



CHECK VALVES

HAM-LET H-400 SERIES

- H-400** General purpose fixed cracking pressure check valve (MAWP 3,000 psig)
- H-400 HP** High-performance fixed cracking pressure check valve (MAWP 6,000 psig)
- H-400 CNG** ECE R110 approved for CNG/NGV fixed cracking pressure check valve (MAWP 3,770 psig)
- H-400 OP** Compact one-piece fixed cracking pressure check valve (MAWP 3,000 psig)
- H-400 OPA** One-piece adjustable cracking pressure check valve (MAWP 3,000 psig)
- H-400 A** Adjustable cracking pressure check valve (MAWP 3,000 psig)



- ✓ Working pressures up to 6000 psig (413 bar)
- ✓ Wide range of O-ring materials with high resistance for a variety of applications
- ✓ Special Alloy material construction



GENERAL PURPOSE FIXED CRACKING PRESSURE CHECK VALVE H-400 SERIES

FEATURES

- Constructed from 316 stainless steel, brass, and specialty alloys.
- Rated for moderate pressure applications up to 3,000 psi (206 bar)
- Compact design
- Varying fixed cracking-pressure springs
- Variety of end connections
- A wide range of O-ring materials with high resistance for a variety of applications
- Back pressure rated at 1,000 psi for 1/4" size, and 200 psi for 3/8" to 1" sizes

MATERIALS OF CONSTRUCTION

for sizes 1/8"-1/2"

Item No.	Components	Qty.	Valve Body Material
1	Body ¹	1	SST 316
2	O-ring ¹	1	Fluorocarbon FKM
3	Poppet ¹	1	SST 316
4	A Spring 1/3 psi ¹	1	SST 304
	B Spring 3 psi ¹	1	SST 304
	C Spring 10 psi ¹	1	SST 304
	D Spring 25 psi ¹	1	SST 304
5	End ¹	1	SST 316
Lubricant		Silicone and PTFE based	

¹Wetted parts

GENERAL

The H-400 series is a compact check valve specifically designed for instrumentation applications. These valves are normally closed and open when the differential pressure between the inlet and outlet exceeds the spring's set pressure, allowing unrestricted flow through the valve.

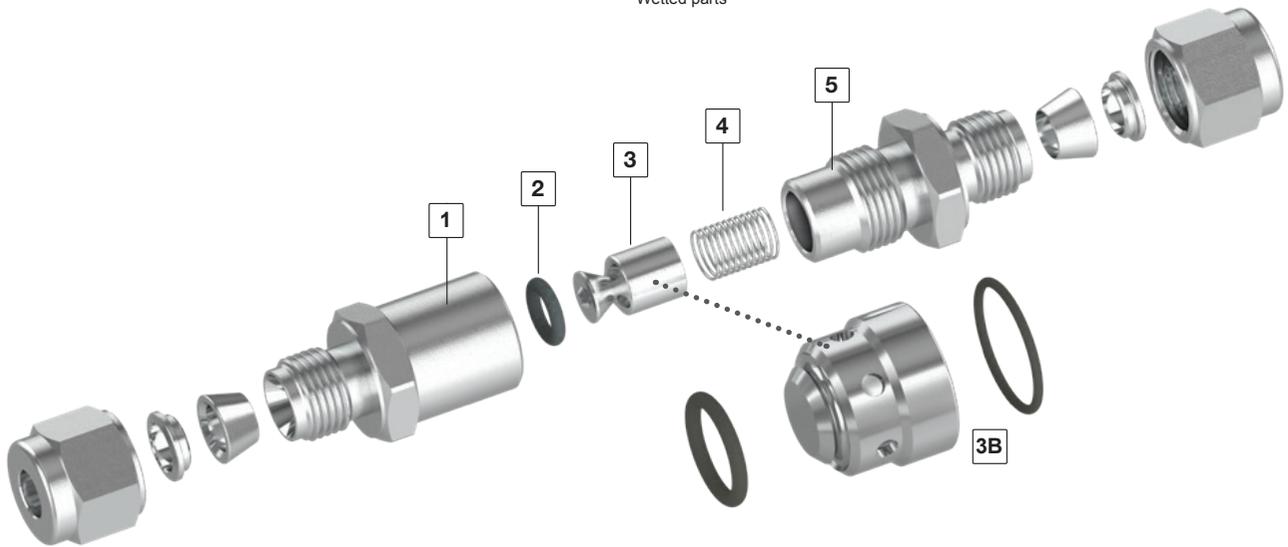
For vacuum applications, choose the H-400HP series.

MATERIALS OF CONSTRUCTION

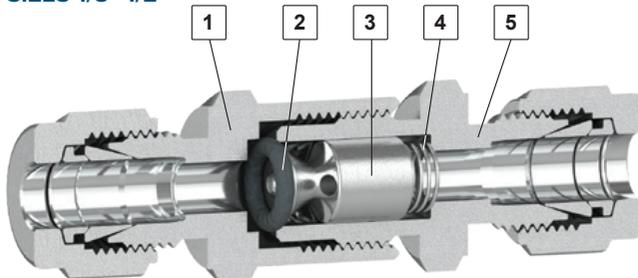
for sizes 3/4"-1"

Item No.	Components	Qty.	Valve Body Material
1	Body ¹	1	SST 316
2	O-ring ¹	1	Fluorocarbon FKM
3B	Poppet ¹	1	SST 316
4	A Spring 1/3 psi ¹	1	SST 304
	B Spring 3 psi ¹	1	SST 304
	C Spring 10 psi ¹	1	SST 304
	D Spring 25 psi ¹	1	SST 304
5	End ¹	1	SST 316
6	Upper O-ring ¹	1	Fluorocarbon FKM
Lubricant		Silicone and PTFE based	

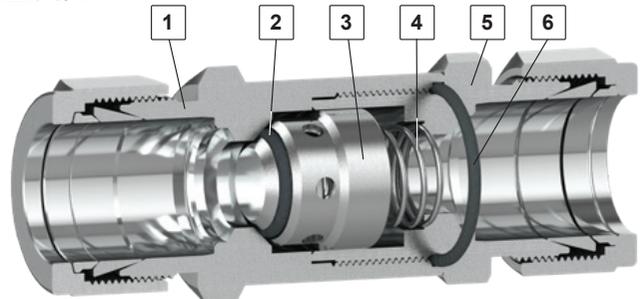
¹Wetted parts



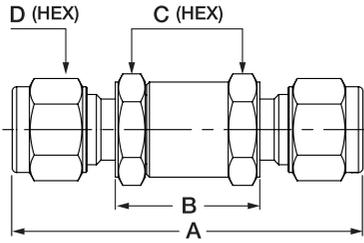
SIZES 1/8"-1/2"



SIZES 3/4"-1"



STANDARD CONFIGURATION DIMENSIONS



Valve Type	Connection / Size		Cv	A		B		C		D	
	Inlet	Outlet		mm	in	mm	in	mm	in	mm	in
H-400	1/8" LET-LOK	1/8" LET-LOK	0.1	56.0	2.20	25.3	1.00	15.88	5/8	11.11	7/16
H-400	1/4" LET-LOK	1/4" LET-LOK	0.47	60.5	2.38	25.0	0.98	15.88	5/8	14.28	9/16
H-400	6 mm LET-LOK	6 mm LET-LOK	0.47	60.5	2.38	25.0	0.98	15.88	5/8	14.00	-
H-400	3/8" LET-LOK	3/8" LET-LOK	1.47	63.5	2.50	24.9	0.98	17.46	11/16	17.46	11/16
H-400	8 mm LET-LOK	8 mm LET-LOK	1.47	63.3	2.49	24.9	0.98	17.5	11/16	16.00	-
H-400	10 mm LET-LOK	10 mm LET-LOK	1.68	64.0	2.52	24.9	0.98	17.46	11/16	19.00	-
H-400	1/2" LET-LOK	1/2" LET-LOK	1.68	77.0	3.03	32.6	1.28	23.8	15/16	22.23	7/8
H-400	12 mm LET-LOK	12 mm LET-LOK	1.68	77.0	3.03	32.8	1.28	23.8	15/16	22.00	-
H-400	3/4" LET-LOK	3/4" LET-LOK	4.48	88.5	3.48	44.4	1.75	28.6	1-1/8	28.60	1-1/8
H-400	1" LET-LOK	1" LET-LOK	4.48	120	4.72	67.2	2.65	34.9	1-3/8	38.10	1-1/2
H-400	1" LET-LOK high flow	1" LET-LOK high flow	7.9	120	4.72	67.2	2.65	41.28	1-5/8	38.10	1-1/2
H-410	1/8" female NPT	1/8" female NPT	0.1	44.0	1.73	25.4	1.00	15.88	5/8	-	-
H-410	1/4" female NPT	1/4" female NPT	0.47	52.5	2.07	28.0	1.10	19.05	3/4	-	-
H-410	3/8" female NPT	3/8" female NPT	1.47	51.5	2.03	34.1	1.34	22.23	7/8	-	-
H-410	1/2" female NPT	1/2" female NPT	1.68	76.5	3.01	43.4	1.71	28.6	1-1/8	-	-
H-410	3/4" female NPT	3/4" female NPT	4.48	86.0	3.39	56.0	2.20	34.9	1-3/8	-	-
H-410	1" female NPT	1" female NPT	4.48	107	4.21	73.0	2.87	41.28	1-5/8	-	-
H-410	1" female NPT high flow	1" female NPT high flow	7.9	107	4.21	67.2	2.65	41.28	1-5/8	-	-
H-480	1/8" male NPT	1/8" male NPT	0.1	44.3	1.74	24.9	0.98	15.88	5/8	-	-
H-480	1/4" male NPT	1/4" male NPT	0.47	55.7	2.19	25.0	0.98	19.05	3/4	-	-
H-480	3/8" male NPT	3/8" male NPT	1.47	53.1	2.09	24.9	0.98	17.46	11/16	-	-
H-480	1/2" male NPT	1/2" male NPT	1.68	70.4	2.77	32.6	1.28	23.8	15/16	-	-
H-480	1/4" male face seal	1/4" male face seal	0.47	56.4	2.22	24.9	0.98	15.88	5/8	-	-
H-480	1/2" male face seal	1/2" male face seal	1.68	68.2	2.69	32.6	1.28	23.8	15/16	-	-
H-485	1/8" male NPT	1/8" female NPT	0.1	44.3	1.74	25.4	1.0	15.88	5/8	-	-
H-485	1/4" male NPT	1/4" female NPT	0.47	53.7	2.11	27.3	1.07	19.05	3/4	-	-

