

High purity semi-automatic switchover panel

The Semi-automatic high purity switchover panel which prevents downtime by automatically switching gas supply from the primary cylinder bank to the reserve cylinder. The user resets the primary bank by turning the knob. Outlet pressure is factory pre-set.

APPLICATIONS:

- Laboratory pressure control
- Research sample systems gases
- Component testing
- Emission monitoring systems
- Petrochemical industry
- Service & test equipment

FEATURES:

- Recommended gases purity levels up to grade 6.0
- 20 µm Filter Element is installed at Inlet
- Hastelloy diaphragm eliminates contamination from diffusion
- Purge function and diaphragm shut-off valves for the best results
- External relief valve standard
- Cleaned for oxygen service



TECHNICAL DATA:

Panel type	Semi-automatic switchover supply panel
Purity	Up to 6.0
Inlet pressure	Max. 241 bar – (Optional 300 Bar available)
Outlet pressure	(12-14)/ (16-18) bar
Working Temperature	-20 deg C to +60 deg C
Flow coefficient	Cv = 0.2 – Pressure Reducing Valve, Cv = 0.17 – Diaphragm Valve
Leak Rate (Helium)	Internal < 1x10 ⁻⁷ mbar I/s
Leak Rate (Helium)	External < 1x10 ⁻⁹ mbar I/s
Inlet / outlet ports	1/4" FNPT
Number of Valves	4 Nos Diaphragm valves with On-Off Indication
Gauges	50 mm dual scale (BAR/PSI)
Oxygen use	Suitable

MATERIALS:

Body, bonnet	316L stainless steel
Diaphragm	Hastelloy
Seat	PCTFE
Seals O-ring	Viton (FKM)
Filter	SS 316L Micro Sintered
Adjusting Knob	ABS plastic

High purity single cylinder supply panel

The Single cylinder high purity panel is a manual adjustment of the regulator, allow the user to set downstream pressure. The system includes purge function. Designed for applications where a slight rise in delivery pressure from full to empty cylinder can be tolerated or as first stage of pressure reduction.

APPLICATIONS:

- Laboratory pressure control
- Research sample systems gases
- Component testing
- Emission monitoring systems
- Petrochemical industry
- Service & test equipment

FEATURES:

- Recommended gases purity levels up to grade 6.0
- 20 µm Filter Element is installed at Inlet
- Hastelloy diaphragm eliminates contamination from diffusion
- Purge function and diaphragm shut-off valves for the best results
- External relief valve standard
- Cleaned for oxygen service



TECHNICAL DATA:

Panel type	Single cylinder panel
Purity	Up to 6.0
Inlet pressure	Max. 206 bar (3000 psi)
Outlet pressure	10/17/40 bar (145/250/600 psi)
Flow coefficient	Cv = 0.14
Leak Rate (Helium)	Internal < 1x10 ⁻⁷ mbar I/s
Leak Rate (Helium)	External < 1x10 ⁻⁹ mbar I/s
Inlet / outlet ports	1/4" FNPT
Number of Valves	2 Nos Diaphragm valves with On-Off Indication
Gauges	50 mm dual scale (BAR/PSI)
Oxygen use	Suitable

MATERIALS:

Body, bonnet	316L stainless steel
Diaphragm	Hastelloy
Seat	PCTFE
Seals O-ring	Viton (FKM)
Filter	SS 316L Micro Sintered
Adjusting Knob	ABS plastic

High purity double cylinder supply panel

The Double cylinder high purity panel is a manual switchover high purity gas supply panel that prevents downtime by manually switching gas supply from the primary cylinder bank to the reserve cylinder bank. Manual adjustment of the individual regulator allow the user to set downstream pressure. The system includes purge function. Designed for applications where a slight rise in delivery pressure from full to empty cylinder can be tolerated or as first stage of pressure reduction.

APPLICATIONS:

- Laboratory pressure control
- Research sample systems gases
- Component testing
- Emission monitoring systems
- Petrochemical industry
- Service & test equipment

FEATURES:

- Recommended gases purity levels up to grade 6.0
- 20 µm Filter Element is installed at Inlet
- Hastelloy diaphragm eliminates contamination from diffusion
- Purge function and diaphragm shut-off valves for the best results
- External relief valve standard
- Cleaned for oxygen service

TECHNICAL DATA:

Panel type	Single cylinder panel
Purity	Up to 6.0
Inlet pressure	Max. 206 bar
Outlet pressure	10/17/40 bar
Working Temperature	-20 deg C to +60 deg C
Flow coefficient	Cv = 0.14
Leak Rate (Helium)	Internal < 1x10 ⁻⁷ mbar l/s
Leak Rate (Helium)	External < 1x10 ⁻⁹ mbar l/s
Inlet / outlet ports	1/4" FNPT
Number of Valves	4 Nos Diaphragm valves with On-Off Indication
Gauges	50 mm dual scale (BAR/PSI)
Oxygen use	Suitable

MATERIALS:

Body, bonnet	316L stainless steel
Diaphragm	Hastelloy
Seat	PCTFE
Seals O-ring	Viton (FKM)



Cylinder Regulators

Double-Stage Diaphragm Regulator

Double-stage cylinder regulator available in stainless steel. Designed for constant delivery pressure from full to near empty cylinder conditions.

