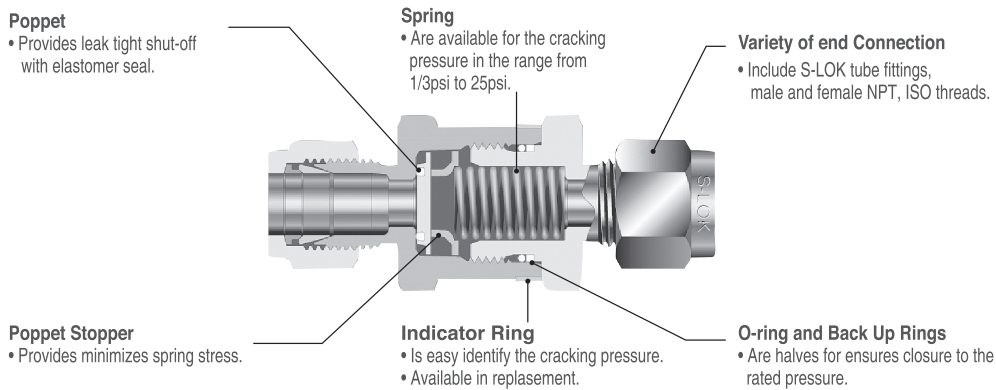


SCH60 Series High Pressure Check Valves

↗ Features

- Pressure rating up to 6000psi (413bar) @ 70°C(21°C).
- Temperature rating up to 375°F(191°C)with standard Viton O-ring.
- S316 Stainless steel body as standard.
- Suitable for gas and liquids.
- Cracking pressures include : 1/3, 1, 5, 10, 25psi.
- Heat code traceability.
- Every valve is 100% factory tested for cracking and reseal.



↗ Technical Data

Pressure and Temperating Ratings

Description	SS316		
	SCH1	SCH2	SCH3
Working Pressure and Back Pressure @ 70°F(21°C)	6000psi (413bar)		5000psi (344bar)
Operating Temperature Range	Viton : -10°F to 375°F (-23°C to 190°C)		
Nominal Cracking Pressure	1/3, 1, 5, 10, 25psig		

Optional O-ring Seal Materials

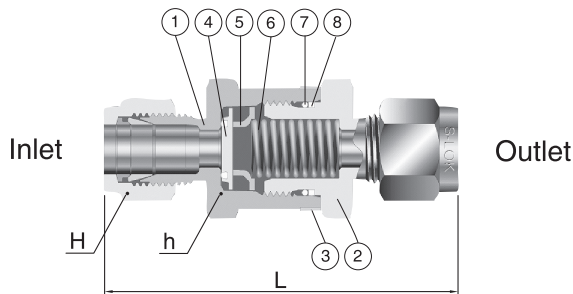
Material	Designator	Temperature Rating°C(°F)	Application
NBR	NB	-20°C to 105°C (-4°F to 221°F)	Petroleum-based hydraulic and lubricating oils, animals and vegetable oils, acetylene, alcohols, air, alkalis, fuel oils and many other media.
FKM (Viton)	VT	-23°C to 190°C (-10°F to 375°F)	High-quality compounds for high temperatures, Synthetic and hydraulic fluids; a wide range of chemicals, heavily oxidizing acids, suitable for vacuum.
EPDM	EP	-45°C to 148°C (-50°F to 300°F)	Chemical resistance : non amnable hydraulic fluids (Skydrol, Pydraul, Lindol, Cellulube 150, phosphoric esters), pure aniline, fire extinguisher liquids (chlorobromo-methane), acid ;excellent resistance to hot water and steam.
FFKM	KA	-20°C to 275°C (-4°F to 527°F)	Superior compounds for high temperature and most chemicals. This compound combines the chemical properties of PTFE with the mechanical properties of Viton.

* Viton is standard for S316 valves and NBR is standard for Brass valves.

↗ Testing

- Every valve is factory tested for cracking and reseal performance.

Materials of Construction



Item	Description	Materials
1	Body	SS316 / A479 or A276
2	Connector	
3	Indicator Ring	
4	Poppet	Viton-bonded SS316
5	Poppet Stopper	SS316 / A479 or A276
6	Spring	SS302 / A313
7	O-ring	Viton
8	Back Up Ring	PTFE

* Silicone-based Lubricant for poppet. Wetted parts are listed in orange color.

