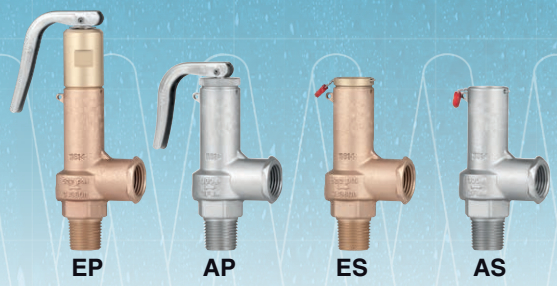
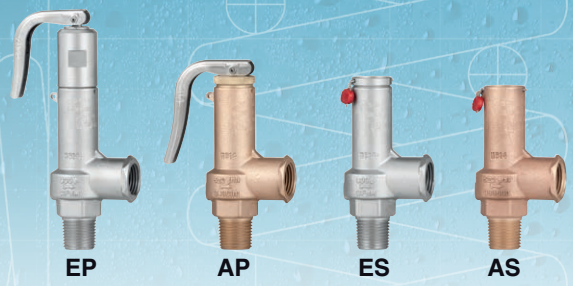
Full lift safety valve with spring loading. (AIT)

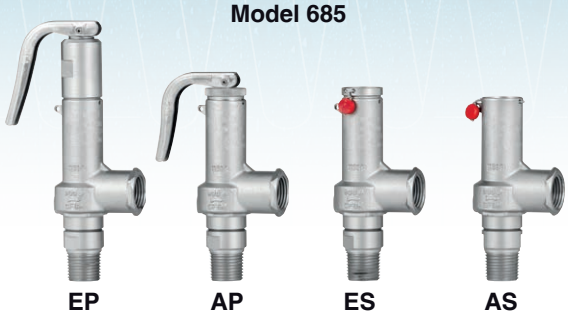
Mod. 685 - 885 - 985 - 694 | ASME | SI



Model 685



Model 885



Model 985

Model 694

Operation

The valve works as an automatic pressure releasing regulator activated by the static pressure existing at the entrance to the valve and is characterized by its ability to open instantly and totally.

Regulation

- ASME VIII Div.1.
- ASME II
- ASTM
- ASME B1.20.1

Specifications

Size

- 3/8" x 1/2" to 1" x 1" (Mod. 685 - 885)
- 3/8" x 1/2" to 1/2" x 1/2" (Mod. 985)
- 10 x 15 to 25 x 25 (Mod. 694)

Temperature range

- -196 °C to +260 °C

Applications

- Gas, steam and liquids.

