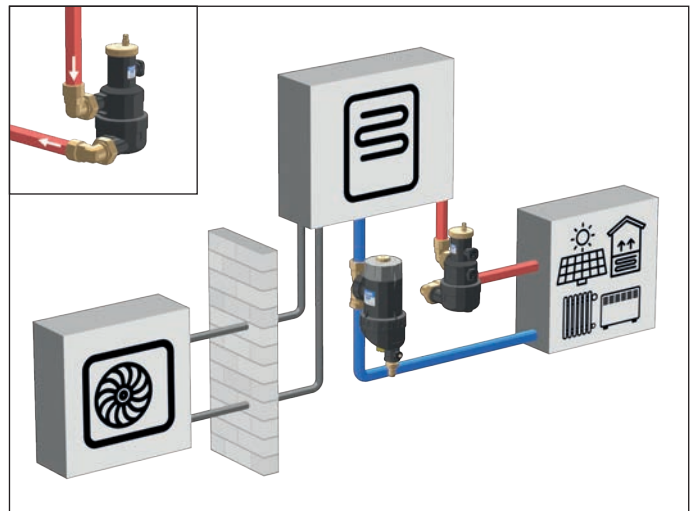
**Horizontal installation**



**Vertical installation**



**Angled installation**



THERMOSTATIC CONTROL HEADS



200

Thermostatic control head for designer heating system valves. Built-in sensor with liquid-filled element. For valves 4001, 4003, 4004 and 3380 series. **High chrome finish.** Graduated scale from ❄️ to 5 corresponding to a temperature adjustment range from 7 °C to 28 °C. With adapter.

Code			
RV200013		1	10



203

Thermostatic control head for thermostatic and convertible radiator valves; with contact probe, for medium temperature limiting. For valves 220, 221, 222, 223, 224, 225, 226, 227, 338, 339, 401, 402 and 455 series. Pre-set temperature scale. Capillary length: 2 m. With adapter.

Code	Temperature range		
RV203502	20–50 °C	1	25
RV203702	40–90 °C	1	–



205

Thermostatic control head for designer heating system valves. Built-in sensor with liquid-filled element. For valves 4001, 4003, 4004 and 3380 series. **White colour.** Graduated scale from ❄️ to 5 corresponding to a temperature adjustment range from 7 °C to 28 °C. With adapter.

Code			
RV205000		1	10



209

Tamper-proof anti-theft cap for use in public places. For thermostatic control heads 200 series. **High chrome colour.** To be used with special allen key code RV209T.

Code			
RV209000		1	10



209

Special allen key for tamper-proof anti-theft cap. To be used with tamperproof cap 209 series.

Code			
RV209T		1	10

THERMOSTATIC RADIATOR VALVES



224

Reverse thermostatic radiator valve fitted for thermostatic and electronic control heads, thermo-electric actuators. Chrome plated. For steel pipe. Max. working pressure: 10 bar. Temperature range: 5–100 °C.

Code		Kvs (m <sup>3</sup> /h)*		
RV224402	1/2"	1,39	1	20



401

Angled convertible radiator valve fitted for thermostatic control heads and thermo-electric actuators. Chrome plated. For steel pipe. Max. working pressure: 10 bar. Temperature range: 5–100 °C.

Code		Kv (m <sup>3</sup> /h)		
RV401402	1/2"	2,70	10	50
RV401500	3/4" without rubber seal	3,36	5	25



402

Straight convertible radiator valve fitted for thermostatic control heads and thermo-electric actuators. Chrome plated. For steel pipe. Max. working pressure: 10 bar. Temperature range: 5–100 °C.

Code		Kv (m <sup>3</sup> /h)		
RV402402	1/2"	1,79	10	50
RV402500	3/4"	2,58	5	25
RV402603	1" without rubber seal	4,43	5	25



431

Angled lockshield valve. Chrome plated. For steel pipe. Max. working pressure: 10 bar. Temperature range: 5–100 °C.

Code		Kv (m <sup>3</sup> /h) fully open		
RV431402	1/2"	3,99	10	50
RV431503	3/4" without rubber seal	4,52	5	25



432

Straight lockshield valve. Chrome plated. For steel pipe. Max. working pressure: 10 bar. Temperature range: 5–100 °C.

Code		Kv (m <sup>3</sup> /h) fully open		
RV432402	1/2"	2,17	10	50
RV432503	3/4" without rubber seal	2,58	5	25
RV432603	1" without rubber seal	4,81	5	25

**RADIATOR VALVE SET**



**338**

Angled convertible radiator valve fitted for thermostatic control heads and thermo-electric actuators. Chrome plated. For copper, single and multilayer plastic pipes. Max. working pressure: 10 bar. Temperature range: 5–100 °C.



**339**

Straight convertible radiator valve fitted for thermostatic control heads and thermo-electric actuators. Chrome plated. For copper, single and multilayer plastic pipes. Max. working pressure: 10 bar. Temperature range: 5–100 °C.



Caleffi project valve kit, chrome (**Cu**). Complete with:  
 - **Cod. RV200013**  
 - **Cod. RV339402**  
 - **Cod. RV437115**



Caleffi radiator valve, straight (**Cu**). Complete with:  
 - **Cod. RV339402**  
 - **Cod. RV447015**

Code



**RV338040C**

1 -

Code



**RV339402C**

1 -



Caleffi project valve kit, chrome (**PeX**). Complete with:  
 - **Cod. RV200013**  
 - **Cod. RV338040**  
 - **Cod. RV681124**



Caleffi radiator valve, straight (**PeX**). Complete with:  
 - **Cod. RV339402**  
 - **Cod. RV681024**

Code



**RV338040P**

1 -

Code



1 -

RADIATOR VALVE SET

227



Reverse thermostatic radiator valve fitted for thermostatic and electronic control heads, thermo-electric actuators. Chrome plated. For copper, single and multilayer plastic pipes. Max. working pressure: 10 bar. Temperature range: 5–100 °C.



