

SCV30 Series Check Valves

Features

- Ensures Valve closes bubble tight

Fixed Cracking Pressures

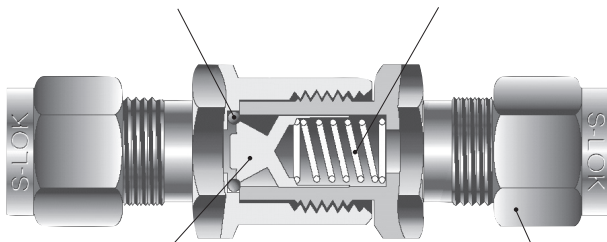
- From 1/3psi to 25psi

Back stopped Poppet

- Minimize Spring stress

Various End Connections

- include S-LOK Tube Fittings
- NPT & ISO Male/Female Threads



Features

- Pressure rating up to 3,000psig (206bar)@70°F(21°C).
- Temperature rating up to 375°F(191°C) with Standard Viton O-ring.
- Choice of materials : Standard S316 and Brass.
- Cracking pressures include : 1/3, 1, 3, 10, 25, 50psi.
- Heat code traceability.
- Every valve is 100% factory tested for cracking and reseal.

Technical Data

Valve Series	SCV1, SCV2, SCV3, SCV4	SCV5, SCV6
Max. Working Pressure @ 70°F(21°C)	S316 and Brass 3000psi (206bar)	S316 : 2000psi(137bar) Brass : 1500psi(103bar)
Operating Temperature Range	Viton : -10°F to 375°F(-23°C to 190°C) NBR : -4°F to 221°F(-20°C to 105°C)	
Nominal Cracking Pressure	1/3, 1, 3, 10, 25, 50psi	

Cracking, Reseal and Back Pressure

Cracking Pressure

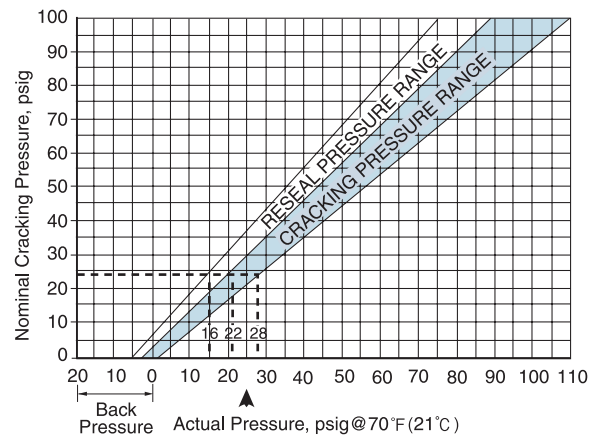
The upstream pressure at which a detectable flow is Measured. The Check valve is actuated when the pressure difference between the inlet and the outlet reaches the range of cracking pressure.

Reseal Pressure

The downstream pressure at which the check valve closes bubble-tight. The Check valves that have higher cracking pressure can be resealed to bubble-tight by the spring force. The reseal pressure is the pressure at the same flow direction, but lower than the cracking pressure.

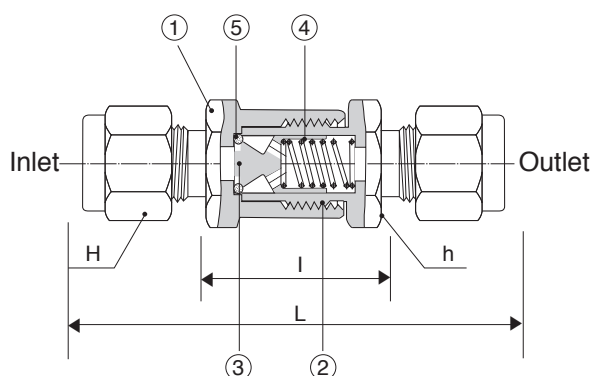
Back Pressure

The Check valves that have cracking pressure 5psig(0.34bar) and lower may not be able to return to the bubble-tight seal. This may require back pressure to press the seal to form a bubble-tight contact in addition to the spring force.



Note

- When the check valve is not actuated for a period of time, it may require initially crack at higher than the above cracking pressure ranges.
- Check valves are designed for directional flow control only. Therefore HANSUN check valves should never be used as code Safety relief devices.



