

Swagelok Changeover (SCO)

A Swagelok changeover (SCO) is a special type of primary gas control system used when the continuous supply of gas is important. The SCO automatically starts drawing from a secondary source of gas once the pressure of the primary source equals the set changeover pressure. Once the system is drawing from the secondary source, operators can isolate and replace or refill the primary source while gas is still being supplied to the system.

SCO features include:

- A tied changeover handle design, enabling a wide range of changeover pressures
- Easy serviceability, minimizing downtime if maintenance is needed

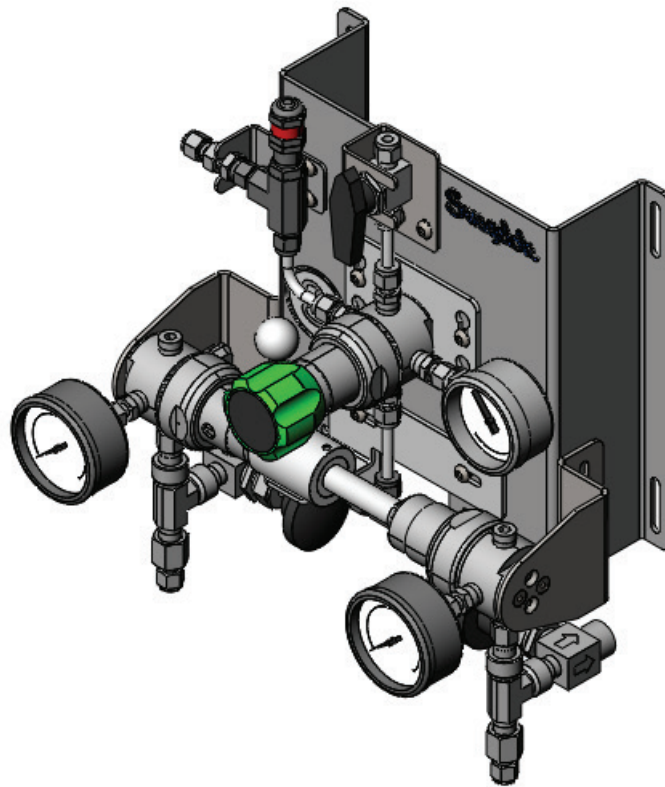


Fig. 18 SCO with Outlet Pressure Regulator

System may include:

- KPR series pressure regulator
- R3A series relief valve
- 40G series ball valve
- Swagelok tube fittings
- D series nonrotating-stem needle valve
- PGI series gauges (63C)
- Seamless tubing
- Panel
- Bracket/misc hardware