Caleffi radiator valve, reverse angle (Cu). Complete with:  
- Cod. RV227402  
- Cod. RV447015

Code		
<b>RV227402C</b>	1	-



Caleffi radiator valve, reverse angle (PeX). Complete with:  
- Cod. RV227402  
- Cod. RV681024

Code		
<b>RV227402P</b>	1	-



Caleffi radiator valve set, reverse angle (Cu). Complete with:  
- Cod. RV205000  
- Cod. RV227402  
- Cod. RV342402  
- Cod. RV447015  
- Cod. \*RV449800  
- Cod. \*RVP

Code		
<b>RAVKCR</b>	1	-



Caleffi radiator valve set, reverse angle (PeX). Complete with:  
- Cod. RV205000  
- Cod. RV227402  
- Cod. RV342402  
- Cod. RV681024  
- Cod. \*RV449800  
- Cod. \*RVP

Code		
<b>RAVKPR</b>	1	-

224



Reverse thermostatic radiator valve fitted for thermostatic and electronic control heads, thermo-electric actuators. Chrome plated. For steel pipe. Max. working pressure: 10 bar. Temperature range: 5–100 °C.



Caleffi radiator valve set, 15mm reverse angle. Complete with:  
- Cod. RV205000  
- Cod. RV224402  
- Cod. RV431402  
- Cod. \*RV449800  
- Cod. \*RVP

Code		
<b>RAVKSR</b>	1	-

342



Angled lockshield valve. Chrome plated. For copper, single and multilayer plastic pipes. Max. working pressure: 10 bar. Temperature range: 5–100 °C.



Caleffi lockshield valve, angle m/m (Cu). Complete with:  
- Cod. RV342402  
- Cod. RV447015

Code		
<b>RV342402C</b>	1	-



Caleffi lockshield valve, angle m/m (PeX). Complete with:  
- Cod. RV342402  
- Cod. RV681024

Code		
<b>RV342402P</b>	1	-

343



Straight lockshield valve. Chrome plated. For copper, single and multilayer plastic pipes. Max. working pressure: 10 bar. Temperature range: 5–100 °C.



Caleffi lockshield valve, straight (Cu). Complete with:  
- Cod. RV342402  
- Cod. RV447015

Code		
<b>RV343402C</b>	1	-

Code		
<b>RV343402P</b>	1	-

RADIATOR VALVE SET

4001

Pair consisting of:  
 - angled-convertible radiator valve fitted for thermostatic control head code 200015;  
 - angled lockshield valve;  
 - two pipe-covering/wall-covering shells and allen key.

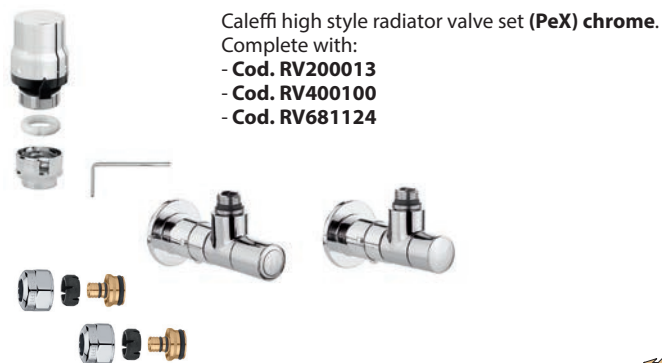
**High chrome finish.**

Max. working pressure: 10 bar.  
 Temperature range: 5–100 °C.



Caleffi high style radiator valve set **(Cu) chrome**.  
 Complete with:  
 - **Cod. RV200013**  
 - **Cod. RV400100**  
 - **Cod. RV437115**

Code    
**RV400100C** 1 -



Caleffi high style radiator valve set **(PeX) chrome**.  
 Complete with:  
 - **Cod. RV200013**  
 - **Cod. RV400100**  
 - **Cod. RV681124**

Code    
**RV400100P** 1 -

4003

Pair consisting of:  
 - double-angled convertible radiator valve fitted for thermostatic control head code 200015;  
 - lockshield valve, double-angled connections;  
 - pipe-covering/wall-covering shell, connections: 50 mm centre distance.

**Central connections.  
 Right-hand version.**



To be used with fittings 437, 447, 681 and 679 series.

**High chrome finish.**

Max. working pressure: 10 bar.  
 Temperature range: 5–100 °C.



Caleffi rad/lockshield bottom entry combo **(Cu) chrome**.  
 Complete with:  
 - **Cod. RV200013**  
 - **Cod. RV400310**  
 - **Cod. RV437115**  
 - **Cod. RV963**

Code    
**RV400310C** 1 -



Caleffi rad/lockshield bottom entry combo **(PeX) chrome**.  
 Complete with:  
 - **Cod. RV200013**  
 - **Cod. RV400310**  
 - **Cod. RV681124**  
 - **Cod. RV963**

Code    
**RV400310P** 1 -



Caleffi rad/lockshield bottom entry combo, white **(Cu)**.  
 Complete with:  
 - **Cod. RV205000**  
 - **Cod. RV400311**  
 - **Cod. RV437115**  
 - **Cod. RV963**

Code    
**RV400311C** 1 -



Caleffi rad/lockshield bottom entry combo, white **(PeX)**.  
 Complete with:  
 - **Cod. RV205000**  
 - **Cod. RV400311**  
 - **Cod. RV681124**  
 - **Cod. RV963**

Code    
**RV400311P** 1 -

**RADIATOR VALVE SET**



**3010**

Valve for panel radiators with built-in thermostatic valve unit. Single valve straight version (floor connections) with 3/4" M radiator connections. Max. working pressure: 10 bar. Max. working temperature: 100 °C.