Dimensions are for reference only and are subject to change.



GENERAL PURPOSE FIXED CRACKING PRESSURE CHECK VALVE H-400 SERIES

CRACKING PRESSURE

The differential pressure between the inlet and outlet, at which an initial flow passes through the valve.

RESEAL PRESSURE

The differential pressure between the outlet and inlet, at which no flow passes through the valve.

⚠ Lubricant-free cleaned valves have higher reseal pressure.

BACK PRESSURE

The differential pressure between the inlet and outlet pressures. Maximum allowable back pressure is rated to 1,000 psi (69 bar) for 1/4, and 200 psi (14 bar) for 3/8 to 1".

In systems where pulses, pressure shock or pressure surges occur, please select the H-400HP Series.

O-RINGS

Different materials are available for special applications.

O-Ring Material	Temperature Rating °F (°C)
Buna N	-10 to 250 (-23 to 121)
EPDM	-50 to 300 (-45 to 148)
Fluorocarbon FKM	-10 to 375 (-23 to 190)
Perfluor	-15 to 500 (-26 to 260)
Polychloroprene (CR)	-40 to 250 (-40 to 121)

MAWP PRESSURE AT 21°C (70°F)

Size	Brass psi (bar)	AISI 316 psi (bar)
1/8", 1/4", 3/8", 1/2", 5/8", 6mm, 8mm, 10mm, 12mm	3000 (207)	3000 (207)
3/4", 1", 16mm, 20mm, 22 mm	1500 (103)	2000 (138) ¹

¹CRN approved 1" female NPT is limited to 1,500 psi (103 bar)

CRACKING AND RESEAL PRESSURE

Nominal Cracking Pressure	Cracking Pressure Range	Reseal Pressure
psi (bar)	psi (bar)	psi (bar)
1/3 (0.02)	Up to 3 (0.2)	Up to 6 (0.40) back pressure
1 (0.06)	Up to 4 (0.27)	Up to 6 (0.41) back pressure
5 (0.34)	3 to 9 (0.20 to 0.62)	Up to 2 (0.13) back pressure
10 (0.68)	7 to 15 (0.48 to 1.0)	3 (0.2) or more inlet pressure
25 (1.7)	20 to 30 (1.3 to 2.0)	17 (1.1) or more inlet pressure

PRESSURE - TEMPERATURE RATING FOR STANDARD CONFIGURATIONS

1/8" TO 1/2", 3MM TO 12 MM

Material	316 SST	Brass
Temperature F° (C°)	Working Pressure, psi (bar)	
-10 (-23) to 100 (37)	3,000 (206)	3,000 (206)
200 (93)	2,575 (177)	2,600 (179)
250 (121)	2,450 (168)	2,405 (165)
300 (148)	2,325 (160)	-
375 (190)	2,185 (150)	-

3/4 TO 1 INCH, 18MM TO 25MM

Material	316 SST	Brass
Temperature F° (C°)	Working Pressure, psi (bar)	
-10 (-23) to 100 (37)	2,000 (137)	1,500 (103)
200 (93)	1,715 (118)	1,300 (89.5)
250 (121)	1,630 (112)	1,200 (82.6)
300 (148)	1,545 (106)	-
375 (190)	1,450 (99.9)	-

Note: Ratings based on Fluorocarbon FKM O-ring.

CLEANING & PACKAGING

Every H-400 series check valve is cleaned in accordance with Standard Cleaning and Packaging (Procedure 8184). Oxygen Clean & Lubricant-Free Cleaning and Packaging, in accordance with Special Cleaning and Packaging (Procedure 8185), is available as an option.

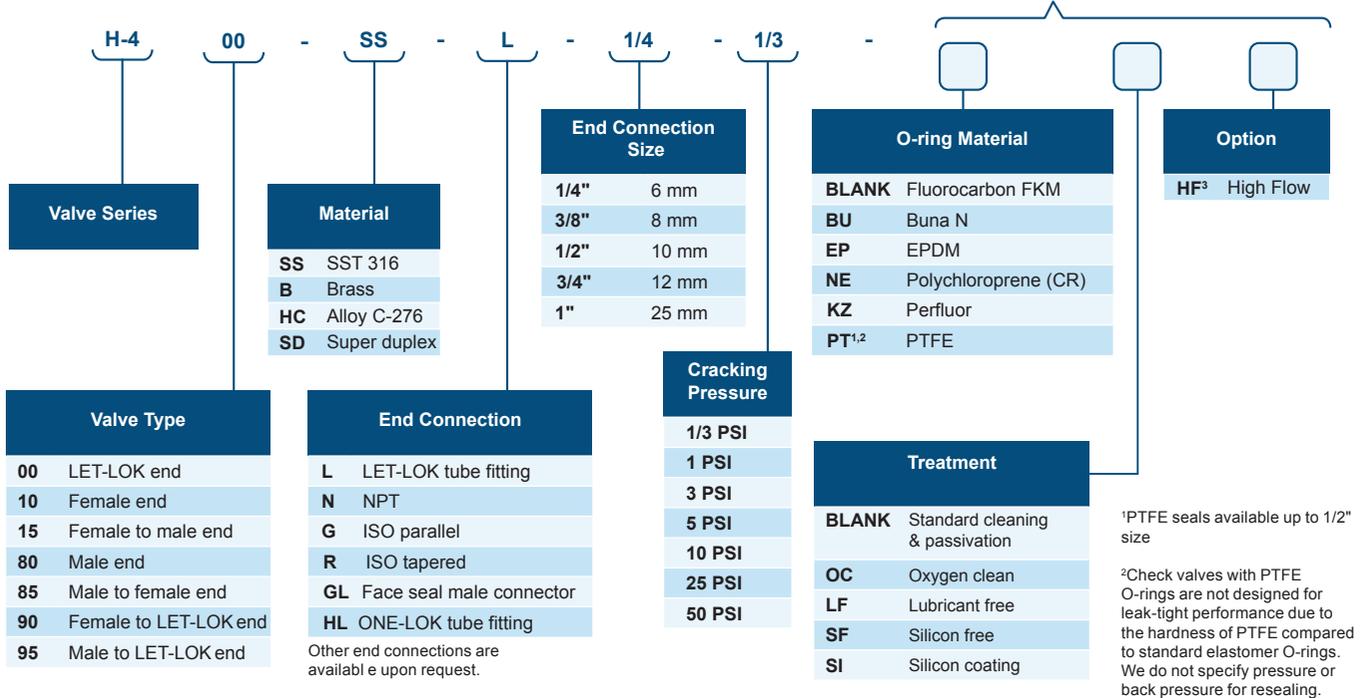
TESTING

The H-400 valve designs have been tested for pressure and burst.

Every H-400 valve is factory tested for proper assembly with nitrogen at 1,000 psig (68 bar) for 10 seconds. Every H-400 valve is factory tested for functionality at the relevant cracking pressure, each for five cycles.

No detectable leakage is allowed during shell test.