SCO continued

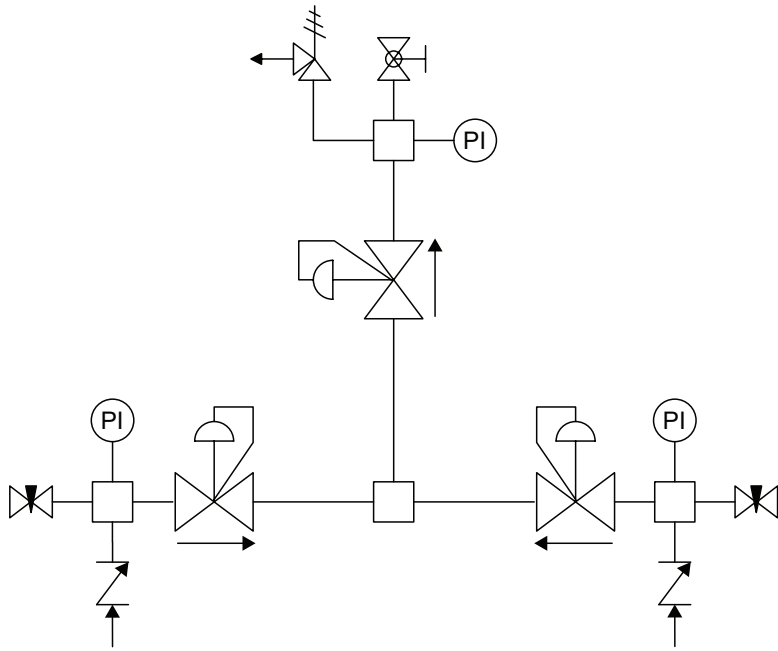


Fig. 19 SCO P&ID with Outlet Pressure Regulator

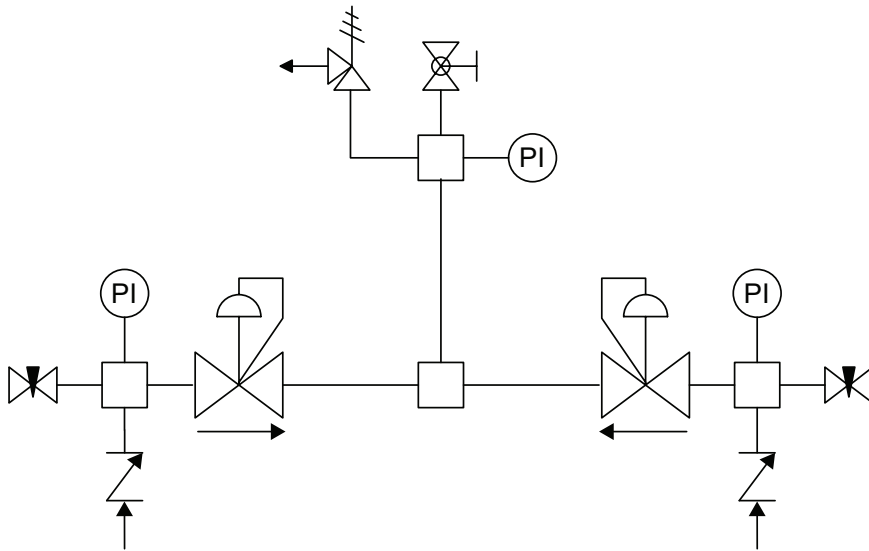


Fig. 20 SCO P&ID without Outlet Pressure Regulator

SCO continued**Ordering Information**

Build an ordering number by combining the designators in the sequence shown below.

SCO **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**
 N F R 2 5 P S4 S4 5 L 1 0 E

1 Gas Type

- N = Inert
- O = Oxygen[Ⓢ]

Ⓢ A gas type of oxygen may limit selections available for other components.

2 Pressure Control Range

- 0 = None
- F = 0 to 100 psig (0 to 6.8 bar)
- G = 0 to 250 psig (0 to 17.2 bar)
- J = 0 to 500 psig (0 to 34.3 bar)

3 Maximum Inlet Pressure

- L = 1000 psig (68.9 bar)
- R = 3600 psig (248 bar)
- T = 4351 psig (300 bar)

4 5 Changeover Pressure

ex. 25 (bar)

Note: Select the desired changeover pressure by entering two digits in fields 4 and 5. Select the pressure units in field 6. For example, 25B will specify a 25 bar changeover pressure.

6 Unit for Changeover Pressure

- P = psig
- B = bar

Note: When selecting a changeover pressure in units of psig, the numbers in fields 4 and 5 will represent 10× the desired pressure. For example, to select a 50 psig changeover pressure, enter 05P in fields 4, 5 and 6..

7 Inlet Connection

- S4 = 1/4 in. Swagelok tube fitting
- S6 = 3/8 in. Swagelok tube fitting
- S8 = 1/2 in. Swagelok tube fitting
- M6 = 6 mm Swagelok tube fitting
- M1 = 10 mm Swagelok tube fitting
- M2 = 12 mm Swagelok tube fitting
- N4 = 1/4 in. Male NPT
- F4 = 1/4 in. Female NPT

8 Outlet Connection

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9 C_v (Flow Coefficient)

- 1 = 0.02
- 2 = 0.06
- 5 = 0.2

10 Outlet Isolation Valve

- 0 = No valve
- 4 = 1/4-turn ball valve
- L = 1/4-turn ball valve - lockable
- D = Multi-turn needle valve

11 Inlet Vent

- 1 = Captured
- 2 = Noncaptured

12 Pressure Relief Valve

- 0 = None
- 1 = R3A series relief valve (inert)/CPA series check valve (Oxygen)
- 2 = Country/regional standard