Materials of Construction

Item	Description	Valve Body Materials	
		S316	Brass
1	Body	S316/A479,A276	Brass
2	Connector		Brass
3	Poppet	S316/A479,A276	Brass
4	Spring	S302	
5	O-ring	Viton	

* Silicone-based Lubricant for poppet.

Ordering Information and Dimensions

Basic Ordering Number	Orifice mm(inch)	Cv	End Connections Inlet/Outlet	Dimensions(mm)						
				h	H	L	I			
SCV1	4.8 (0.19)	0.16	1/8" S-LOK	15.88(5/8)	11.11(7/16)	55.60(2.19)	25.00(0.98)			
			1/8" Male NPT				-	44.40(1.75)	-	
		1/8" Female NPT	-				46.50(1.83)	-		
		1/4" S-LOK	14.29(9/16)				60.00(2.36)	25.00(0.98)		
		6mm S-LOK							14.00	
		1/4" Male NPT 1/4" S-LOK	14.29(9/16)				56.40(2.22)	-		
1/4" Male NPT	-	53.40(2.10)	-							
SCV2	7.1 (0.28)	1.48	1/4" Female NPT	19.05(3/4)	17.46(11/16)	65.50(2.58)	27.10(1.07)			
			3/8" S-LOK					19.00		
			10mm S-LOK					-	55.50(2.19)	-
			3/8" Male NPT					-	63.80(2.51)	-
SCV3	10.0 (0.39)	1.7	3/8" Female NPT	22.22(7/8)	22.22(7/8)	80.20(3.16)	36.20(1.43)			
			1/2" S-LOK					22.00		
			12mm S-LOK					-	74.40(2.93)	-
			1/2" Male NPT					-	84.70(3.33)	-
SCV4	13.5 (0.53)	2.6	1/2" Female NPT	28.58(1-1/8)	25.40(1)	91.80(3.61)	48.10(1.89)			
			5/8" S-LOK					-	103.00(4.06)	-
SCV5	16.0 (0.63)	5.2	3/4" S-LOK	31.75(1-1/4)	28.58(1-1/8)	110.70(4.35)	67.00(2.64)			
			3/4" Male NPT					-	105.30(4.15)	
			3/4" Female NPT					-	103.00(4.06)	
SCV6	18.0 (0.71)	8.0	1" S-LOK	34.93(1-3/8)	38.1(1-1/2)	121.10(4.77)	68.40(2.69)			
			1" Male NPT					-	116.20(4.57)	
			1" Female NPT					-	111.40(4.39)	

Spring Cracking, Reseal and Back Pressure at @70°F(21°C)

Spring Nominal Cracking Pressure		Cracking Pressure Ranges				Reseal Pressure	
		Min. Pressure		Max. Pressure			
psig	bar	psig	bar	psig	bar	psig	bar
1/3	0.02	0	0	3	0.21	Up to 6 back pressure	0.41
1	0.07	0	0	4	0.28	Up to 5 back pressure	0.34
3	0.21	2	0.14	7	0.48	Up to 4 back pressure	0.28
10	0.69	7	0.48	15	1.03	3	0.21
25	1.72	20	1.38	30	2.07	17	1.17
50	3.45	40	2.76	60	4.14	35	2.41
75	5.17	60	4.14	90	6.2	53	3.65
100	6.89	80	5.51	120	8.27	70	4.82

Pressure-Temperature Ratings

Ratings based on Viton O-ring in S316 stainless steel valves and NBR O-ring in brass valves.

Series	SCV1, SCV2, SCV3, SCV4 SCA1, SCA2, SCA3 SCP1, SCP2		SCV5, SCV6		S316 SCH Series	
	Working Pressure, psig (bar)					
Temperature °F(°C)	S316	Brass	S316	Brass	SCH1, SCH2	SCH3
	-10°F to 100°F (-23°C to 37°C)	3000(206)	3000(206)	2000(137)	1500(103)	6000(413)
200°F (93°C)	2575(177)	2600(179)	1715(118)	1300(89)	5160(355)	4290(295)
250°F (121°C)	2450(168)	2405(165)	1630(112)	1250(86)	4910(338)	4080(281)
300°F (148°C)	2325(160)	-	1545(106)	-	4660(321)	3875(267)
375°F (190°C)	2185(150)	-	1450(99.9)	-	4375(301)	3640(250)
400°F (204°C)	-	-	-	-	4280(294)	3560(245)