Pressure control panels SE45/55/125

spectrocem

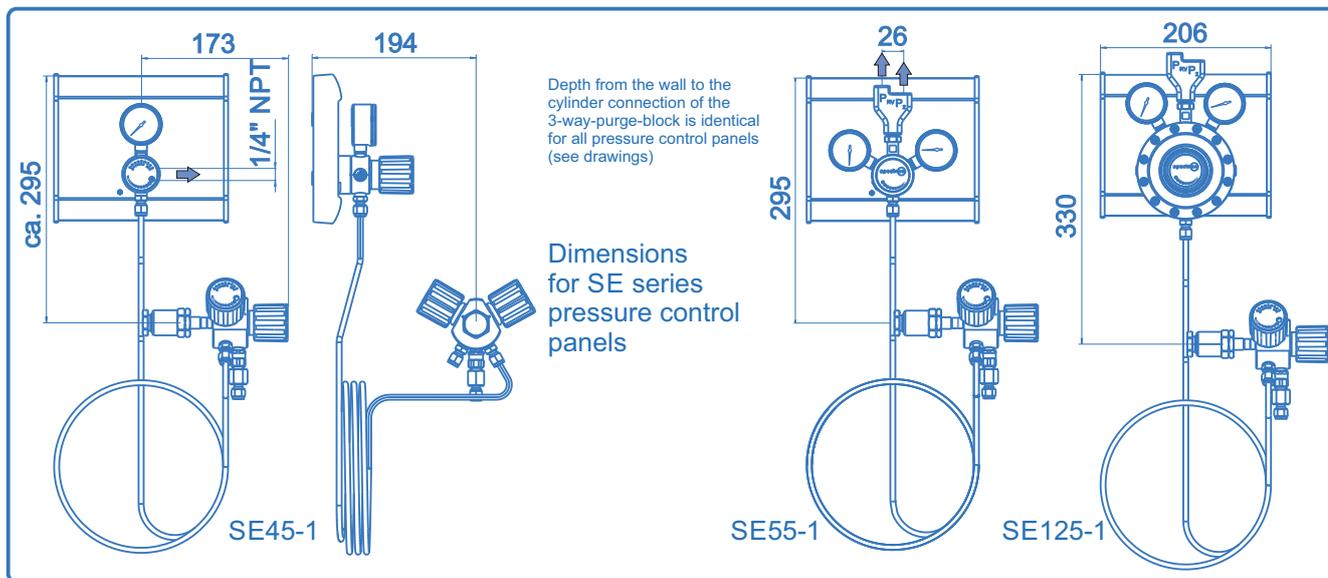SE45-1 SE55-1 SE125-1

Product features

- Pressure control panels for use on gas cylinders with gases or gas mixtures with corrosive or toxic components, where the presence of ambient air (especially humidity or oxygen) would be harmful to hardware and/or the process
- Regulator with Hastelloy-diaphragm (SE55 with tied diaphragm / positive seal and SE125)
- Diaphragm-type shut-off valves optimised for low internal volume with On/Off position indicator (SE45)
- Regulator with high control accuracy and integrated relief valve (SE55 and SE125)
- 3-way purge/connection block with integrated purge gas capillary tube and cylinder connection with the following control functions: purge gas inlet, purge/waste gas outlet and process gas outlet
- Suitable for ECD-applications
- Laboratory-style design

Product description

- The pressure control panels SE45, SE55 and SE125 consist of optionally a process gas valve (SE45) or alternately pressure regulator (SE55 or SE125 resp.) mounted on an aluminium profile and the three-way-purge/connection block, connected to the valve/regulator on the profile by a stainless steel pigtail.
- During the critical process of changing cylinders the purge gas flows (after opening the shut-off valve at the purge gas inlet) through the capillary tube deep into the closed cylinder valve. The purge gas along with any contaminants flows around the capillary tube to the shut-off valve at the purge gas outlet, where it can safely be disposed of through a suitable vent line.

Technical data

Pressure control panel	SE45	SE55	SE125
Type	without pressure regulator	single-stage	single-stage
Inlet pressure P_1	vapour press. up to 10 bar	max. 200 bar	max. 25 bar
Outlet pressure P_2	vapour pressure	max. 1,5 / 4 / 10 bar	max. 1,5 / 4 bar
Flow rate	max. 5 Nm³/h N_2	max. 15 Nm³/h N_2	max. 9 Nm³/h N_2
Leak rate	10^{-8} mbar l/s He	10^{-8} mbar l/s He	10^{-8} mbar l/s He
Materials			
Cylinder connections:	Stainless steel 1.4571	Stainless steel 1.4571	Stainless steel 1.4571
Cylinder connection gasket:	depending on gas type	depending on gas type	depending on gas type
Pigtail:	Stainless steel 1.4571	Stainless steel 1.4571	Stainless steel 1.4571
Body pressure regulator/valve:	Stainless steel 1.4404	Stainless steel 1.4404	Stainless steel 1.4404
Body purge block:	Stainless steel 1.4435	Stainless steel 1.4435	Stainless steel 1.4435
Valve seat purge block:	PVDF (NH_3:PCTFE)	PVDF (NH_3:PCTFE)	PVDF (NH_3:PCTFE)
Soft goods:	FKM (NH_3:EPDM)	FKM (NH_3:EPDM)	FKM (NH_3:EPDM)
Diaphragm purge block valves:	Hastelloy C276	Hastelloy C276	Hastelloy C276
Valve seat pressure regulator:	-	PCTFE	PCTFE
Diaphragm pressure regulator:	-	Hastelloy C276	Hastelloy C276
Diaphragm process gas valve:	Hastelloy C276	-	-
Valve seat process gas valve:	PCTFE	-	-
Outlet A	1/4"-NPT female	1/4"-NPT female	1/4"-NPT female

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173   194   1/4" NPT   26   206

ca. 295   295   330

Depth from the wall to the cylinder connection of the 3-way-purge-block is identical for all pressure control panels (see drawings)

Dimensions for SE series pressure control panels

SE45-1   SE55-1   SE125-1

Ordering information:
SE series pressure control panels

SE55 - 1 - 200 - 10 - M - M - DIN 6 - NH₃

Type

45 - without pressure regulator
55 - single-stage pressure regulator E51
56 - double-stage regulator E53 (upon request)
125 - single-stage pressure regulator E121

Inlet pressure P_1

10 - max. 10 bar vapour pressure (SE45)
25 - max 25 bar (SE125)
200 - max. 200 bar (SE55)

Outlet pressure P_2

0   - without pressure regulator (SE45)
1,5 - up to 1,5 bar (SE55, SE125)
4   - up to 4 bar (SE55, SE125)
10 - up to 10 bar (SE55)

Type of gas

Please specify type of gas with your order!

Cylinder connection

Detailed description of the cylinder connection including the relevant standard and the number of the connection

Outlet press. indication

M - pressure gauge
K - contact pressure gauge

Inlet press. indication

M - pressure gauge
K - contact pressure gauge

Specifications

- SPECTROCEM - components guarantee maximum quality by using high grade materials and a quality assurance program acc. to ISO 9001.

- All components which come into contact with the medium are cleaned in an ultrasonic cleaning system (CFC-free) with the special cleaning process SPECTRO-CLEAN® and are then baked out.

- SPECTROCEM - components undergo a 100% Helium-leak-test.

Pressure indication

- All pressure control panels are equipped with pressure gauges for inlet- (SE 45, SE 55 and SE 125) and outlet pressure indication (SE 55 and SE 125) for the relevant pressure range.

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 control panel.

- The function of the components, 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.