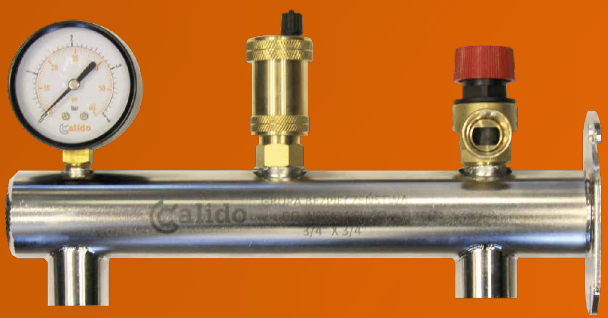
# Eryk

# Pionier



## Safety
# Group

## Air
# Vent

Calido

ERYK series

# ANGLE BALL VALVES SET

## for connection of wall-mounted combi boilers

## ADVANTAGES

- compact design for limited space installation of wall-mounted boilers - **easy connection**;
- 1/2" valve for domestic hot water and heating and 3/4" valve for heating equipped with filter and check valve - **solution to the installation problem in the limited installation space of the wall-mounted boiler at the connecting of the valve, filter and check valve (3 in 1) - patent**;
- Kv flow rate enabling cooperation with boilers with a power up to 28 kW;

  valve stem equipped with double sealing:
  - traditional gland is located on the top of the stem - **possibility of sealing with a nut by plumber**;
  - in the lower part of stem, modern dynamic sealing is applied in which the force of sealing is proportional to pressure between the ball and the body - **tightness guarantee**;
- anti-blow-out stem - **guarantee of safety**;
- 1/2" valve for domestic hot water and heating and 3/4" valve for heating equipped with the anti-lime filter placed in the valve's ball - **protection of the boiler against contamination from the installation and the lack of the possibility of filters scaling**;
- 1/2" valve for domestic hot water and heating and 3/4" valve for heating equipped with check valve - **the filter can be cleaned without the need of emptying water from the system**;
- valve equipped with aluminum alloy lever covered with a protective coating - **guarantee of long life servis of lever**;
- lever's design allows for the use of a 10 or 21 mm wrench - **opening/closing of the valve in a limited space.**

**Watch instructional video**
**arka-instalacje.pl/filmy-x/**

Check valve in 1/2 valve for domestic hot water and heating and 3/4 valve for heating

Anti-lime filter in valve 1/2 for domestic hot water and 3/4 valve for heating

Dinamic sealing

Closing/opening with 10 i 21mm wrench

MOSIĄDZ DZR
Resistant to galvanization

For drinking water

Calido

ERYK series

## APPLICATION

Calido valves - ERYK series are a series of angle ball valves, manually controlled, designed for installation in heating systems and distribution of drinking water. Especially dedicated to boiler connections for wall-mounted and combi boilers.

