

High-Purity ChangeOver Systems

Model 8RCS

8RCS Series changeover systems provide continuous flow of gas between a primary and a secondary or backup supply. When a primary gas supply has been depleted, the changeover unit automatically switches to the secondary supply. The Model 8RCS features a built-in line regulator that ensures constant delivery pressure. Both models incorporate dual diffusion-resistant regulators with packless inlet valves to allow the supply banks to be completely isolated. This system is available in brass or stainless steel and equipped with a stainless steel bracket for wall mounting.



Benefits/Features

- Protects gas purity with diffusion-resistant regulators designed for high-purity applications.
- Prevents gas outages caused by empty cylinders.
- Eliminates wasted gas due to premature cylinder changeouts.
- Improves operating efficiency of process by increasing uptime and reducing labor costs.
- Isolates gas source completely during changeout through use of diaphragm valves.
- Provides constant delivery pressure during changeover.
- Compact design allows for tight space requirements.

Specifications

- Changeover Regulator**
- Inlet Pressure:** 3000 psig (207 bar) maximum
300 psig (21 bar) minimum
- Switchover Pressure:** 200 psig (14 bar)
- Operating Temperature Range:** -40°F to 140°F (-40°C to 60°C)
- Flow Coefficient:** Cv = 0.06
- Flow Capacity:** 240 SCFH (N₂) maximum
- Inlet Connections:** 1/4" NPT Female
- Gauge Size:** 2" (53 mm) face
- Line Regulator**
- Inlet Pressure:** 3000 psig (207 bar) maximum

Operating Temperature Range:
-40°F to 140°F (-40°C to 60°C)

Flow Coefficient: Cv = 0.15

Outlet Connection: 1/4" NPT Female

Gauge Size: 2" (53 mm) face

Weight: 13 lbs. (5.9 kg)

Materials of Construction

- Body:** Brass or 316 Stainless Steel
- Diaphragm:** 316 Stainless Steel
- Gauges:** Brass or stainless steel
- Bonnet:** Brass or 300 Stainless Steel
- Seat and Seals:** PTFE
- Pigtails:** 36" flexible stainless steel with brass or 316L CGA fittings as appropriate

| Model 8RCS | | Inlet Pressure Gauge | | Delivery Pressure Range | | Delivery Pressure Gauge | |
|----------------|-----------------|----------------------|---------|-------------------------|----------|-------------------------|--------|
| Brass | Stainless Steel | psig | bar | psig | bar | psig | bar |
| Q8-RCS-B-D-(*) | Q8-RCS-S-D-(*) | 0 – 4000 | 0 – 276 | 10 – 150 | 0.7 – 10 | 0 – 200 | 0 – 14 |

* Replace with CGA from table below.

| Gas Service | CGA Connection** | Code |
|--------------------------------------|------------------|------|
| Air | 590 | A5 |
| Argon, helium or nitrogen | 580 | N2 |
| Carbon dioxide | 320 | CD |
| Hydrogen, methane or carbon monoxide | 350† | H2 |
| Oxygen | 540† | O2 |

** Other cylinder connections are available – please contact your Air Liquide representative.

† If your system requires CGA 350 (flammable) or CGA 540 (oxygen), an explosion-proof switch should be used. Contact your Air Liquide representative for more information.

Option: Indicating pressure switch gauges with annunciator can be added to this system by placing an A at the end of the part number (i.e. Q8-RCS-B-D-N2A)

Optional Equipment

- Annunciator
- Flash arrester
- Flow limit shutoff valves
- Pressure relief valves
- Pressure switches
- Check valves (2 required – one for each pigtail)