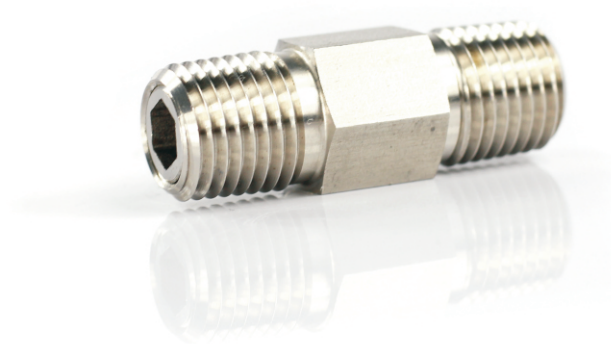


One-Piece Body, Adjustable cracking pressure **Check Valves**

CV5 Series



- ❖ Maximum working pressure up to 3000 psig (206 bar)
- ❖ Working temperature from -10°F to 400°F (-23°C to 204°C)
- ❖ One-piece body design
- ❖ Adjustable spring sets cracking pressure
- ❖ Cracking pressure: 3 to 600 psig (0.21 to 41.3 bar)
- ❖ 316 stainless steel, brass and alloy 400 body material

Features

- ❖ Maximum working pressure up to 3000 psig (206 bar)
- ❖ Working temperature from -10°F to 400°F (-23°C to 204°C)
- ❖ One-piece body design
- ❖ Fully contained O-ring seal
- ❖ Adjustable spring sets cracking pressure
- ❖ Locking screw maintains setting
- ❖ Cracking pressure: 3 to 600 psig (0.21 to 41.3 bar)
- ❖ 316 stainless steel, brass and alloy body material
- ❖ Variety of end connections

Cracking Pressure

| Series | Nominal Cracking Pressure psig (bar) |
|--------|---|
| CV5 | 3 to 50 (0.21 to 3.50) |
| | 50 to 150 (3.50 to 10.4) |
| | 150 to 350 (10.4 to 24.2) |
| | 350 to 600 (2.40 to 41.4) |

Pressure-Temperature Ratings

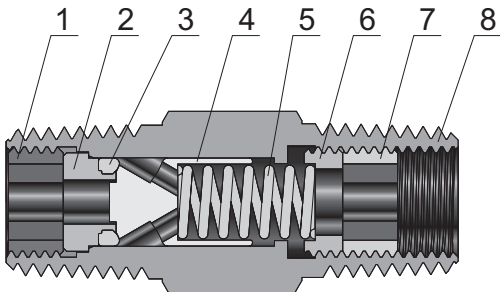
Ratings based on fluorocarbon FKM O-rings in 316 stainless steel valves and Buna N O-rings in brass valves.

| Material | 316S.S. | Brass |
|-----------------------|------------------------------|------------|
| Temperature °F (°C) | Working Pressure, psig (bar) | |
| -10 (-23) to 100 (37) | 3000 (206) | 3000 (206) |
| 200 (93) | 2575 (177) | 2600 (179) |
| 250 (121) | 2450 (168) | 2405 (165) |
| 300 (148) | 2325 (160) | — |
| 400 (204) | 2185 (150) | — |

Seal Materials

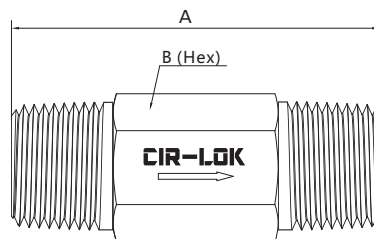
| Seal Material | Temperature Range °F (°C) |
|--------------------|------------------------------|
| Buna N | -10 to 250 (-23 to 121) |
| Ethylene propylene | -50 to 300 (-45 to 148) |
| Fluorocarbon FKM | -10 to 400 (-23 to 204) |
| Neoprene | -40 to 250 (-40 to 121) |

