

## PARTS LIST & MATERIAL SPECIFICATION

	93615	94615
1 SEAT	BRASS	ST.STL.
2 DISC	ST.STL. 316	ST.STL. 440B
3 BALL	ST.STL.	
4 DISC HOLDER	ST.STL.	
5 PLUNGER	ST.STL.	
6 BODY	ST.STL.	
7 SPRING	ST.STL.	
8 ADJUSTER	BRASS	ST.STL.
9 SPINDLE	ST.STL.	
10 CAP	BRASS	ST.STL.
	TYPE SL - ST.STL.	
11 WIRE & SEAL	ST.STL. & LEAD	
12 LEVER	BRASS	ST.STL.*
13 O'RING	TO SUIT APPLICATION	

\* TYPE SL ONLY

## APPROVALS

Designed in accordance with BS6759 (but not approved) & ISO 4126.  
TÜV Approved:- Ref. TÜV.SV.98-1016.15.D/G,0.74p; For 3-28 Bar.g. Below 3 Bar.g. see 'α<sub>D</sub> vs Set Pressure' chart.

93615 type materials meet the requirements of BAM (Germany) for oxygen service.  
P.E.D. 97/23/EC  
Type examination module B, Cert. No. 01 202 111-B-00017  
Quality management system module D, Cert. No. EDS 002011/01

## TECHNICAL DATA

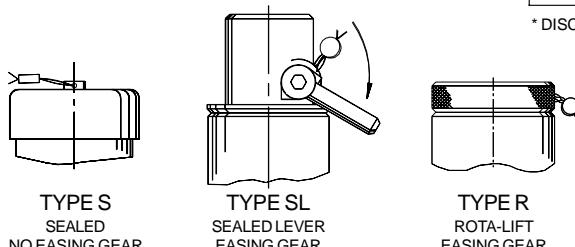
Relieving pressure	= Set pressure +10%, 0.1Bar.g. BELOW 1.0 Bar.g.
Reseating pressure	= Set pressure - 10%, 0.3 BAR.G. BELOW 3.0 BAR.G.
Maximum set pressure	= 28 Bar.g.
Minimum set pressure	= 0.3 Bar.g.
Flow area	= 177mm <sup>2</sup>
Inlet bore diameter	= 15 mm
TÜV Derated coefficient of discharge α <sub>D</sub>	= 0.74, BELOW 3.0 BAR.G. SEE 'α <sub>D</sub> vs SET PRESSURE' CHART.
Leak tightness at 90% set pressure to API 527 and in accordance with BS6759 Part 3 1984, Table 9 Grade 2.	
Greater leak tightness may be achieved on request.	
Maximum temperature	= 250°C Note: For sealed top fittings, max. temp. dependent on seal material.
Minimum temperature	= -196°C subject to material specification.
Maximum permissible built up back pressure	= 10% of set pressure at or below which flow is not reduced.
Stable operation on flows down to 50% of valve rated capacity.	
FOR FURTHER INFORMATION, INSTALLATION AND OPERATION INSTRUCTIONS, CONVERSION FACTORS ETC. SEE TECHNICAL INFORMATION SECTION.	

## FLOW CHART

- TO CALCULATE INTERMEDIATE FLOWS SEE TECHNICAL INFORMATION SECTION  
- FOR LOWER FLOWS REFER TO 10mm BORE TYPE 93610 DATA SHEET. FOR GREATER FLOWS REFER TO 20mm BORE TYPE 93620 DATA SHEET.

SET PRESSURE Bar.g	0.3	0.5	1.0	2.0	3	4	5	6	7	8	9	10	15	20	25	28
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH BS6759, AIR AT 15°C AND 1013 mbar std. Litres/s	22.5	29.2	42.2	76.6	108	136	163	191	219	246	274	302	440	578	716	799
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH BS6759 PART 1, STEAM Kg/h	61.3	79.7	120.8	204.2	296	372	447	523	598	674	749	825	1202	1580	1958	2184
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH TÜV, AIR AT 0°C AND 1013 mbar Normal m <sup>3</sup> /h	75.8	103.8	155.3	270.1	384	482	580	678	776	874	972	1070	1560	2049	2539	2833
RATED DISCHARGE * CAPACITY IN ACCORDANCE WITH TÜV, STEAM Kg/h	63.3	82.5	121.7	213.4	299	373	446	520	592	666	738	812	1174	1535	1900	2116

\* DISCHARGING TO ATMOSPHERE



## SEETRU LIMITED

Distributor in Russia: Monitoring Ventil & Fitting  
TELEPHONE +7 (495) 956 2119, 589 6109, 517 6109  
www.mvif.ru mail@mvif.ru

15mm Nominal Bore METAL SEAL  
DIRECT SPRING LOADED ENCLOSED  
DISCHARGE SAFETY VALVE FOR  
COMPRESSED AIR, GASES & STEAM

SHEET 1 OF 3 SHEETS

ENCLOSED DISCHARGE  
15mm NOMINAL BORE SERIES  
TYPE 93615 BRASS  
TYPE 94615 ST.STL.

## VALVE SELECTION CHART

Standard thread sizes shown, other sizes may be available

INLET CONNECTION	OUTLET CONNECTION	ORDERING CODE	TOP FITTING CODE			
			R	S	SL	L
G 3/4 (3/4" BSP PARALLEL MALE)	G 1 1/2 (1 1/2" BSP PARALLEL)	93615A	210	130	410	330
R 3/4 (3/4" BSP TAPER MALE)		94615A	211	131	411	331
G 3/4 (3/4" BSP PARALLEL FEMALE)		93615D 94615D	210	130	410	330

Example 1:

Ordering code 93615A 210 3 is brass seated, Rota lift type R, with 3/4" BSP parallel MALE inlet connection, 1 1/2" BSP parallel outlet connection, with Viton® o'ring.

