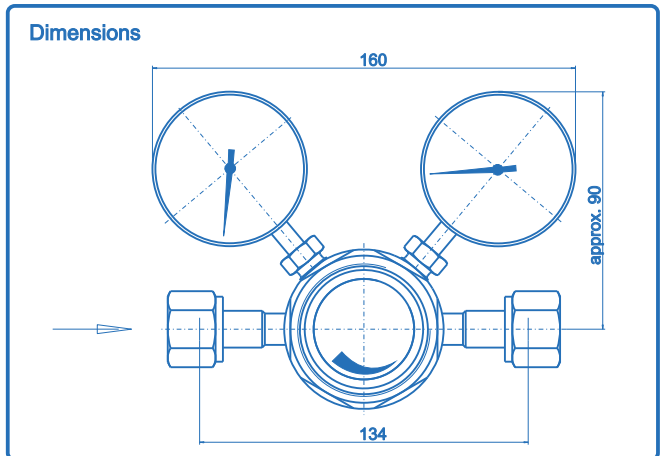


# Pressure regulators E71-VCR



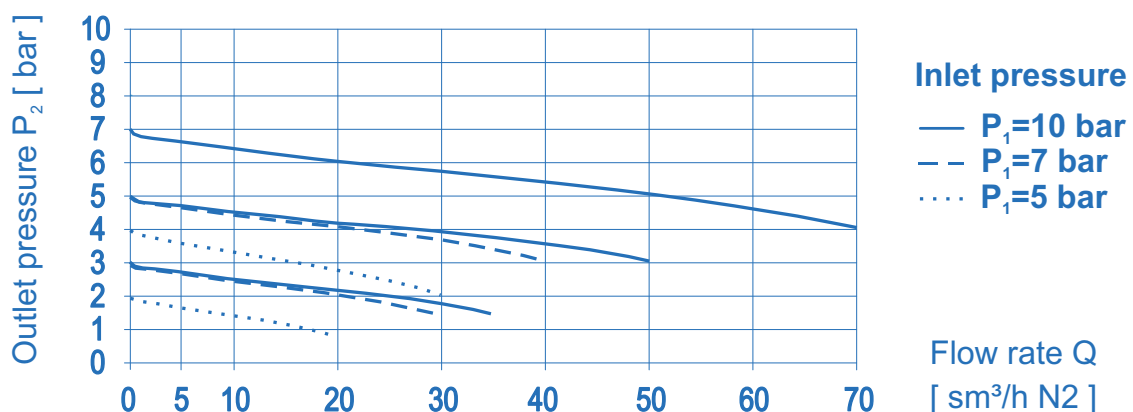
## Product features

- Design optimized for low flow restriction and thorough electropolishing of the internal surfaces
- Minimized internal volume for short purge times
- All gas-wetted parts made of stainless steel SS 316L, Hastelloy C276 and PCTFE or PVDF or PTFE respectively
- Single-stage regulator with anti vibration device
- Regulator can be evacuated
- Internal connectors for pressure gauges
- Connectors: in-/outlet UNF 7/8-14 (1/2" VCR-compatible); pressure indicator ports UNF 9/16-18 (1/4" VCR-compatible)
- High control accuracy
- Metal-to-metal seal to atmosphere
- High surface quality
- Simple outlet pressure limitation by handwheel
- 100 % helium-leak-tested
- Assembly in cleanroom class ISO 5.0
- Optional documentation acc. to SEMASPEC

## Technical Data

<b>Materials</b>	
Body:	SS 1.4404 ESU/VAR (SS 316L remelted)
Diaphragms:	Hastelloy C276
Gas-wetted parts:	SS 1.4404 ESU/VAR (SS 316L remelted)
Valve seat:	PTFE
<b>Surface roughness</b>	$R_a \leq 0,25 \mu\text{m}$ (standard) upon request: $R_a \leq 0,18 \mu\text{m}$ (e-polished)
<b>Leak rate</b>	
to atmosphere:	$< 1 \times 10^{-9}$ mbar l/s He
via valve seat:	$< 1 \times 10^{-6}$ mbar l/s He
<b>Temperature / Pressure ranges</b>	
Temperature:	-30°C to +60°C
Inlet pressure:	max. 200 bar
Max. outlet pressure:	1,5 / 4 / 10 bar
<b>Flow rate</b>	s. flow curves
<b><math>C_v</math>-value</b>	$c_v = 0,7$
<b>Weight</b>	1,5 kg
<b>Connectors in-/outlet</b>	
• 1/2" VCR-female	• 1/2" VCR-male
• other connectors upon request	

