

## 100 SERIES CHECK VALVES

### 0 to 25 PSIG

#### Features

- Low Pressure
- Ultra-Sensitive
- Positive Sealing
- Zero Leakage

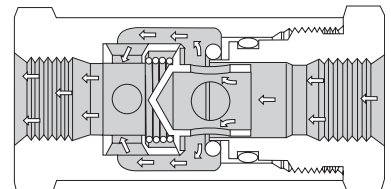
#### Benefits

- Lightweight check valve for pressures to 25 psi.
- Unique design allows flow with minimum pressure differential. Cracking pressure is 4" H<sub>2</sub>O maximum.
- Unique knife-edge on the poppet positions snugly to provide zero sealing even with extremely low pressure.
- Compact, easy installation. Efficient, inline design reduces size and weight. The valve can be mounted in any position.

#### Technical Data

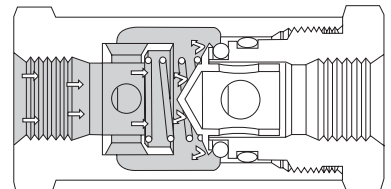
- |                              |   |
|------------------------------|---|
| Body Construction Materials: | • Aluminum, Brass, 303 Stainless Steel or 316 Stainless Steel                           |
| O-ring Materials:            | • Buna N or Viton®  |
| Operating Pressure:          | • 25 PSIG (1.7 BAR)   |
| Cracking Pressure:           | • 4 inches H <sub>2</sub> O maximum   |
| Temperature Range:           | • -40° F to +400° F (-40° C to +204° C)<br>Based on o-ring material, see "How to Order" |
| Connection Sizes:            | • 1/8 inch to 3/4 inch  |

#### How it Works



##### OPEN

Full flow passages offer minimum restriction to flow. Spring is completely removed from flow path.



##### CLOSED

As the inlet supply pressure decreases, a light spring closes the poppet, positioning the knife edge automatically in line of contact sealing against the o-ring. The impression of the knife edge is limited by a metal-to-metal seat, which carries the reverse pressure load and serves to prevent sticking of the o-ring.

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

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# 100 SERIES CHECK VALVES

0 to 25 PSIG

## How to Order

**1 19 B - 2 PP**

**BASIC MODEL NUMBER** — 100 Series

**O-RING MATERIAL & TEMPERATURE RANGE**  
 19 - Buna N -65° F to 250° F  
 32 - Viton® -20° F to 400° F

**CONNECTIONS—INLET/OUTLET**  
 P - Female Pipe, NPT

**VALVE SIZE**  
 1 - 1/8"  
 2 - 1/4"  
 3 - 3/8"  
 4 - 1/2"  
 6 - 3/4"

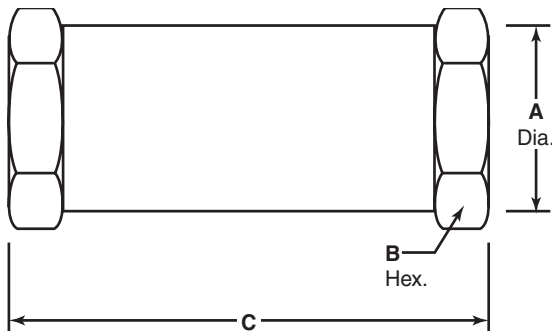
**BODY MATERIAL**  
 A - Aluminum  
 B - Brass  
 T - 303 Stainless Steel  
 T1 - 316 Stainless Steel

Viton® is a registered trademark of DuPont Dow Elastomers.

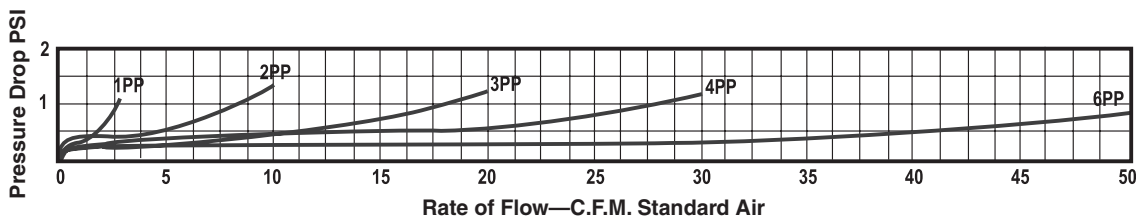
Please consult Circle Seal Controls or your local distributor for information on special connections, o-rings, operating pressures and temperature ranges.

### 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.



Pipe, Female	Size	A Dia.	B Hex.	C
1PP	1/8"	.81	.81	1.70
2PP	1/4"	1.00	1.00	2.25
3PP	3/8"	1.12	1.12	2.43
4PP	1/2"	1.50	1.50	2.93
6PP	3/4"	1.75	1.75	3.37



### Repair Kits:

In normal service the only part(s) which may require replacement is(are) the seal(s). A repair kit may be ordered by placing a K/ in front of the complete part number (i.e. K/119B-2PP).

Although we offer separate kits where o-ring replacement is considered necessary, factory repair is recommended. Because of the ultra-sensitive characteristics of this valve, extreme care is necessary to insure that the o-ring is properly fitted into the groove without being twisted or distorted.