

C2900 SERIES CARTRIDGE CHECK VALVES

0 to 3,000 PSIG

Features

- Compact & Easily Installed
- Curved Poppet Face
- Zero Leakage – “Bubble Tight” in Check Direction

Benefits

- Quick Opening, Positive Closing
- Full Flow – curved poppet face diverts flow smoothly with minimum pressure drop
- In addition to being used in new equipment, they are interchangeable with and can be used to replace many cartridge valves.

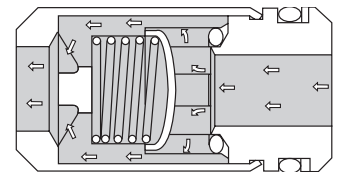
Technical Data

| | |
|------------------------------|---|
| Body Construction Materials: | • Brass, Carbon Steel, 303 or 316 Stainless Steel |
| O-ring Materials: | • Buna N, Ethylene Propylene and Viton® |
| Operating Pressure: | • 0 to 3,000 PSIG (207 BAR) |
| Cracking Pressure: | • 0.15 to 15 psi (.01 to 1 BAR) |
| Temperature Range: | • -65° F to +300° F (-54° C to +149° C) Based on o-ring material, see “How to Order” |

NOTE: Proper filtration is recommended to prevent damage to sealing surfaces.

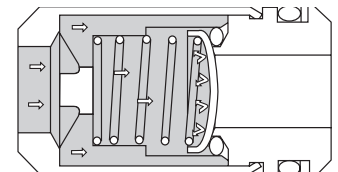
How It Works

The proven sealing principle of Circle Seal Check Valves is employed in the C2900 Series Cartridge type valves—instant, bubble-tight sealing with an o-ring. Increasing pressure makes the seal tighter until metal-to-metal contact is made, which withstands full system pressures or pressure surges.



OPEN

In the flow position, the convex curved surface of the spring-loaded poppet permits full flow. The required cracking pressure is governed by the spring.



CLOSED

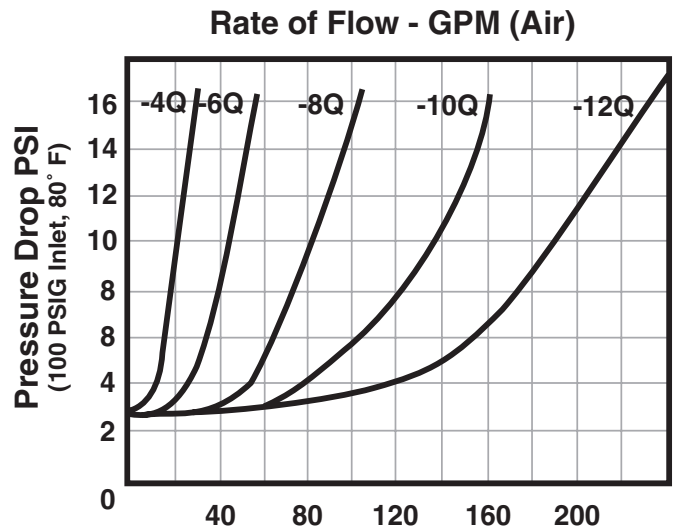
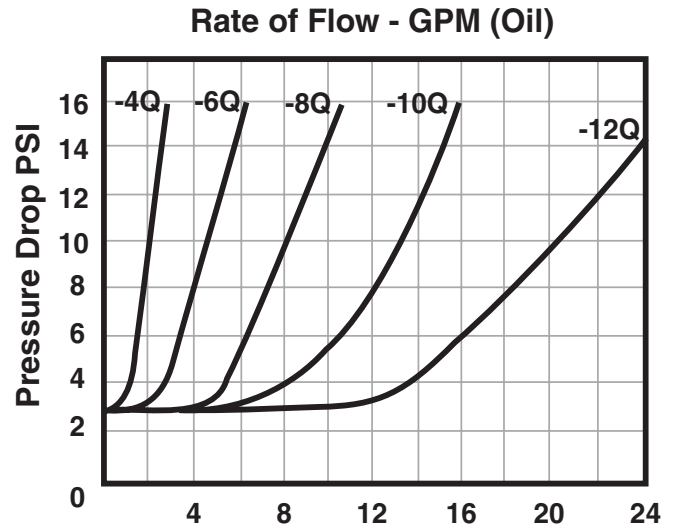
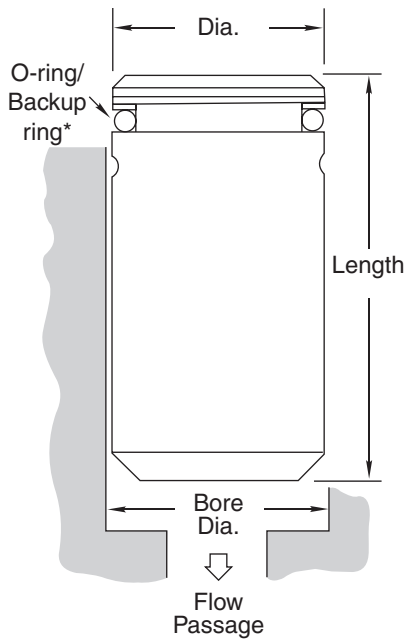
Closing to check position at the slightest back pressure, the dynamic o-ring seals instantly between the poppet and seat.

