Enclosed Discharge Safety Relief Valves

for liquid

Seetru Limited

Type 680

Safety valves with stainless steel body <
Enclosed discharge valve with threaded connections <

Example Applications

- Pumping systems and Hydraulic systems
- Thermal relief
- Waste water management
- Oil transfer
- Petrochemical industries
- Fire fighting equipment
- Water cooling and feeding systems

Specifications

- Inlet connections: 3/8" to 2" (depending on bore size)
- Temperature:-40°C to +200°C (depending on seal material)
- Pressure range: 0.7 to 30 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)

Materials of Construction

Component	Material	Grade
Inlet	Stainless Steel	1.4401 (316)
Body	Stainless Steel	316
Internal Parts	Stainless Steel	1.4401 (316)
Spring	Stainless Steel	1.4310 (302)

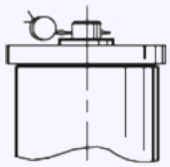
Seal Materials

Seal Material	Temperature Range
Viton® (FKM)	-15°C to +200°C
Nitrile (NBR)	-40°C to +120°C

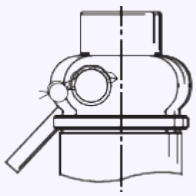
Standard seal materials shown, others available on request

Easing Gear / Lifting Gear Options

Standard Option: Sealed Cap (gas tight cap)



Other Option: Sealed lever (gas tight)



Technical information by bore size

Bore size	9.5mm (68010)			13.7mm (68013)			17mm (68018)			20mm (68020)			25mm (68025)		
Inlet Size	3/8"	1/2"	3/4"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	1"	1 1/4"	1 1/2"	1 1/4"	1 1/2"	2"
Outlet Size	3/4"			1"			1 1/2"			2"			2"		
Flow Area	70.9mm²			147.7mm²			227mm²			314mm²			490.4mm²		
H - Height (Sealed cap version)	99mm			138mm			204mm			215			241		
Derated coefficient of discharge, Kdr	0.59			0.57			0.55			0.57			0.56		
Weight (approximate) Kg	0.8			1.1			3.6			4.0			5.1		
Set Pressure range - PED (CE) bar	0.76 to 30.0			0.7 to 27.0			5.4 to 25.7			3.3 to 22.0			5.65 to 21.0		
Relieving pressure/fully open pressure	**Set pressure +25%**														
Reseating pressure	**Set pressure -20% down to 3 bar**														

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

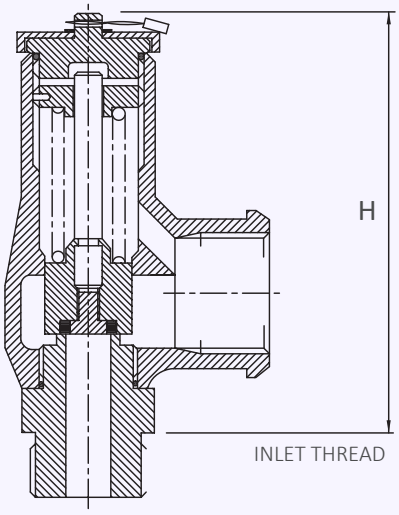
Standard INLET Thread Connection Types

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

Standard OUTLET Thread Connection Types

- BSP Parallel female thread
- NPT female thread

Valve Drawing



Valve Selection Guide

Approval Required	Valve type	Select Bore	Inlet Size	Inlet Thread Type	Outlet Thread Type	Easing Gear	Seal Material
PED (CE)	680	Select bore size from above table	Select inlet size from above table	Select Inlet thread type	Select Outlet thread type	Select easing gear/top fitting	Viton® (FKM)
							Nitrile (NBR)
							Other

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/PED	680	20	1 1/2"	BSP Taper	BSP parallel	Sealed Cap	Viton	10.5 bar
	Approval	Valve Type	Bore = 20mm	Inlet Size	Inlet Thread Type	Outlet Thread Type	Top fitting	Seal	Set Pressure

Capacity Table - In accordance with ISO 4126, Water at 15°C - kg/hour
Type 680

Set Pressure		Bore Size (D0)				
		9.5mm	13.7mm	17mm	20mm	25mm
bar	psi	kg/hour	kg/hour	kg/hour	kg/hour	kg/hour
0.7	10.15		4001			
0.76	11.02	2075	4169			
1	14.5	2380	4782			
2	29	3367	6759			
3	43.5	4123	8284			
4	58	4761	9560		20384	
5	72.5	5323	10694		22792	
6	87	5831	11708	17394	24966	38289
7	101.5	6298	12654	18791	26968	39920
8	116	6733	13519	20089	28828	42676
9	130.5	7141	14348	21307	30579	45265
10	145	7528	15116	22460	32231	49431
15	217.5	9219	18523	27521	39477	58437
20	290	10650	21376	31763	45583	69906
22	319	11170	22419	33314	47807	
25	362.5	11902	23914			
27	391.5	12369	24837			
30	435	13040				

For any intermediate pressures/flows please contact Seetru