**3011**

Valve for panel radiators with built-in thermostatic valve unit. Single valve angled version (wall connections) with 3/4" M radiator connections. Max. working pressure: 10 bar. Max. working temperature: 100 °C.



Caleffi radiator valve set, bottom entry, straight (Cu). Complete with:  
 - Cod. RV205000  
 - Cod. RV301050  
 - Cod. RV437515  
 - Cod. RV449740  
 - Cod. \*RSBVTI

Code    
**RAVK6SC** 1 -



Caleffi radiator valve set, bottom entry, angle (Cu). Complete with:  
 - Cod. RV205000  
 - Cod. RV301150  
 - Cod. RV437515  
 - Cod. RV449740  
 - Cod. \*RSBVTI

Code    
**RAVK6AC** 1 -




Caleffi radiator valve set, bottom entry, angle (PeX). Complete with:  
 - Cod. RV205000  
 - Cod. RV301050  
 - Cod. RV681524  
 - Cod. RV449740  
 - Cod. \*RSBVTI

Code    
**RAVK6SP** 1 -



Caleffi radiator valve set, bottom entry, angle (PeX). Complete with:  
 - Cod. RV205000  
 - Cod. RV301150  
 - Cod. RV681524  
 - Cod. RV449740  
 - Cod. \*RSBVTI

Code    
**RAVK6AP** 1 -



Caleffi radiator valve set, bottom entry, angle (PeX) chrome. Complete with:  
 - Cod. RV200013  
 - Cod. RV301050  
 - Cod. RV681524  
 - Cod. RV449740

Code    
**RAVK6SPCP** 1 -



Caleffi radiator valve set, bottom entry, angle (PeX) chrome. Complete with:  
 - Cod. RV200013  
 - Cod. RV301150  
 - Cod. RV681524  
 - Cod. RV449740

Code    
**RAVK6APCP** 1 -



FITTINGS

437



Compression fitting, for annealed copper, hard copper, brass, mild and stainless steel pipes. With O-Ring seal. **High chrome finish.** Max. working pressure: 10 bar. Temperature range : -25–120 °C.

Code				
<b>RV437115</b>	23 p.1,5 - Ø 15		1	50

447



Pre-assembled compression fitting, for soft annealed copper, hard copper, brass, mild and stainless steel pipes. With O-Ring seal. Max. working pressure: 10 bar. Temperature range: -25–120 °C. Chrome plated.

Code				
<b>RV447015</b>	23 p.1,5 - Ø 15		100	-

681

DARCAL



Self-adjustable diameter fitting for single and multilayer plastic pipes. Max. working pressure: 10 bar. Temperature range: 5–80 °C (PE-X) 5–75 °C (Multilayer marked 95 °C). Chrome plated.

Code		∅ <sub>inside</sub>	∅ <sub>outside</sub>		
<b>RV681024</b>	23 p.1,5	11,5–12	14–16	10	100

681

DARCAL



Self-adjustable diameter fitting for single and multilayer plastic pipes. **High chrome finish.** Max. working pressure: 10 bar. Temperature range: 5–80 °C (PE-X) 5–75 °C (Multilayer marked 95 °C).

Code		∅ <sub>inside</sub>	∅ <sub>outside</sub>		
<b>RV681124</b>	23 p.1,5	11,5–12	14–16	1	50

WALL-COVERING PLATES

4499



Single wall-covering plate. White colour RAL 9010. For pipes with external diameter from 12 to 20 mm.

Code			
<b>RV449900</b>		-	40

4497



Double wall-covering plate. In white ABS. Outlet centre distance: 40–50 mm.

Code			
<b>RV449740</b>		-	40

DISTRIBUTION MANIFOLD SET

671

tech. broch. 01405

Pre-assembled distribution manifold.  
Max. working pressure: 6 bar.  
Temperature range: 5–60 °C.  
Connections: 1" F x 3/4" M.

Equipped with:

- technopolymer flow manifold with built-in flow meters and flow rate balancing valves;
- technopolymer return manifold with built-in shut-off valves fitted for thermo-electric actuator;
- technopolymer end fittings with automatic air vent with hygroscopic cap, discharge valve and fill/drain cock;
  - pair of ball shut-off valves;
  - LCD thermometers on flow and return manifolds;
  - adhesive labels indicating the rooms;
  - pair of mounting brackets for box or wall mounting;
  - coupling adapter with clip for manifold outlets (in package);
  - template for cutting pipe (in package).



Distribution manifold, **4 circ**, no box  
Complete with:  
- **Cod. UF6716D1**  
- n. 8 **Cod. HS680524**

Code			
<b>UF6716D1</b>	1	-	

Distribution manifold, **6 circ**, no box  
Complete with:  
- **Cod. UF6716F1**  
- n. 12 **Cod. HS680524**

Code			
<b>UF6716F1</b>	1	-	

Distribution manifold, **8 circ**, no box  
Complete with:  
- **Cod. UF6716H1**  
- n. 16 **Cod. HS680524**

Code			
<b>UF6716H1</b>	1	-	

Distribution manifold, **10 circ**, no box  
Complete with:  
- **Cod. UF6716L1**  
- n. 20 **Cod. HS680524**

Code			
<b>UF6716L1</b>	1	-	

Distribution manifold, **12 circ**, no box  
Complete with:  
- **Cod. UF6716N1**  
- n. 24 **Cod. HS680524**

Code			
<b>UF6716N1</b>	1	-	

Distribution manifold, **14 circ**, no box  
Complete with:  
- **Cod. UF6716O1**  
- n. 28 **Cod. HS680524**

Code			
<b>UF6716O1</b>	1	-	

ACCESSORIES FOR DISTRIBUTION MANIFOLD SET

182

Differential by-pass kit with fixed setting 25 kPa (2.500 mm w.g.) complete with flexible hose. For regulating units and manifolds 671 series. Max. working pressure: 10 bar. Temperature range: 0–100 °C.



Code			
<b>UF182000</b>	3/4"	1	5

6561

tech. broch. 01042

Thermo-electric actuator. Normally closed. **With auxiliary microswitch.** Supply: 230 V (AC) or 24 V (AC)/(DC). Auxiliary microswitch contact rating: 0,8 A (230 V). Power consumption: 3 W. Starting current: ≤ 1 A. Ambient temperature range: 0–50 °C. Protection class: IP 44 (vertical stem). Cable length: 80 cm.



Code	Supply voltage V		
<b>EA656112</b>	230	1	10

680 **DARCAL**

Self-adjustable diameter fitting for single and multilayer plastic pipes. Max. working pressure: 10 bar. Temperature range: 5–80 °C (PE-X) 5–75 °C (Multilayer marked 95 °C).



Code		Ø <sub>inside</sub>	Ø <sub>outside</sub>		
<b>HS680524</b>	3/4"	11,5–12	14 –16	10	100
<b>HS680564</b>	3/4"	15,5–16	18 –20	10	100



**149 SERIES**



The pre-assembled kit for terminal units is compact and able to shut off, adjust and filter the secondary circuit of the terminal unit. It also allows to perform maintenance and setting operations of the system. It allows the connection of fan-coils, cooling beams or ceiling-mounted air-conditioning systems to the main distribution system.

- **STATIC BALANCING DEVICES**
- **DYNAMIC BALANCING AND CONTROL DEVICES**

**BALANCING VALVES**



**130**

Balancing valve for hydraulic systems. Flow rate measurement with Venturi device. **CR** dezincification resistant alloy body, stainless steel obturator. Complete with pressure ports. Max. working pressure: 16 bar. Temperature range: -20-120 °C. Max. percentage of glycol: 50 %.



Code			
<b>HV130400</b>	1/2"	1	5
<b>HV130500</b>	3/4"	1	5
<b>HV130600</b>	1"	1	5
<b>HV130700</b>	1 1/4"	1	5
<b>HV130800</b>	1 1/2"	1	5
<b>HV130900</b>	2"	1	5



Pre-formed insulation for balancing valves with threaded connections in 130 series. For heating and cooling system.

Code			
<b>HVCBN130400</b>	1/2"	1	-
<b>HVCBN130500</b>	3/4"	1	-
<b>HVCBN130600</b>	1"	1	-
<b>HVCBN130700</b>	1 1/4"	1	-
<b>HVCBN130800</b>	1 1/2"	1	-
<b>HVCBN130900</b>	2"	1	-

**BALANCING VALVE WITH FLOW METER**



**132**

Balancing valve with flow meter. Direct reading of flow rate. Brass valve body and flow meter. Ball valve for flow rate adjustment. Graduated scale flow meter with magnetic movement flow rate indicator.

**With insulation.**

Max. working pressure: 10 bar. Temperature range: -10-110 °C. Max. percentage of glycol: 50 %. PATENT.



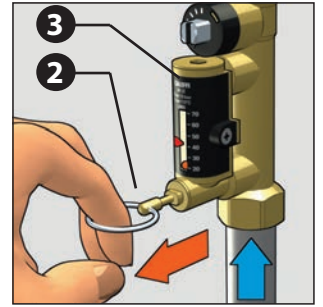
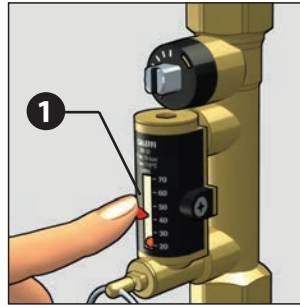
Code		Flow rate range (l/min)		
<b>HS132402</b>	1/2"	2- 7	1	5
<b>HS132512</b>	3/4"	5- 13	1	5
<b>HS132522</b>	3/4"	7- 28	1	5
<b>HS132602</b>	1"	10- 40	1	5
<b>HS132702</b>	1 1/4"	20- 70	1	5
<b>HS132802</b>	1 1/2"	30-120	1	5
<b>HS132902</b>	2"	50-200	1	5

