Enclosed Discharge Safety Relief Valves

for liquid

Seetru Limited

Type 970 Threaded

Safety valves made with brass Inlets <
Enclosed discharge valve with threaded connections <
Metal to metal sealing <

Example Applications

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

Specifications

- Inlet connections: 1/2" to 2" threaded connections
  (depending on valve bore size) (for flanged connections see 980 Flanged datasheet)
- Temperature range:-50°C to +250°C (depending on body o'ring material)
- Pressure range: 0.3 to 36.0 barg (depending on valve bore size)

Approvals

- TÜV Type test approval, module B, Cert. No. TNS-15-19-169 (10mm bore)
- TÜV Type test approval, module B, Cert. No. TNS-15-19-170 (15mm bore)
- TÜV Type test approval, module B, Cert. No. TNS-15-19-171 (20mm bore)
- TÜV Type test approval, module B, Cert. No. TNS-15-19-172 (25mm bore)
- Designed in accordance with BS EN ISO 4126-1
- PED 2014/68/EU
- EAC
- Leak tightness at 90% set pressure to API 527 and in accordance with EN ISO 4126-1

Materials of Construction

Component	Material	Grade
Inlet	Brass	CZ132 / CW602N
Outlet Body (10mm bore valve)	Bronze	SB-62 C8360
Outlet Body (15, 20 & 25mm bore valves)	Stainless Steel	1.4408 (316)
Spring	Stainless Steel	1.4310 (302)
Disc	Stainless Steel	1.4401 (316)

Seal Materials

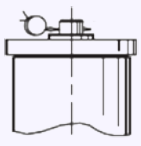
This valve using metal to metal sealing. There is a choice of o'ring used for the sealed cap/lever

O'ring material	Temperature Range
Viton® (FKM)	-20°C to +250°C
Nitrile (NBR)	-30°C to +150°C
Silicone	-50°C to +250°C
EPDM	-40°C to +150°C

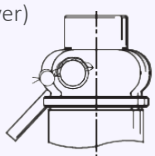
Standard seal materials shown, others are available.

Easing Gear / Lifting Gear / Top Fitting Options

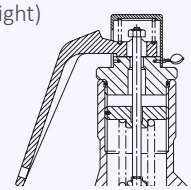
- Sealed Cap (gas tight cap)



- Sealed lever (gas tight lever)



- Unsealed lever (not gas tight)



Technical information by bore size

Bore size	10mm (97010)			15mm (97015)			20mm (97020)			25mm (97025)			
Inlet Size	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	1"	1 1/4"	1 1/2"	1"	1 1/4"	1 1/2"	2"
Outlet Size	1"			1 1/2"			2"			2"			
Flow Area	78.5mm²			177mm²			314mm²			491mm²			
H - Height (Sealed Cap Version)	114mm			168mm			141mm			225mm			
Derated coefficient discharge of water below 100°C - Kdr	0.48			0.54			0.503			0.507			
Weight (approximate) Kg	1.0			2.1			3.5			4.2			
Set Pressure range - PED (CE) Bar g	0.3 to 28.0			0.3 to 33.0			0.6 to 36.0			0.48 to 23.5			
Relieving pressure/fully open pressure	**Set pressure +10%**												
Reseating pressure	**Set pressure -20%** (0.6 bar g below 3.0 bar g)												

- Leak tightness at 90% set pressure to API 527 and in accordance with EN ISO 4126-1

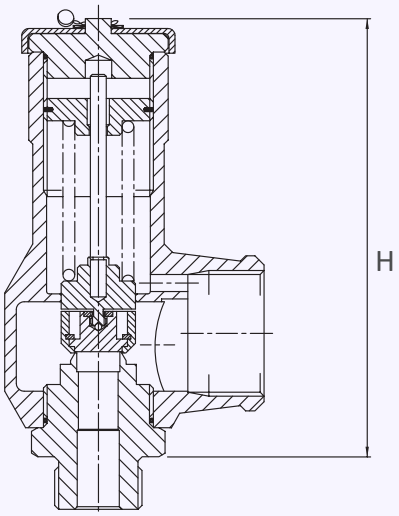
Standard INLET Connection Types

- BSP parallel male thread
- BSP taper male thread
- NPT male thread
- BSP parallel female thread (limited option)

Standard OUTLET Connection Types

- BSP parallel female thread

Valve Drawing



Valve Selection Guide

Valve type	Select Bore	Inlet Size	Inlet Thread Type	Top Fitting	O'ring material (for cap)	Set pressure
970	Select bore size from above table	Select inlet size from above table	Select Inlet Thread type	Select easing gear/top fitting	See table	Set pressure from available range

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	970	15	1"	BSP parallel	Rota Lift	Viton	17.5 barg
	Valve Type	Bore = 15mm	Inlet Size	Inlet Thread Type	Top Fitting	O'ring	Set Pressure

Capacity Table - In accordance with EN ISO 4126-1
Water below 100°C at 10% accumulation - litres/min

Set Pressure		Bore Size (D0)				
		10mm	15mm	20mm	25mm	
Bar g	Psi g	Litres/min of Water	Litres/min of Water	Litres/min of Water	Litres/min of Water	
3	43.5	58	147	243	383	
4	58	67	169	281	443	
5	72.5	74	189	314	495	
6	87.00	82	207	344	542	
7	101.5	89	224	372	585	
8	116	95	240	397	626	
9	130.5	100	254	422	664	
10	145	106	268	444	700	
15	217.5	130	328	544	857	
20	290	150	379	628	990	
25	362.5	167	424	703		
28	406	177	449	744		
30	435		465	770		
33	478.5		487	807		
35	507.5			831		
36	522			843		

For any intermediate pressures/flows please contact Seetru