Standard Materials of Construction



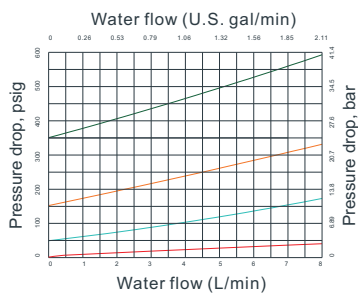
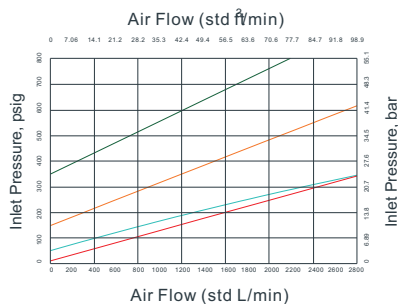
| Component | Valve Material Grade/ASTM Specification | |
|------------------------|---|------------------|
| | 316 S.S. | Brass |
| 1 Insert Locking Screw | 316 S.S./A479 | Brass C36000/B16 |
| 2 Insert | 316 S.S./A479 | Brass C36000/B16 |
| 3 O-ring | Fluorocarbon FKM | Buna N |
| 4 Poppet | 316 S.S./A479 | Brass C36000/B16 |
| 5 Spring | 302 S.S./A313 | |
| 6 Adjusting Screw | 316 S.S./A276 | |
| 7 Locking Screw | 316 S.S./A276 | |
| 8 Body | 316 S.S./A479 | Brass C36000/B16 |

Dimensions

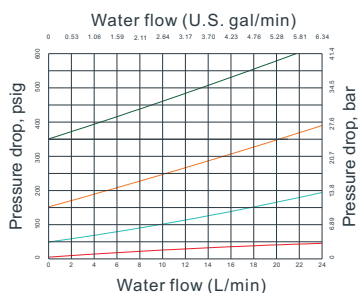
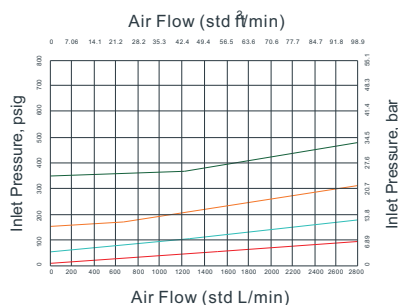


| Basic Ordering Number | Connection Type and Size | Cv | Dimension, in. (mm) | |
|-----------------------|--------------------------|------|---------------------|--------------|
| | | | A | B |
| CV5-FNPT4- | 1/4 Female NPT | 0.35 | 2.98 (75.7) | 3/4 (19.05) |
| CV5-NPT4- | 1/4 Male NPT | 0.35 | 1.62 (41.1) | 9/16 (14.29) |
| CV5-NPT8- | 1/2 Male NPT | 1.20 | 2.56 (65.0) | 7/8 (22.23) |
| CV5-MBT4- | 1/4 Male BSPT | 0.35 | 1.62 (41.1) | 9/16 (14.29) |
| CV5-MBT8- | 1/2 Male BSPT | 1.20 | 2.56 (65.0) | 7/8 (22.23) |

Flow Data at 70 °F(20 °C)



- Cv = 0.35
Cracking Pressure = 3 psig
- Cv = 0.35
Cracking Pressure = 50 psig
- Cv = 0.35
Cracking Pressure = 150 psig
- Cv = 0.35
Cracking Pressure = 350 psig



- Cv = 1.2
Cracking Pressure = 3 psig
- Cv = 1.2
Cracking Pressure = 50 psig
- Cv = 1.2
Cracking Pressure = 150 psig
- Cv = 1.2
Cracking Pressure = 350 psig

How to Order

CV5 — NPT8 — MBT8 — V — 50 — 316

| Series | Inlet Type | Inlet Size | Outlet Type | Outlet Size | Seal Material | Cracking Pressure | Body Material |
|--------|--------------------|-------------------|---|-------------|--------------------|--------------------|----------------|
| CV5 | FNPT Female NPT | 2 1/8 in. | Same as inlet type and inlet size | | V Fluorocarbon FKM | 50 3 to 50 psig | 316 316 S.S. |
| | NPT Male NPT | 4 1/4 in. | | | | | 316L 316L S.S. |
| | FBT Female BSPT | 6 3/8 in. or 6 mm | If outlet and inlet are the same, eliminate the outlet designator | | B Buna N | 150 50 to 150 psig | 304 304 S.S. |
| | MBT Male BSPT | 8 1/2 in. or 8 mm | | | | | 304L 304L S.S. |
| | FMS Female ISO 261 | | | | | | A400 Alloy 400 |
| | MS Male ISO 261 | | | | | | A20 Alloy 20 |
| | FBP Female BSPP | | | | | | A600 Alloy 600 |
| | MBP Male BSPP | | | | | | A825 Alloy 825 |
| | | A276 Alloy C276 | | | | | |
| | | DU7 Duplex 2507 | | | | | |
| | | BR Brass | | | | | |