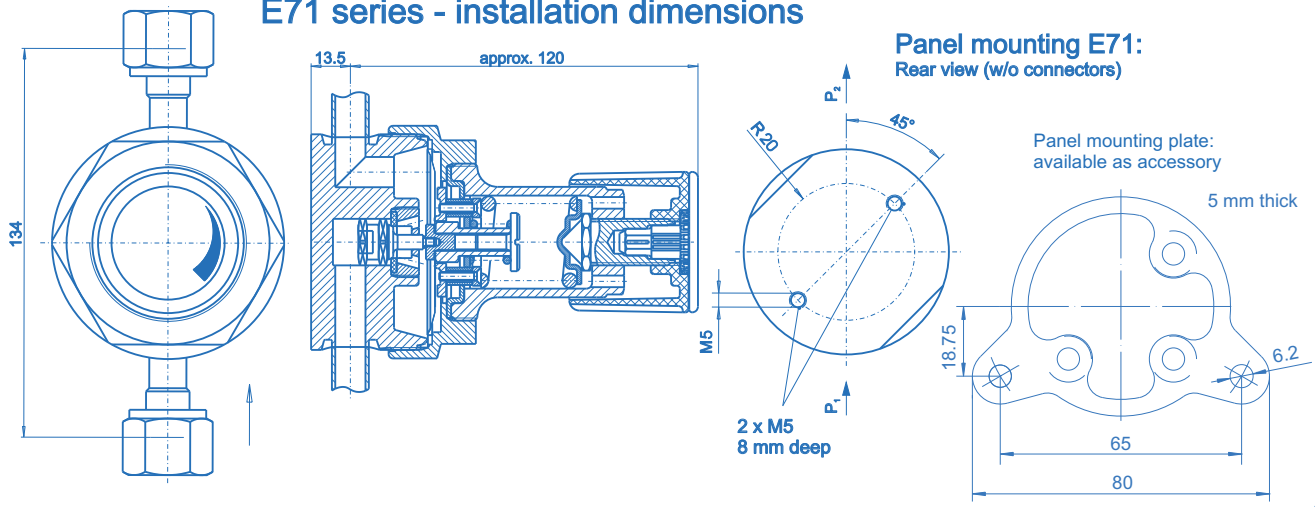
## Flow curves for E71 series Spectropur pressure regulators



# Pressure regulators E71-VCR



## E71 series - installation dimensions



### Ordering information: Pressure regulators E71-VCR

**E71 - 4 - 40 - 10 - P - VCRM - VCRF - M - M**

Please specify gas type with your order (valve seat material)

#### Ports

- 2 - 2 ports
- 4 - 4 ports

#### Inlet pressure $P_1$

- 40 - max. 40 bar
- 200 - max. 200 bar

#### Outlet pressure $P_2$

- 1,5 - up to 1,5 bar (only for  $P_1 = 40$  bar)
- 4 - up to 4 bar
- 10 - up to 10 bar

#### Surface roughness

- P -  $R_a \leq 0,25 \mu\text{m}$
- HP -  $R_a \leq 0,18 \mu\text{m}$  (e-polished) upon request

#### Outlet press. indication

see inlet press. indication

#### Inlet press. indication

- B - without (plug)
- M - pressure gauge
- K - contact pressure gauge
- D - pressure transmitter
- 0 - 1/4"-VCR-port only

#### Outlet

see inlet

#### Inlet

- VCRM - 1/2" VCR-male
- VCRF - 1/2" VCR-female

### Specifications

- SPECTROPUR - components guarantee maximum quality by using high grade materials
- All parts which come into contact with the medium are cleaned in an ultrasonic cleaning system (CFC-free) with the special cleaning process SPECTROCLEAN® and are then baked out. They then undergo the MEGACLEAN® process in a cleanroom class ISO 5.0, are assembled and packed in PE foil under an atmosphere of inert gas.
- SPECTROPUR - components undergo a 100% He-leak-test and optionally a particle test acc. to SEMASPEC®.
- Analysis of the metallic surfaces by the methods AES, ESCA and SEM (scanning electron microscopy) are available upon request.

### Panel mounting

- All pressure regulators may be equipped with a plate for easy panel mounting (mounting screws accessible from the front).

### Important note regarding component selection

- In order to assure safe operation it is essential to take the configuration of the whole system into account when selecting a pressure regulator.
- The function of the pressure regulator, the compatibility of the materials, correlating temperature ranges, correct installation, operation and maintenance in accordance with the relevant regulations are the responsibility of the system designer and the user.