CV3000 Series Check Valves

Features

- Positive, bubble-tight shutoff against reverse flow provided by soft seals
- Low pressure drop in free flow direction
- Equally effective in high and low pressure systems
- High pressure increases sealing efficiency
- Attitude insensitive
- Broad fluid compatibility
- Easily maintained, replace soft goods only
- Durable seat and poppet design reduces wear
- High impact and chatter resistant

Specifications

• Fluids	Gases and liquids
• Operating pressure (brass)	0 to 2000 psi
• Operating pressure (stainless)	0 psi to 3000 psi
• Proof pressure	1½ times operating
• Cracking pressure	0.5 to 1 psi standard (others available)
• Temperature range	–20° F to +250° F

Materials of Construction

• Body	Brass or stainless steel
• Poppet	Brass or stainless steel
• Springs	304 stainless steel
• Seat retainer	Brass or stainless steel
• Seals	Viton® (others available)

Viton® is a registered trademark of DuPont Dow Elastomers

Applications

Self- and full-service car wash systems • High pressure sprayers and washers • Anti-siphon and freeze control Systems with fixed pump pressure • Maintain back pressure or pilot pressure on electric or other valves upstream • Test systems • Analytical instrumentation • Aerospace ground support • Hydraulic power units

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U.S. Para Plate valves and regulators are used where performance and reliability are a must. Proven for over 30 years in the most demanding commercial and Industrial applications.

2 CV3000 Series Check Valves

Ordering Information

CV3 2 0 1 B S - 1

MODEL NUMBER

CONNECTION SIZE
2 = ¼″
3 = ⅜″
4 = ½″
6 = ¾″
8 = 1″

CONNECTION TYPE
0 = Female pipe

CRACKING PRESSURE
1 = 0.5 to 1 psi
2 = 6 to 8 psi
5 = 50 ± 5 psi

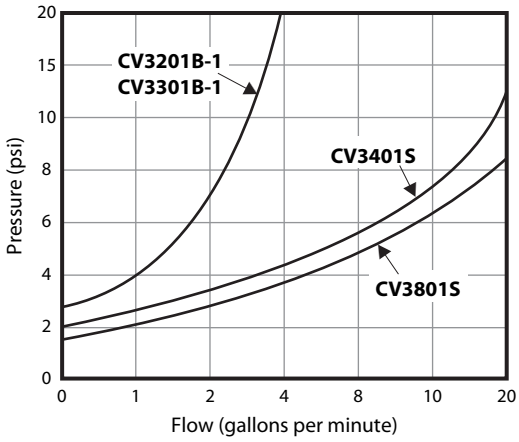
MATERIALS
B = Brass
SS = Stainless steel

POPPET
blank = same as valve
S = 416 stainless steel (with brass valve only)

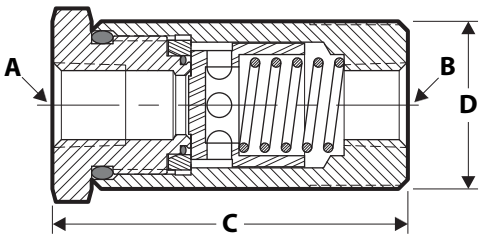
O-RING MATERIAL (OPERATING TEMPERATURE RANGE)
1 = Viton® (–20° to +250° F)
2 = Buna N (–65° to +250° F)
3 = EPR (–65° to +300° F)
4 = Teflon® (–100° F to +500° F)

Flow vs Pressure

water @ 70° F



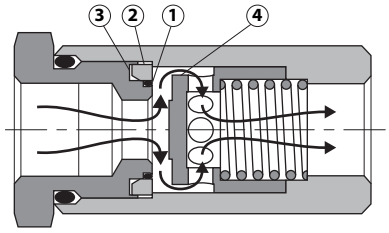
Dimensions



A inlet	B outlet	C length	D diam.	weight (lbs)
¼″	¼″	2.25″	1.1″	0.5
⅜″	⅜″	2.25″	1.1″	0.5
½″	½″	2.6″	1.5″	0.6
⅜″	⅜″	3.4″	2″	1.0
1″	1″	4″	2.8″	1.5″

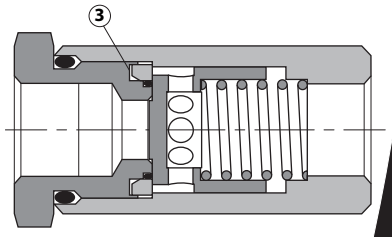
Check Valve Operation

Flowing



O-ring **1** is out of the fluid flow path. Elasticity or O-ring keeps sleeve **2** from metal-to-metal contact at point **3**. When valve begins to close, metal poppet **4** makes initial contact with metal sleeve. O-ring is protected from impact of initial valve closing.

Closed



As reverse pressure increases, sleeve is forced against O-ring until space at point **3** is closed. In this position, sleeve has displaced O-ring and O-ring is forced against flat valve poppet to effect bubble-tight seal.

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