CIRCLE SEAL CONTROLS, INC.

C2900 Series

0 to 3000 psig Cartridge Check Valve



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

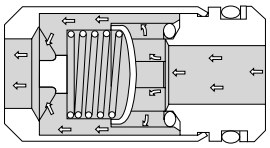
Technical Data

Body Construction Materials	Brass, carbon steel, 303 or 316 stainless steel
O-ring Materials	Buna N, ethylene propylene and Viton®
Operating Pressure	0 to 3000 psig (207 bar)
Cracking Pressure	0.15 to 15 psig (0.01 to 1 bar)
Temperature Range	−65° F to +300° F (−54° C to +149° C) *Based on o-ring & body material, see "How to Order"*

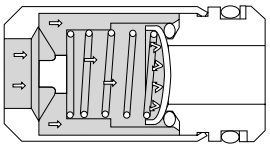
Note: Proper filtration is recommended to prevent damage to sealing surfaces.

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.

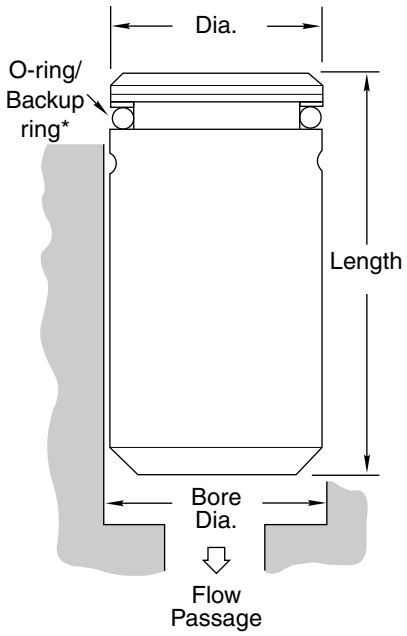


Closed
Closing to check position at the slightest back pressure, the dynamic o-ring seals instantly between the poppet and seat.

Circle Seal Controls
2301 Wardlow Circle • Corona, CA 92880
Phone (951) 270-6200 • Fax (951) 270-6201
www.circle-seal.com

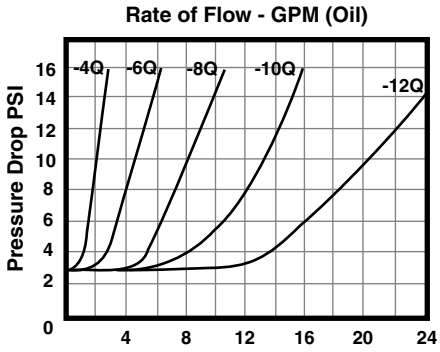
C2900 Series

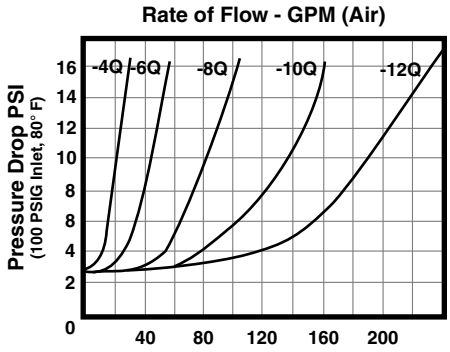
Specifications, Dimensions, Weights & Typical Flow Curves



Model Number	Bore Dia. +0.002, −0.000	Flow Passage	Dia. +0.005, −0.000	Length	O-ring* AS568	Backup Ring* MS28774	Cv
−4Q	0.501	0.200	0.494	0.830	−012	−012	0.55
−6Q	0.657	0.300	0.650	1.215	−014	−014	1.36
−8Q	0.813	0.385	0.806	1.490	−017	−017	2.35
−10Q	1.001	0.485	0.994	1.545	−020	−020	3.51
−12Q	1.219	0.850	1.212	1.930	−023	−023	5.66

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





How to Order

C29 49 S – 8Q – 15

O-RING MATERIAL & TEMPERATURE RANGES

- **49** Buna N, −65° F to +250° F
- **52** Viton®, −20° F to +300° F
- **62** EPR, −65° F to +300° F

BODY MATERIAL

- **B** Brass
- **S** Steel†
- **T** 303 stainless steel
- **T1** 316 stainless steel

CRACKING PRESSURE

Call out dash number if not standard (2–4 psig is standard)

- **15** 15 psig

CONNECTION SIZE

- **4Q**
- **6Q**
- **8Q**
- **10Q**
- **12Q**

† *Not available for PED applications.*

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

Leakage (internal): Zero from 0 to 3000 psig

Cracking Pressure

Minimum cracking pressure available: 0.15 psig

Maximum cracking pressure available: 15 psig

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 will be ±20%.

For Your Safety

It is solely the 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.

Viton® is a registered trademark of DuPont Dow Elastomers.