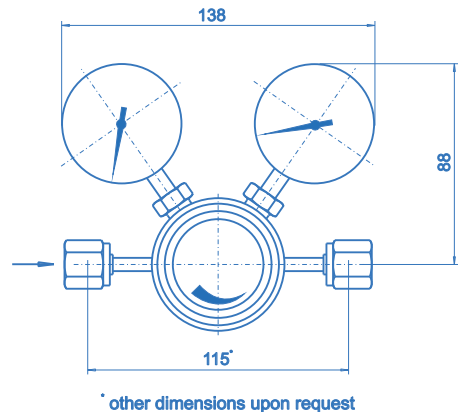


E 61-VCR Series Pressure Regulators **spectro pur**



E 61-VCR Series Pressure Regulator



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 respectively
- Single-stage regulator
- Regulator can be evacuated
- Internal connectors for pressure gauges
- All connectors 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
- Model with tied diaphragm or as absolute pressure regulator

Technical Data

Materials

Body:	SS 1.4404 ESR (SS 316L remelted)
Diaphragms:	Hastelloy C276
Gas-wetted parts:	SS 1.4404 ESR/VAR (SS 316L remelted)
Valve seat:	PCTFE or PVDF

Surface roughness	$R_a \leq 0.25 \mu\text{m}$
upon request:	$R_a \leq 0.18 \mu\text{m}$

Leak rate

to atmosphere:	$< 1 \times 10^{-9}$ mbar l/s He
via valve seat:	$< 1 \times 10^{-6}$ mbar l/s He

Temperature/Pressure ranges

Temperature:	-30°C to +60°C
Inlet pressure:	max. 200 bar
Max. Outlet pressure:	1.5 / 4 / 10 bar

Flow rate

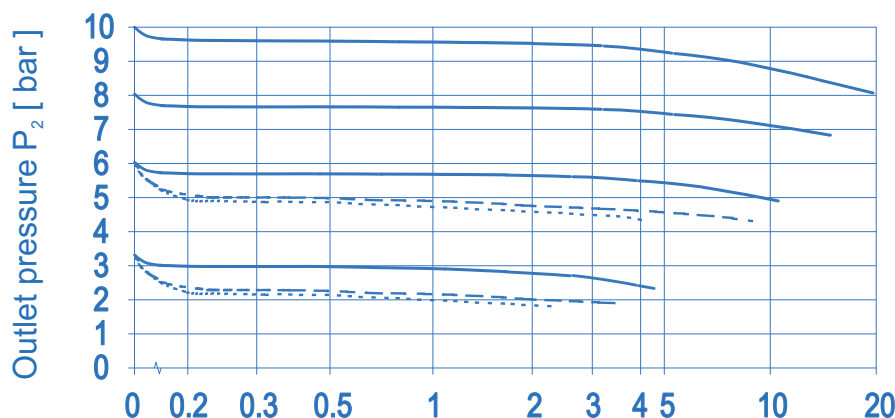
Flow rate	s. Flow curves
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C_v-value	$c_v = 0.15$
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Weight	1.4 kg
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Connectors In-/Outlet	• 1/4" VCR female • 1/4" VCR male
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Flow curves for E61 Series Spectropur-Pressure-Regulators



Inlet pressure P_1 :

— $P_1=21$ bar

- - - $P_1=13$ bar

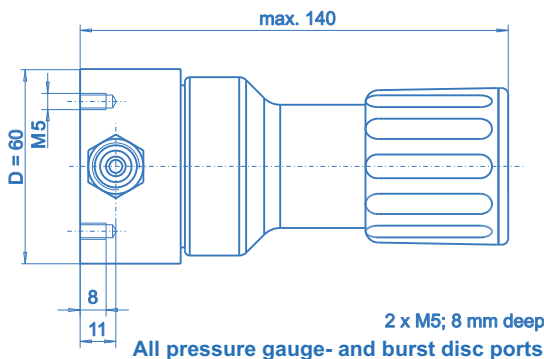
... $P_1=7$ bar

Flow rate Q
[$\text{sm}^3/\text{h N}_2$]

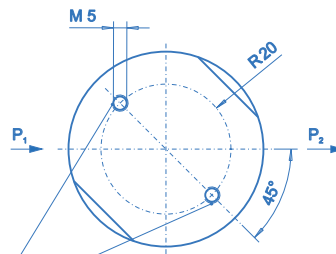
E 61-VCR Series Pressure Regulators



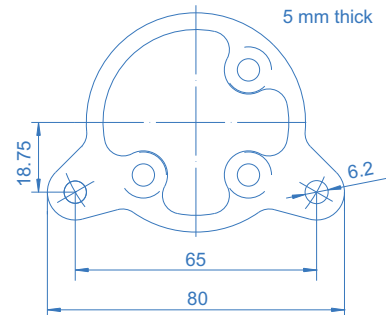
Installation dimensions



Panel mounting:
rear view (w/o connectors)



Panel mounting plate:
available as accessory



Ordering information: E61-VCR Series Pressure Regulators

E61* - 5 - 200 - 10 - P - VCRM - VCRF - M - M - B

In- / Outlets

- 2 - 2-port-body
- 3 - 3-port-body
- 4 - 4-port-body
- 5 - 5-port-body

Inlet pressure P₁

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

Outlet pressure P₂

- 1.5 - up to 1.5 bar
- 4 - up to 4 bar
- 10 - up to 10 bar

Surface roughness

- P - Ra ≤ 0,25 µm
- HP - Ra ≤ 0,18 µm (upon request)

Burst disk port

- X - without port
- B - VCR-Port with plug

Outlet press. indication

see inlet pressure indication

Inlet press. indication

- X - without port
- 0 - VCR-Port without plug
- M - pressure gauge
- K - contact pressure gauge
- D - pressure transducer
- B - VCR-Port with plug

Outlet connector

see inlet connectors

Inlet connector

- VCRM - 1/4" VCR-male
- VCRF - 1/4" VCR-female

* E61-PS: with tied diaphragm
E61-V: absolute pressure regulator

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

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.