

Latching solenoid valve *Sanitary Market*



Latching Solenoid Valve DN 5 mm

Description

The new CEME latching Solenoid Valve is a 2/2 way servo controlled valve with DN 5 mm.

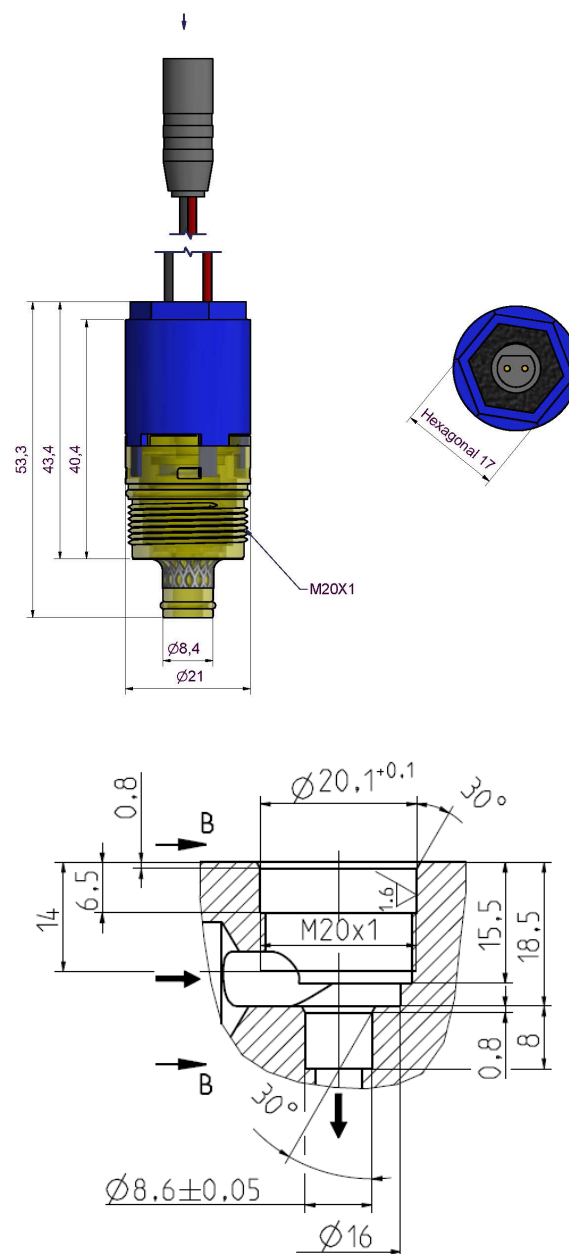
The main application is electronically controlled, battery driven sanitary fittings.

Thanks to the flow rate optimization, the DN 5.0 mm can meet all the sanitary taps' requirements.

While designing the valve, our efforts and attention were focused on the water hammer: the test results rate this valve at the top level.

The hydraulic and mechanical concept has been developed considering long-term performances, durability and battery life as priority targets.

All the materials are compliant with the main regulations in drinking-water applications.



Characteristics

- Long life material
- External filter AISI 316
- Very compact design
- Low power consumption
- Servo controlled
- 100% tested with water and air
- IP grade: IP68
- Overall dimensions according with the drawing of the model
- Suitable for chemical disinfection (Chloramine) as well as thermal disinfection