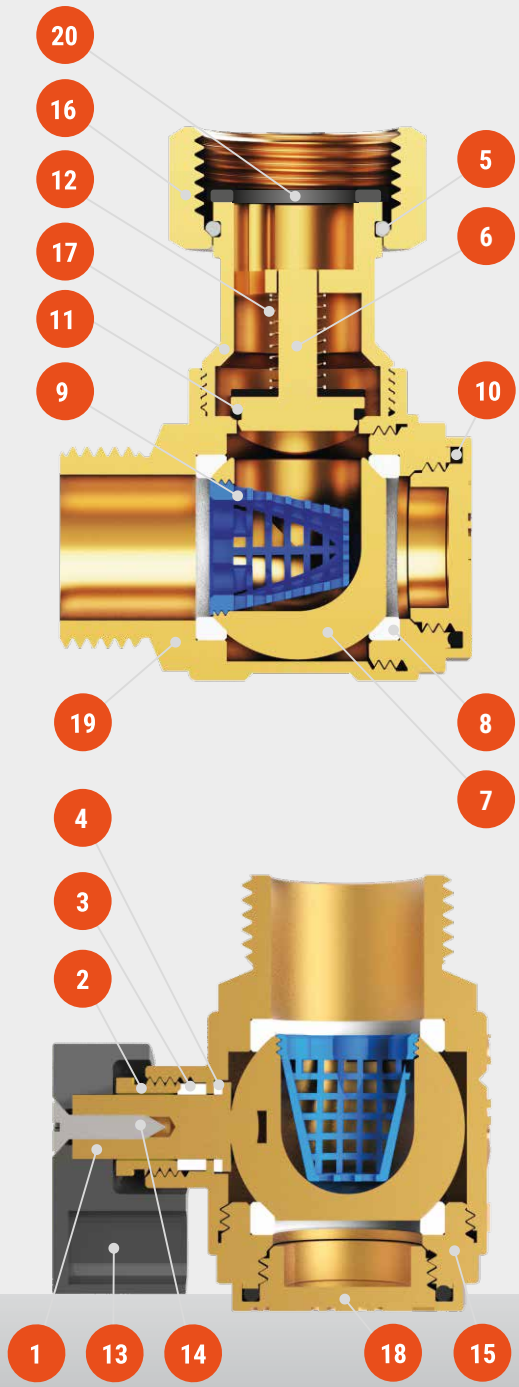
## PRODUCTS

| Index | Description |
|---|---|
| **CA/ZKKN-DPKN KPL** | Set of angle ball valves for connection of wall-mounted boiler 1 x CA/ZKKN-DPK 15, 1 x CA/ZKKN-DPKF 15, 1 x CA/ZKKN-DPK 20, 1 x CAZKKN-DPKF 20 |
| **CA/ZKKN-DPK 15** | Angle ball valves for connection of a wall-mounted boiler 1/2" |
| **CA/ZKKN-DPK 20** | Angle ball valves for connection of a wall-mounted boiler 3/4" |
| **CA/ZKKN-DPKF 15** | Angle ball valves for connection of a wall-mounted boiler with anti-lime filter and 1/2" check valve |
| **CA/ZKKN-DPKF 20** | Angle ball valves for connection of a wall-mounted boiler with anti-lime filter and 3/4" check valve |

## PARAMETERS

Pmax = 16 bar
PN = 10 bar
Tnominal = 110°C
Tmax momentary = 150°C (for valves without check valve)
Tmax momentary = 120°C (for valves with for check valve)

| No. | Description | Material | Surface finish |
|---|---|---|---|
| 1. | Stem | CW617N | - |
| 2. | Gland nut | CW617N | - |
| 3. | Gland sealing | PTFE | - |
| 4. | Stem sealing | PTFE | - |
| 5. | Ring | Stainless Steel | - |
| 6. | Check valve cone | CW617N | - |
| 7. | Ball | CW617N | Chrome plated |
| 8. | Ball sealing | PTFE | - |
| 9. | Filter | POM | - |
| 10. | O-ring | EPDM | - |
| 11. | O-ring | EPDM | - |
| 12. | Spring | AISI 304 | - |
| 13. | Lever | Zamak | Painted |
| 14. | Screw | Stainless Steel | - |
| 15. | Side body | CW617N | Sandblasted |
| 16. | Nut | CW617N | Sandblasted |
| 17. | Sleeve | CW602N (DZR) | - |
| 18. | Filter cap | CW617N | Sandblasted |
| 19. | Body | CW602N (DZR) | Sandblasted |
| 20. | Gasket | Clingerite | - |




PATENT 230959

GOLD MEDAL 2020

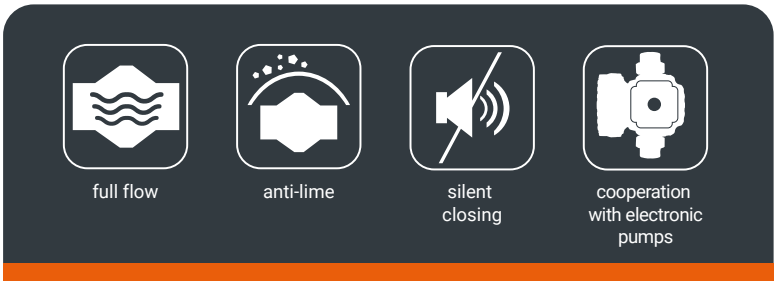
GOLD MEDAL 2024 CUSTOMER'S CHOICE


**Valves compliant with PN-M-75002:2016-10.**
**Product with NIPH-PZH Certificate.**


# PIONIER

## Energy saving check valve

Calido check valves, PIONIER series, designed for heating and water distribution systems. Their task is to prevent from the return flows. PIONIER valves can be operated in a horizontal and vertical position, always with the arrow in the direction of medium flow.