Dimensions

Basic Ordering Number	Orifice mm	Cv max.	End Connections			Pressure Rating psig(bar)	Dimensions, mm(inch)			
			Size	Inlet	Outlet		L	H	h	
SCH1	4.8	0.67	1/8"	S-LOK	6000(413)	61.7(2.43)	57.7(2.27)	(7/16)	(11/16)	
			1/4"	S-LOK			(9/16)			
			6mm	S-LOK			14.0			
			1/4"	Female NPT			54.1(2.13)	-		
			1/8"	Male NPT			45.5(1.79)			
			1/4"	Male NPT			55.1(2.17)			
SCH2	7.8	1.8	3/8"	S-LOK	6000(413)	68.6(2.70)	69.9(2.75)	(11/16)	(1)	
			1/2"	S-LOK			75.2(2.96)	(7/8)		
			8mm	S-LOK			68.6(2.70)	16.0		
			10mm	S-LOK			71.1(2.80)	19.0		
			12mm	S-LOK			75.2(2.96)	22.0		
			3/8"	Female NPT			5000(344)	64.8(2.55)		-
			1/2"	Female NPT	4600(316)	77.0(3.03)	(1-1/16)			
			3/8"	Male NPT	6000(413)	59.9(2.36)	(1)			
			1/2"	Male NPT		69.3(2.73)	(1)			
			1/2"	Female ISO	4600(316)	83.6(3.29)	(1-1/16)			
			1/2"	Male ISO	6000(413)	69.3(2.73)	(1)			
			SCH3	15.0	4.7	3/4"	S-LOK	5000(344)	88.4(3.48)	89.4(3.52)
1"	S-LOK	98.6(3.88)				(1-1/2)				
22mm	S-LOK	4300(296)				82.0(3.23)	-			
25mm	S-LOK	4100(282)				97.3(3.83)				
3/4"	Female NPT	5000(344)				83.6(3.29)	-			
1"	Female NPT					93.2(3.67)				
3/4"	Male NPT	4300(296)				82.0(3.23)	-			
1"	Male NPT					97.3(3.83)				
3/4"	Female ISO	5000(344)				85.1(3.35)	-			
1"	Female ISO					93.2(3.67)				
3/4"	Male ISO	5000(344)				85.1(3.35)	-			
1"	Male ISO					93.2(3.67)				

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

Nominal Spring Cracking Pressure		Applied Working Pressures				Reseal Pressure	
psi	bar	Min. Pressure psi	Max. Pressure bar	psi	bar	psi	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
5	0.34	3	0.21	9	0.62	Up to 2 Back pressure	0.14
10	0.69	7	0.48	15	1.03	3	0.21
25	1.72	20	1.38	30	2.07	17	1.17

Pressure-Temperature Ratings

Ratings based on Viton O-ring in SS316 stainless steel valves

Series	SCH1, SCH2	SCH3
Temperature °F(°C)	Working Pressure, psig (bar)	
-10(-23) to 100(37)	6000(413)	5000(344)
200(93)	5160(355)	4290(295)
250(121)	4910(338)	4080(281)
300(148)	4660(321)	3875(267)
375(190)	4375(301)	3640(250)
400(204)	4280(294)	3560(245)

Options

Sour Gas Service

- For sour gas application, materials for wetted components are selected according to NACE MR 0175.

Pressure Rating at 70°F(21°C)	SCH1 and SCH2 Series : 5000psig(344bar) SCH3 Series : 4700psig(323bar)
Temperature Rating	-50°F to 300°F(-45°C to 148°C)
Normal Cracking Pressure	1/3, 1, and 5psig(0.02, 0.07, 0.34bar)
End Connections	1/4, 3/8, 1/2, 3/4, and 1" S-LOK Tube Fittings
Material of Construction	Poppet stopper-SS316 Spring-Alloy X750 Back up ring-PTFE Indicator ring-stainless steel

To order, add designator-SG as a suffix to the basic part number with cracking pressure.

Example : SCH1-S-4T-1/3-SG-S6

Fluorocarbon-Free Service

- For system where, PTFE and fluorinated compounds can not be tolerated.

Pressure Rating at 70°C(21°C)	Same as standard product. (See standard technical data)
Temperature Rating	-50°F to 300°F(-45°C to 148°C)
Normal Cracking Pressure	Same as standard product. (See standard technical data)
End Connections	All end connection type and sizes. (See table of dimensions)
Material of Construction	Body, Poppet, Poppet stopper-SS316 Seals-ethylene propylene Spring-SS302 Back up ring-PEEK Indicator Ring-stainless steel Lubricant-hydrocarbon based

To order, add designator-FF as a suffix to the basic part number with cracking pressure.

Example : SCH1-S-4T-1/3-OF-S6

CNG / NGV Certifications

- CNG / NGV Check Valve Series with CNG / NGV Compatible HNBR O-ring are available with CNG / NGV Certifications

Certificates	ECE R110	ANSI NGV 3.1 - 2012	ISO 15500
Certificate No.	110R-010335	126842AUT16	126842MECH105
Classification	Class 0	Manual valve	Manual valve
Temperature	-40 to 120°C (-40 to 248°F)	-40 to 120°C (-40 to 248°F)	-40 to 120°C (-40 to 248°F)
Working Pressure	260 bar @ 120°C	248 bar @ 120°C	260 bar @ 120°C

Ordering Information



- SCH1~3** : Standard
- SCHC~3** : CNG/NGV Service

- 1/3** : 1/3psi
- 1** : 1psi
- 5** : 5psi
- 10** : 10psi
- 25** : 25psi
- NB** : NBR
Nil for Brass
- VT** : Viton
Nil for SS316
- EP** : EPDM
- KA** : FFKM

- SG** : Sour Gas Service
- OF** : Oil Free Service
- S6** : SS316 Stainless Steel
- BS** : Brass