



**PATENT FOR
THE INVENTION**
231282

PIONIER

Energy saving non-return valve

Calido poppet check valves, PIONIER series, intended for: are intended for installation in **drinking and hot water distribution installations utility water, central heating and heating floor.** Their task is to prevent flows feedback. PIONIER valves can be installed in a horizontal position and vertical, 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**

The product complies with the **PN-M-75002:2016-10 standard.**
National Declaration of Performance No. **13/calido/2017.**
Product with **NIZP-PZH Certificate.**



full flow



anti-lime



silent
closing



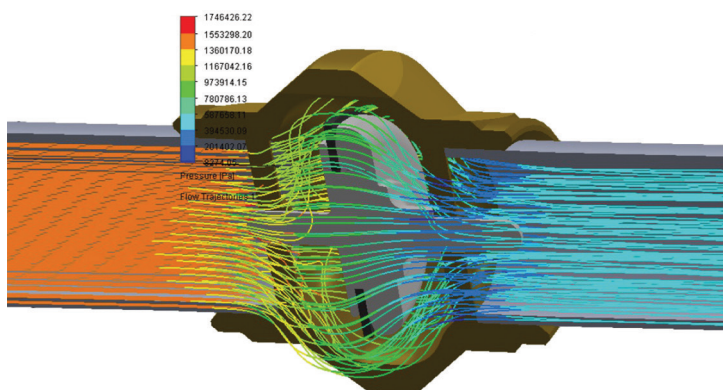
cooperation
with electronic
pumps

FULL FLOW

Thanks to the use of software used in industry in aviation, the optimal flow of the liquid stream was achieved without unnecessary resistance and confusion.

Unique internal design of the PIONIER check valve made it possible to achieve full-flow characteristics while maintaining while also having a compact design for ease assembly.

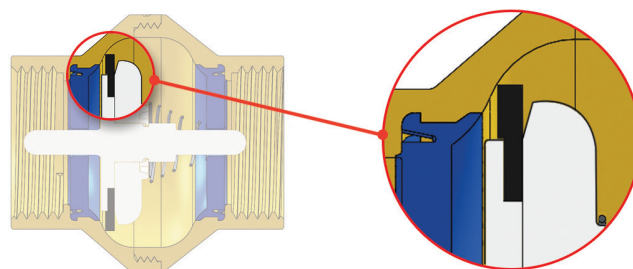
Valve flow optimization will be achieved with cooperation with the Faculty of Mechanical Engineering of the Koszalin University of Technology



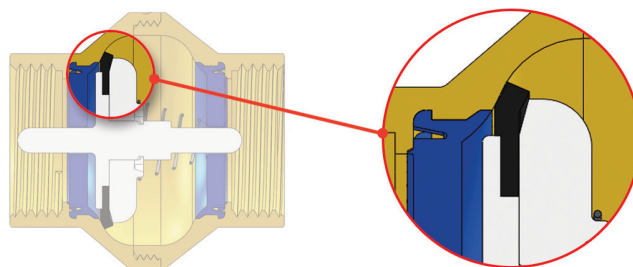
The figure above shows a view of the trajectory of fluid particles and the pressure condition that occurs when fluid flows through a valve return PIONEER.

SILENT CLOSING SYSTEM

The SILENT SYSTEM has been developed for the PIONIER valve family. CLOSING guarantees silent operation of the valve. Excellent the effects were achieved by specially shaping the socket assembly valve - closing disc - seal.

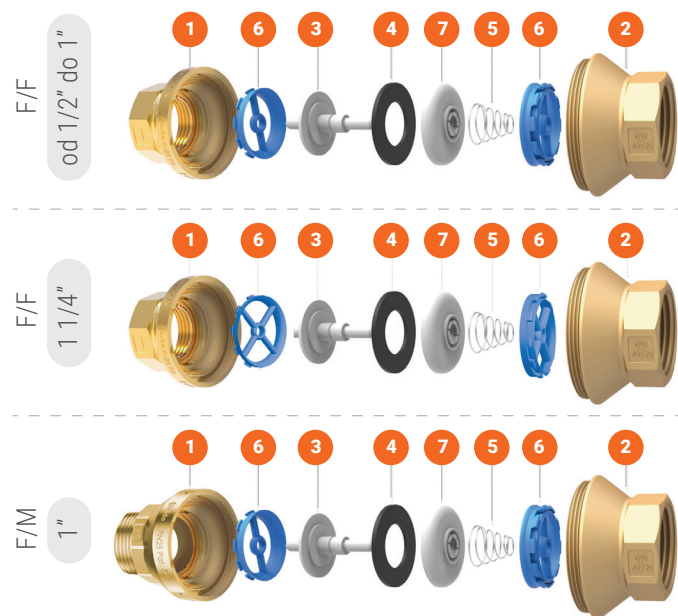


Beginning of the sealing phase - seal contact with valve seat.



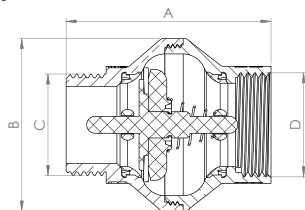
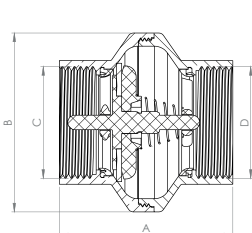
End of the sealing phase - closing of the seal a specially profiled closing disc.

CONSTRUCTION AND DIMENSIONS



F/F

F/M



| 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 | - |

| INDEX | SIZE | Kv(m³/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 PUMPS ELECTRONIC

Modern energy-saving pumps generate variable pressures and flows that many currently available ones cannot cope with, traditional check valves. Specially designed spring PIONIER valve allows cooperation with electronic pumps, even in night performance reduction mode.

EXTENDED LIFE

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

This was achieved thanks to:

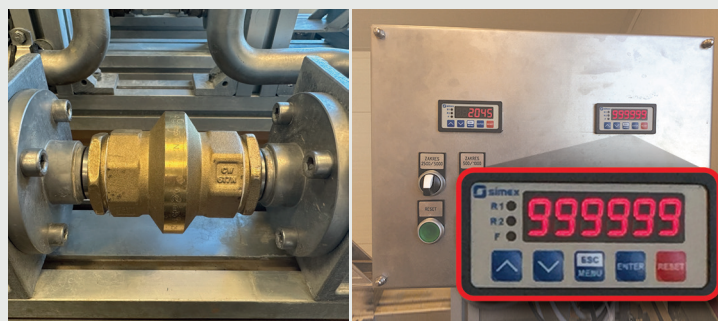
- new shape of the surface of the closing disc axis guide,
- using anti-lime POM material for the construction of valve plug guides,
- using a spring made of high-quality stainless steel, spring,
- sealing of the valve plug made of EPDM cross-linked.

ANTI-LIME

Elimination of turbulence inside the valve in combination with the appropriate one selection of materials used to construct the elements internal, 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 checked for over 1 million open-close cycles! The tests confirmed the high quality and reliability of the valves



Watch instructional videos: <https://arka-instalacje.pl/export/instructional-movies/english/>