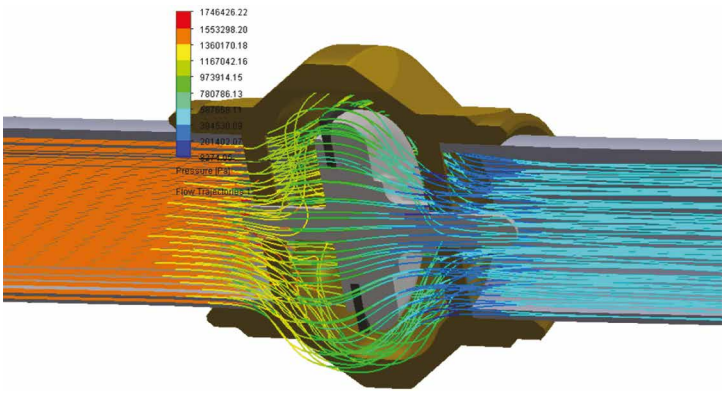

## TECHNICAL PARAMETERS

| |
|---|
| Operating temperature: **from - 20°C (without freezing) to 90°C** |
| Maximum instantaneous temperature: **110°C** |
| Nominal pressure: **PN25** |

Valve compliant with **PN-M-75002:2016-10 norm.**
National Declaration of Performance No. **13/calido/2017.**
Product with **NIZP-PZH Certificate.**

## FULL FLOW

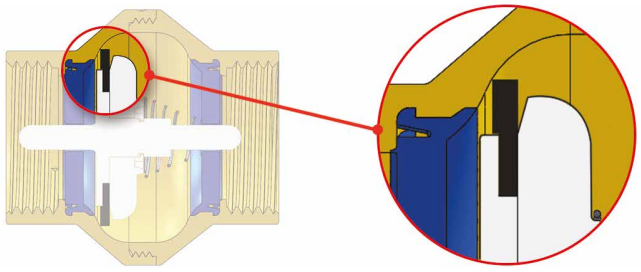
Thanks to the use of software used in aviation industry, the optimal flow of the liquid stream was achieved without unnecessary resistance and turbulence.
Unique internal design of the PIONIER check valve made it possible to achieve full-flow characteristics keeping at the same time compact design for easy installation.
Valve flow optimization was achieved in cooperation with Technical University of Koszalin.



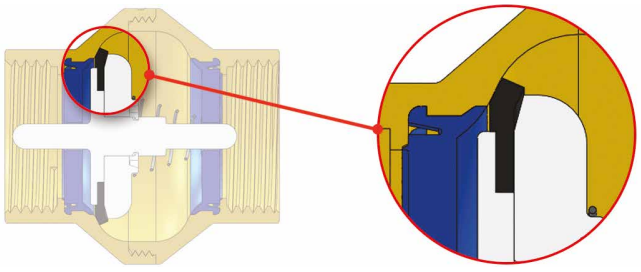

The picture above shows a view of the trajectory of liquid particles and the pressure which are in the valve during liquid flow.

## SILENT CLOSING SYSTEM

The SILENT CLOSING SYSTEM has been developed for the PIONIER valve series and guarantees quiet valve operation. Excellent effects were achieved thanks to specially shape of unit: valve socket - closing disc- sealing.



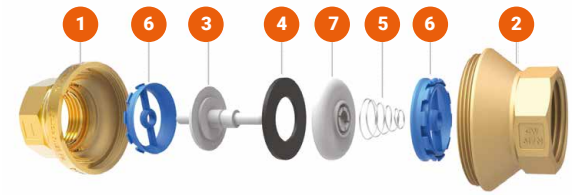
Beginning of the sealing phase - seal contact with valve socket.



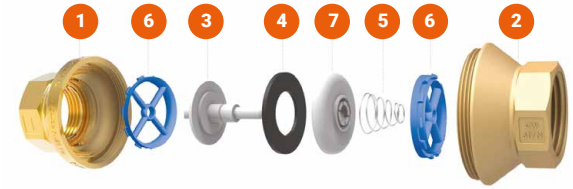
End of the sealing phase - closing of the seal a specially profiled closing disc.

## CONSTRUCTION AND DIMENSIONS

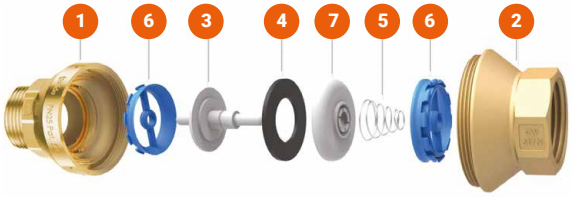
F/F od 1/2" do 1"




F/F 1 1/4"

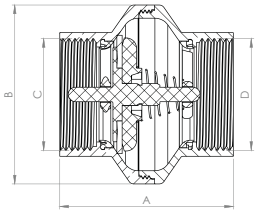



F/M 1"