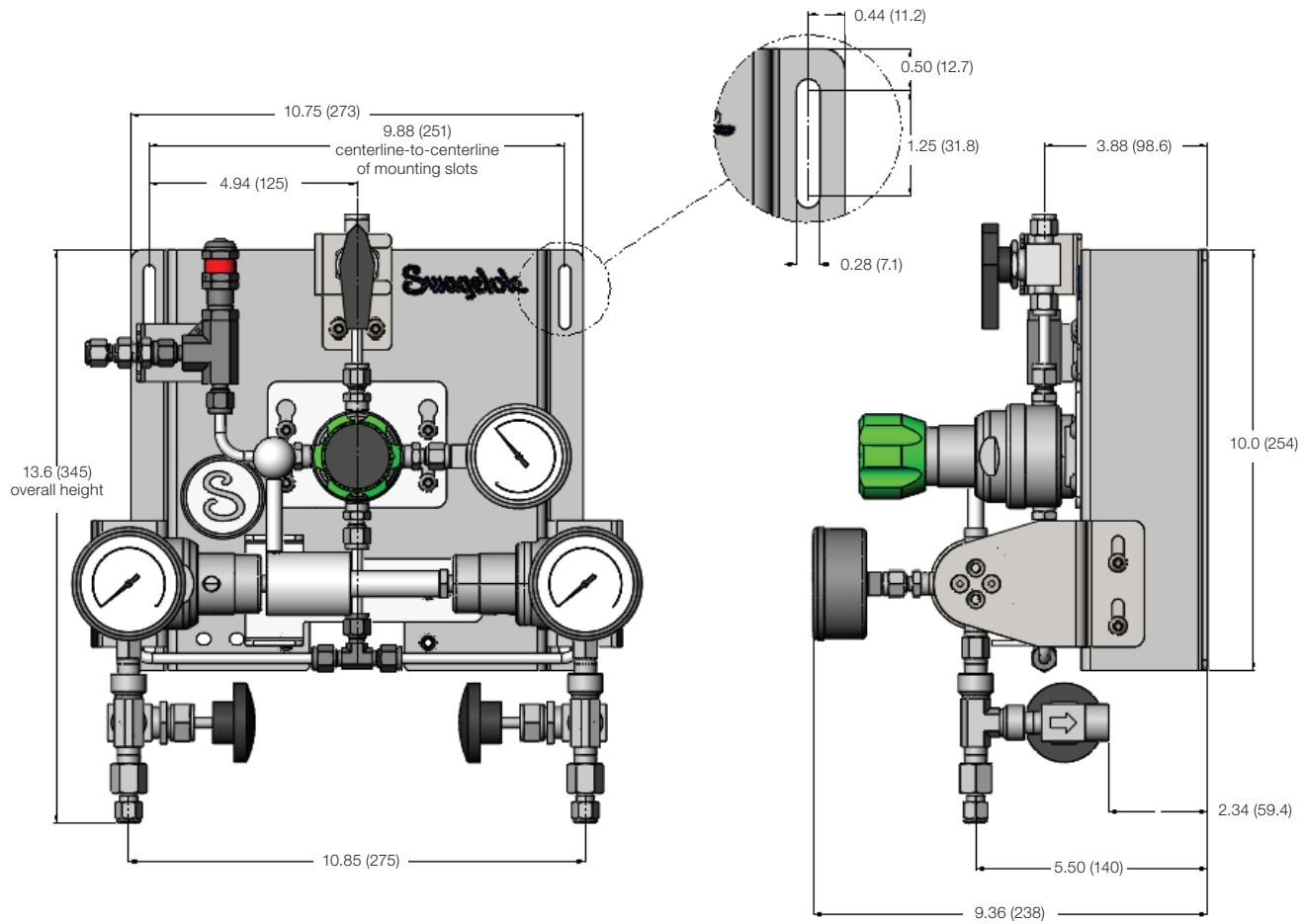
13 Options

- C = Captured pressure regulator vent (on all system regulators)
- H = Helium leak test
- E = ASME 3.1 material certification

Note: Multiple options can be added to the end of an ordering number.

SCO continued**Dimensions**

Dimensions, in inches (millimeters), are for reference only and are subject to change.



Swagelok

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