

High Pressure Check Valves

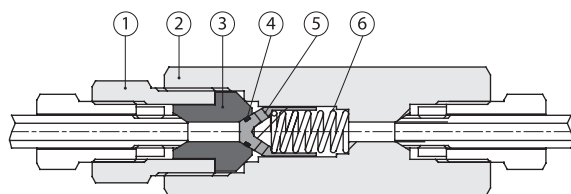
SHPCV Series 20,000 and 60,000 psi

Features

- Tubing size available for 1/4" to 1".
- Maximum working pressure :
 - SHPCV20 Series : 20,000 psig (1379 bar).
 - SHPCV60 Series : 60,000 psig (4137 bar).
- Working temperature :
 - O-ring type : -50°F (-45°C) to 500°F (260°C).
 - Ball type : -110°F (-79°C) to 1200°F (649°C).
- Cracking pressure : 14 psig ~ 26 psig (0.966 bar ~ 1.794 bar).



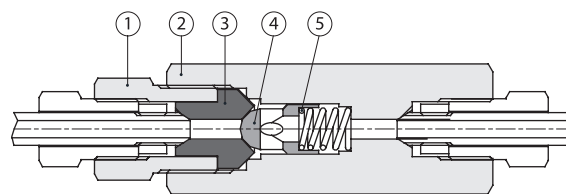
Materials of Construction



O-Ring Check Valve

No.	Description	Material
1	Insert Gland	SS316 / A479
**2	Body	SS316 / A479
**3	Insert	SS316 / A479
**4	O-Ring	Viton (Standard) / NBR / Kalrez
**5	Poppet	SS316 / A479
**6	Spring	304 Stainless Steel

* Provides unidirectional flow and tight shut-off for liquids and gas with high reliability.
 When differential drops below cracking pressure, valve shuts off. (Not for use as relief valve)
 ** Wetted components



Ball Check Valve

No.	Description	Material
1	Insert Gland	SS316 / A479
**2	Body	SS316 / A479
**3	Insert	SS316 / A479
**4	Ball Poppet	SS316 / A479
**5	Spring	304 Stainless Steel

* Prevents reverse flow where leak-tight shut-off is not mandatory.
 When differential drops below cracking pressure, valve closes. (Not for use as relief valve)
 ** Wetted components

Ordering Information

Example : **SHPCV 20 - MP9 - BP - K - 276**

1
2
3
4
5

1. Valve Series

- SHPCV20 = 20,000 psi
- SHPCV60 = 60,000 psi

2. Connection Size & Type

Size (inch)	1/4	3/8	9/16	3/4	1
Medium Pressure	MP4	MP6	MP9	MP12	MP16
High Pressure	HP4	HP6	HP9	-	-

3. Poppet Type

- (Blank) = O-Ring Check Valve
- BP = Ball Check Valve

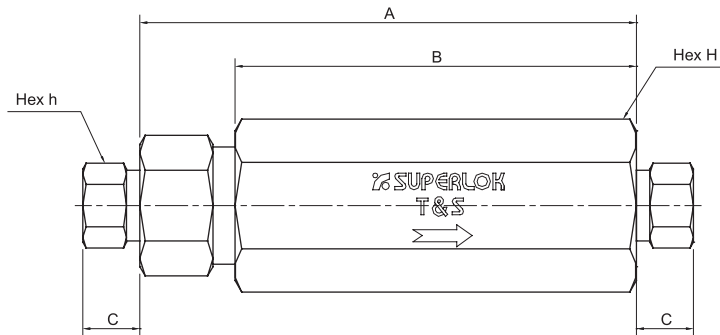
5. Body Material

- (Blank) = 316 Stainless Steel
- 276 = Hastelloy
- 625 = Inconel 625

4. O-Ring Material

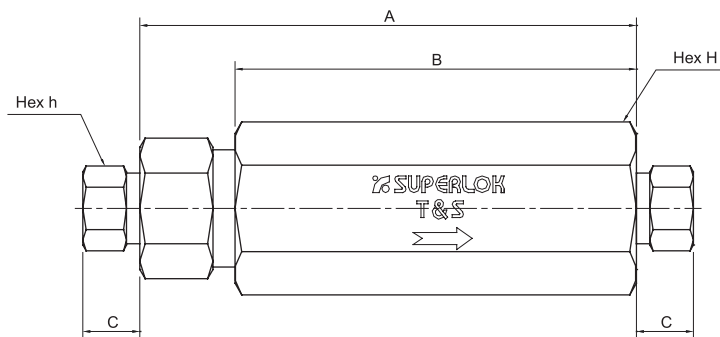
- (Blank) = Viton (Standard)
- N = NBR
- K = Kalrez

Table of Dimensions



SHPCV20 Series

Part No.	Connection	Orifice, in.(mm)	Cv	Dimensions, in. (mm)					Pressure / Temperature Rating @ 100°F (38 °C)
				A	B	C	h	H	
SHPCV20-MP4	MP 1/4"	0.125 (3.18)	0.28	2.94 (74.68)	2.5 (63.5)	0.38 (9.65)	0.5 (12.7)	0.81 (20.6)	20,000 psig (1,379 bar)
SHPCV20-MP6	MP 3/8"	0.218 (5.54)	0.84	3.12 (79.25)	2.62 (66.55)	0.47 (11.94)	0.62 (15.75)	1 (25.4)	
SHPCV20-MP9	MP 9/16"	0.359 (9.12)	2.3	4.18 (106.17)	3.5 (88.9)	0.53 (13.46)	0.94 (23.9)	1.38 (35.05)	
SHPCV20-MP12	MP 3/4"	0.516 (13.11)	4.7	5.5 (139.7)	4.75 (120.65)	0.62 (15.75)	1.19 (30.2)	1.75 (44.45)	
SHPCV20-MP16	MP 1"	0.688 (17.48)	7.4	6.63 (168.4)	5.75 (146.05)	0.72 (18.29)	1.38 (35.05)	2.12 (53.85)	



SHPCV60 Series

Part No.	Connection	Orifice, in.(mm)	Cv	Dimensions, in. (mm)					Pressure / Temperature Rating @ 100°F (38 °C)
				A	B	C	h	H	
SHPCV60-HP4	HP 1/4"	0.094 (2.4)	0.15	3.38 (85.85)	2.50 (63.5)	0.5 (12.7)	0.63 (16)	1.18 (30)	60,000 psig (4,137 bar)
SHPCV60-HP6	HP 3/8"	0.125 (3.2)	0.28	3.75 (95.25)	2.62 (66.55)	0.53 (13.5)	0.75 (19.05)	1.18 (30)	
SHPCV60-HP9	HP 9/16"	0.187 (4.75)	0.63	4.62 (117.35)	3.38 (85.85)	0.81 (20.57)	1.12 (28.45)	1.5 (38.1)	

- 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.