

Automatic Changeover System (SCO)

An automatic changeover system (SCO) is a special type of Primary Gas Control System used when the continuous supply of gas is important. The SCO system switches from a primary to a secondary source of gas when the pressure of the primary source is below 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

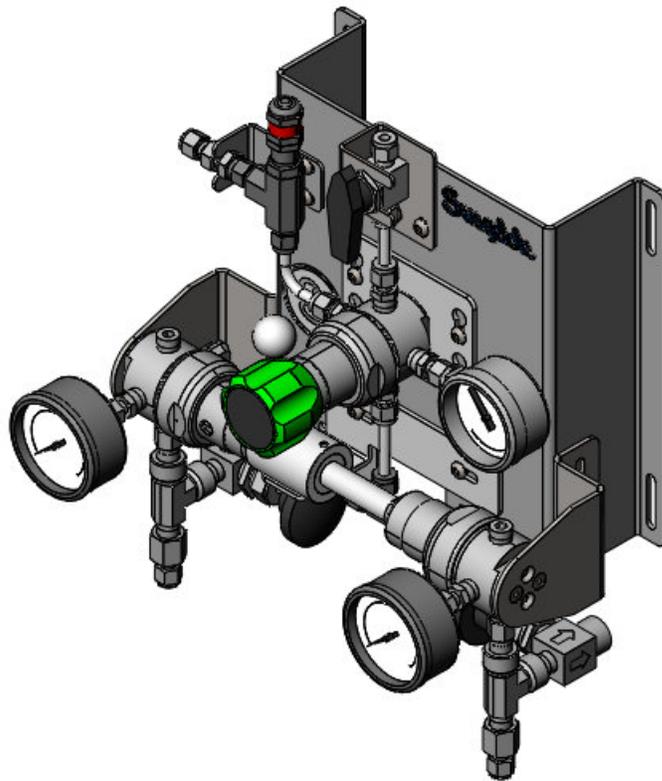


Fig. 17 SCO with Outlet Pressure Regulator

SCO continued

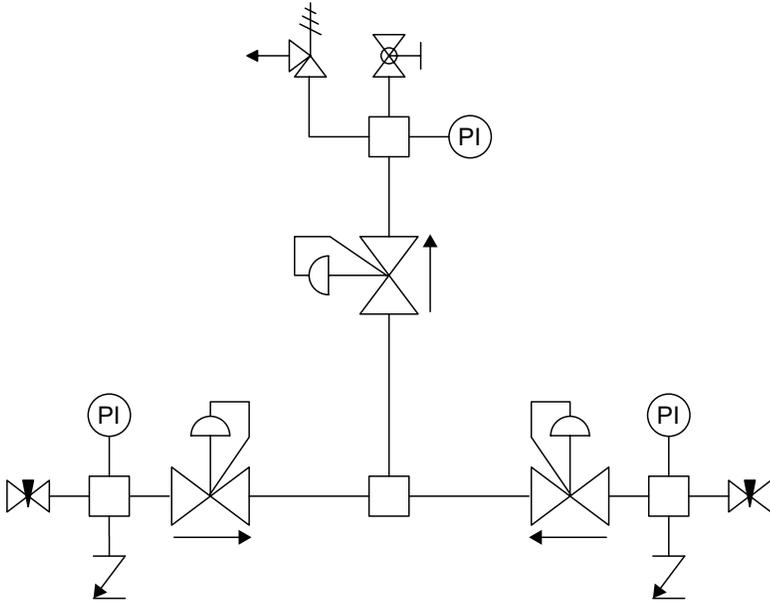


Fig. 18 SCO P&ID with Outlet Pressure Regulator

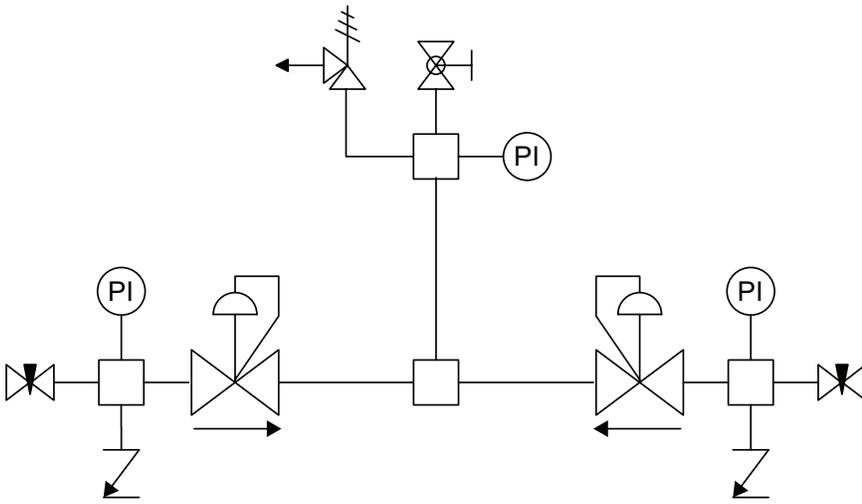


Fig. 19 SCO P&ID without Outlet Pressure Regulator

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
H = Hydrogen
O = Oxygen[Ⓢ]

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

2 Outlet 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)

6 Unit for Changeover Pressure

P = psig
B = bar

7 Inlet Connection

S4 = 1/4 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
F4 = 1/4 in. Female NPT

8 Outlet 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

9 C_v (Flow Coefficient)

1 = 0.02
2 = 0.06
5 = 0.2
7 = 0.5

10 Outlet Isolation Valve

0 = No valve
4 = 1/4-turn valve
L = Lockable 1/4-turn ball valve
D = Multiturn needle valve

11 Inlet Vent

1 = Captured
2 = Noncaptured

12 Pressure Relief Valve

0 = None
1 = 4R3A series relief valve
2 = Country/regional standard
X = Customer specified

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.