Materials

Hydraulic body : PPSU

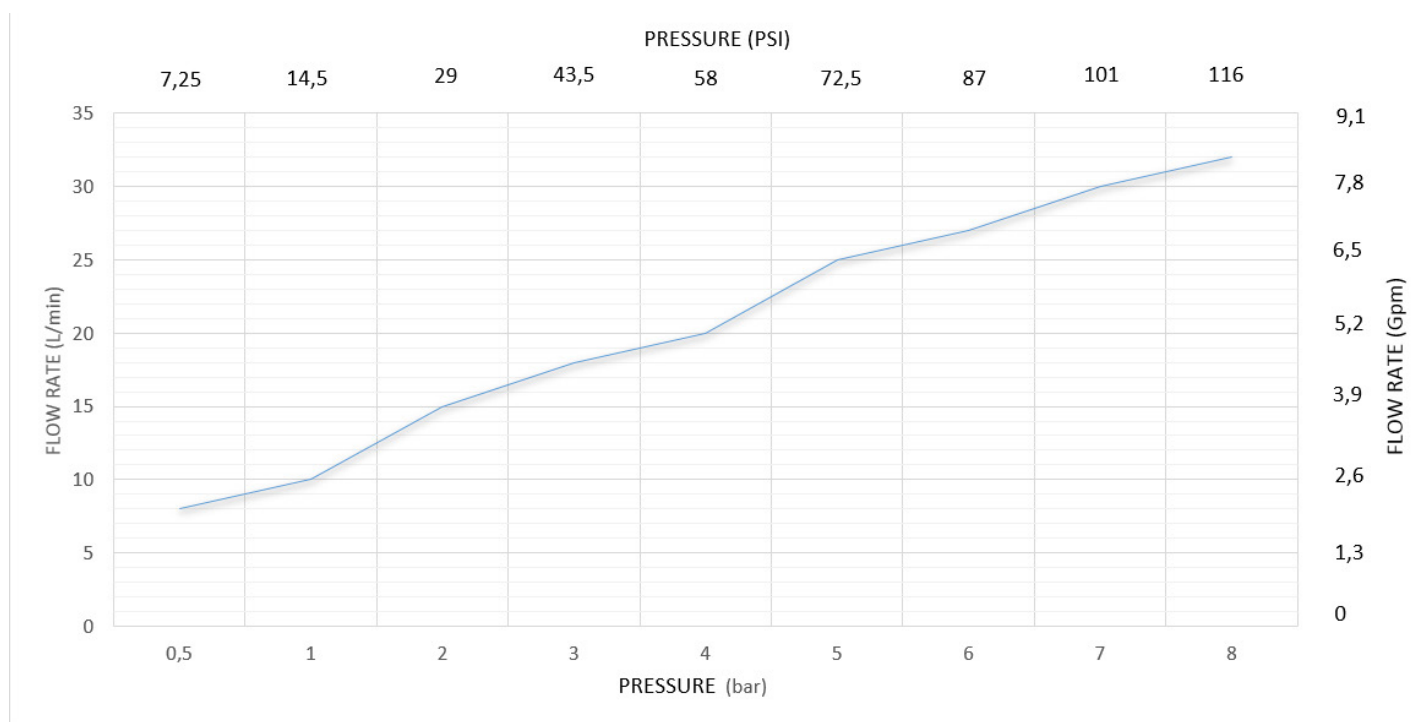
LSR Seals: all the seals are in Liquid Silicon Rubber

Other: Stainless steel (spring and filter)

Material approvals: FDA, DM174, ACS, NSF, WRAS, DVGW

Hydraulic Characteristics

DN 5 FLOW RATE



Working characteristics

Working pressure: 0.5 ÷ 8.0 bar (7.25 ÷ 116 PSI)
0.5 ÷ 10.0 bar (7.25 ÷ 145 PSI) upon request