APPLICATIONS:

- High purity gas applications
- Research sample systems gases
- Gas chromatography
- Calibration gas
- Process analyzer gases
- Emission monitoring systems
- Laser applications



Diaphragm valve is provided as optional

FEATURES:

- Recommended gases purity levels up to grade 6.0
- 20 µm Filter Element is installed at Inlet
- Safety Relief valve and diaphragm valve is provided as optional
- Cleaned for oxygen service

TECHNICAL DATA:

Type	Two-stage
Purity	Up to 6.0
Inlet pressure	Max. 300 bar
Outlet pressure	10-17 bar
Working Temperature	-20 degC to +60 degC
Flow coefficient	Cv = 0.05
Leak Rate (Helium)	Internal < 1x10 ⁻⁷ mbar l/s
Leak Rate (Helium)	External < 1x10 ⁻⁹ mbar l/s
Inlet / outlet ports	1/4" FNPT
Gauges	50 mm dual scale (BAR/PSI)
Oxygen use	Suitable

MATERIALS:

Body, bonnet	316L stainless steel
Diaphragm	Hastelloy
Seat	PCTFE
Seals O-ring	Viton (FKM)
Filter	SS 316L Micro Sintered
Adjusting Knob	ABS plastic

Point of Use Regulators

Single-Stage Point use of Diaphragm Regulator

Single-stage regulator available in stainless steel with Inlet Shut-off valve for control pressure near the usage equipment.

APPLICATIONS:

- High purity gas applications
- Research sample systems gases
- Gas chromatography
- Calibration gas
- Process analyzer gases
- Emission monitoring systems

FEATURES:

- Recommended gases purity levels up to grade 6.0
- Wall mounting panel and brackets included
- Optional Ball valve and Diaphragm valve at inlet and outlet shut-off valves
- 20 µm Filter Element is installed at Inlet
- External relief valve standard
- Cleaned for oxygen service

TECHNICAL DATA:

Type	Single-stage
Purity	Up to 6.0
Inlet pressure	Max. 50 bar
Working Temperature	-20 degC to +60 degC
Outlet pressure	2/4/10/17 bar
Flow coefficient	Cv = 0.14
Leak Rate (Helium)	Internal < 2x10 ⁻⁷ mbar I/s
Leak Rate (Helium)	External < 2x10 ⁻⁹ mbar I/s
Inlet / outlet ports	1/4" FNPT
Gauges	50 mm dual scale (BAR/PSI)
Oxygen use	Suitable

MATERIALS:

Body, bonnet	316L stainless steel
Diaphragm	Hastelloy
Seat	PCTFE
Seals O-ring	Viton (FKM)
Filter	SS 316L Micro Sintered
Adjusting Knob	ABS plastic



Single stage Regulators

Single-Stage Diaphragm Regulator

Single-stage cylinder regulator available in stainless steel. Designed for applications where a slight rise in delivery pressure from full to empty cylinder can be tolerated.

APPLICATIONS:

- High purity gas applications
- Research sample systems gases
- Gas chromatography
- Calibration gas
- Process analyzer gases
- Emission monitoring systems

FEATURES:

- Recommended gases purity levels up to grade 6.0
- 20 µm Filter Element is installed at Inlet
- External relief valve standard
- Cleaned for oxygen service

TECHNICAL DATA:

Type	Single-stage
Purity	Up to 6.0
Inlet pressure	Max. 300 bar
Outlet pressure	2/4/10/17/50/100 bar
Flow coefficient	Cv = 0.05
Working temp	-20 Deg C to +60 Deg C
Leak Rate (Helium)	Internal < 1x10 ⁻⁷ mbar l/s
Leak Rate (Helium)	External < 1x10 ⁻⁹ mbar l/s
Inlet / outlet ports	1/4" FNPT
Gauges	50 mm dual scale (BAR/PSI)
Oxygen use	Suitable

MATERIALS:

Body, bonnet	316L stainless steel
Diaphragm	Hastelloy
Seat	PCTFE
Seals O-ring	Viton (FKM)
Filter	SS 316L Micro Sintered
Adjusting Knob	ABS plastic



Diaphragm Valves

High purity, high pressure Diaphragm Valves

FEATURES:

- Suitable for ultrahigh-purity applications
- Made of 316L stainless steel
- Helium test leakage rate $<1 \times 10^{-9}$ mbar l/s
- Variety of end connections
- On Off Indication in handle is given for smooth operations.
- Pneumatic actuators are available
- Nickel cobalt alloy diaphragm has higher durability and corrosion resistance
- The standard roughness is Ra 0.25 μm (BA grade)
- For Electropolishing Ra 0.13 μm (EP grade)
- Fully contained PCTFE seat design provides excellent resistance to swelling and contamination

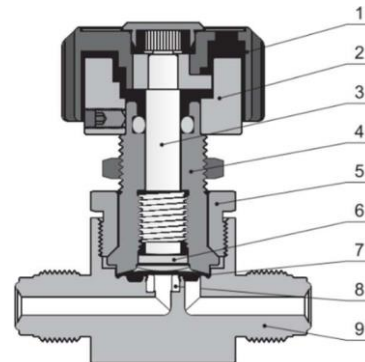


TECHNICAL DATA:

Working pressure	Max. 206 bar
Sizes	1/4" OD, 1/4" MNPT, 1/4" FNPT
Oxygen use	Suitable

MATERIALS:

1. Handle	Aluminum
2. Actuator	Aluminum
3. Valve Stem	SS304
4. Bonnet	S17400
5. Bonnet Nut	SS316
6. Button	Brass
7. Diaphragm	Nickel cobalt alloy
8. Valve Seat	PCTFE
9. Valve Body	SS316



Low Gas Alarm Panel

Signal Box for signaling of fault report

FEATURES:

- Low supply pressure monitoring with Pressure Transmitters
- Collective alarm for control room
- Fast system Overview

TECHNICAL DATA:

Power Supply	230 VAC, 50Hz, 5VA
Connection System	2 Wires
Signal Lamp	LED Green
Temperature	Max 40 Degree C
Housing	RAL 7035 Light Grey PVC box
Protection Category	IP 54
Number of Channels	04, 06, 10, 16 Channels

IMAGE:

