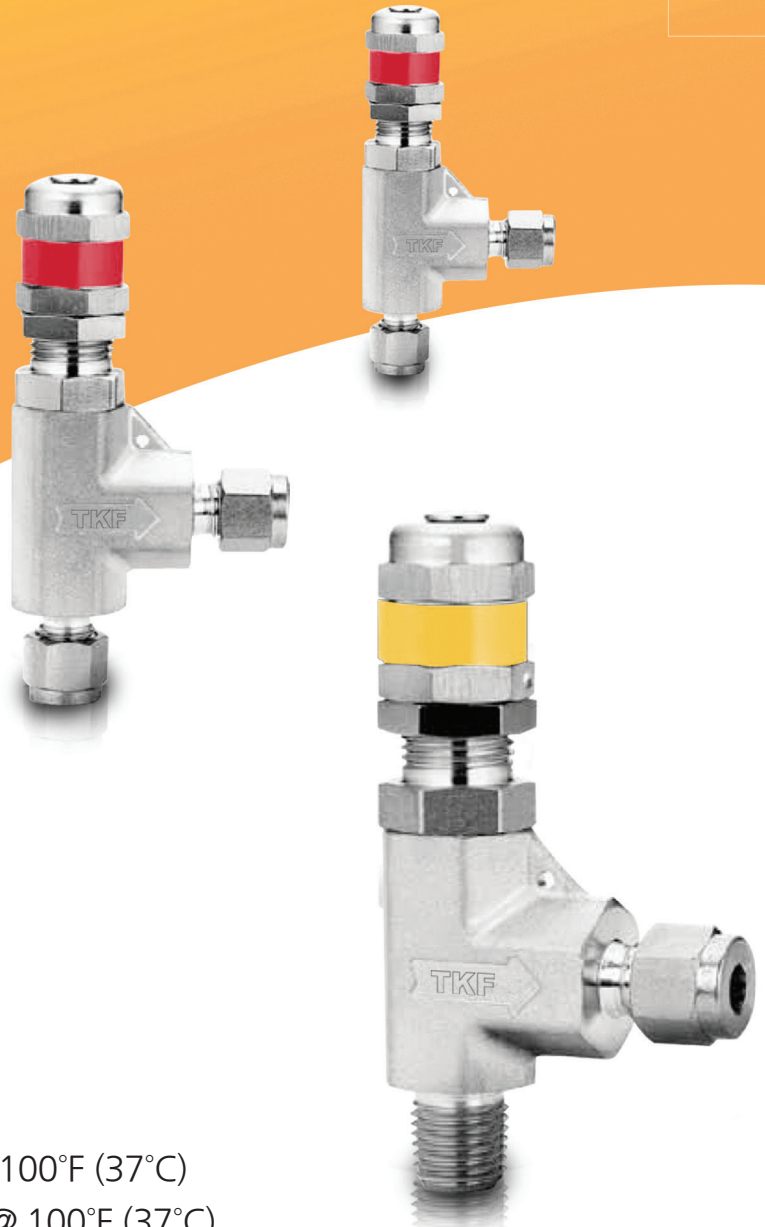


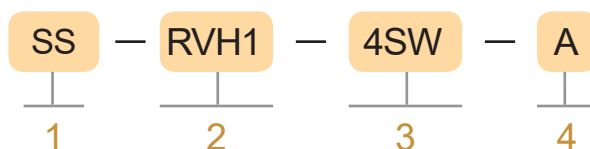
# Relief Valves



## RVL / RVH SERIES

- Maximum Working Pressure
  - RVL SERIES : 300 psig (20.6 bar) @ 100°F (37°C)
  - RVH SERIES : 6,000psig (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 6,000 psig (413 bar)

## ORDERING INFORMATION



### 1. BODY MATERIAL

Material	Designator
316 SS	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 TKF 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® Tapered	PTM
Female ISO® 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 1,500 psi	Purple	C
1,500 to 2,250 psi	Orange	D
2,250 to 3,000 psi	Brown	E
3,000 to 4,000 psi	White	F
4,000 to 5,000 psi	Red	G
5,000 to 6,000 psi	Green	H