**BALANCING VALVE WITH FLOW METER**

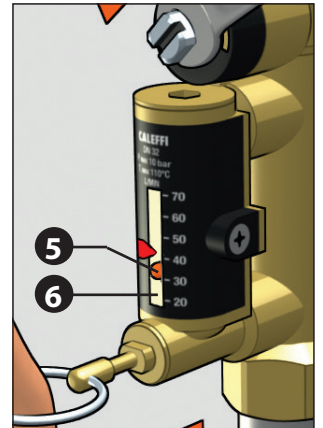
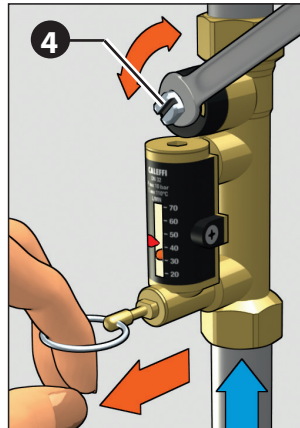
**Flow rate adjustment**

The flow rate is adjusted by carrying out the following operations:

1. With the aid of the indicator (1), mark the reference flow rate at which the valve has to be set.
2. Use the ring (2) to open the obturator that shuts off the flow of medium in the flow meter (3) under normal operating conditions.



3. Keeping the obturator open, apply a wrench on the control stem of the valve (4) to adjust the flow rate. It is indicated by a metal ball (5) that runs inside a transparent guide (6) marked by a graduated scale in l/min.

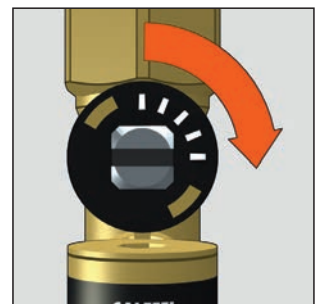
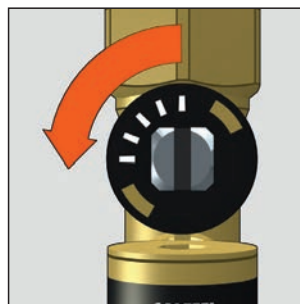


4. After completing the balancing, release the ring (2) of the flow meter obturator that, thanks to an internal spring, will automatically go back into the closed position.
5. After completing the balancing, the indicator (1) can be used to keep in memory the selected setting in case of future inspections.

**Complete opening and closing of the valve**

Complete opening of the valve

Complete closing of the valve



PRESSURE INDEPENDENT CONTROL VALVE (PICV)



**145 FLOWMATIC®**

Pressure independent control valve FLOWMATIC®. CR dezincification resistant alloy body. Male connections. Flow rate regulator in polymer with membrane in EPDM. Graduated scale indicator. Max. working pressure: 25 bar. Temperature range: -20–120 °C. Max. percentage of glycol: 50 %. Δp range: 25–400 kPa. With pressure test ports. **Fitted for 145 series actuator and 6565/6566 series thermo-electric actuator.**

Code	DN	Conn.	Flow rate range (m³/h)		
<b>HV145437 H20</b>	15	1/2"	0,02–0,20	1	10
<b>HV145447 H40</b>	15	3/4"	0,08–0,40	1	10
<b>HV145447 H80</b>	15	3/4"	0,08–0,80	1	10
<b>HV145557 H40</b>	20	1"	0,08–0,40	1	10
<b>HV145557 H80</b>	20	1"	0,08–0,80	1	10
<b>HV145557 1H2</b>	20	1"	0,12–1,20	1	10
<b>HV145667 1H8</b>	25	1 1/4"	0,18–1,80	1	10
<b>HV145667 3H0</b>	25	1 1/4"	0,30–3,00	1	10
<b>HV145667 3H7</b>	25	1 1/4"	0,37–3,70	1	10



Union with gasket.

Code			
<b>HV145001</b>	1/2" F x 3/8" M	1	–
<b>HV145003</b>	3/4" F x 1/2" M	1	–
<b>HV145005</b>	1" F x 3/4" M	1	–
<b>HV145006</b>	1" F x 1" M	1	–
<b>HV145007</b>	1 1/4" F x 1" M	1	–
<b>HV145008</b>	1 1/4" F x 1 1/4" M	1	–



Insulation for FLOWMATIC® 145 series.

Code	Use		
<b>HVCBN145437</b>	DN 15 - DN 20	1	–



Insulation for FLOWMATIC® 145 series.

Code	Use		
<b>HVCBN145667</b>	DN 25	1	–

ACTUATORS FOR KITS AND CONTROL VALVES (PICV)



**145**

Proportional linear actuator for FLOWMATIC® 145 series control valve and 149 series kit. Supply: 24 V (AC)/(DC). Control signal: 2 points, 3 points, 0–10 V. Feedback signal: 0–10 V. With manual override. Ambient temperature range: 0–50 °C. Protection class: IP 54. Connection: M 30 p.1,5. Supply cable length: 1,5 m.

Code	Tension V		
<b>HV145019</b>	24	1	–



**6565/6566**

Thermo-electric actuator for FLOWMATIC® 145 series control valve and 149 series kit. **Quick-coupling installation, with a clip adapter.** Supply: 230 V (AC) o 24 V (AC)/(DC). Control signal: ON/OFF. Power consumption: 1 W. Ambient temperature range: 0–60 °C. Protection class: IP 54. Connection: M 30 p.1,5. Supply cable length: 1 m.

Code	Tension V	Control signal		
<b>HV656502</b>	230	ON/OFF normally closed	100	–
<b>HV656504</b>	24	ON/OFF normally closed	100	–
<b>HV656602</b>	230	ON/OFF normally open	100	–
<b>HV656604</b>	24	ON/OFF normally open	100	–

CONNECTION AND REGULATION KIT FOR HVAC TERMINAL UNITS

149

Connection and regulation kit for HVAC terminal units.  
 CR dezincification resistant alloy body.

