

## FIVC Pressure Reducing Valve Nickel Plated Brass - PN 25 - ISO 228



FPR series

### Technical data

#### Main features and materials

- Compliant with Standard EN 1567
- Sound class II - Lap [dB (A)] < 30
- Body: CW617N (UNI EN 12165) nickel plated brass
- Piston: techno polymer reinforced with glass fiber
- Gaskets: EPDM peroxide
- Seat: EN 10088 - 1.4305 stainless steel (AISI 303)
- Spring: EN10270-1 SM zinc plated steel

#### Field of applications

- Max. working pressure (PN): 25 bar
- Outlet pressure regulation range: from 1 to 5,5 bar
- Outlet pressure factory set: 3 bar
- Working temperature range: 0 °C (no freezing) to 130 °C
- Compatible fluids: water, glycol solutions (with 50 % max. concentration of glycol), compressed air (except 2")

### Description

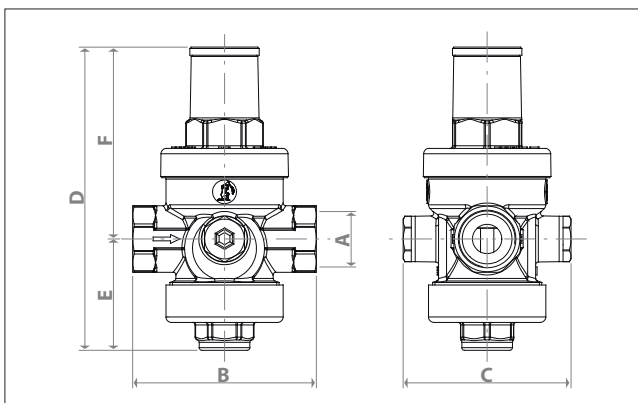
The piston-type FIVC Pressure reducing valve is an automatic valve that reduces and stabilizes the pressure of a fluid in a water distribution conduit according to a preset value. The use of this hydraulic device is necessary if the maximum possible pressure at any point in the water distribution system can reach or exceed the relative maximum allowable working pressure, or if connectable to apparatus and equipment that function exclusively at lower levels of pressure. The piston-type FIVC Pressure reducing valve is designed for use in either internal or external water distribution systems, where the water main pressure values do not surpass 25 bar. The thermoplastic material of the internal piston structure guarantees rigidity, strength and an enhanced regulation precision thanks to the compensated seat. The O-rings, in EPDM peroxide elastomer with a low coefficient of friction, are durable and require only limited maintenance interventions. The internal finish of the body and the broader

dimensions of the passage allow an elevated flow even with a minimal water draw. The FIVC Piston-type pressure reducing valve (PN 25) is used in air conditioning plants, sanitary installations for water supply, irrigation systems, compressed air (not oil mist) distribution systems, fire suppression piping (it should be kept in mind that local government standards for fire protection must always be observed), and sanitary installations for water supply in buildings (according to EN 806-2 and EN 805). This product adheres to the standards set forth by the European health authorities for the transport of alimentary fluids and potable water.



*Note! The manometer installed on the pressure reducer indicates the outlet fluid reduced pressure.*

### Dimensions



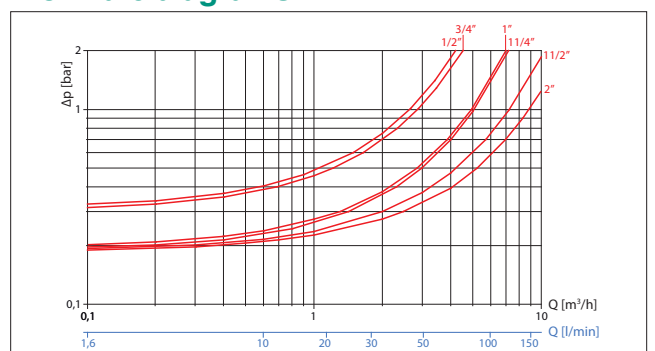
Size A	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]
1/2"	69	63	113,8	41,8	72
3/4"	82	63	113,8	41,8	72
1"	96	73	145,5	52,5	93
1 1/4"	100	73	151,5	56,5	95
1 1/2"	91	77	148	48	100
2"	97	81	150	48	102