ORDERING INFORMATION H-400 SERIES



SPARE KITS

Series	End Size	Spring Kit ¹	O-Ring Kit ²
H-410 female ends H-490 female to Let-Lok	1/8"	Z-400-SPK-1/4-X PSI	Z-400-SK-1/4- □
	1/4", 3/8"	Z-400-SPK-3/8-X PSI	Z-400-SK-3/8- □
	1/2"	Z-410-SPK-1/2-X PSI	Z-410-SK-1/2- □
	3/4"	Z-410-SPK-3/4-X PSI	Z-410-SK-3/4- □
	1"	Z-410-SPK-1"-X PSI	Z-410-SK-1"- □
H-485 male to female H-415 female to male	1/8"	Z-400-SPK-1/4-X PSI	Z-400-SK-1/4- □
	1/4", 3/8"	Z-400-SPK-3/8-X PSI	Z-400-SK-3/8- □
	1/2"	Z-410-SPK-1/2-X PSI	Z-410-SK-1/2- □
	3/4"	Z-410-SPK-3/4-X PSI	Z-410-SK-3/4- □
H-400 Let-Lok H-480 male ends H-495 male to Let-Lok	1/8", 1/4", 6mm	Z-400-SPK-1/4-X PSI	Z-400-SK-1/4- □
	3/8", 8mm, 10mm	Z-400-SPK-3/8-X PSI	Z-400-SK-3/8- □
	1/2", 12mm	Z-400-SPK-1/2-X PSI	Z-400-SK-1/2- □
	3/4"	Z-400-SPK-3/4-X PSI	Z-400-SK-3/4- □
	1"	Z-410-SPK-1-X PSI	Z-410-SK-1- □

¹Spring Kit includes spring and label
²O-Ring Kit includes O-ring and label

X=Spring type per "How To Order"
 □=O-ring material per "How To Order"

⚠ **HAM-LET check valves should never be used as safety relief devices. These valves are not designed for pressure release.**

HIGH PERFORMANCE FIXED CRACKING PRESSURE CHECK VALVE H-400HP SERIES

FEATURES

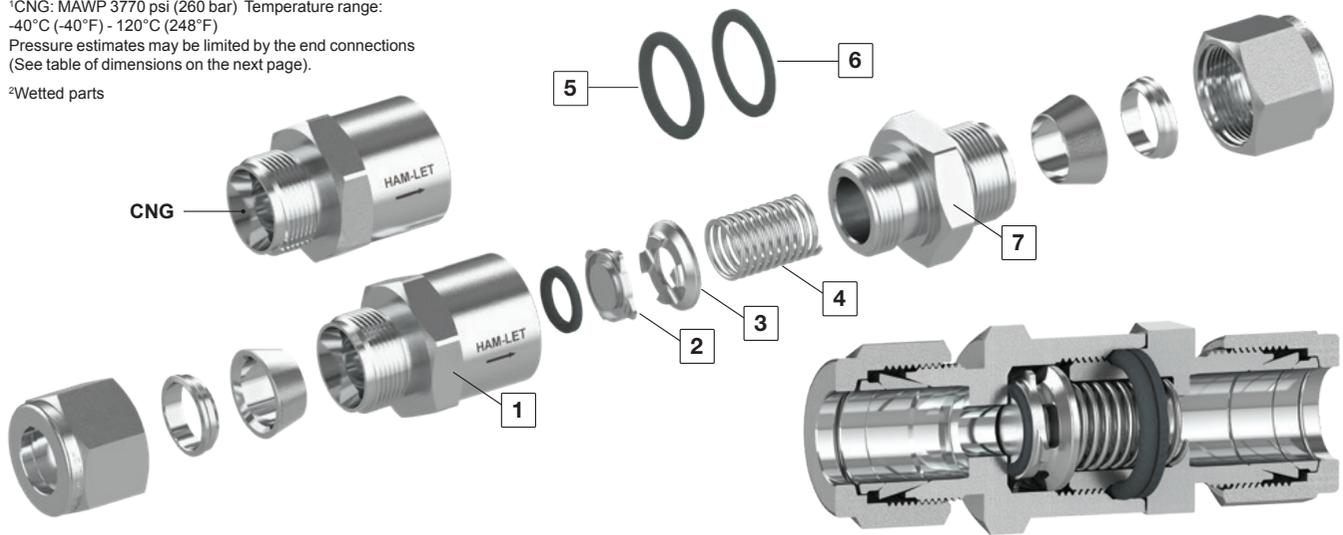
- Constructed from 316 stainless steel and specialty alloys
- Designed for high-pressure applications up to 6,000 psi (413 bar)
- Variable fixed cracking pressure
- Variety of end connection types
- Back pressure up to 6,000 psi (413 bar)
- Suitable for vacuum applications
- Certified to ECE R110 standards for CNG/NGV applications
- Complies with NACE MR0175/ISO 15156 standards

MATERIALS OF CONSTRUCTION

No.	Components	Qty.	Standard	CNG ¹
1	Body ²	1	SST ASTM A-479	SST ASTM A-479
2	Bonded ² poppet	1	Fluorocarbon FKM bonded on 316 SST	Low temperature Fluorocarbon FKM bonded on 316 SST
3	Pusher ²	1	SST ASTM A-479	SST ASTM A-479
4	Spring ²	1	SST 304	SST 304
5	O-ring ²	1	Fluorocarbon FKM	Low temperature Fluorocarbon FKM
6	Back Up ²	1	Fluorocarbon FKM	Fluorocarbon FKM
7	End ²	1	SST ASTM A-479	SST ASTM A-479
	Lubricant		Silicone and PTFE based	

¹CNG: MAWP 3770 psi (260 bar) Temperature range: -40°C (-40°F) - 120°C (248°F)
 Pressure estimates may be limited by the end connections (See table of dimensions on the next page).

²Wetted parts



GENERAL

The H-400HP series is a compact, durable, and heavy-duty valve engineered for high-pressure instrumentation panels and systems, supporting pressures up to 6,000 psi. These valves remain normally closed, opening only when the differential pressure between the inlet and outlet exceeds the spring's set pressure, allowing free flow through the valve. The H-400HP CNG model is specifically designed for CNG/NGV applications.

PRESSURE TEMPERATURE RATING¹

Material Size	316SS	
	1/8", 1/4", 3/8", 1/2", 6,8,10,12mm	22&25mm, 3/4&1"
Temperature F° (C°)	Working Pressure, psi (bar)	
-10 (-23) to 100 (37)	6,000 (413)	5,000 (344)
200 (93)	5,160 (355)	4,290 (296)
250 (121)	4,910 (338)	4,080 (281)
300 (148)	4,660 (321)	3,875 (267)
400 (204)	4,280 (295)	3,560 (245)

CRACKING AND RESEAL PRESSURE

Nominal Cracking Pressure	Cracking Pressure Range	Reseal Pressure
psi (bar)	psi (bar)	psi (bar)
1/3 (0.02)	Up to 3 (0.2)	Up to 6 (0.40) back pressure
1 (0.06)	Up to 4 (0.27)	Up to 4 (0.27) back pressure
5 (0.34)	3 to 9 (0.20 to 0.62)	Up to 2 (0.13) back pressure
10 (0.68)	7 to 15 (0.48 to 1.0)	3 (0.2) or more inlet pressure
25 (1.7)	20 to 30 (1.3 to 2.0)	17 (1.1) or more inlet pressure

TECHNICAL DATA

Connection Sizes	Max. Flow Coefficient (Cv)	Nominal Cracking Pressure psi (bar)	Back Pressure at 70°F (20°C) psi (bar)
1/8", 1/4", 6 mm	0.67	1/3, 1, 5, 10 & 25	6000 (413)
3/8", 1/2", 8-12 mm	1.80	(0.02, 0.06, 0.34,	
3/4", 1", 22 mm, 25 mm	4.7	0.68, and 7.1)	5000 (344)

RESEAL PRESSURE

The differential pressure between the outlet and inlet, at which no flow passes through the valve.

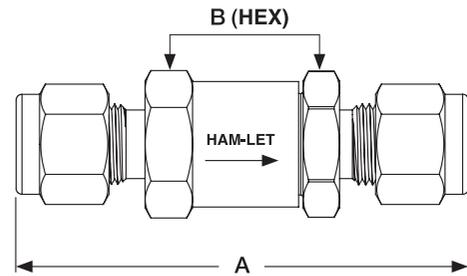
- ⚠ Lubricant-free cleaned valves have higher reseal pressure.
- ⚠ If valves are not actuated for a long period of time, the initial cracking pressure may be higher than the set cracking pressure.

CRACKING PRESSURE

The differential pressure between the inlet and outlet, at which an initial flow passes through the valve.

CLEANING & PACKAGING

Every H-400HP series check valve is cleaned in accordance with Standard Cleaning and Packaging (Procedure 8184). Oxygen Clean & Lubricant-Free Cleaning and Packaging, in accordance with Special Cleaning and Packaging (Procedure 8185), is available as an option.