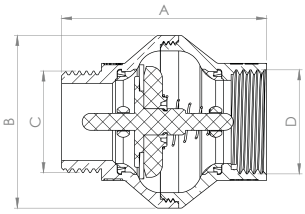



| NUMBER PARTS | NAME PARTS | MATERIAL | FINISH SURFACE |
|---|---|---|---|
| 1 | inlet half body | brass CW 617N | shot blasted |
| 2 | outlet half body | brass CW 617N | shot blasted |
| 3 | valve plug | POM | - |
| 4 | plug seal | EPDM cross-linked | - |
| 5 | spring valve | stainless steel 1,4310 | - |
| 6 | plug guide | POM | - |
| 7 | closing disc | POM | - |

**F/F**




**F/M**




| INDEX | SIZE | Kv($m^3$/h) | A | B | C | D |
|---|---|---|---|---|---|---|
| CA/ZZPP-15 | 1/2" | 4,5 | 49 | 38 | GW 1/2 | GW 1/2 |
| CA/ZZPP-20 | 3/4" | 10,0 | 56 | 48 | GW 3/4 | GW 3/4 |
| CA/ZZPP-25 | 1" | 15,5 | 60 | 56 | GW 1 | GW 1 |
| CA/ZZP-WZ-25 | 1" | 15,5 | 67 | 56 | GZ 1 | GW 1 |
| CA/ZZPP-32 | 1 1/4" | 23,3 | 66 | 68 | GW 1 1/4 | GW 1 1/4 |

## COOPERATION WITH ELECTRONIC PUMPS

Modern energy-saving pumps generate variable pressures and flows that many available check valves, can't cope with. Specially designed PIONIER's valve spring allows for cooperation with electronic pumps, even in night mode performance.

## EXTENDED LIFE

Research and precise selection of materials and valve components of PIONIER led to an extension of its service life.

This was achieved thanks to:

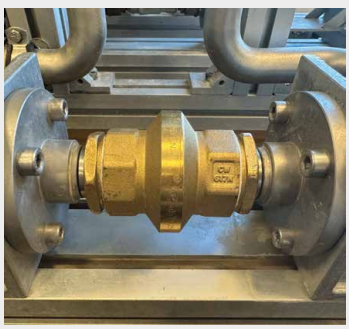
- new shape of the surface of the closing disc axis guide,
- using anti-lime POM material for the construction of valve plug guides,
- using a spring made of high-quality spring stainless steel,
- sealing of the valve plug made of cross-linked EPDM.

## ANTI-LIME

Elimination of turbulence inside the valve in combination with the appropriate selection of materials used to valve's internal construction prevents the formation of limescale deposits disturbing the operation of the valve.

## CHECKED FOR OVER 1 000 000 CYCLES

PIONIER valves have successfully passed laboratory tests where they have been tested for over 1 million open-close cycles!
The tests confirmed the high quality and reliability of the valves.