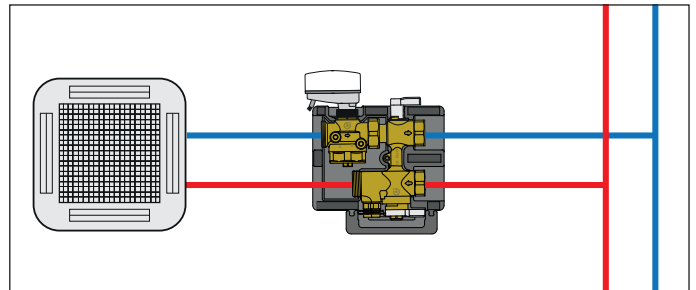
- Complete with:
- pressure independent control valve,
  - three-way shut-off valve,
  - integrated by-pass,
  - Venturi device with pressure test ports (only in codes 149.00 ...),
  - filtering cartridge,
  - fill/drain cock.
  - pre-formed shell insulation.



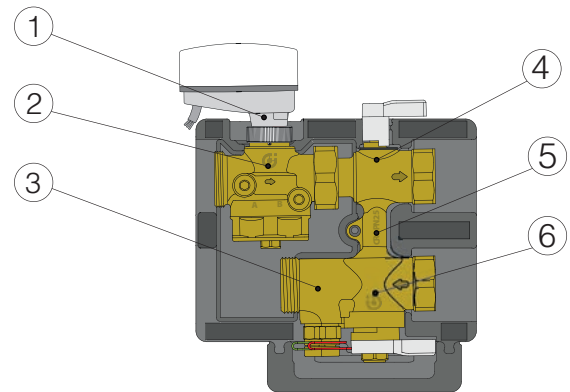
Max. working pressure: 25 bar.  
 Temperature range: -10–120 °C.  
 Max. percentage of glycol: 50 %.  
 Δp range (PICV): 25–400 kPa.  
 Centre distance: 80 mm.

Fitted for 145 series actuator and 6565/6566 series thermo-electric actuator.  
 PATENT PENDING.

Application diagram of 149 series



Characteristics components



1. Actuator (optional)
2. Pressure independent control valve (PICV)
3. Venturi device for flow rate measurement with connections for pressure test ports (in 149.00 codes only)
4. Three-way shut-off valve
5. By-pass
6. Three-way shut-off valve with built-in strainer

With Venturi device

Code	DN	Kv Venturi (m³/h)	Flow rates range (m³/h)		
HV149400 H10	15	0,25	0,02–0,10	1	–
HV149400 H20	15	0,50	0,10–0,20	1	–
HV149400 H40	15	1,10	0,20–0,40	1	–
HV149400 H80	15	2,35	0,40–0,80	1	–
HV149500 H10	20	0,25	0,02–0,10	1	–
HV149500 H20	20	0,50	0,10–0,20	1	–
HV149500 H40	20	1,10	0,20–0,40	1	–
HV149500 H80	20	2,35	0,40–0,80	1	–
HV149500 1H2	20	5,00	0,80–1,20	1	–
HV149600 1H8	25	5,00	1,20–1,80	1	–
HV149600 3H0	25	9,60	1,80–3,00	1	–
HV149600 3H7	25	9,60	1,85–3,70	1	–

ACTUATORS FOR KITS AND CONTROL VALVES (PICV)

145

Proportional linear actuator for FLOWMATIC® 145 series control valve and 149 series kit.

Supply: 24 V (AC)/(DC).  
 Control signal: 2 points, 3 points, 0–10 V.  
 Feedback signal: 0–10 V.  
 With manual override.  
 Ambient temperature range: 0–50 °C.  
 Protection class: IP 54.  
 Connection: M 30 p.1,5.  
 Supply cable length: 1,5 m.



Code	Tension V		
HV145019	24	1	–

6565/6566

Thermo-electric actuator for FLOWMATIC® 145 series control valve and 149 series kit.

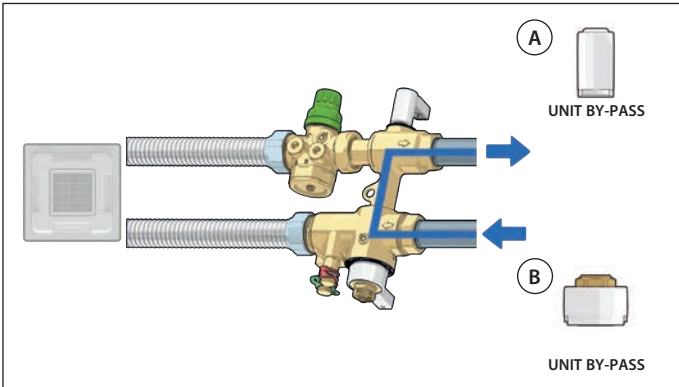
**Quick-coupling installation, with a clip adapter.**  
 Supply: 230 V (AC) o 24 V (AC)/(DC).  
 Control signal: ON/OFF.  
 Power consumption: 1 W.  
 Ambient temperature range: 0–60 °C.  
 Protection class: IP 54.  
 Connection: M 30 p.1,5.  
 Supply cable length: 1 m.