Pressure burst: According to EN60730

Water Hammer: According to EN60730

Flow direction: Unidirectional

Valve position: Any position

Fluid: Tap water

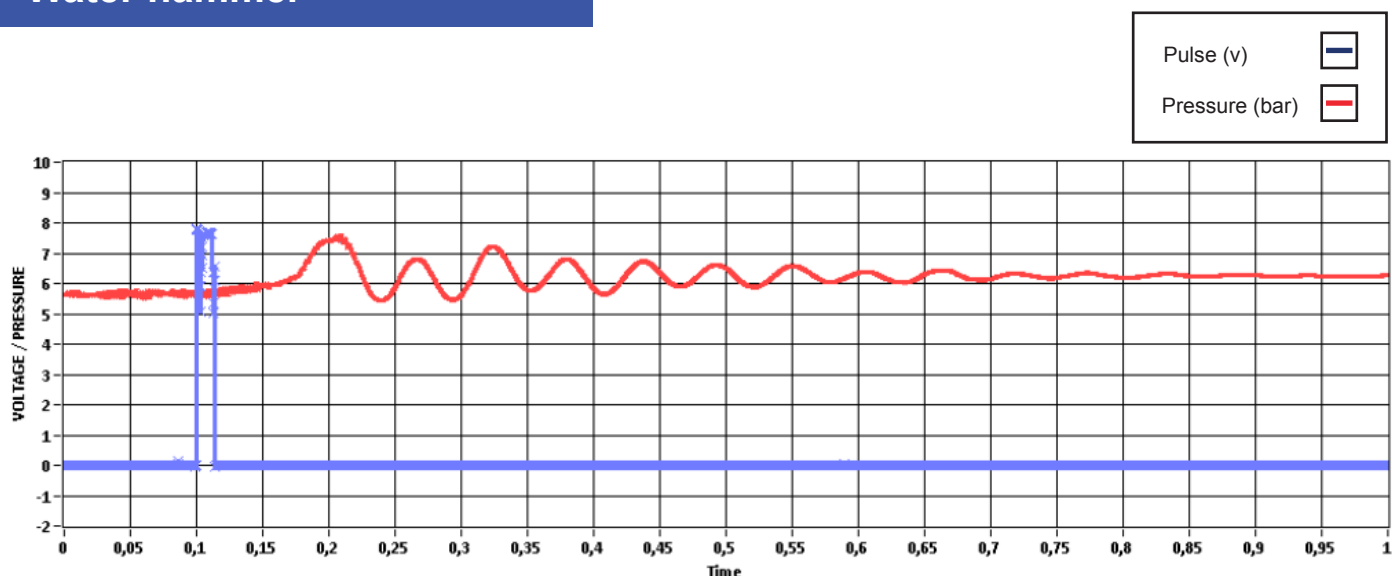
Power Supply / Absorption / Pulse: 6V 1W 170mA Latching solenoid (impulse 15ms minimum)

Heating class: H according with EN 60 335-1

Fluid Temp: 6° ÷ 95°C (43° ÷ 203° F)

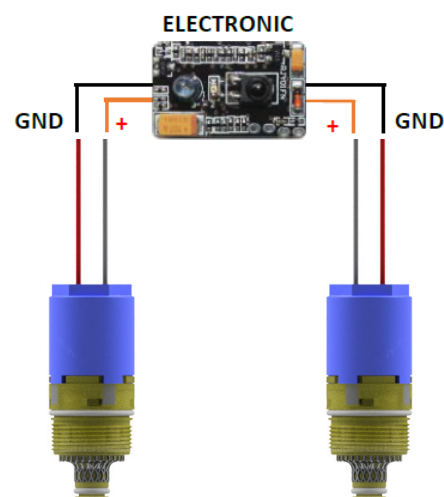
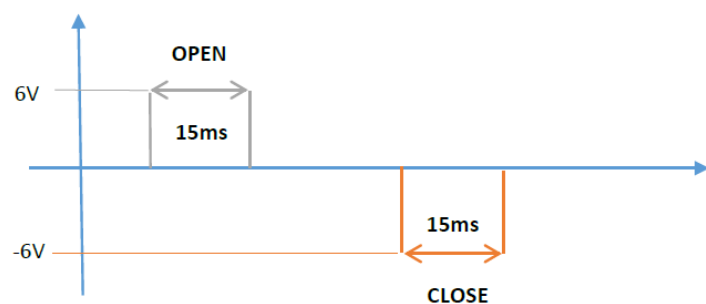
Ambient Temp: 5° ÷ 95°C (41° ÷ 203° F)

