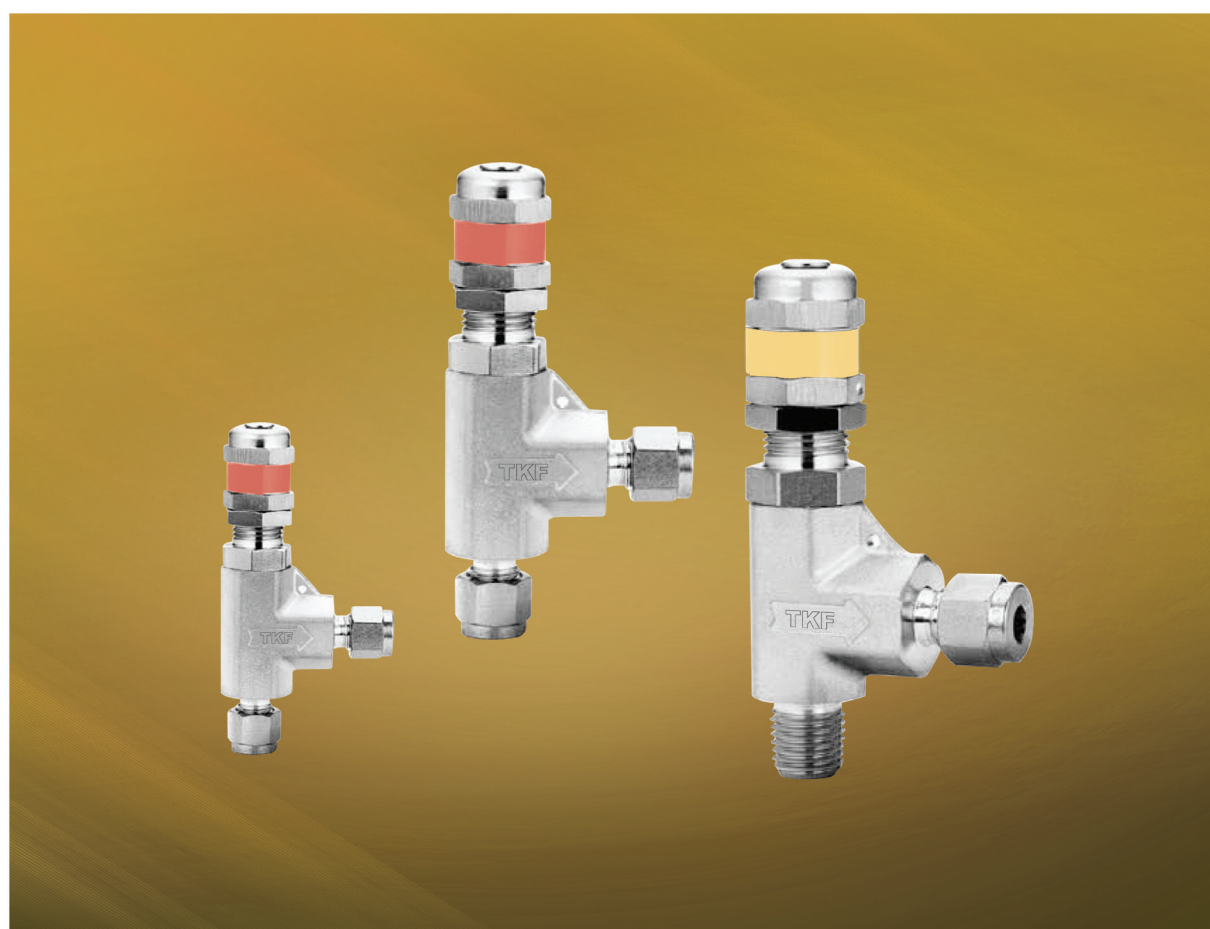




Relief Valves

RVL/RVH SERIES



RVL/RVH SERIES

- Maximum Working Pressure
RVL SERIES : 300 psig (20.6 bar) @ 100°F (37°C)
RVH SERIES : 6000psig (420 bar) @ 100°F (37°C)
- Working Temperature Range : -10°F(-23°C) to 300°F(148°C)
- Cracking Pressure
RVL SERIES : 10 psig (0.68 bar) to 225 psig (15.5 bar)
RVH SERIES : 50psig (3.4 bar) to 6000 psig (413 bar)

Features

RVL Series (Low-Pressure Valves)