Example 2:

Ordering code 93615D 210 3 is brass seated, Rota lift type R, with 3/4" BSP parallel FEMALE inlet connection, 1 1/2" BSP parallel outlet connection, with Viton® o'ring.

## O'RING SEAL CHART

O'RING MATERIAL	10th DIGIT	MAX. STATIC TEMP. °C	MIN. STATIC TEMP. °C
NITRILE	1	150	-30
VITON®	3	250	-20
SILICONE	4	250	-50
NEOPRENE	5	120	-40
E.PROPYLENE	6	150	-40
P.T.F.E.	7	250	-196

\*

Note:

Digits '1 - 7' indicates the required o'ring material dependent on the maximum / minimum static temperature.

Example:

Ordering code 93615A 410 3 is brass seated, Sealed leverlift type SL, with 3/4" BSP parallel MALE inlet connection, 1 1/2" BSP parallel outlet connection, with Viton® o'ring seals.

\* For cryogenic service type 'S' valves only.

**TYPE 94615 VALVES ARE NOT SUITABLE FOR CRYOGENIC SERVICE. USE 93615 TYPE 'S'.**



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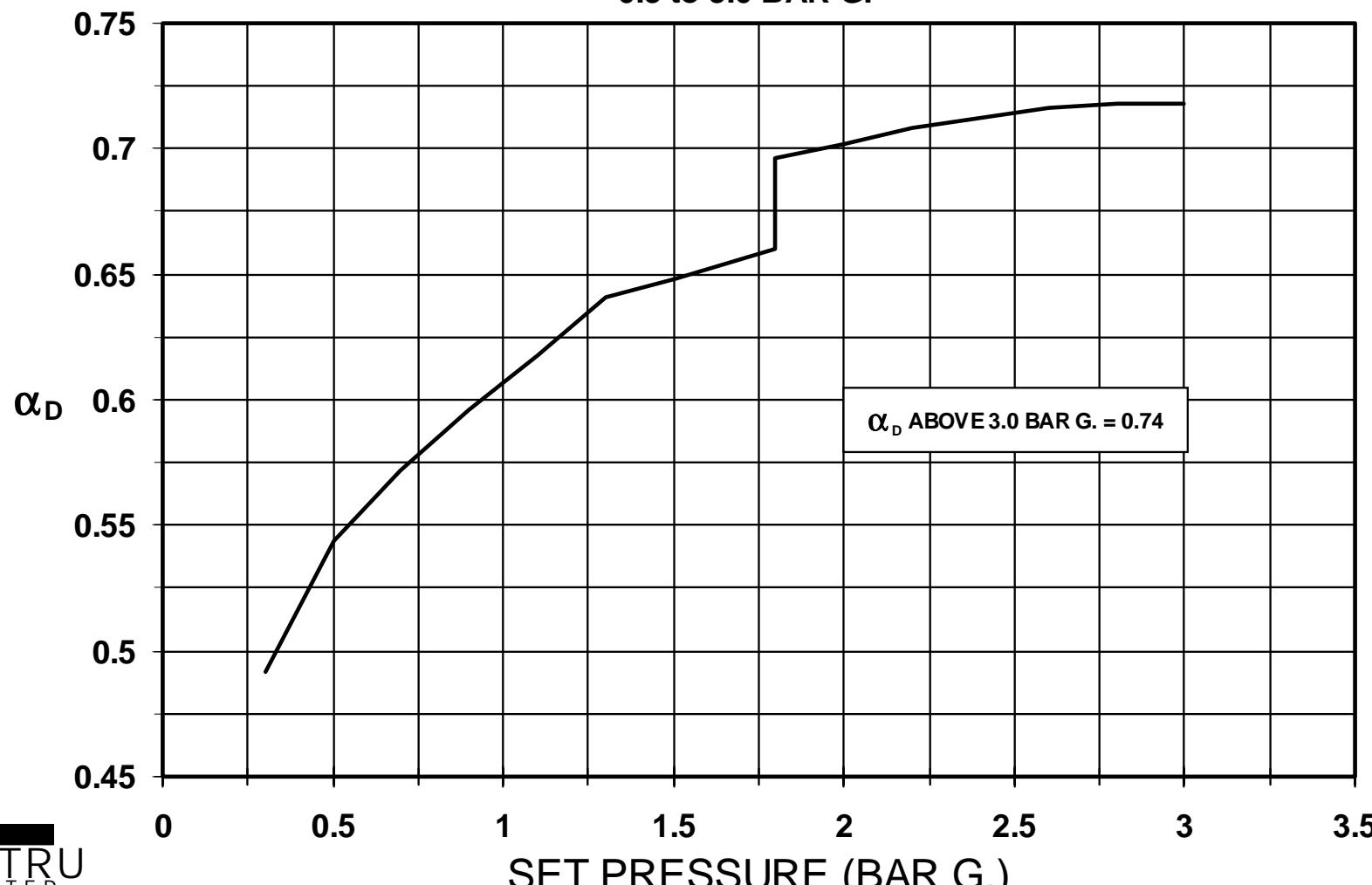
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SHEET 2 OF 3 SHEETS

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ENCLOSED DISCHARGE  
15mm NOMINAL BORE SERIES  
TYPE 93615 BRASS  
TYPE 94615 ST.STL.

**$\alpha_D$  vs SET PRESSURE CHART**  
**SEETRU SAFETY RELIEF VALVE 93615 / 94615.**  
**0.3 to 3.0 BAR G.**



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SHEET 3 OF 3 SHEETS  
 ENCLOSED DISCHARGE  
 15mm NOMINAL BORE SERIES  
 TYPE 93615 BRASS  
 TYPE 94615 ST. STL.