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C2900 SERIES

0 to 3,000 PSIG

Specifications, Dimensions & Typical Flow Curves



Specifications, Dimensions (inches) & Cv Ratings

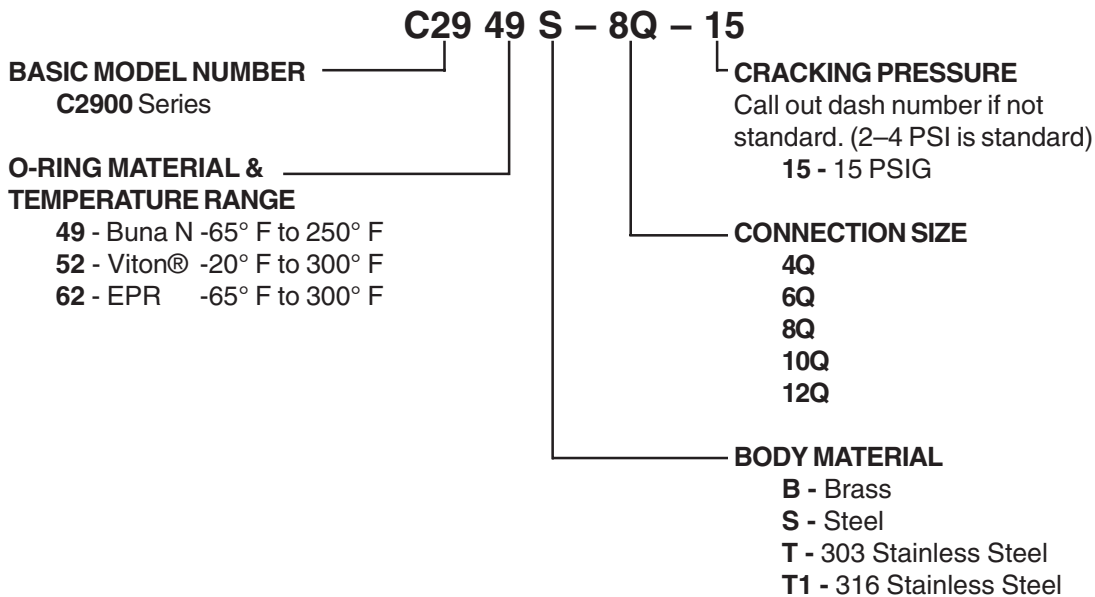
| Model Number | Bore Dia. +.002- .000 | Flow Passage | Dia. +.005-.000 | Length | O-Ring* AS568 | Backup Ring* MS28774 | Cv |
|--------------|-----------------------|--------------|-----------------|--------|---------------|----------------------|------|
| 4Q | .501 | .200 | .494 | .830 | -012 | -012 | .55 |
| 6Q | .657 | .300 | .650 | 1.215 | -014 | -014 | 1.36 |
| 8Q | .813 | .385 | .806 | 1.490 | -017 | -017 | 2.35 |
| 10Q | 1.001 | .485 | .994 | 1.545 | -020 | -020 | 3.51 |
| 12Q | 1.219 | .850 | 1.212 | 1.930 | -023 | -023 | 5.66 |

* Valves are furnished complete with o-ring and backup ring.

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How to Order



Please consult Circle Seal Controls or your local distributor for information on special connection, o-rings, operating pressures and temperature ranges.

Viton® is a registered trademark of Dupont Dow Elastomers.

LEAKAGE (Internal): Zero from 0 to 3000 psig.

CRACKING PRESSURE

MINIMUM CRACKING PRESSURE AVAILABLE - 0.15 PSI

MAXIMUM CRACKING PRESSURE AVAILABLE - 15 PSI

NOTE: Cracking pressure is defined as pressure at which flow is 5cc/min. When ordering a cracking pressure within the standard range and below, the dash number is a "maximum". For cracking pressure equal to or greater than the upper limit the tolerance is $\pm 20\%$.

For Your Safety

It is the sole responsibility of the system designer and user to select products suitable for their specific application requirements and to ensure proper installation, operation and maintenance of these products. Material compatibility product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or property damage.