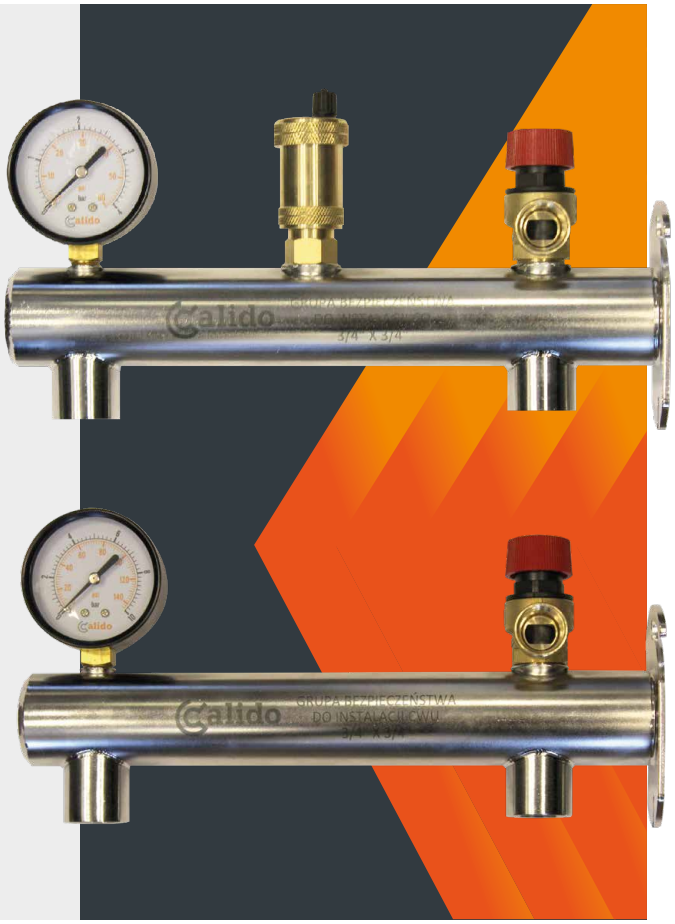


# SAFETY GROUPS MADE OF STAINLESS STEEL

## Application

- safety groups create a complete system protecting heating and water installations against dangerous pressure increases caused by an increase in water temperature in the installation and its thermal expansion,
- they protect installations and devices operating on them against destruction,
- they are used to measure static pressure and to initially set pressure in the installation.

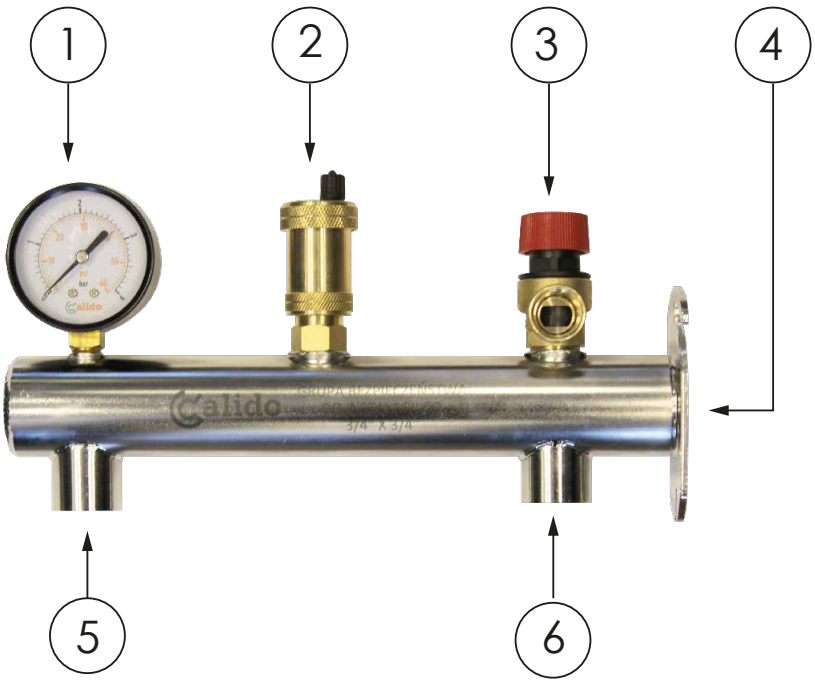
The safety group is a necessary device in every heating and domestic hot water installation, heat pump installation and solar installation, that operate in closed systems.



## Advantages

- made using welding and thermal drilling technology,
- equipped with: pressure gauge, safety valve, vent valve (only heating group),
- equipped with expansion bolts with washer screws - mountig with 10 mm key,
- quick and easy assembly,
- packed in a carton.