STANDARD CONFIGURATION DIMENSIONS

Valve Type	Inlet	Outlet	Pressure Ratings at 100F° / 37C° psig (bar)	Dimensions		
				A		B
				mm	in	in
H-400HP	1/8" LET-LOK	1/8" LET-LOK	6000 (413)	57.8	2.28	11/16
	1/4" LET-LOK	1/4" LET-LOK		61.8	2.43	
	3/8" LET-LOK	3/8" LET-LOK		70.0	2.76	1
	1/2" LET-LOK	1/2" LET-LOK		75.3	2.96	
	3/4" LET-LOK	3/4" LET-LOK	5000 (344)	89.5	3.52	1 5/8
	1" LET-LOK	1" LET-LOK	4700 (323)	98.5	3.88	
	6mm LET-LOK	6mm LET-LOK	6000 (413)	61.8	2.43	11/16
	8mm LET-LOK	8mm LET-LOK		68.5	2.70	1
	10mm LET-LOK	10mm LET-LOK		71.1	2.80	
	12mm LET-LOK	12mm LET-LOK		75.3	2.96	
	25mm LET-LOK	25mm LET-LOK		5000 (344)	88.5	3.48
	25mm LET-LOK	25mm LET-LOK	4700 (323)	98.5	3.88	
H-410HP	1/4" female NPT/BSPT	1/4" female NPT/BSPT	6000 (413)	54.1	2.13	11/16
	3/8" female NPT/BSPT	3/8" female NPT/BSPT	5000 (344)	64.8	2.55	1
	1/2" female NPT/BSPT	1/2" female NPT/BSPT	4600 (316)	83.6	3.03	1
	3/4" female NPT/BSPT	3/4" female NPT/BSPT	4300 (296)	90.1	3.23	1 5/8
	1" female NPT/BSPT	1" female NPT/BSPT	4100 (282)	97.3	3.83	
	1/4" female BSPP	1/4" female BSPP	6000 (413)	58.0	2.28	11/16
	1/2" female BSPP	1/2" female BSPP	4600 (316)	83.5	3.29	1
	3/4" female BSPP	3/4" female BSPP	4300 (296)	90.1	3.55	1 5/8
	1" female BSPP	1" female BSPP	4100 (282)	97.4	3.83	
	1/2" female SAE/MS	1/2" female SAE/MS	4600 (316)	69.5	2.74	1
H-480HP	1/8" male NPT/BSPT	1/8" male NPT/BSPT	6000 (413)	45.6	1.80	11/16
	1/4" male NPT/BSPT	1/4" male NPT/BSPT	6000 (413)	55.0	2.17	
	3/8" male NPT/BSPT	3/8" male NPT/BSPT		60.0	2.36	1
	1/2" male NPT/BSPT	1/2" male NPT/BSPT		6000 (413)	69.2	
	3/4" male NPT/BSPT	3/4" male NPT/BSPT	5000 (344)	83.5	3.29	1 5/8
	1" male NPT/BSPT	1" male NPT/BSPT		93.3	3.67	
	1/4" male BSPP	1/4" male BSPP	6000 (413)	55.0	2.17	3/4
	1/2" male BSPP	1/2" male BSPP	5000 (344)	69.2	2.72	1
	3/4" male BSPP	3/4" male BSPP		85.2	3.35	1 5/8
	1" male BSPP	1" male BSPP		93.3	3.67	
	1/2" male SAE/MS	1/2" male SAE/MS	6000 (413)	63.0	2.48	1
	1/4" male HO fitting	1/4" male HO fitting		50.4	1.98	11/16
	1/2" male HO fitting	1/2" male HO fitting		59.8	2.35	1
	3/4" male HO fitting	3/4" male HO fitting		5000 (344)	73.6	2.90
	1" male HO fitting	1" male HO fitting	73.6		2.90	
	1/4" male face seal	1/4" male face seal	6000 (413)		58.0	2.28
	1/2" male face seal	1/2" male face seal	3500 (241)	69.2	2.72	1
	3/4" male face seal	3/4" male face seal	3000 (206)	96.1	3.78	1 5/8

Dimensions are for reference only and are subject to change.

HIGH PERFORMANCE FIXED CRACKING PRESSURE CHECK VALVE H-400HP SERIES



O-RINGS

Different materials are available for special applications.

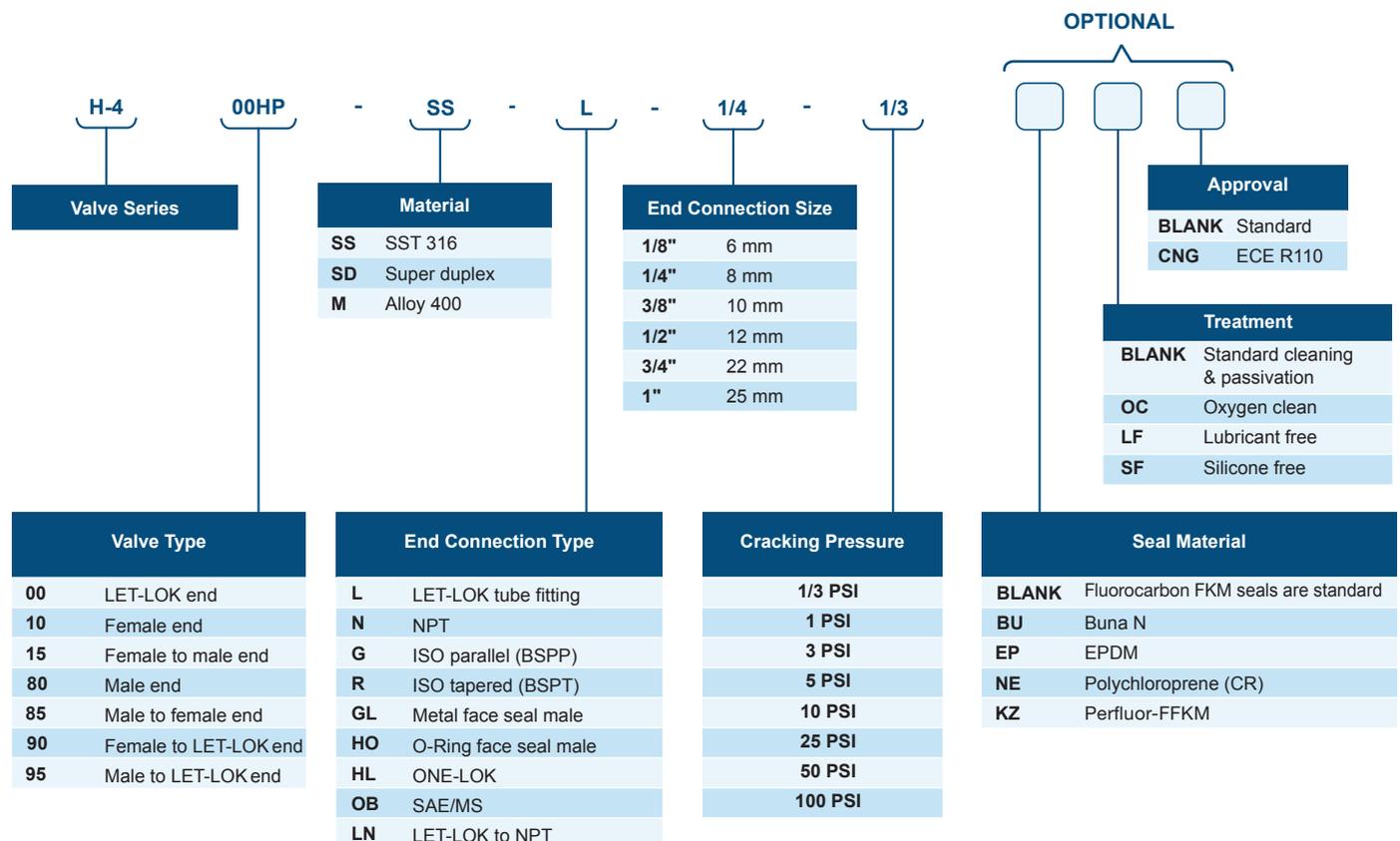
O-Ring Material	Temperature Rating °F (°C)
Buna N	-10 to 250 (-23 to 121)
EPDM	-50 to 300 (-45 to 148)
Fluorocarbon FKM	-10 to 400 (-23 to 204)
Polychloroprene (CR)	-40 to 250 (-40 to 121)

TESTING

The H-400HP valve design has been tested for pressure and burst. Every H-400HP valve is factory tested for proper assembly with nitrogen at 1,000 psig (68 bar) for 10 seconds. No detectable leakage is allowed during shell test.

Every H-400HP valve is factory tested for functionality at the relevant cracking pressure, five cycles each. No detectable leakage is allowed during shell test.

