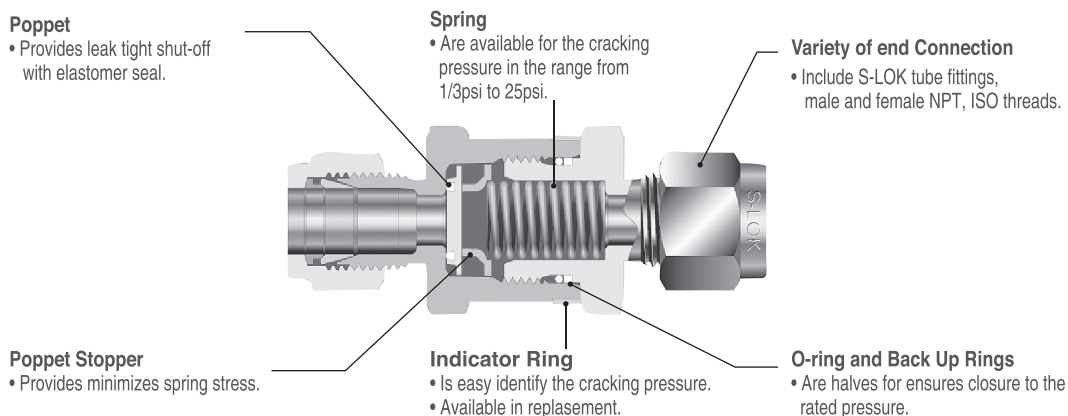


SCH60 Series High Pressure Check Valves

Features

- Pressure rating up to 6000psi (413bar) @70°C(21°C).
- Temperature rating up to 375°F(191°C)with standard FKM 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	FKM : -10°F to 375°F (-23°C to 190°C)		
Nominal Cracking Pressure	1/3, 1, 5, 10, 25psig		

Optional O-ring Seal Materials

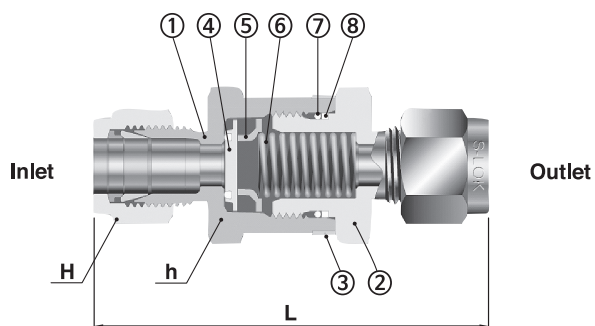
Material	Designator	Temperature Rating°C(°F)	Application
NBR	NB	-20°C to 105°C (-4°F to 221°F)	Petroleum-based hydraulic and lubricating oils, animals and vegetable oils, acetylene, alcohols, air, alkalis, fuel oils and many other media.
FKM (Viton)	VT	-23°C to 190°C (-10°F to 375°F)	High-quality compounds 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 : nonflammable 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	SS304
7	O-ring	FKM
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)	57.7(2.27)	(7/16)	(11/16)				
			1/4"	S-LOK								
			6mm	S-LOK								
			1/4"	Female NPT								
			1/8"	Male NPT								
			1/4"	Male NPT								
SCH2	7.8	1.8	3/8"	S-LOK	6000(413)	69.9(2.75)	(11/16)	(1)				
			1/2"	S-LOK								
			8mm	S-LOK								
			10mm	S-LOK								
			12mm	S-LOK								
			3/8"	Female NPT					5000(344)	64.8(2.55)		
			1/2"	Female NPT	4600(316)	77.0(3.03)						
			3/8"	Male NPT	6000(413)	59.9(2.36)	-		(1)			
			1/2"	Male NPT								
			1/2"	Female ISO						4600(316)	83.6(3.29)	
			1/2"	Male ISO						6000(413)	69.3(2.73)	
			SCH3	15.0						4.7	3/4"	S-LOK
1"	S-LOK											
22mm	S-LOK											
25mm	S-LOK											
3/4"	Female NPT	4300(296)			82.0(3.23)							
1"	Female NPT	4100(282)			97.3(3.83)							
3/4"	Male NPT	5000(344)			83.6(3.29)	-	(1-5/8)					
1"	Male NPT											
3/4"	Female ISO							4300(296)	82.0(3.23)			
1"	Female ISO							4100(282)	97.3(3.83)			
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	0.41
						Back pressure	
1	0.07	0	0	4	0.28	Up to 5	0.34
						Back pressure	
5	0.34	3	0.21	9	0.62	Up to 2	0.14
						Back pressure	
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 FKM 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-SS304 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** : FKM
Nil for SS316
- **EP** : EPDM
- **KA** : FFKM

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