## Construction

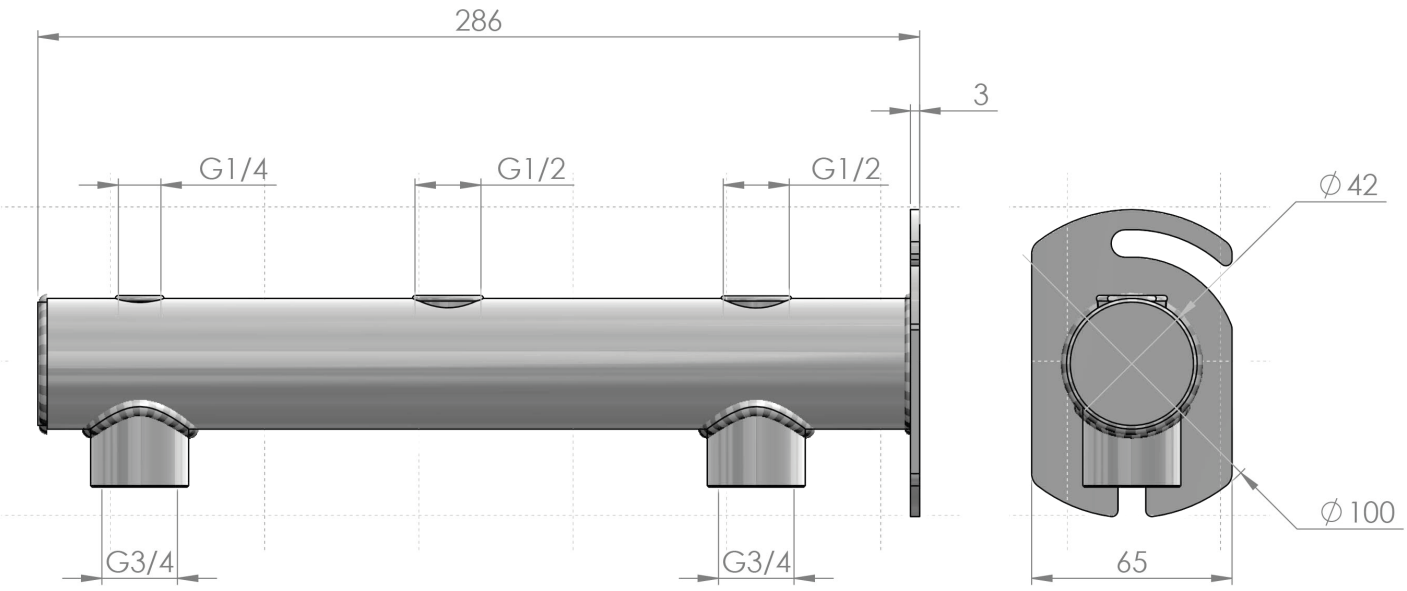



| No. | Description (using the example of a safety group for a heating installation): |
|---|---|
| 1. | Manometer |
| 2. | Air vent valve |
| 3. | Safety valve |
| 4. | Beam for safety group |
| 5. | Expansion vessel connection |
| 6. | Installation connection |

## Technical data and dimensions

| Safety group for heating installations | | | | | | |
|---|---|---|---|---|---|---|
| **Index** | **Surface finish** | **Material** | **Length** | **Safety valve** | **Manometer** | **Max temperature** |
| CA/GB-CO-1,5-SN | Polished | AISI304 | 286 mm | 1,5 bar | 4 bar | 110 °C |
| CA/GB-CO-2,5-SN | Polished | AISI304 | 286 mm | 2,5 bar | 4 bar | 110 °C |
| CA/GB-CO-3,0-SN | Polished | AISI304 | 286 mm | 3 bar | 4 bar | 110 °C |

| Safety group for domestic hot water installations | | | | | | |
|---|---|---|---|---|---|---|
| **Index** | **Surface finish** | **Material** | **Length** | **Safety valve** | **Manometer** | **Max temperature** |
| CA/GB-CWU-6-SN | Polished | AISI304 | 286 mm | 6 bar | 10 bar | 110 °C |
| CA/GB-CWU-8-SN | Polished | AISI304 | 286 mm | 8 bar | 10 bar | 110 °C |



# SAFETY GROUPS

## Application:

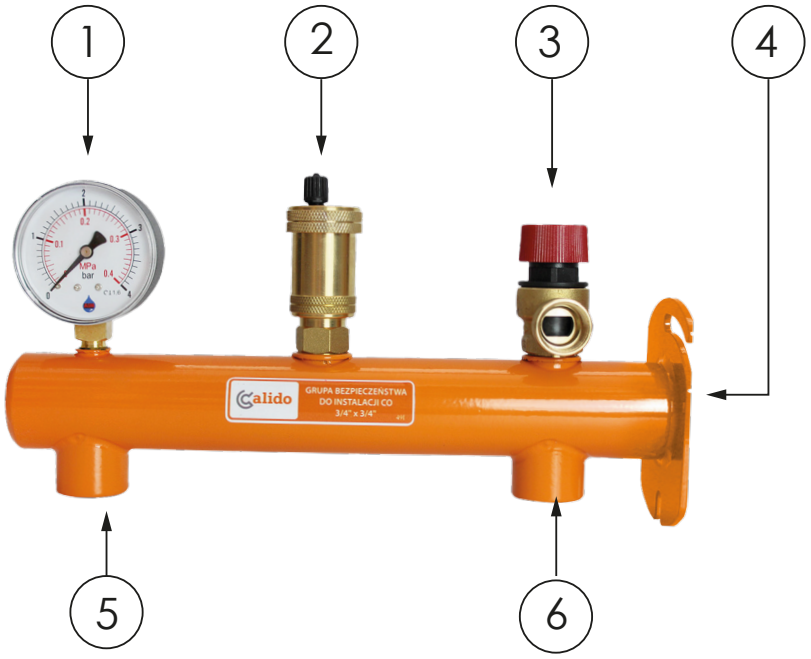
- safety groups create a complete system protecting heating and water installations against dangerous pressure increases caused by an increase in water temperature in the installation and its thermal expansion,
- they protect installations and devices operating on them against damage,
- they are used to measure static pressure and initially set the pressure in the installation.