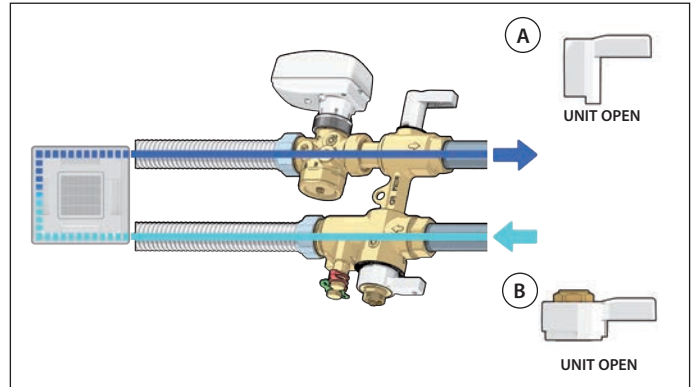
Code	Tension V	Control signal		
HV656502	230	ON/OFF normally closed	100	–
HV656504	24	ON/OFF normally closed	100	–
HV656602	230	ON/OFF normally open	100	–
HV656604	24	ON/OFF normally open	100	–

CONNECTION AND REGULATION KIT FOR HVAC TERMINAL UNITS

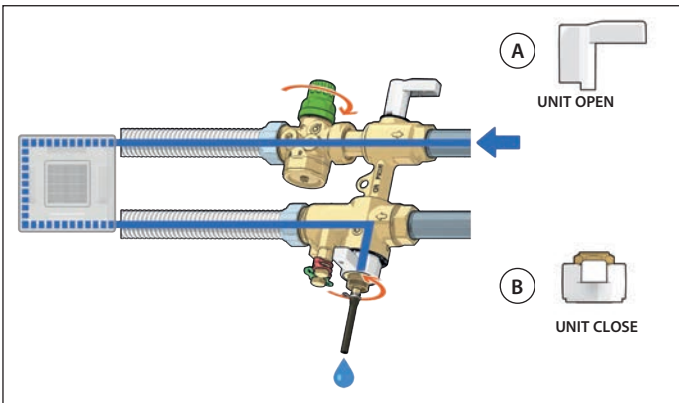
Washing in by-pass



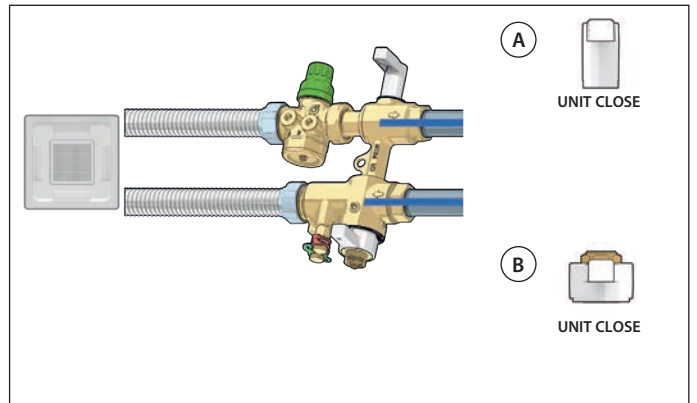
Normal operation



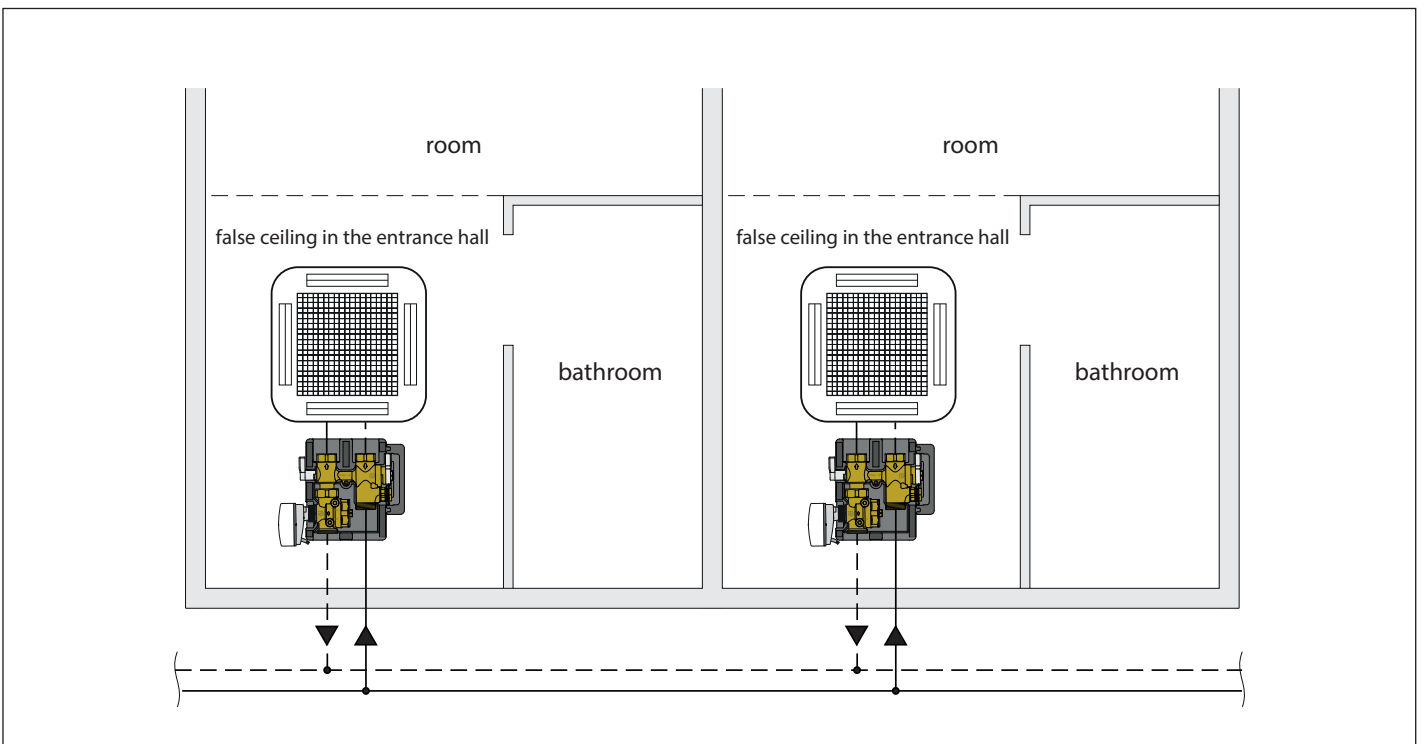
Terminal unit washing



Strainer cleaning/Isolate the line



Installation in false ceiling for fan-coil service



# CASE STUDIES: REAL-WORLD APPLICATIONS

The following case studies, delve into the practical applications