- Service up to 300 psig (20.6 bar)
- One spring for the full set pressure range

RVH Series (High-Pressure Valves)

- Service up to 600 psig (413 bar)
- Multiple springs for a selection of set pressure ranges

Technical Data

Temperature - Working Pressure Rating

Series	RVH1	RVH2	RVL1 and RVL2
Working Pressure at 70°F (20°C)	6000 psig (413 bar)	6000 psig (413 bar)	300psig (20.6 bar)
Set Pressure	50 to 6000 psig (3.4 to 413 bar)	50 to 1500 psig (3.4 to 103 bar)	10 to 225 psig (0.68 to 15.5 bar)
Outlet Pressure	1500 psig (103 bar)	2500 psig (172 bar)	225 psig(15.5 bar)
Seal Material	FKM	FKM	FKM
Temperature, °F (°C)	Maximum Set Pressure, psig (bar)		
10 (-12)	-	-	225 (15.5)
25 (-4)	6000 (413)	1500 (103)	
30 (-1)			
50 (10)			
150 (65)			
200 (93)	5580 (384)		
250 (121)	5160 (355)		
275 (135)	4910 (338)		
300 (148)	-		-

Set Pressure Rating

No.	Spring Color	Set Pressure		
		psig	bar	Mpa
A	Blue	50 to 350	3.4 to 24.1	0.34 to 2.41
B	Yellow	350 to 750	24.1 to 51.7	2.41 to 5.17
C	Purple	750 to 1500	51.7 to 103	5.17 to 10.3
D	Orange	1500 to 2250	103 to 155	10.3 to 15.5
E	Brown	2250 to 3000	155 to 206	15.5 to 20.6
F	White	3000 to 4000	206 to 275	20.6 to 27.5
G	Red	4000 to 5000	275 to 344	27.5 to 34.4
H	Green	5000 to 6000	340 to 413	34.4 to 41.3

Set Pressure and Resealing Pressure

- Set pressure is the upstream pressure at which the first indication of flow occurs.
Set pressure of each valve after initial relief is repeatable within $\pm 5\%$ at room temperature.
- Resealing pressure is the upstream pressure at which there is no indication of flow. Resealing pressure is always lower
Resealing pressure is always lower than set pressure.

Testing

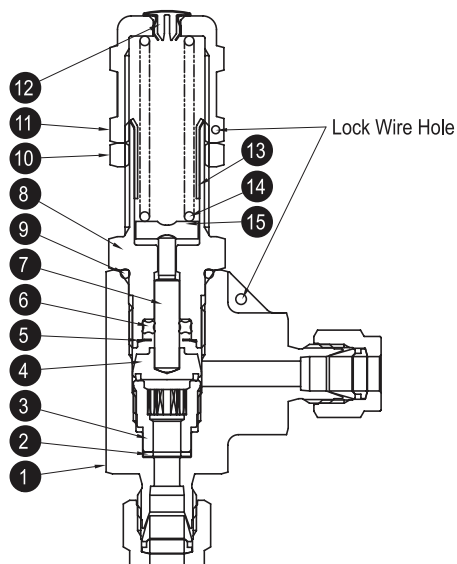
- Every valve is factory tested for set and reseal performance.

Cleaning and Packaging

- Every valve is cleaned and packaged in accordance with the standard specification of cleaning and packaging.

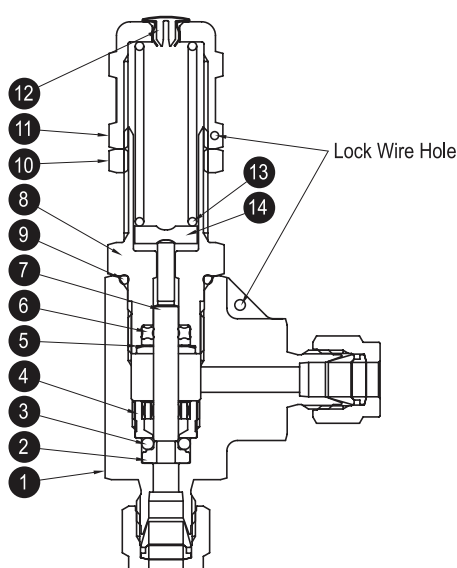
Materials of Construction

RVL Series (Low-Pressure Valves)