ORDERING INFORMATION H-400HP SERIES



Note: Check valves are designed and suitable for direct flow control only. These valves are not meant for pressure release.

ORDERING INFORMATION SPARE PARTS KIT/REPAIR KIT

SEAL KIT

The kit includes o-ring, back-up and bonded poppet and label.

Z - 400HP - SK - 1/4 - VI

Body Designator per End Connection		Seal Material	
1/4"	For 1/8", 1/4", 6 mm	VI	Fluorocarbon FKM
1/2"	For 3/8", 1/2", 10 mm, 12 mm	BU	Buna N
3/4"	For 3/4", 1", 25 mm	NE	Polychloroprene (CR)
		EP	EPDM

SPRING KIT

The kit includes spring & label.

Z - 400HP - SPK - 1/4 - 1/3

Body Designator per End Connection		Cracking Pressure	
1/4"	For 1/8", 1/4", 6 mm	1/3 PSI	
1/2"	For 3/8", 1/2", 10 mm, 12 mm	1 PSI	
3/4"	For 3/4", 1", 25 mm	3 PSI	
		5 PSI	
		10 PSI	
		25 PSI	
		50 PSI	
		100 PSI	

WARNING!

The system designer and user have the sole responsibility for selecting products suitable for their special application requirements, ensuring their safe and trouble-free installation, operation, and maintenance. Application details, material compatibility and product ratings should all be considered for each selected product. Improper selection, installation or use of products can cause property damage or personal injury.

UCT check valves should never be used as safety relief devices.

COMPACT ONE-PIECE FIXED CRACKING PRESSURE CHECK VALVE H-400OP SERIES

FEATURES

- One-piece check valve designed for moderate pressure (up to 3,000 psi (20 bar))
- SST 316 and brass construction
- Fixed cracking pressure
- A wide range of O-ring materials with high resistance for a variety of applications
- Back pressure rated at 1,000 psi for 1/4" size, and 200 psi for 3/8" to 1" sizes

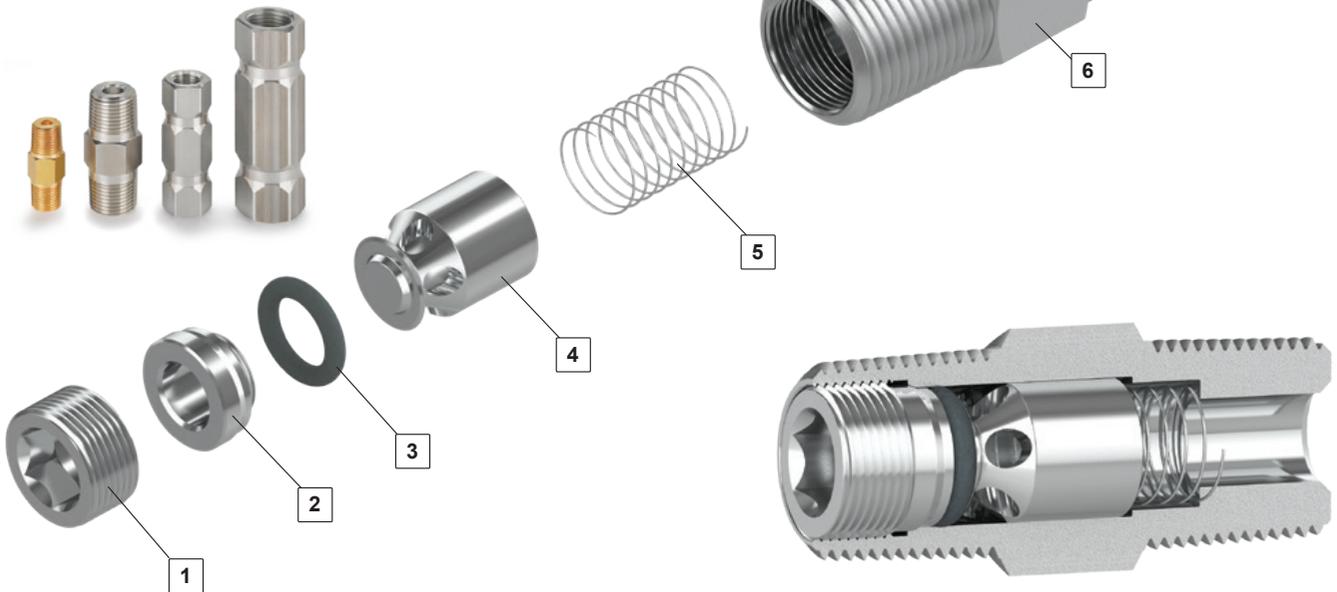
GENERAL

The H-400OP series is a compact one-piece check valve designed for moderate pressure (up to 3,000 psi) instrumentation panels and systems. H-400OP valves are normally closed. When the differential pressure between the inlet and the outlet is higher than the set pressure of the spring, the poppet will open and allow flow through the valve. For vacuum applications, please select the H-400HP series.

MATERIALS OF CONSTRUCTION

Item No.	Components	Qty.	Valve Body Material	
			316 SST	Brass
1	Lock Screw ¹	1	SST 304	Brass ASTM B-16
2	O-Ring ¹ holder	1	SST ASTM A-479	
3	O-Ring ¹	1	Fluorocarbon FKM	
4	Poppet ¹	1	SST ASTM A-479	
5	Spring ¹	1	SST 302	
6	Body ¹	1	SST ASTM A-479	Brass ASTM B-16
	Lubricant ¹		Silicone and PTFE based	

¹Wetted parts



O-RINGS

Different materials are available for special applications.

O-ring Material	Temperature Rating °F (°C)
Buna N	-10 to 250 (-23 to 121)
Ethylene Propylene (EPDM)	-50 to 300 (-45 to 148)
Fluorocarbon FKM	-10 to 375 (-23 to 190)
Perfluor	-15 to 500 (-26 to 260)
Polychloroprene (CR)	-40 to 250 (-40 to 121)

TECHNICAL DATA

Connection Sizes	Max. Flow Coefficient (Cv)	Nominal Cracking Pressure psi (bar)	Back Pressure at 70°F (20°C) psi (bar)
1/4"	0.35	1/3, 1, 10 & 25	3,000 (207)
1/2"	1.20	(0.02, 0.06, 0.68, and 7.1)	

⚠ If valves are not actuated for a long period of time, the initial cracking pressure may be higher than the set cracking pressure.

CLEANING & PACKAGING

Every H-400OP series check valve is cleaned in accordance with Standard Cleaning and Packaging (Procedure 8184). Oxygen Clean & Lubricant-Free Cleaning and Packaging, in accordance with Special Cleaning and Packaging (Procedure 8185), is available as an option.

TESTING

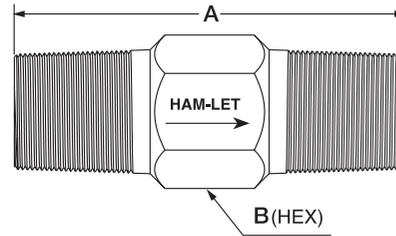
The H-400OP valve design has been tested for proof and burst. Every H-400OP valve is factory tested for proper assembly with nitrogen at 1,000 psig (68 bar) for 10 seconds.

Every H-400OP valve is factory tested for functionality at the relevant cracking pressure, five cycles each. No detectable leakage is allowed during shell test.

STANDARD CONFIGURATION DIMENSIONS

End Connection Inlet / Outlet	Size	Dimensions		
		A		B
		mm	in	in
Female NPT	1/4"	61.0	2.4	3/4
	1/2"	94.0	3.7	11/16
Male NPT	1/4"	41.0	1.61	9/16
	1/2"	58.0	2.28	7/8
Female / Male NPT	1/4"	58.0	2.28	3/4
Male / Female NPT	1/4"	44.5	1.75	3/4
	1/2"	72.0	2.83	11/16
Female BSPT	1/4"	61.0	2.54	3/4
Male BSPT	1/2"	41.0	1.61	9/16

Dimensions are for reference only and are subject to change.



PRESSURE TEMPERATURE RATING

Material	316 SST	Brass
Temperature F° (C°)	Working Pressure, psi (bar)	
-10 (-23) to 100 (37)	3,000 (206)	3000 (206)
200 (93)	2,575 (177)	2600 (179)
250 (121)	2,450 (168)	2405 (165)
300 (148)	2,325 (160)	-
375 (190)	2,185 (150)	-

CRACKING AND RE-SEAL PRESSURE

Nominal Cracking Pressure	Cracking Pressure Range	Reseal Pressure
psi (bar)	psi (bar)	psi (bar)
1/3 (0.02)	Up to 3 (0.2)	6 to 20 (0.41 to 1.3) back pressure
1 (0.06)	Up to 4 (0.27)	5 to 20 (0.34 to 1.3) back pressure
10 (0.68)	7 to 13 (0.48 to 0.89)	3 to 10 (0.2 to 0.68) back pressure
25 (1.7)	21 to 29 (1.4 to 1.9)	5 (0.34) or more inlet pressure

CRACKING PRESSURE

The differential pressure between the inlet and outlet, at which an initial flow passes through the valve.