### Flow rate diagrams

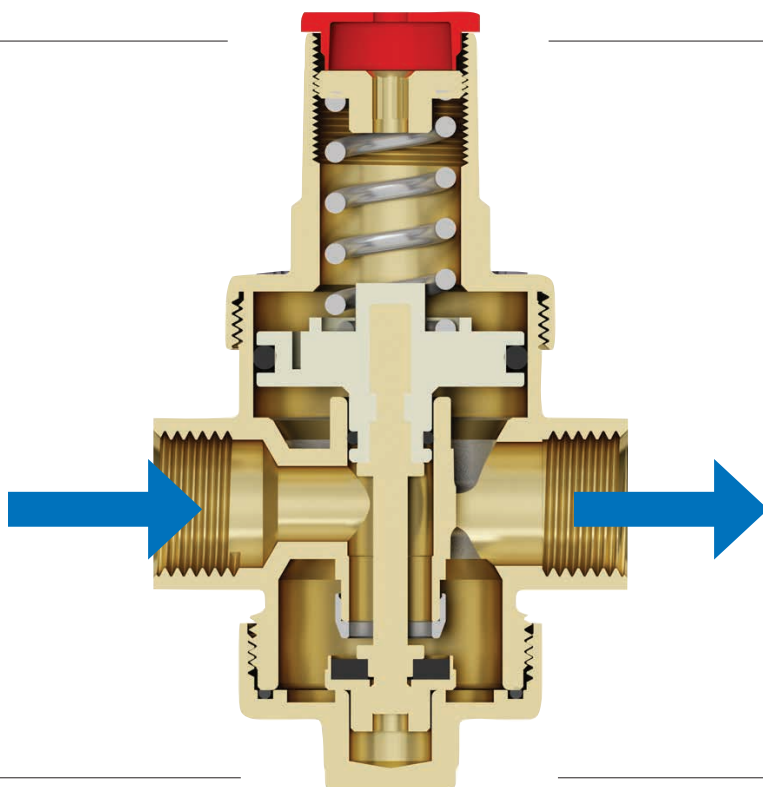
Rated water flow rate, relative to a speed of 2 m/s, for each diameter according to requirements of standard EN 1567.

Product code	Size	Flow rate [m³/h]	Flow rate [l/min]
FPR015B25	1/2"	1,27	21,16
FPR020B25	3/4"	2,27	37,83
FPR025B25	1"	3,6	60
FPR032B25	1 1/4"	5,8	96,66
FPR040B25	1 1/2"	9,1	151,66
FPR050B25	2"	14	233,33

### Flow rate diagrams



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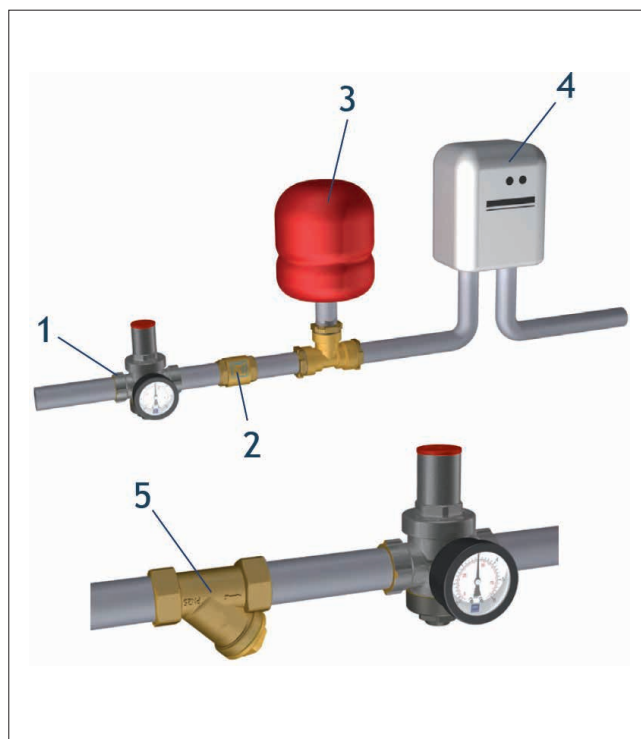


### Operation

A piston actuates the shutter movement, as consequence from the two opposing forces: water pressure from the bottom in the pipe downstream from the reducer (which tends to close the valve), pushing from the top by an appropriately loaded spring in relation to the work pressure in play (tends to open the valve). The valve opens when, following flow rate request, pressure beneath the piston decreases or spring pushing action prevails; valve opening is proportional to the instantaneous flow that crosses it.

Once the flow is shut, as soon as the water contained in the pipe downstream reaches a pressure able to overcome the pushing action of the return spring, the shutter rises to close the valve. The regulation pressure is obtained by screwing the regulator that applies more or less compression to the spring.

The compensated seat that the FIVC Pressure reducers are equipped with, makes possible to keep set value steady even with strong inlet pressure variations: the upstream pressure pushes the shutter in the open position, but also pushes the compensation chamber pin in the opposite direction, obtaining a substantial balance. The inserted seal seat, in stainless steel, guarantees long-term reliability and accuracy of the pressure reducer, even in the most extreme working conditions.



### Installation

We recommend to install a FIVC filter before the reducer to eliminate all impurities in the water that may deposit onto the reducer seat and cause malfunctions. When installing the pressure reducer at the inlet of boilers, hot water heaters, furnaces or hot water tanks, a plumbing expansion tank must be fitted after the reducer even if a check valve is already installed.

#### Legend

	Legend
1	Pressure reducer, FPR series
2	Disc check valve, FCH series
3	Expansion tank
4	Furnace / Boiler
5	Filter, FYS series