

# Check Valves



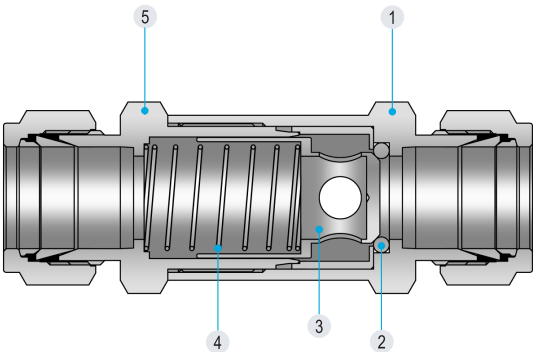
# Check Valves

## SPCV Series

### Features

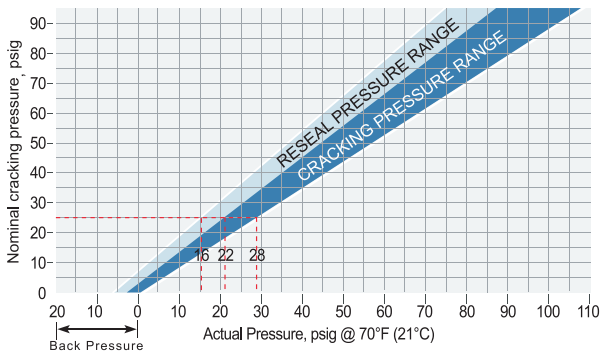
- Fixed cracking pressure.
- Pressure rating up to 3000 psig @70°F(21°C)
- Temperature rating up to 375°F (191°C) with viton o-ring
- Variety of end connections.
- Each and every valves are tested for cracking pressure and reseal performance at the factory.

### Materials of Construction



No.	Description	Material
*1	Inlet Body	ASTM A276 Type 316
*2	O-Ring	Viton
*3	Poppet	ASTM A276 Type 316
*4	Spring	304 Stainless Steel
*5	Outlet Body	ASTM A276 Type 316

\* Wetted components



### O-Rings

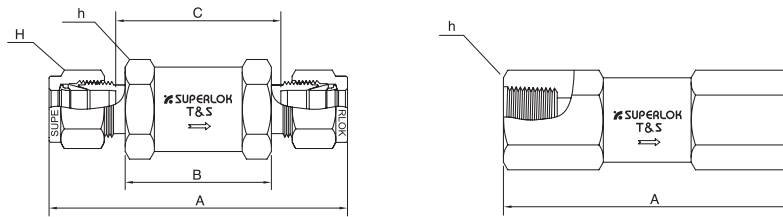
O-ring Material	Temperature Rating°F(°C)	Designator
Buna N	-10 to 250 (-23 to 121)	-N
Ethylene Propylene	-70 to 250 (-57 to 121)	-E
Viton (Fluorocarbon)	-10 to 375 (-23 to 191)	<b>(Blank)</b>
Kalrez	-15 to 500 (-26 to 260)	-K
Neoprene	-35 to 225 (-37 to 107)	-P

### Back Pressure

Back pressure may be required to reseal the valves with nominal cracking pressure of 5psi or lower.

**Example :** For a valve with a spring having a rated cracking pressure of 25 psig (1.72 bar), the actual cracking pressure ranges between 22 and 28 psig (1.52 to 1.93 bar). The re-seal pressure range would be 16 to 22 psig (1.10 to 1.52 bar). Check valves having springs with rated crack pressure of 3 psig (0.21 bar) or less may require up to 4 psig (0.28 bar) back pressure to re-seal bubble-tight.

## Table of Dimensions



Part No.		Cv	End Connection	Dimensions				
				A	B	C	h	H
SPCV	S2	0.10	1/8 SUPERLOK	57.15	26.6	31.2	15.88	11.11
	F2N	0.47	1/8 Female NPT	50.00	-	-	15.88	-
	S4	0.47	1/4 SUPERLOK	62.16	26.6	31.4	15.88	14.28
	F4N	0.47	1/4 Female NPT	57.10	-	-	19.05	-
	S6	1.50	3/8 SUPERLOK	76.20	37.6	42.4	22.22	17.46
	F6N	1.70	3/8 Female NPT	73.90	-	-	22.22	-
	S8	1.70	1/2 SUPERLOK	86.58	42.9	40.8	25.40	22.22
	F8N	2.60	1/2 Female NPT	90.60	-	-	27.00	-
	S10	2.60	5/8 SUPERLOK	91.68	48.0	42.8	28.50	25.40
	S12	4.50	3/4 SUPERLOK	99.78	56.1	51.1	31.80	28.57
	F12N	4.50	3/4 Female NPT	99.78	-	-	31.80	-
	S16	4.50	1 SUPERLOK	111.22	58.4	48.9	38.10	38.10
F16N	4.50	1 Female NPT	114.30	-	-	41.27	-	

- Dimensions and Drawings are for reference only and are subject to change without prior notice.

- Unless otherwise specified, all dimensions are in millimeters.

- Sizes, pressure classes, and end connections not listed are available upon request.

- Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

## Technical Data

- Cracking pressure: the differential pressure between inlet and outlet, at which an initial flow is passing through the valve.
- Reseal pressure: the differential pressure between outlet and inlet, at which no flow is passing through the valve.

Cracking and Reseal Pressure			down stream pressure, psi (bar)	
Nominal Cracking Pressure, psi (bar)	Cracking Pressure Range, psi(bar)	Reseal Pressure, psi (bar)		
1/3 (0.02)	up to 3 (0.21)	up to 6 (0.4) downstream pressure	1/8 in	1000 (68.9)
1 (0.07)	up to 4 (0.28)	up to 6 (0.4) downstream pressure	1/4 in	
10 (0.69)	7 to 15 (0.5 to 1.1)	3 (0.21) upstream pressure	3/8 in, 1/2 in	200 (13.7)
25 (1.8)	20 to 30 (1.4 to 2.1)	17 (1.2) upstream pressure	3/4 in, 1 in	

\*For cracking pressure of 25psi (1.8bar), downstream pressure is 3000psig (206bar).

## Ordering Information

Example :	SPCV - S 12 - 10P - K - B				
	1	2	3	4	5

### 1. End Connection

- ☐ S = SUPERLOK Tube Fitting
- ☐ M = Male Thread
- ☐ F = Female Thread

### 2. Connection Size

Fractional Tube	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"
	2	4	6	8	10	12	16
Metric Tube	6mm	8mm	10mm	12mm	16mm	22mm	25mm
	6M	8M	10M	12M	16M	22M	25M
Thread (inch)	1/8	1/4	3/8	1/2	3/4	1	
Screw NPT	2N	4N	6N	8N	12N	16N	
Screw BSPT	2R	4R	6R	8R	12R	16R	

### 3. Cracking Pressure

- ☐ 0.3P = 1/3 psi
- ☐ 1P = 1 psi
- ☐ 10P = 10 psi
- ☐ 25P = 25 psi

### 4. Seal Material

- ☐ (Blank) = Viton
- ☐ N = NBR
- ☐ E = EPDM
- ☐ K = Kalez

### 5. Body Material

- ☐ (Blank) : 316 Stainless Steel
- ☐ B : Brass

※ For special sizes and configurations, please consult BMT (SUPERLOK) sales representative.



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