Water hammer

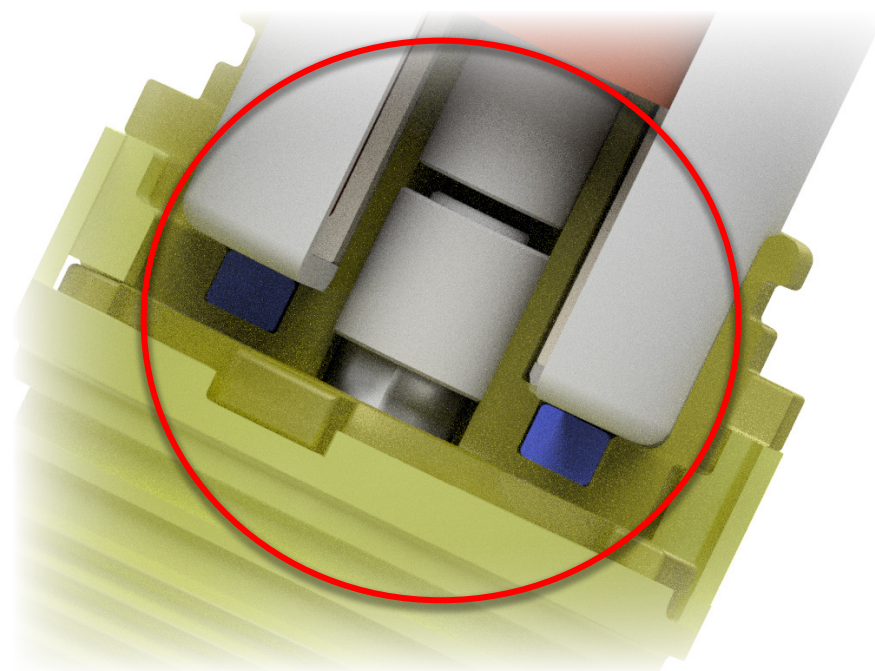


Electrical specifications

- **Electrical Connections:** cable (KCC connector upon request)
- **Nominal power:** 1W (6V)
- **Operating Voltage:** 6V (5Vmin) at 20° C
- **Max Voltage supply:** 8V
- **Nominal Current:** 170 mA (at 6V 25°C)
- **Pulse time:** Close min 15ms
Open min 15ms



Highlights



The floating core system represents a unique and innovative solution in this range of valves. Ceme R&D has concentrated his efforts to design the “*springless floating system*”.

This solution offers several advantages:

- Reduction of power consumption
- Faster response
- No core sticking (a very common issue with standard sanitary valves)
- Removal of a critical component. Commonly when the core spring is damaged, the valve can remain open, wasting water from the faucet.

The diaphragm of this valve is a concentrate of innovation, an ambitious project that today brings many improvements if compared to standard products:

- **Labyrinth Calibrated System:** The water flows through a sophisticated system of micro channels, designed to minimize the water hammer and to allow a quick and progressive closing.
- **Self-cleaning:** The diaphragm has holes for the water load. This system prevents any type of blockage due to dirt. The regular up-and-down movement of the membrane causes also a stretch deformation of the holes, keeping the passage constantly clean. This simple and smart system does not need any needle to clean the holes, unlike many other standard valves in this market.



Highlights



Ceme has selected one single material for all the valve seals, LSR (Liquid Silicon Rubber), instead of other common elastomers, such as EPDM.

LSR can grant far better performances:

- Fully food grade approved. LSR is also in compliance with the incoming restrictions concerning rubbers, which will involve and forbid many of the common rubbers
- Fully compatible with chloramine even in high concentration
- Fully compatible with the most common chemical agents used for disinfection
- No ageing/degradation effects - LSR assures a very long life

The body of the valve and all the internal mechanical parts are made of PPSU, one of the top high resistance plastic materials (generally common valves are made of PA66 or POM). Also in this case, Ceme has selected this high quality material to grant the best performances:

- The high mechanical resistance rates this valve at the top level for burst pressure
- Thermal disinfection: PPSU allows the fluid compatibility at 95°C (203°F) in compliance with the most severe disinfection cycle, while the plastic materials of the common valves mentioned above, allow a max fluid temperature of 65°C (150°F), or a higher temperature just for a limited time.
- Best compatibility with food grade approvals
- Best compatibility with chemical agents
- Longer life time resistance



Latching Solenoid Pilot

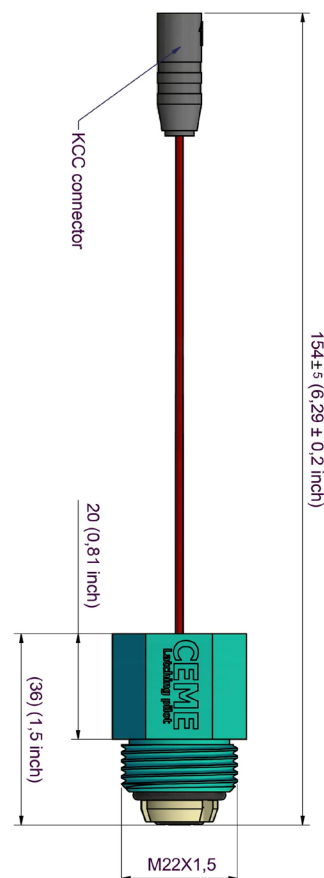
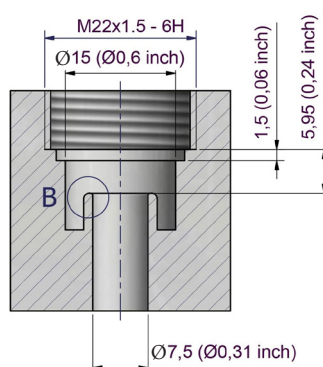
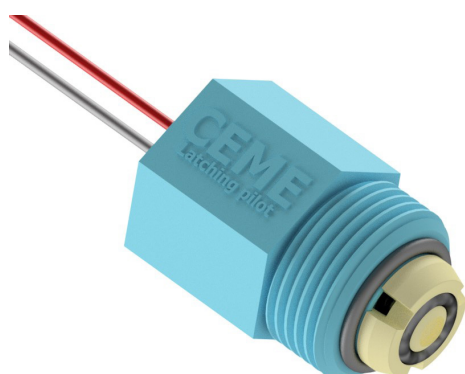
Description