RESEAL PRESSURE

The differential pressure between the outlet and inlet, at which no flow passes through the valve.

COMPACT ONE-PIECE FIXED CRACKING PRESSURE CHECK VALVE H-400OP SERIES

ORDERING INFORMATION H-400OP SERIES

OPTIONAL

H-4 00OP - SS - N - 1/4 - 1/3 - [] - []

Valve Series	Material	End Connection Size	Treatment
H-4	SS SST 316	1/4"	BLANK Standard cCleaning & passivation
00OP	B Brass	1/2"	OC Oxygen clean
			SF Silicone free
			LF treatment is available for H-400 and H-400HP series only

Valve Type	End Connection	Cracking Pressure	Seal Material
00 Let-Lok	N Threaded NPT	1/3 PSI	BLANK Fluorocarbon FKM Seals are standard
10 Female end	R ISO Tapered (BSPT)	1 PSI	BU Buna N
80 Male end		5 PSI	EP EPDM
85 Male to female		10 PSI	NE Polychloroprene (CR)
		25 PSI	KZ Perfluor
		50 PSI	

Note: Check valves are designed and suitable for direct flow control only. These valves are not meant for pressure release.

ORDERING INFORMATION SPARE KITS

SEAL KIT

The kit includes o-ring and label.

Z - 400OP - SK - 1/4 - VI

Body Designator per End Connection	Seal Material
1/4"	VI Fluorocarbon FKM
1/2"	BU Buna N
	EP EPDM
	NE Polychloroprene (CR)
	KZ Perfluor

SPRING KIT

The kit includes spring & label.

Z - 400OP - SPK - 1/4 - 1/3

Body Designator per End Connection	Cracking Pressure
1/4"	1/3 PSI
1/2"	1 PSI
	5 PSI
	10 PSI
	25 PSI
	50 PSI

Springs for other cracking pressures are available upon request.

WARNING!

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ONE-PIECE ADJUSTABLE CRACKING PRESSURE CHECK VALVE H-400OPA SERIES

FEATURES

- One-piece body
- 316 SST and brass construction
- Variable adjustable cracking pressure ranges
- Pressure rating up to 3,000 psi (206 bar)
- A wide range of O-ring materials with high resistance for a variety of applications

GENERAL

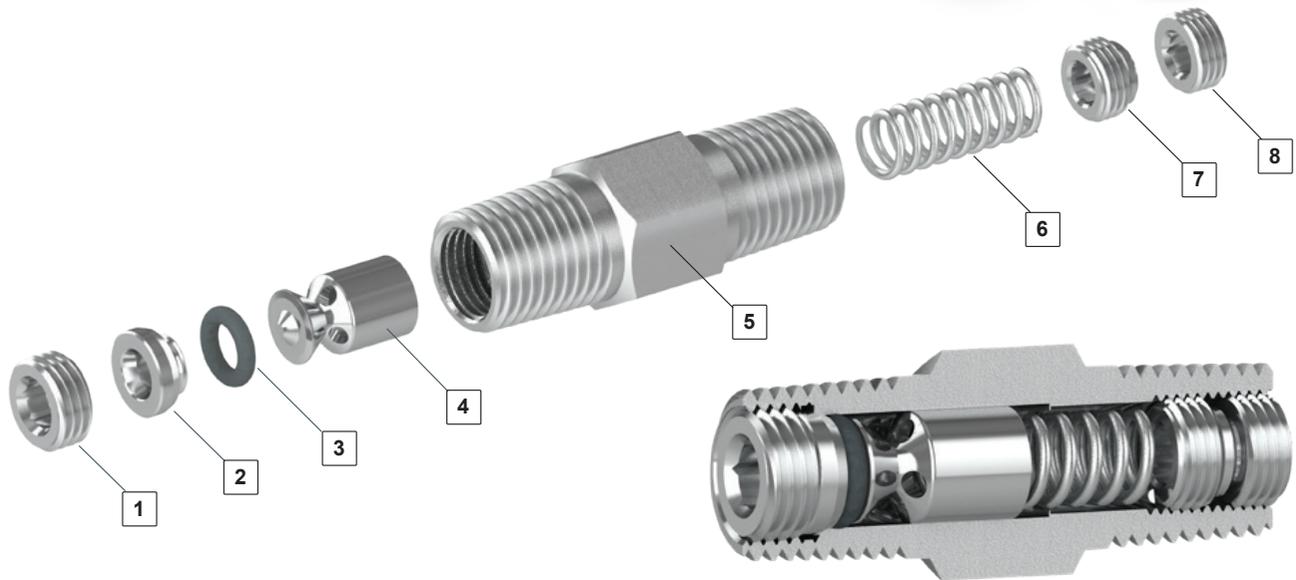
The H-400OPA series is a compact one-piece check valve designed for moderate-pressure up to 3,000 psi (206 bar) instrumentation panels and systems. H-400OPA valves are normally closed. When the differential pressure between the inlet and the outlet is higher than the set pressure of the spring, the poppet will open and allow for flow through the valve.

For vacuum applications, please select the H-400HP series.

MATERIALS OF CONSTRUCTION

Item No.	Components	Qty.	Valve Body Material	
			316 SST	Brass
1	Inlet lock screw ¹	1	SST 304	Brass ASTM B-16
2	O-ring holder ¹	1	SST ASTM A-479	Brass ASTM B-16
3	O-ring ¹	1	Fluorocarbon FKM	
4	Poppet ¹	1	SST ASTM A-479	
5	Body ¹	1	SST ASTM A-479	Brass ASTM B-16
6	Spring ¹	1	SST 302	
7	Adjusting screw ¹	1	SST 304	
8	Lock screw ¹	1	SST 304	
	Lubricant ¹		Silicone and PTFE based	

¹Wetted parts



PRESSURE TEMPERATURE RATING

Material Size	316 SST		Brass	
	Working Pressure, psig (bar)			
-10 (-23) to 100 (37)	3,000 (206)		3000 (206)	
200 (93)	2,575 (177)		2600 (179)	
250 (121)	2,450 (168)		2405 (165)	
300 (148)	2,325 (160)		-	
375 (190)	2,185 (150)		-	

O-RINGS

O-Ring Material	Temperature Rating °F (°C)
Buna N	-10 to 250 (-23 to 121)
EPDM	-50 to 300 (-45 to 148)
Fluorocarbon FKM	-10 to 375 (-23 to 190)
Perfluor	-15 to 500 (-26 to 260)
Polychloroprene (CR)	-40 to 250 (-40 to 121)

Different materials are available for special applications.

ONE-PIECE ADJUSTABLE CRACKING PRESSURE CHECK VALVE H-400OPA SERIES

CLEANING & PACKAGING

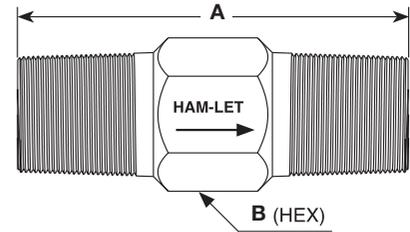
HAM-LET H-400OPA valves are treated with HAM-LET Passivation, Cleaning and Packaging (Procedure 8075).

HAM-LET H-400OPA valves with face-seal end connections are treated with HAM-LET Oxygen Cleaning and Packaging (Procedure 8055). Oxygen Cleaning and Packaging for other end connections are available as an option.

STANDARD CONFIGURATION DIMENSIONS

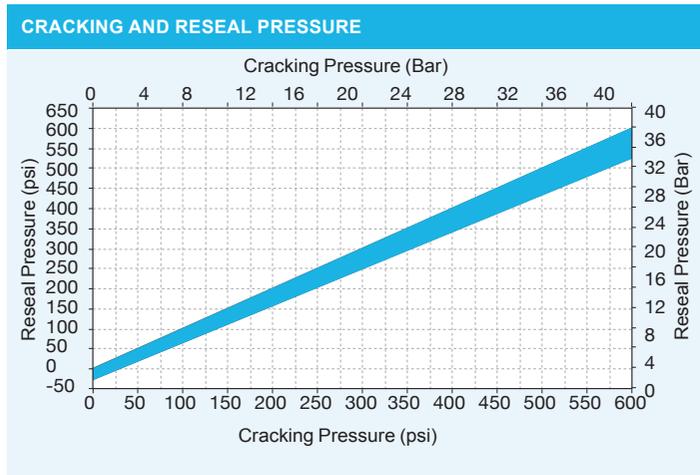
End Connection	Size Inlet / Outlet	Dimensions		
		A		B
		mm	in	in
Female NPT	1/4"	75.5	2.97	3/4
Male NPT	1/4"	41	1.61	9/16
	1/2"	65	2.55	7/8
Male BSPT	1/4"	41	1.61	9/16
	1/2"	65	2.55	7/8

Dimensions are for reference only and are subject to change.