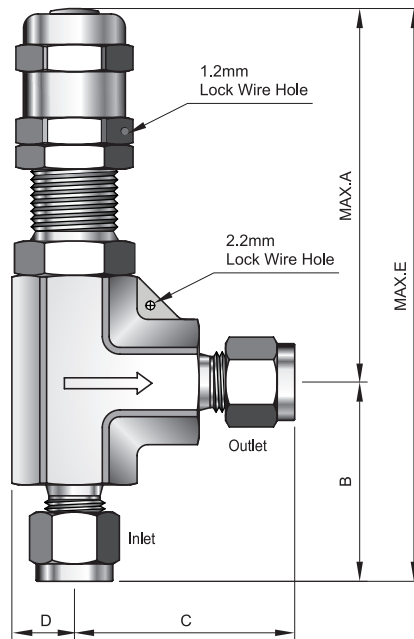
No.	Material Grade / ASTM Specification		No.	Material Grade / ASTM Specification	
	Description	Material		Description	Material
1	Body	316SS/A182	8	Bonnet	316SS/A479
2	Gasket	316SS/A240	9	O-ring	FKM
3	Seat	316SS/A479	10	Lock Nut	316SS/A276
4	Disc Ass'y	316SS/A479 + FKM	11	Cap	316SS/A479
5	Retainer	RVL1 Series 304SS/A666	12	Plug	Nylon6
		RVL2 Series 316SS/A479	13	Sleeve	304SS/A240
6	X-ring	FKM	14	Spring	S17700SS / AMS 5678
7	Stem	316SS/A479	15	Spring Support	316SS/A276

RVH Series (High-Pressure Valves)



No.	Material Grade / ASTM Specification		No.	Material Grade / ASTM Specification	
	Description	Material		Description	Material
1	Body	316SS/A182	8	Bonnet	316SS/A479
2	Insert	316SS/A479	9	O-ring	FKM
3	O-ring	FKM	10	Lock Nut	316SS/A276
4	Seat Retainer	316SS/A479	11	Cap	316SS/A479
5	Retainer	RVH1 Series 304SS/A666	12	Plug	Nylon6
		RVH2 Series 316SS/A479	13	Spring	S17700SS / AMS 5678
6	X-ring	FKM	14	Spring Support	316SS/A276
7	Stem	316SS/A479			

Dimensions



RVL Series (Low-Pressure Valves)

Ordering Number		Orifice in. (mm)	End Connections		Dimensions in. (mm)					
Series	Part No.		Inlet	Outlet	A	B	C	D	E	
RVL1	4SW		1/4" LoK		2.74 (69.6)	1.44 (36.6)	1.60 (40.5)	0.45 (11.5)	4.18 (106.2)	
	6MSW		6mm Lok							
	8MSW		8mm Lok							
	4NM	4SW	1/4" Male NPT	1/4" Lok		1.19 (30.2)	1.17 (29.7)		3.89 (98.8)	
	4NM	4NF	1/4" Male NPT	1/4" Female NPT						
	4PTM	4PTF	1/4" Male ISO ^① Tapered	1/4" Female ISO ^① Tapered						
RVL2	8SW		1/2" Lok		4.09 (104)	1.83 (46.5)	1.83 (46.5)	0.52 (13.3)	5.92 (150)	
	12MSW		12mm Lok							
	8NM	8SW	1/2" Male NPT	1/2" Lok		1.43 (36.3)	1.43(36.3)		5.52 (150)	
	8NM	8NF	1/2" Male NPT	1/2" Female NPT						

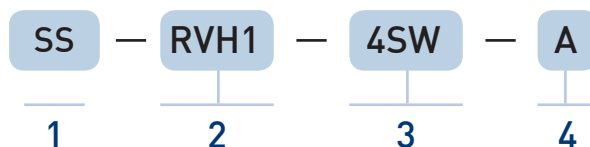
① Refer to specifications ISO 7/1, BS EN 10226-1, DIN-2999, and JIS B0203.