The new CEME latching Solenoid Pilot is a direct operated 2/2 way valve.

It can be easily used as a pilot valve for servo controlled main valves, such as electronic flush systems.

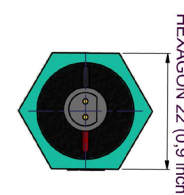
The pilot latching valve, in combination with servo components, controls high volume flows.

Compact design, low power consumption and standard connections are some of the features that make this pilot a versatile component for many different applications.



Characteristics

- Long life material
- Very compact design
- Low power consumption
- Direct action
- 100% tested with water and air
- IP grade: IP68
- Overall dimensions according with the drawing of the model



Materials

Hydraulic body : PA 12 FV 30%

LSR Seals: all the seals are in Liquid Silicon Rubber

Material approvals: FDA, DM174, ACS, NSF, WRAS, DVGW

Hydraulic characteristics

- **Connection:** M22 x 1,5

Working characteristics

Working pressure: 0.5 ÷ 10.0 bar (7.25 ÷ 145 PSI)

Orifice: Ø 0.8mm (Ø 0.031 inches)

Pressure burst: According to EN60730

Flow direction: Unidirectional

Valve position: Any position

Fluid: Tap water

Power Supply / Absorption / Pulse: 6V 2,8W 465mA Latching solenoid (impulse 15ms minimum)

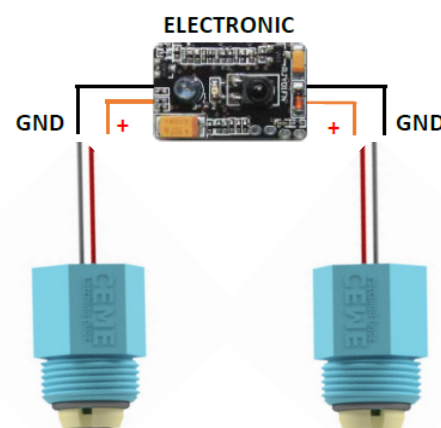
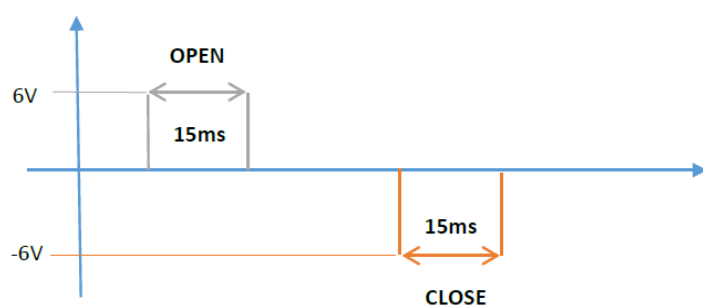
Heating class: H according with EN 60 335-1

Fluid Temp: 6° ÷ 65°C (43° ÷ 150° F)

Ambient Temp: 5° ÷ 60°C (41° ÷ 140° F)

Electrical specifications

- **Electrical Connections:** cable (KCC connector upon request)
- **Nominal power:** 2,8W (6V)
- **Operating Voltage:** 6V (5,6Vmin) at 20° C
- **Max Voltage supply:** 9V
- **Nominal Current:** 465 mA (at 6V 25°C)
- **Pulse time:** Close min 15ms
Open min 15ms



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