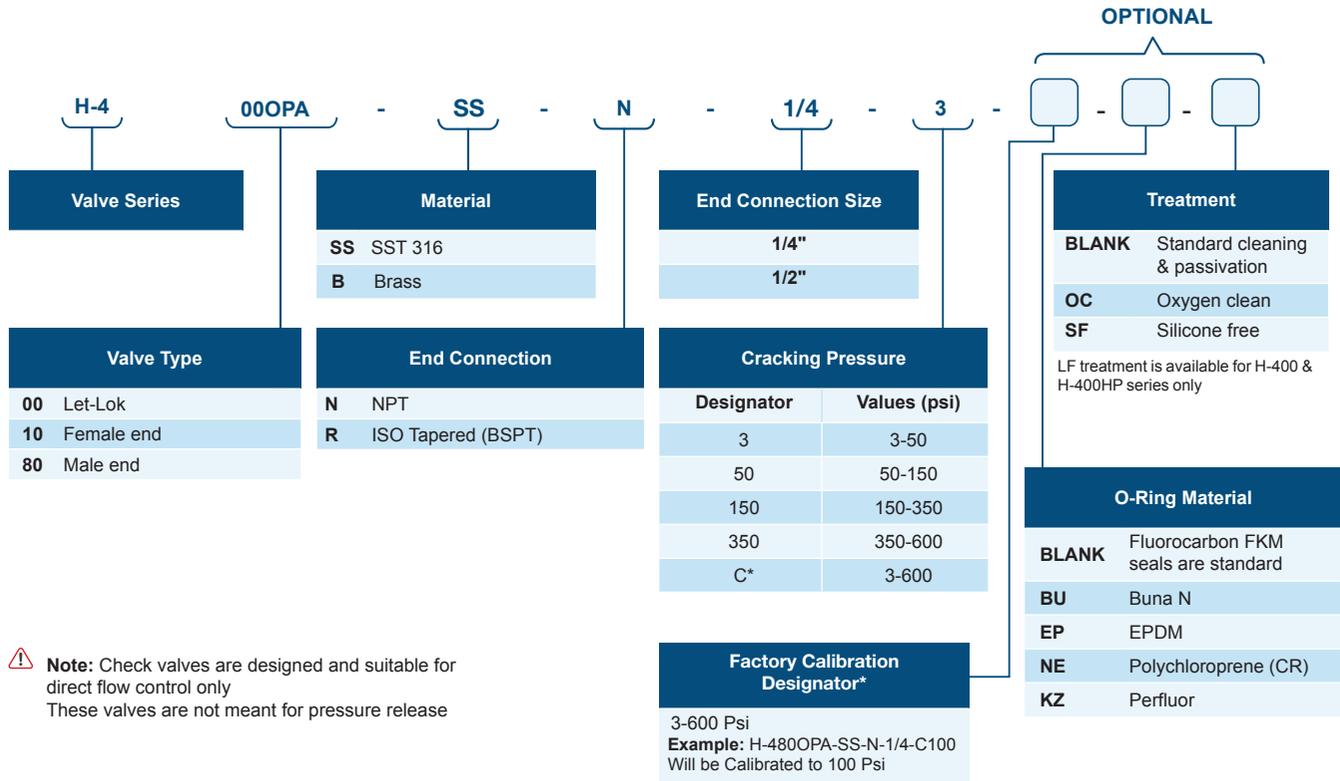
TECHNICAL DATA

End Connection Size	Max. Flow Coefficient (Cv)	Nominal Cracking Pressure psi (bar)	Back Pressure at 70°F (20°C) psi (bar)
1/4"	0.35	3 to 50 (0.2 to 3.4)	3,000 (207)
		50 to 150 (3.4 to 10.3)	
1/2"	1.20	150 to 350 (10.3 to 24.1)	
		350 to 600 (24.1 to 41.3)	



⚠ If valves are not actuated for a long period of time, the initial cracking pressure may be higher than the set cracking pressure. There may be a slight change in cracking and resealing pressures from the catalog ranges.

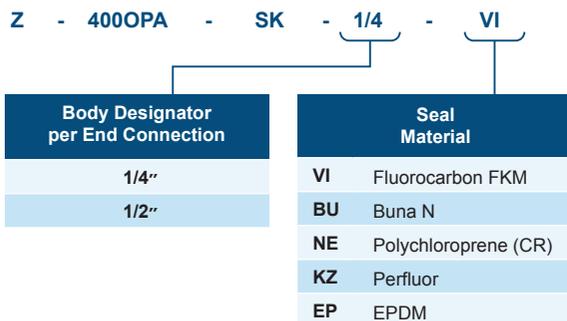
ORDERING INFORMATION H-400OPA SERIES



ORDERING INFORMATION SPARE KITS

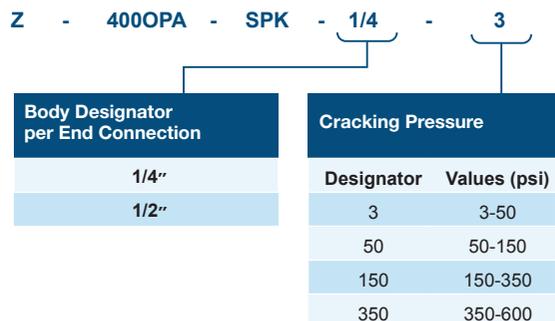
SEAL KIT

The kit includes o-ring and label



SPRING KIT

The kit includes spring and label.



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ADJUSTABLE CRACKING PRESSURE CHECK VALVE H-400A SERIES

FEATURES

- 316 SST and brass construction
- Adjustable cracking pressure ranges
- Pressure rating up to 3,000 psi (206 bar)
- Verity end connection :Let-Lok® Fittings, Male NPT, Metal gasket face seal male and more
- Back pressure 1000 psi for 1/4"
- A wide range of O-ring materials with high resistance for a variety of applications

GENERAL

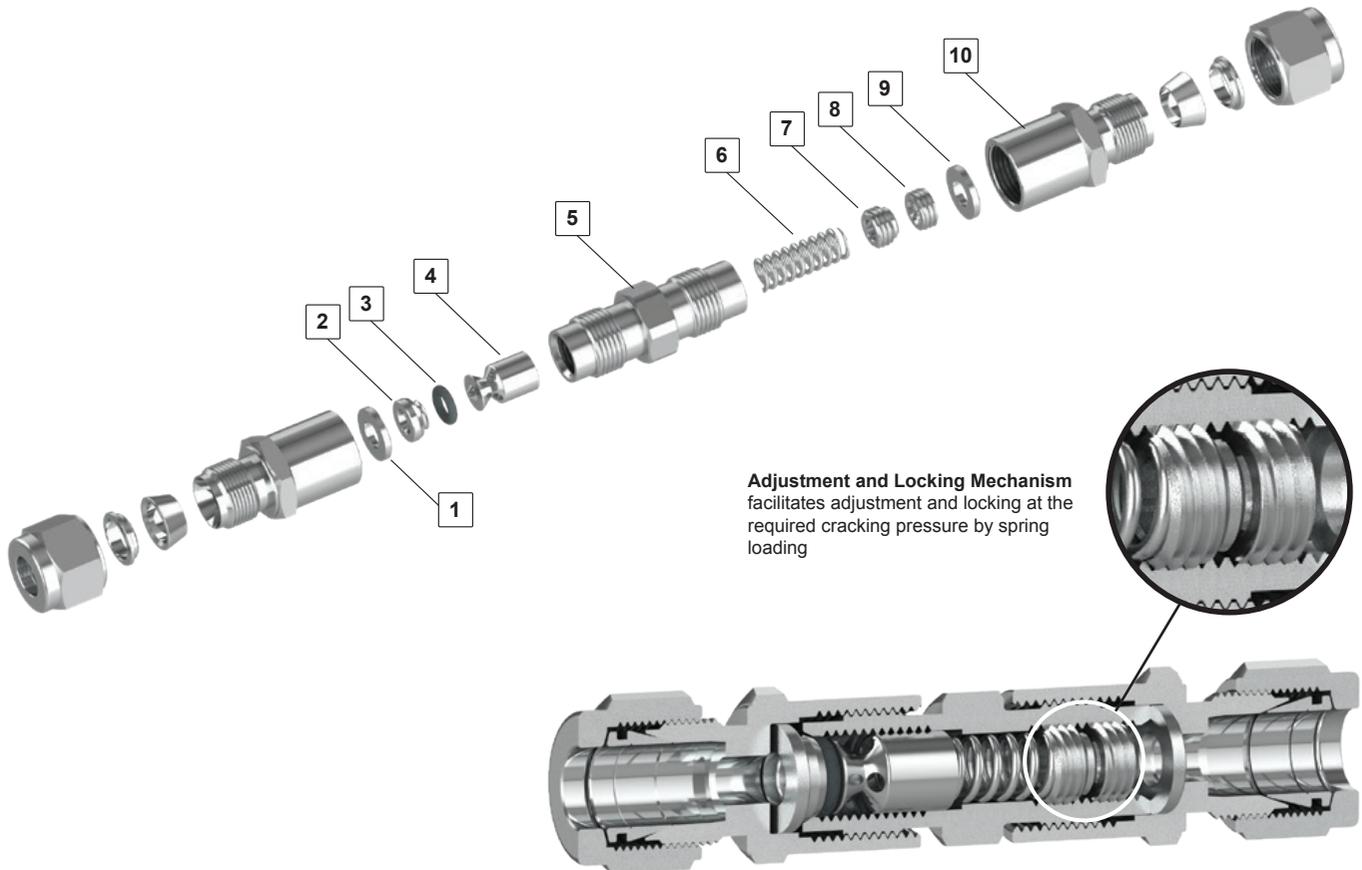
The H-400A series is a compact check valve designed for moderate-pressure (up to 3,000 psi) instrumentation panels and systems, which provides an accurate and adjustable operating point. H-400A valves are normally closed. When the differential pressure between the inlet and the outlet is higher than the set pressure of the spring, the poppet will open and allow flow through the valve.