RVH SERIES (High-Pressure Valves)

Ordering Number		Orifice in. (mm)	End Connections		Dimensions in. (mm)					
Series	Part No.		Inlet	Outlet	A	B	C	D	E	
RVH1	4SW		1/4" LoK		2.74 (69.6)	1.44 (36.6)	1.60 (40.5)	0.45 (11.5)	4.18 (106.2)	
	6MSW		6mm Lok							
	8MSW		8mm Lok							
	4NM	4SW	1/4" Male NPT	1/4" Lok		1.19 (30.2)	1.17 (29.7)		3.89 (98.8)	
	4NM	4NF	1/4" Male NPT	1/4" Female NPT						
	4PTM	4PTF	1/4" Male ISO ^③ Tapered	1/4" Female ISO ^③ Tapered						
RVH2	8SW		1/2" Lok		4.09 (104)	1.83 (46.5)	1.83 (46.5)	0.52 (13.3)	5.92 (150)	
	12MSW		12mm Lok							
	8NM	8SW	1/2" Male NPT	1/2" Lok		1.43 (36.3)	1.43(36.3)		5.52 (150)	
	8NM	8NF	1/2" Male NPT	1/2" Female NPT						

① Refer to specifications ISO 7/1, BS EN 10226-1, DIN-2999, and JIS B0203.

Ordering Information



1. Body Material

Material	Designator
316SS	SS

2. Valve Series

Orifice Size	Designator
4.8 mm	RVL1
	RVH1
6.4 mm	RVL2
	RVH2

* The Orifice Size is determined using valves with TKSCT tube fitting end connections.

* For more details, See the Dimensions Table.

3. Inlet/Outlet Connection Size & Type

Inlet/Outlet Connection Size	Designator
1/4"	4
1/2"	8
6mm	6M
8mm	8M
12mm	12M

Inlet/Outlet Connection Type	Designator
Lok	SW
Male NPT	NM
Female NPT	NF
Male ISO ^① Tapered	PTM
Female ISO ^① Tapered	PTF

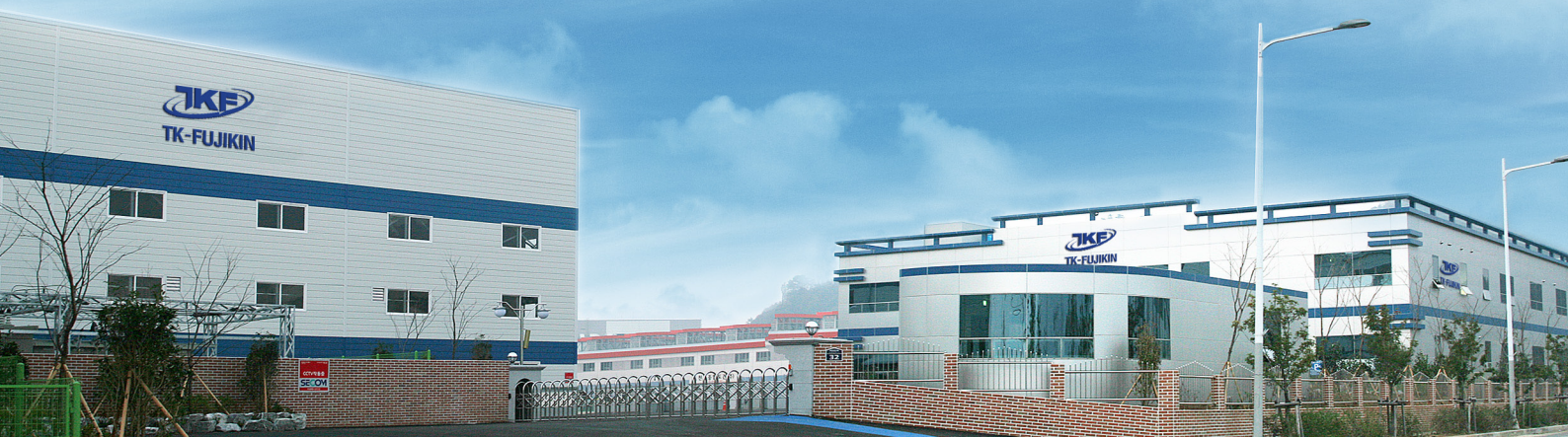
① Refer to specifications ISO 7/1, BS EN 10226-1, DIN-2999, and JIS B0203.

4. Spring Specifications

Set Pressure Range	Spring Color	Designator
50 to 350 psi	Blue	A
350 to 750 psi	Yellow	B
750 to 1500 psi	Purple	C
1500 to 2250 psi	Orange	D
2250 to 3000 psi	Brown	E
3000 to 4000 psi	White	F
4000 to 5000 psi	Red	G
5000 to 6000 psi	Green	H

* No spring/cracking pressure designator is required for RVL low pressure series valves.

RELIEF VALVES



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