Atmospheric Discharge Safety Relief Valves

for compressed air or gases

Seetru Limited

Type 818 / 811

Safety valves made from Brass <
Atmospheric discharge with threaded connections <

Example Applications

- Compressors
- Pressure vessels
- Pneumatic systems
- Transport and railway systems

Specifications

- Inlet connections: ¼" to 1" (depending on bore size)
- Temperature: -60°C to +200°C (depending on seal material)
- Pressure range: 0.48 to 50.9 bar (depending on bore size)

Approvals

- Designed in accordance with BS EN ISO-4126-1 &-7
- PED 2014/68/EU (CE)
- PE(S)R UK SI 2016 No. 1105 (UKCA)
- ASME BPVC VIII.1 & XIII (UV)
- CRN
- EAC

Materials of Construction

Component	Material	Grade
Body	Brass	CW614N
Internal Parts	Brass	CW614N
Spring	Stainless Steel	1.4310 (302)

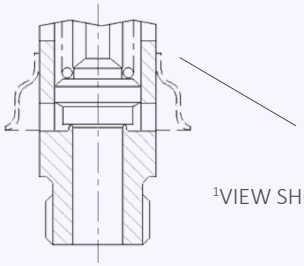
Seal Materials

Seal Material	Temperature Range
FKM (Viton®)	-15°C to +200°C
Hydrogenated Nitrile (HNBR)	-60°C to +150°C

Easing Gear / Lifting Gear Options

- Standard option – Rota-lift cap, twist type
- Spindle lift – for 6mm and 8mm bore valves
- Ring-pull – option available upon request

Other options:
[1]Downward deflecting shroud available for valves with 8 to 15mm bore.



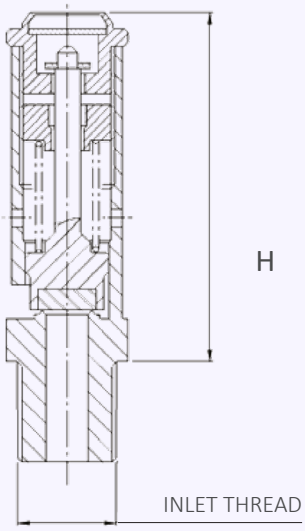
[1]VIEW SHOWING OPTIONAL SHROUD AVAILABLE

Technical information by bore size

Bore size	6 mm		8 mm			10 mm		13 mm		15 mm	
Inlet Size	1/4”	3/8”	1/4"	3/8"	1/2"	1/2"	3/4"	1/2"	3/4"	3/4”	1”
Flow Area	28.3mm²		50.27 mm²			78.54 mm²		132.7 mm²		181.5 mm²	
H - Height (Rota-lift cap)	53.5 mm		52mm-67mm depending on model			80 mm (up to 21 bar) 100 mm (21-46 bar)		95mm		119 mm	
TÜV allotted outflow coefficient 1	0.74		0.74			0.74 above 0.8 bar (0.65 below 0.8 bar)		0.74		0.74	
NB Rated discharge coefficient (ASME)	0.748		0.748			-		-		-	
NB Certified rated slope (ASME)	-		-			1.66 scfm/psia		2.94 scfm/psia		4.04 scfm/psia	
Weight (approximate) Kg	0.07		0.15			0.35		0.40		0.65	
Set Pressure range - PED (CE) bar	2.8- 36.0		0.55- 43.7			0.48 – 50.9		2.8- 40.0		2.5- 40.0	
Set Pressure range - ASME (UV) psi	40.6- 522.0		43.5 – 633.6			34.8 – 738		40.6 – 580.0		36.25 – 580.0	
Relieving pressure/fully open pressure	Set pressure +10%										
Reseating pressure	Set pressure -10%										

1 TÜV alloted outflow coefficients for pressures above 3.0 bar, for lower pressures please see the flow rate tables or contact Seetru.