MATERIALS OF CONSTRUCTION

Item No.	Components	Qty.	Valve Body Material	
			316 SST	Brass
1	Gasket ¹	1	316 SST Silver plated	Al-6061 Silver Pplated
2	O-ring Holder ¹	1	SST ASTM A-479	Brass ASTM B-16
3	O-ring ¹	1	Fluorocarbon FKM	
4	Poppet ¹	1	SST ASTM A-479	
5	Body ¹	1	SST ASTM A-479	Brass ASTM B-16
6	Spring ¹	1	SST 302	
7	Adjusting Screw ¹	1	SST 304	
8	Lock Screw ¹	1	SST 304	
9	Gasket ¹	1	316 SST silver plated	Al-6061 silver plated
10	End ¹	2	SST ASTM A-479	Brass ASTM B-16
	Lubricant ¹		Silicone and PTFE based	

PRESSURE - TEMPERATURE RATING FOR STANDARD CONFIGURATIONS		
Material Size	316 SST	Brass
Temperature F° (C°)	Working Pressure, psi (bar)	
-10 (-23) to 100 (37)	3000 (206)	3000 (206)
200 (93)	2575 (177)	2600 (179)
250 (121)	2450 (168)	2405 (165)
300 (148)	2325 (160)	-
375 (190)	2185 (150)	-

¹Wetted parts



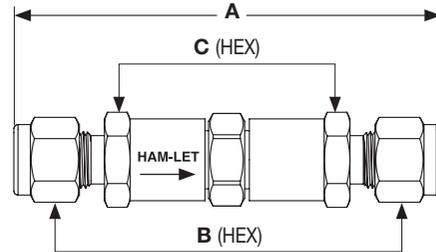
CLEANING & PACKAGING

Every H-400OA series check valve is cleaned in accordance with Standard Cleaning and Packaging (Procedure 8184). Oxygen Clean & Lubricant-Free Cleaning and Packaging, in accordance with Special Cleaning and Packaging (Procedure 8185), is available as an option.

DIMENSIONS

Inlet	Outlet	A		B	C
		mm	in	Hex	Hex
1/4" LET-LOK	1/4" LET-LOK	82.5	3.25	9/16	5/8
6 mm LET-LOK	6 mm LET-LOK	82.5	3.25	14 mm	5/8
8 mm LET-LOK	8 mm LET-LOK	84.4	3.32	16 mm	5/8
1/4 male NPT	1/4 LET-LOK	79.3	3.12	9/16	5/8
1/4 male face seal	1/4 male face seal	78.4	3.09	-	5/8
1/4 male NPT	1/4 male NPT	75.7	2.98	-	5/8

Dimensions are for reference only and are subject to change.



TECHNICAL DATA

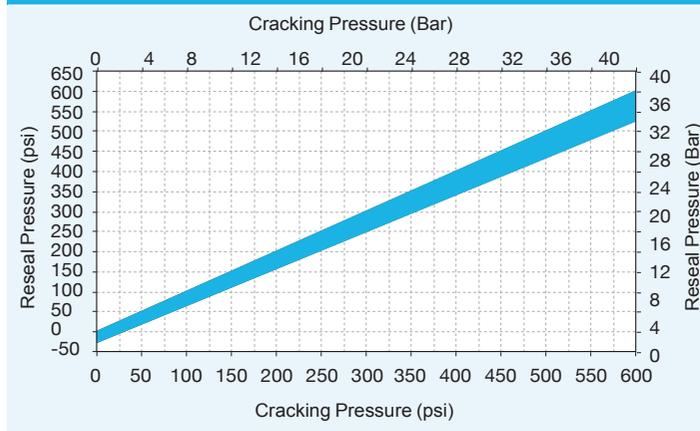
Connection Size	Max. Flow Coefficient (Cv)	Nominal Cracking Pressure psi (bar)	Back Pressure at 70°F (20°C) psi (bar)
1/4", 6mm, 8mm	0.37	3 to 50 (0.2 to 3.4)	3000 (413)
		50 to 150 (3.4 to 10.3)	
		150 to 350 (10.3 to 24.1)	
		350 to 600 (24.1 to 41.3)	

O-RINGS

O-Ring Material	Temperature Rating °F (°C)
Buna N	-10 to 250 (-23 to 121)
EPDM	-50 to 300 (-45 to 148)
Fluorocarbon FKM	-10 to 375 (-23 to 190)
Perfluor	-15 to 500 (-26 to 260)
Polychloroprene (CR)	-40 to 250 (-40 to 121)

Different materials are available for special applications.

CRACKING AND RESEAL PRESSURE



⚠ If valves are not actuated for a long period of time, the initial cracking pressure may be higher than the set cracking pressure. There may be a slight change in cracking and resealing pressures from the catalog ranges.



ADJUSTABLE CRACKING PRESSURE CHECK VALVE H-400A SERIES

TESTING

The H-400A valve design has been tested for pressure and burst. Every H-400A valve is factory tested for proper assembly with nitrogen at 1,000 psig (68 bar) for 10 seconds.

Every H-400A valve is factory tested for functionality at the relevant cracking pressure, five cycles each. No detectable leakage is allowed during shell test.

ORDERING INFORMATION H-400A SERIES

OPTIONAL

H-4 **00A** - **SS** - **L** - **1/4** - **50** - [] - [] - []

Valve Series	H-4
Valve Type	00 LET-LOK end 80 Male end For other valve types please consult UCT Fluid Solutions.
Material	SS SST 316 B Brass
End Connection Size	L LET-LOK tube fitting N NPT R ISO tapered (BSPT) GL Metal Gasket Face Seal Male HL One-Lok Tube Fittings G ISO Parallel (BSPP) Other end connections are available upon request.
End Connection Size	1/4" 3/8" 6 mm 8 mm
Cracking Pressure	Designator Values (psi)
Factory Calibration Designator*	3-600 Psi Example: H-400A-SS-L-1/4-C60 Will be calibrated to 60 psi
Treatment	BLANK Standard cleaning & passivation OC Oxygen clean SF Silicone free LF treatment is available for H-400 & H-400HP series only
O-ring Material	BLANK Fluorocarbon FKM seals are standard BU Buna N EP EPDM NE Polychloroprene (CR) KZ Perfluor

Note: Check valves are designed and suitable for direct flow control only. These valves are not meant for pressure release.

ORDERING INFORMATION SPARE KITS

SEAL KIT

The kit includes o-ring and label.

Z - **400A** - **SK** - **1/4** - **VI**

Body Designator per End Connection	1/4" For all dimensions
Seal Material	VI Fluorocarbon FKM EP EPDM NE Polychloroprene (CR) KZ Perfluor BU Buna N

SPRING KIT

The kit includes spring and label.

Z - **400A** - **SPK** - **1/4** - **3**

Body Designator per End Connection	1/4" For all dimensions										
Cracking Pressure	<table border="1"> <thead> <tr> <th>Designator</th> <th>Values (psi)</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3-50</td> </tr> <tr> <td>50</td> <td>50-150</td> </tr> <tr> <td>150</td> <td>150-350</td> </tr> <tr> <td>350</td> <td>350-600</td> </tr> </tbody> </table>	Designator	Values (psi)	3	3-50	50	50-150	150	150-350	350	350-600
Designator	Values (psi)										
3	3-50										
50	50-150										
150	150-350										
350	350-600										

WARNING!

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