

# Cylinder pressure regulator FE51

spectro**cem**



Cylinder regulator FE51

## 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

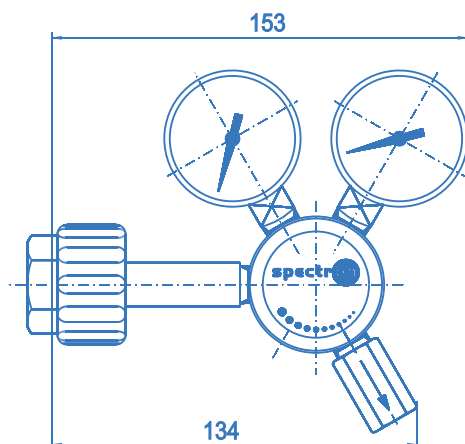
- Stainless steel cylinder pressure regulator
- Pressure regulator with very stable outlet pressure and anti-vibration device
- For corrosive, toxic gases and gas mixtures with corrosive components up to quality 6.0
- 6 ports for flexible and individual configuration
- Suitable for inlet pressures up to 300 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
- Ergonomically designed

\* 1.5 / 4 bar only for inlet pressure  $\leq$  50 bar

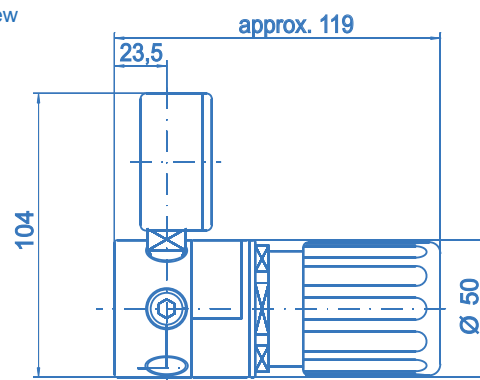
## Technical data

<b>Type</b>	single-stage
<b>Inlet pressure <math>P_1</math></b>	max. 300 bar
<b>Outlet pressure <math>P_2</math></b>	1,5 / 4 bar ( $P_1 \leq 50$ bar) 10 / 20 / 50 / 100 / 200 bar ( $P_1 > 50$ bar)
<b>Materials</b>	
Body regulator, relief valve:	SS 316L (SS 1.4404)
Valve seat:	PVDF
Diaphragm:	Hastelloy C276
Filter:	Sintered SS 316L
<b>In- and outlets</b>	1/4" NPT-F
<b>Temperature range</b>	-30°C to +60°C
<b>Leak rate (to atmosphere)</b>	$1 \times 10^{-8}$ mbar l/s He
(via seat)	$1 \times 10^{-6}$ mbar l/s He
<b>Pressure gauge</b>	Safety pressure gauges ISO5171/KI1.6/NG50
<b>Flow capacity</b>	$C_v=0.15$
<b>Weight</b>	1.2 kg

Dimensions  
FE51



Side view



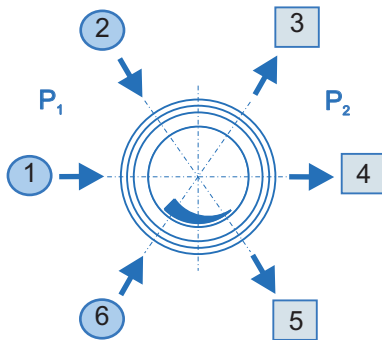
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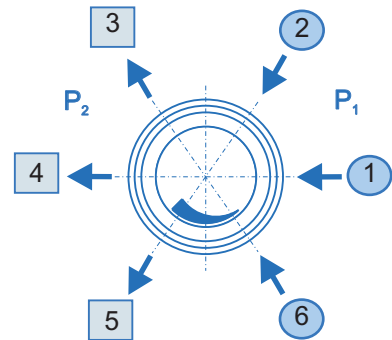
Ordering information:  
Cylinder regulator FE51

### In- / outlets

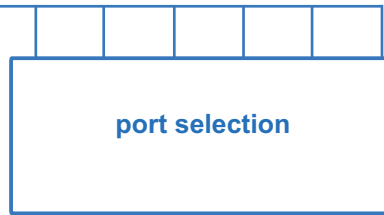
- CE 1/4 - 1/8" / 1/4" / 1/2" - OD compression fitting (stainless steel)
- CE 6 - 3/6/8/10/12mm OD compression fitting (stainless steel)
- B - plug
- A - relief valve - 1/4"-NPT-F ( $P_2 \leq 100$  bar)
- xxxx - detailed specification of cylinder connection including the relevant standard and number (e.g. BS no.3 for nitrogen up to 230 bar)
- K - contact pressure gauge
- M - pressure gauge
- 0 - 1/4"-NPT-F (port only)



Inlet left: **L**



Inlet right: **R**



**FE51 - L - 300 - 20 - 1 - 2 - 3 - 4 - 5 - 6 - N2**

### Inlet

- L - left
- R - right

### Inlet pressure $P_1$

- |                  |                    |
|------------------|--------------------|
| 10 - max. 10 bar | 100 - max. 100 bar |
| 20 - max. 20 bar | 200 - max. 200 bar |
| 50 - max. 50 bar | 300 - max. 300 bar |

### Outlet pressure $P_2$

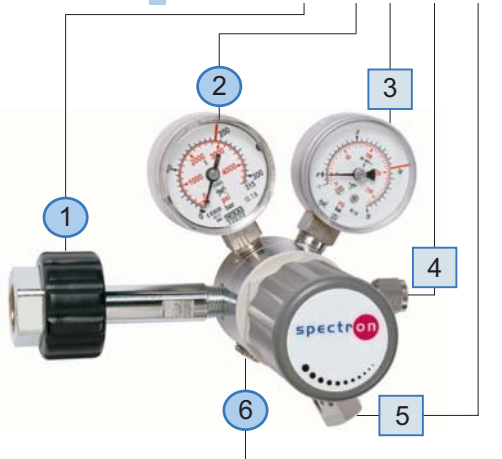
- 1,5 - up to 1.5 bar ( $P_1 \leq 50$  bar)
- 4 - up to 4 bar ( $P_1 \leq 50$  bar)
- 10 - up to 10 bar
- 20 - up to 20 bar
- 50 - up to 50 bar
- 100 - up to 100 bar
- 200 - up to 200 bar

### Type of gas

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

### Ordering example:

**FE51-L-200-10-DIN10-M-M-CE6-A-B-N2**



### Ordering example:

**FE51-R-200-10-CGA540-M-M-CE1/8-A-B-Ar**