of Caleffi applications across two different complexes. Through real-world examples, we aim to illustrate the potential of Caleffi product to address challenges, drive innovation, and create positive outcomes.

**Client: Kainga ora:** Greys Ave (Te Mātāwai), installation of 300 apartments, Caleffi combo kits and PR533555HS



**Client: Ninety Four feet:** Indigo Hotel Auckland.  
**Product: Caleffi Legiomix TV600071,TV600091**  
**Caleffi PRV 533 Series: PR533555HS**



**PRV**  
PR533555HS



**Legiomix**  
TV600071,TV600091



**SCAN FOR  
MORE CASE  
STUDIES**



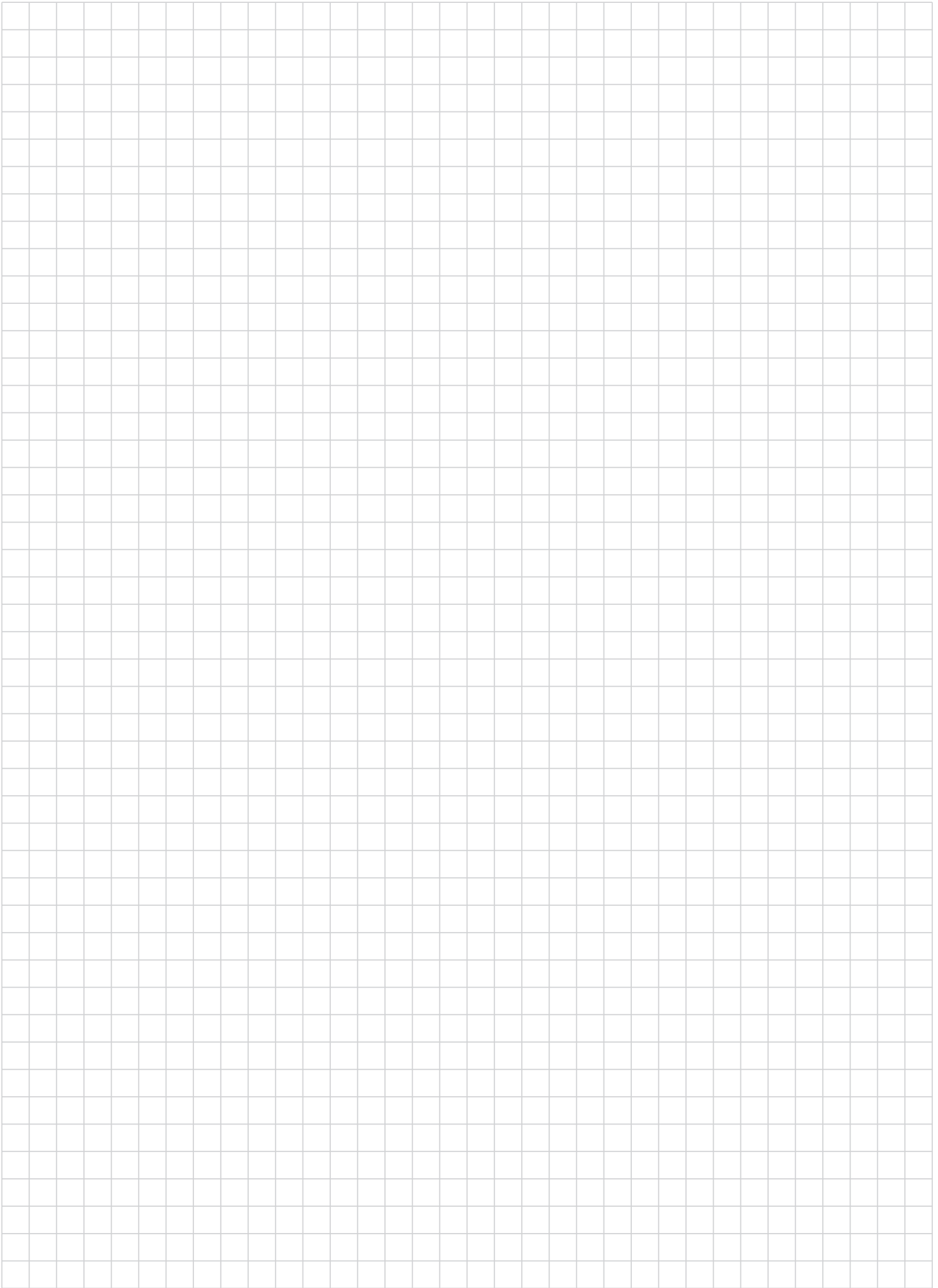




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