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

## RELIEF VALVES |

## 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)	6,000 psig (413 bar)	6,000 psig (413 bar)	300psig (20.6 bar)
Set Pressure	50 to 6,000 psig (3.4 to 413 bar)	50 to 1,500 psig (3.4 to 103 bar)	10 to 225 psig (0.68 to 15.5 bar)
Outlet Pressure	1500 psig (103 bar)	2,500 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)	6,000 (413)	1,500 (103)	
30 (-1)			
50 (10)			
150 (65)			
200 (93)	5,160 (355)		
250 (121)	4,910 (338)		
275 (135)	-		
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	1,500 to 2250	103 to 155	10.3 to 15.5
E	Brown	2,250 to 3000	155 to 206	15.5 to 20.6
F	White	3,000 to 4000	206 to 275	20.6 to 27.5
G	Red	4,000 to 5000	275 to 344	27.5 to 34.4
H	Green	5,000 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

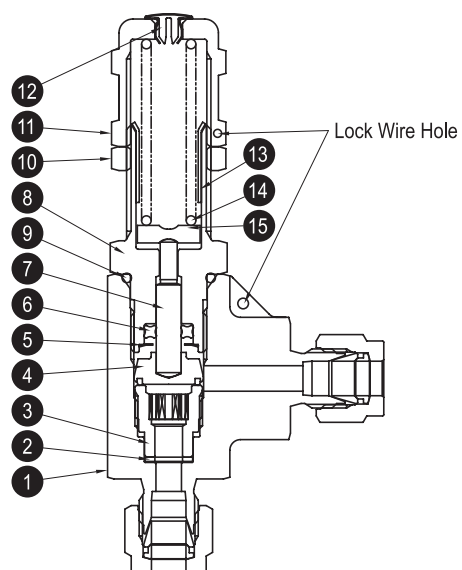
- Every valve is factory tested for set and reseal performance.

## CLEANING AND PACKAGING

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

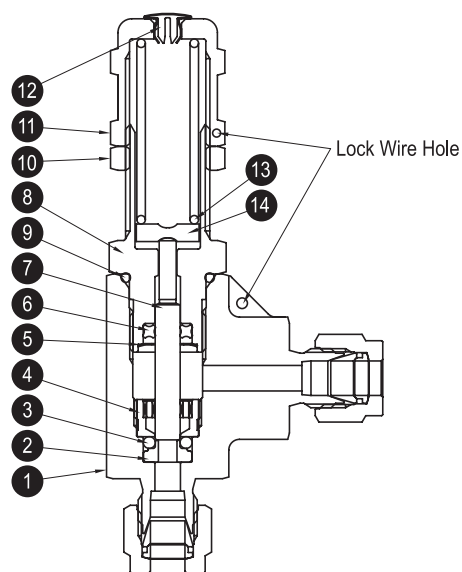
# MATERIALS OF CONSTRUCTION

## RVL SERIES (LOW-PRESSURE VALVES)



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

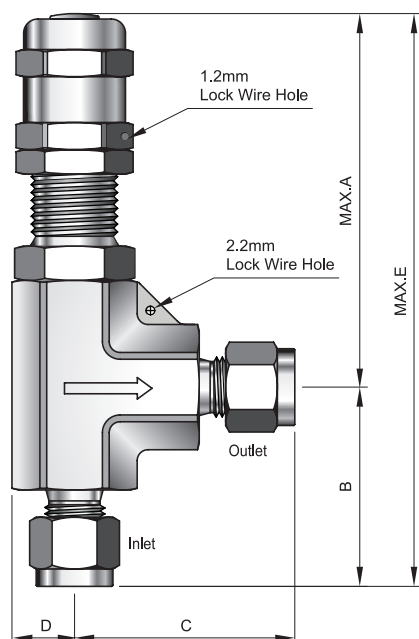
## RVH SERIES (HIGH-PRESSURE VALVES)



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

RELIEF VALVES |

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	0.189 (4.8)	1/4" LoK		2.70 (68.6)	1.44 (36.6)	1.60 (40.6)	0.43 (10.9)	4.14 (105)
	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 <sup>Ⓟ</sup> Tapered	1/4" Female ISO <sup>Ⓟ</sup> Tapered					
RVL2	8SW	0.252 (6.4)	1/2" Lok		4.09 (104)	1.83 (46.5)	1.83 (46.5)	0.50 (12.7)	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	0.142 (3.6)	1/4" LoK		2.70 (68.6)	1.44 (36.6)	1.60 (40.6)	0.43 (10.9)	4.14 (105)
	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 <sup>Ⓟ</sup> Tapered	1/4" Female ISO <sup>Ⓟ</sup> Tapered					
RVH2	8SW	0.252 (6.4)	1/2" Lok		4.09 (104)	1.83 (46.5)	1.83 (46.5)	0.50 (12.7)	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.