Cylinder pressure regulator
FE51-SP

Specifications
- SPECTROCEM-components guarantee maximum quality by using high grade materials and a quality assurance program acc. to ISO 9001.
- All parts in the gas wetted surface area are cleaned in an ultrasonic cleaning system (CFC-free) with the special Cleaning process SPECTRO-CLEAN® and then baked out.
- SPECTROCEM-components undergo a 100% function- and Helium-leak-test.

Product features
- Stainless steel cylinder pressure regulator with purge valves for process gas or purge gas purging
- Pressure regulator with very stable outlet pressure and anti-vibration device
- For corrosive, toxic gases and gas mixtures with corrosive components up to quality 6.0
- Purge valves in 3 different configurations available
- Suitable for inlet pressures up to 200 bar
- Max. outlet pressures 1.5 up to 200 bar *
- Metal-to-metal seal to atmosphere
- Suitable for ECD-applications
- Pressure regulator can be evacuated
- Inlet filter
- Approved for use with oxygen
- Simple outlet pressure limitation by handwheel
- Easy to install
- New laboratory-style design

Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>single-stage</th>
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</thead>
<tbody>
<tr>
<td>Inlet pressure $P_1$</td>
<td>max. 200 bar</td>
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<tr>
<td>Outlet pressure $P_2$</td>
<td>1.5 / 4 bar ($P_1 \leq 50$ bar)</td>
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<td>10 / 20 / 50 / 100 / 200 bar ($P_1 &gt; 50$ bar)</td>
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</tbody>
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Materials
- Body regulator, relief valve: SS 316L (SS 1.4404)
- Valve seat: PVDF
- Diaphragm: Hastelloy C276
- Filter: Edelstahl 1.4404

In- and outlets
- 1/4" NPT-F

Temperature range
- -30°C to +60°C

Leak rate
- (to atmosphere): $10^{-8}$ mbar l/s He
- (via seat): $10^{-6}$ mbar l/s He

Pressure gauge
- Safety pressure gauges ISO5171/Kl1.6/NG50

Flow capacity
- 0,15

Weight
- FE51-SP2A: ca. 2.0 kg
- FE51-SP2: ca. 1.9 kg
- FE51-SP3: ca. 2.2 kg

* 1.5 / 4 bar only for inlet pressure $\leq$ 50 bar
Cylinder pressure regulator
FE51-SP

Ordering information:
Cylinder pressure regulator FE51-SP

FE51 - SP3 - 200 - 10 - DIN 7 - SO2

Configuration

SP2A  2 purge valves in the outlet: waste gas + process gas
SP2   2 purge valves: purge gas in the inlet process gas in the outlet
SP3   3 purge valves: purge gas in the inlet waste gas in the outlet process gas in the outlet

Type of gas
Please specify type of gas (for selection of valve seat materials)

Cylinder connection
Detailed specification of cylinder connection including the relevant standard and number (e.g. BS no.3)

Outlet pressure P2

1.5 - up to 1.5 bar (P1 ≤ 50 bar)
4   - up to 4 bar (P1 ≤ 50 bar)
10  - up to 10 bar
20  - up to 20 bar
50  - up to 50 bar
100 - up to 100 bar
200 - up to 200 bar

Inlet pressure P1

10  - max. 10 bar
20  - max. 20 bar
50  - max. 50 bar
100 - max. 100 bar
200 - max. 200 bar

FE51-SP2A
Process gas purging
ca.231

FE51-SP2
Purge gas purging without waste gas valve
c.a.207

FE51-SP3
Inert gas purging with waste gas valve
c.a.231