

Reliquification protection

C 7110 - Pressure reducing valve



Reliquification protection

The principle field of application for the pressure reducing valve is the prevention of pressure- or temperature-related reliquification of chlorine gas in order to prevent the destruction of PVC parts.

The device reduces the inlet pressure to a level where chlorine reliquification in the subsequent line would occur only if the temperature fell well below 0 °C. However, such temperatures practically never occur.

The pressure reducing valve gives reliquification protection only to the installation subsequent to the direction of flow. For this reason the pressure reducing valve should be installed as closely as possible behind the chlorine tank (in case of chlorine gas supply) or chlorine evaporator (in case of liquid chlorine extraction). We recommend installing a filter ahead of the pressure reducing valve.

Mode of operation

The chlorine flows into the valve from the right, around a ball into the membrane chamber and to the output on the left-hand side.

The increasing pressure in the membrane chamber presses the membrane against a spring, and the membrane moves downwards. Then the ball moves downwards, sealing the opening to the membrane chamber. With falling pressure in the membrane chamber, the spring presses membrane and the ball back upwards. Thus, constant pressure is generated in the membrane chamber. The pressure is set. The valve has a very compact design.

Therefore, the output pressure at full flow is approx. 0.5 bar lower than when the system is down. The optional pressure gauge displays the reduced pressure.

Functions

- Max. flow rate 200 kg Cl₂/h
- Max. inlet pressure 16 bar.
- Outlet pressure set at approx. 1.5 bar
- Compact construction
- Available as device with flange connection or with 1" NPT female thread
- Manometer to indicate reduced pressure as option

Model variants

| Variant | Connection |
|-------------------------------|---|
| C 7110 without pressure gauge | 1" NPT female thread |
| | Flange DN25/PN40 compliant with EN 1092 Form C (spring) and Form D (groove) |
| C 7110 with pressure gauge | 1" NPT female thread |
| | Flange DN25/PN40 compliant with EN 1092 Form C (spring) and Form D (groove) |

Technical data

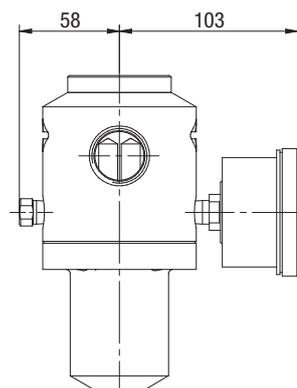
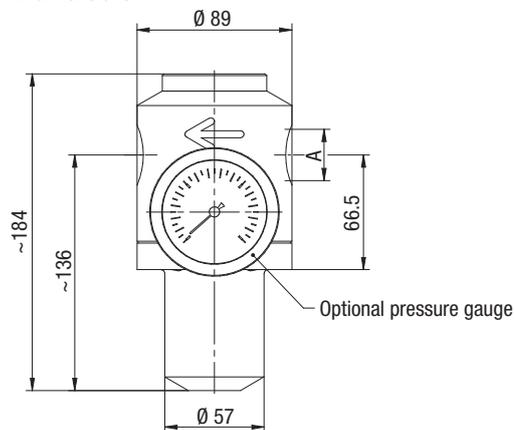
Pressure reducing valve C 7110

| | | |
|-----------------|---|------------------------------------|
| Inlet pressure | bar | max. 16 |
| Outlet pressure | bar | 1.5 approx. |
| Throughput | kg Cl ₂ /h | Max. 200 |
| Materials | | Steel, Monel, PTFE, FPM, Hastelloy |
| Weight | with flanges and manometer | kg |
| | with 1" NPT female thread and manometer | kg |

Dimensions

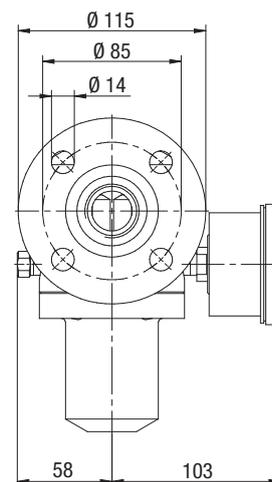
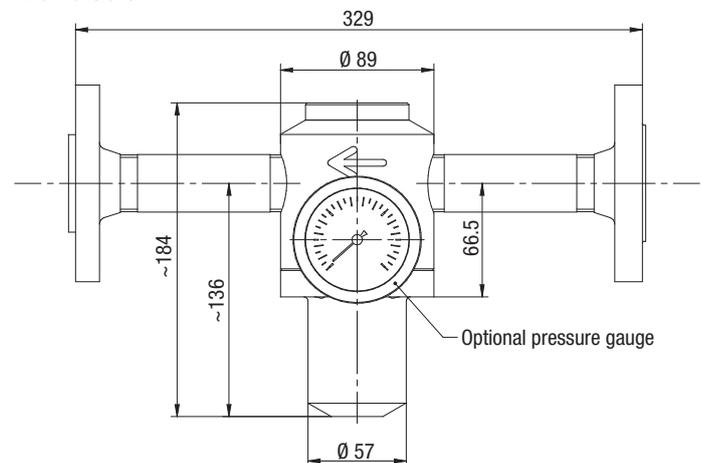
C 7110 with internal thread

All dimensions in mm



C 7110 with flanges

All dimensions in mm



C 7110 standard - accessories

Holding Bracket
with mounting material