The safety group is a necessary device in every heating and domestic hot water installation, heat pump installation and solar installation, that operate in closed systems.


## Advantages:

- made using welding and thermal drilling technology,
- powder coated,
- equipped with: pressure gauge, safety valve, vent valve (only heating group),
- equipped with expansion bolts with washer screws - mountig with 10 mm key,
- quick and easy assembly,
- packed in a carton.

## Construction:

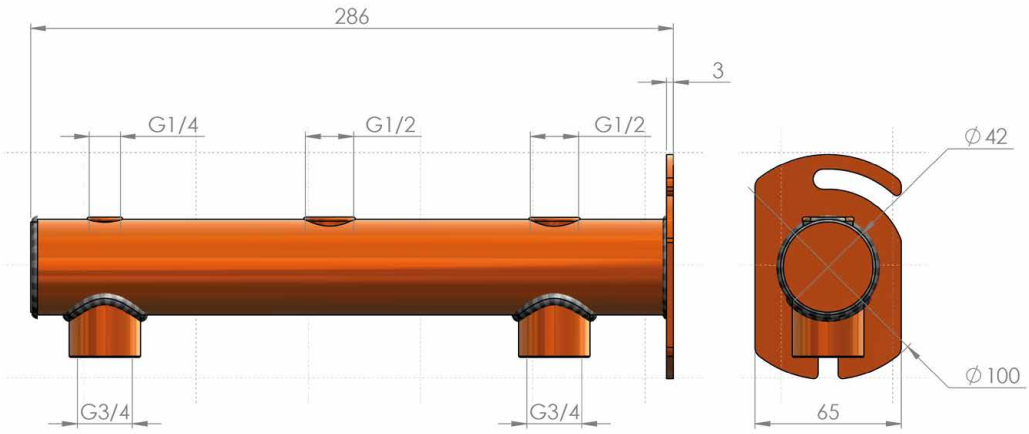



| No. | Description (using the example of a safety group for a heating installation): |
|---|---|
| 1. | Manometer |
| 2. | Vent valve |
| 3. | Safety valve |
| 4. | Beam for safety groups |
| 5. | Expansion vessel connection |
| 6. | Installation connection |

## Technical data and dimensions:

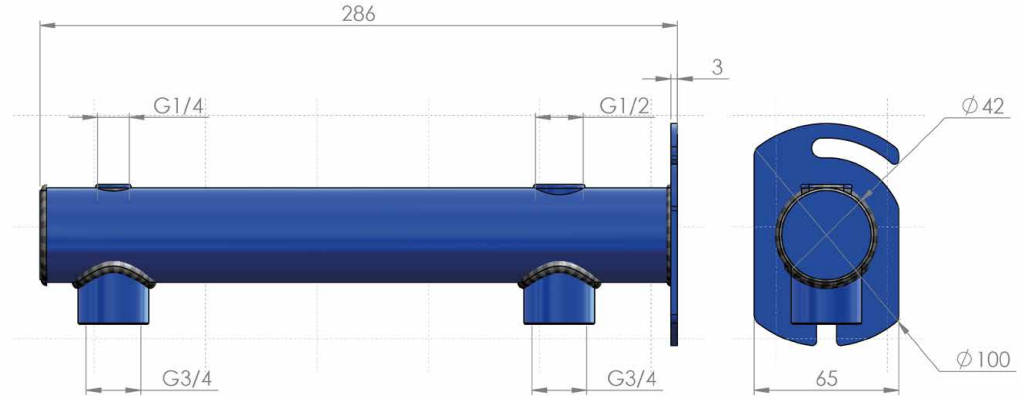
### Safety group for heating installations

| Index | Color | Material | Length | Safety valve | Manometer | Max temperature |
|---|---|---|---|---|---|---|
| CA/GB-CO-1,5 | Orange | S235JR | 286 mm | 1,5 bar | 4 bar | 90 °C |
| CA/GB-CO-2,5 | Orange | S235JR | 286 mm | 2,5 bar | 4 bar | 90 °C |
| CA/GB-CO-3 | Orange | S235JR | 286 mm | 3 bar | 4 bar | 90 °C |