Valves with Rota-lift Easing Gear



Standard Thread Connection Types

- BSP Parallel male thread
- BSP Taper male thread
- NPT male thread

Valve Selection Guide

Approval Required	Valve Type	Select Bore	Inlet Size	Thread Type	Easing Gear	Seal Material
PED (CE)	“818”	“06” = 6mm	Select inlet size from above table	Select thread type	Select easing gear (rota-lift is the standard option)	Viton®
		“88” = 8mm				
		“10” = 10mm				
PED (CE), ASME (UV) & CRN	“811”	“13” = 13mm				HNBR
		“15” = 15mm				

EAC marking available upon request

***Please send your selected details to Seetru and we can provide the full ordering code, price and lead-time.**

Example of Valve Selection Process

Example Selection	CE	818	06	1/4"	BSP Taper	Rota-lift	Viton	10.5 bar
	Approval	Valve Type	Bore = 6mm	Inlet Size	Thread Type	Easing Gear	Seal	Set Pressure

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour

Type 818: Flow rates at 10% above the set pressure

Set Pressure		Bore Size (D0)				
		6mm	8mm	10mm	13mm	15mm
bar	psi	Nm³/Hour	Nm³/Hour	Nm³/Hour	Nm³/Hour	Nm³/Hour
0.48	6.96			53.9		
0.55	7.975		41.5	56.9		
1	14.5		53.5	83.6		
2	29		81.4	127.2		
2.5	36.25		95.3	148.9		344.2
2.8	40.6	58.3	103.7	162.0	273.8	374.4
3	43.5	61.5	109.2	170.7	288.5	394.5
4	58	77.2	137.1	214.3	394.5	495.1
5	72.5	92.8	165.0	257.8	435.7	595.7
6	87	108.5	192.8	301.3	509.3	696.3
7	101.5	124.2	220.7	344.9	582.9	796.9
8	116	139.8	248.6	388.4	656.5	897.5
9	130.5	155.5	276.5	432.0	730.1	998.1
10	145	171.2	304.3	475.6	803.7	1,098.7
11	159.5	186.8	332.2	519.1	877.3	1,199.4
12	174	202.5	360.1	562.6	950.9	1,300.0
13	188.5	218.2	387.9	606.2	1,024.5	1,400.6
14	203	233.9	415.8	649.7	1,098.1	1,501.2
15	217.5	249.5	443.7	693.3	1,171.7	1,601.8
20	290	327.9	583.1	911.1	1,539.6	2,104.9
25	362.5	406.3	722.4	1,128.8	1,907.6	2,607.9
30	435	484.7	861.7	1,346.5	2,275.6	3,110.9
35	507.5	563.1	1001.1	1,564.2	2,643.6	3,614.0
36	522	578.8	1028.9	1,607.8	2,717.2	3,714.6
40	580		1140.4	1,781.9	3,011.5	4,117.1
43.7	633.65		1243.5	1,943.1		
45	652.5			1,999.7		
50	725			2,217.4		
50.9	738.05			2256.64		

Capacity Table - In accordance with ASME BPVC.XIII, AIR at 60°F and 14.7 psia/scfm. SCFM

Type 811 (818): Flow rates at 10% above the set pressure

Set Pressure		Bore Size (D0)				
		6mm	8mm	10mm	13mm	15mm
Psi	Bar	SCFM	SCFM	SCFM	SCFM	SCFM
35	2.41			88.3		
36.25	2.50			90.6		220.5
40	2.76			97.4		237.1
41	2.80	35.9		99.2	175.8	241.5
43.5	3.00	37.6	66.8	103.8	183.9	252.7
50	3.45	41.9	74.4	115.7	204.9	281.5
60	4.14	48.5	86.1	133.9	237.2	325.9
70	4.83	55.1	97.9	152.2	269.5	370.4
80	5.52	61.6	109.6	170.5	301.9	414.8
90	6.21	68.3	121.4	188.7	334.2	459.3
100	6.90	74.9	133.1	206.9	366.5	503.7
150	10.34	107.9	191.8	298.2	528.2	725.8
200	13.79	140.9	250.5	389.5	689.8	947.9
250	17.24	173.9	309.2	480.8	851.5	1170.1
300	20.69	206.9	367.9	572.0	1013.2	1392.2
350	24.14	240.0	427.1	663.3	1174.8	1614.4
400	27.59	273.0	485.9	754.6	1336.5	1836.5
450	31.03	306.0	544.6	845.9	1498.1	2058.7
500	34.48	339.1	603.4	937.2	1659.8	2280.8
522	36.00	353.6	629.2	977.3	1730.9	2378.5
550	37.93		662.2	1028.5	1821.5	2503.0
580	40.00		697.4	1083.2	1918.5	2636.2
600	41.38		720.9	1119.7		
633.65	43.70		760.5	1181.2		
650	44.83			1210.9		
667	46.00			1242.0		
725	50			1347.91		
738.05	50.9			1371.73		