### Safety group for domestic hot water installations

| Index | Color | Material | Length | Safety valve | Manometer | Max temperature |
|---|---|---|---|---|---|---|
| CA/GB-CWU-6 | Blue | S235JR | 286 mm | 6 bar | 10 bar | 90 °C |
| CA/GB-CWU-8 | Blue | S235JR | 286 mm | 8 bar | 10 bar | 90 °C |



Calido

# AIR VENT
## WITH STOP VALVE
Reliable venting of heating systems


## APPLICATION

**Air vent** is a key element of any heating system installation. It is used to remove air from closed heating systems (medium free from particles, fibers and other contaminants according to the **PN-C-04607:1993 standard**) and installations with a solution of water with glycol with a concentration of up to 50%. Thanks to the appropriate design, it ensures continuous and trouble-free operation, and also elimination of problems related to air in the instalation system.

REGISTRATION
PATENT
70546

## WORKING PRINCIPLE

Air vent operation is based on the work of a float, that falls to the bottom of the air vent's body during air acumulation - in this position the valve opens and starts venting the installation. During venting process, the water level raises the float by closing the vent's valve. Venting occurs automatically without user intervention.

## ADDITIONAL LEAKAGE PROTECTION

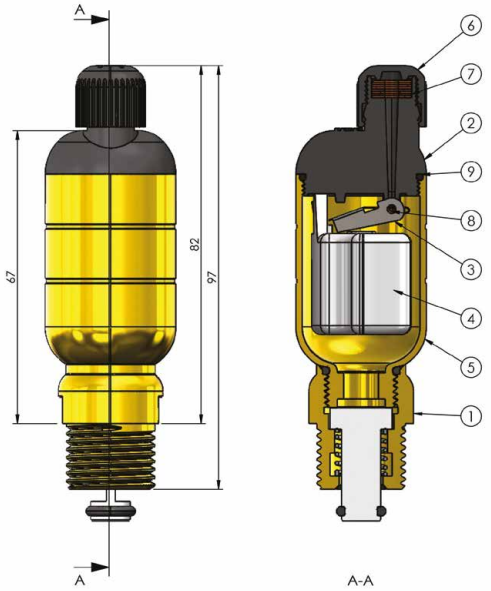
The Calido automatic air vent is equipped with additional leakage protection located in the end cap of vent duct. The role of additional security is played by hygroscopic pads, which in contact with water increase their volume, and close the flow through the vent. Additional protection is designed to ensure vent's tightness in case of contamination and the blockage of float's mechanism, when the medium would leak through the vent duct. Hygroscopic pads, after drying, the return to their original size allowing further air vent's operation.
The vent duct cap can also be used as a vent's closure by tightening it to the closed position.

Calido

# AIR VENT with stop valve

## CONSTRUCTION AND DIMENSIONS

Each element of the Calido air vent is made of high-quality materials, ensuring durability and resistance.




| No. | Element | Material |
|---|---|---|
| 1. | Stop valve | CW617N |
| 2. | Air vent's lid | POM |
| 3. | Vent's lever | AISI 304 |
| 4. | Float | PP |
| 5. | Body | CW617N |
| 6. | Vent's duct cap | PP |
| 7. | Hygroscopic pads | - |
| 8. | Gasket | Silicone |
| 9. | O-ring | NBR |

## CORRECT INSTALLATION AND OPERATION

To ensure effective and long-lasting vent's operation follow the steps:

- Before installation rinse the system and use a suitable filter or separator.
- Mount it at the installation's highest point or in a place where air accumulates.
- Install in vertical position.
- After installation, unscrew the vent nut by one turn from the closed position, this will ensure the proper operation of the venting system and will protect against leakage.

**Optional:** Vent's duct cap can be tightened, which allows the full closure of the valve.

## TECHNICAL PARAMETERS

- Maximum Temperature: **120°C**
- Maximum pressure: **10 bar**
- Connection thread of stop valve: **G 1/2"**


## WHY CHOOSE THE CALIDO VENT?

- **Maintenance-free operation** – fully automatic system venting.
- **Durable design** – brass body and stop valve provide pressure and temperature resistance.
- **Hygroscopic sealing system** – additional leakage protection.
- **Industrial design** registered in the European Union Intellectual Property Office - protection in all European Union member states.

EUIPO
EUROPEAN UNION
INTELLECTUAL PROPERTY OFFICE

Calido

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LEAFLET

CATALOG