Materials

- Bronze
- Stainless steel

Maximum pressure

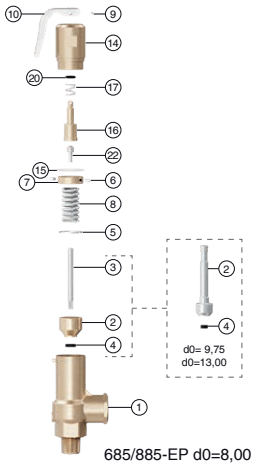
- Up to 144 bar

Certification

N.º PIECE	PIECE	MATERIAL	
		BRONZE	STAINLESS STEEL
1	Body	Bronze (ASTM UNS C83600)	Stainless steel (ASTM A351 CF8M)
2	Plug	Brass (ASTM C38000)	Stainless steel (AISI 316)
3	Shaft	Stainless steel (AISI 303)	Stainless steel (AISI 303)
4	Seal	Silicone rubber	Silicone rubber
		Fluorelastomer (Viton)	Fluorelastomer (Viton)
		PTFE (Teflon)	PTFE (Teflon)
		Perfluorelastomer (FFKM)	Perfluorelastomer (FFKM)
5	Limiter ring	Stainless steel. (AISI 301)	Stainless steel (AISI 301)
6	End-stop	PTFE (Teflon)	PTFE (Teflon)
7	Spring press	Brass (ASTM C38000)	Stainless steel (AISI 303)
8	Spring	Stainless steel (AISI 301)	Stainless steel (AISI 301)
9	Clip	Stainless steel (AISI 301)	Stainless steel (AISI 301)
10	Lever	Stainless steel (AISI 304)	Stainless steel (AISI 304)
11	Sealing wire	Sealing wire	Sealing wire
12	Characteristic plate	Aluminium	Aluminium
13	Seal	Plastic	Plastic
14	Cap	Brass (ASTM C38000)	Stainless steel (AISI 303)
15	Hood coupling	PTFE (Teflon)	PTFE (Teflon)
16	Piston	Brass (ASTM C38000)	Stainless steel. (AISI 303)
17	Piston Spring	Stainless steel (AISI 301)	Stainless steel (AISI 301)
18	Inlet clamp	-	Stainless steel (AISI 316L)
19	Outlet clamp	-	Stainless steel (AISI 316L)
20	O-ring	Fluorelastomer (Viton) (1)	Fluorelastomer (Viton) (1)
21	Seat	-	-
22	Screw cap	Stainless steel (AISI 301)	Stainless steel (AISI 301)

MODEL				
685		MNPT1 x FNPT2	3/8” x 1/2” to 1” x 1”	
		PS	36	36
	OPERATING CONDITIONS	PRESSURE [bar]	36	36
		MAXIMUM TEMPERATURE [ºC]	200	250
		MINIMUM TEMPERATURE [ºC]	-10	-60
885		MNPT1 x FNPT2	3/8” x 1/2” to 1” x 1”	
		PS	36	36
	OPERATING CONDITIONS	PRESSURE [bar]	36	36
		MAXIMUM TEMPERATURE [ºC]	60	60
		MINIMUM TEMPERATURE [ºC]	-10	-196
985		MNPT1 x FNPT2	3/8” x 1/2” to 1/2” x 1/2”	
		PS		144
	OPERATING CONDITIONS	PRESSURE [bar]	-	144
		MAXIMUM TEMPERATURE [ºC]	-	250
		MINIMUM TEMPERATURE [ºC]	-	-60
694		DN1 x DN2	10 x 15 to 25 x 25	
		PN	-	16
	OPERATING CONDITIONS	PRESSURE [bar]	-	16
		MAXIMUM TEMPERATURE [ºC]	-	260
		MINIMUM TEMPERATURE [ºC]	-	-60

(1) Mod. 895; Perfluorelastomer (FFKM)



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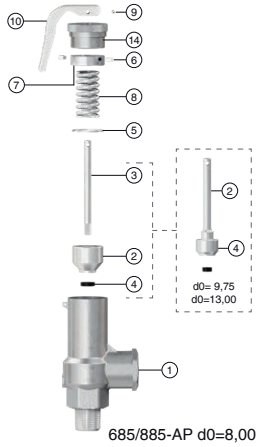

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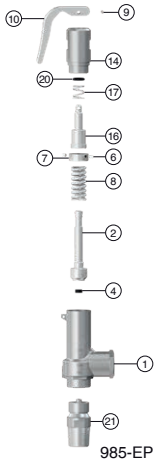
694-EP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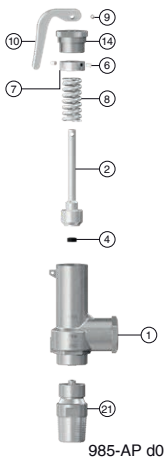
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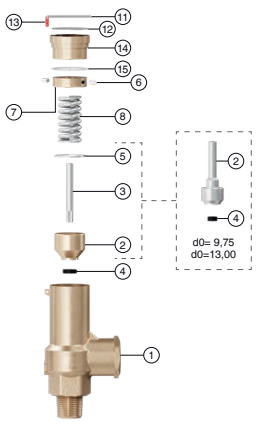

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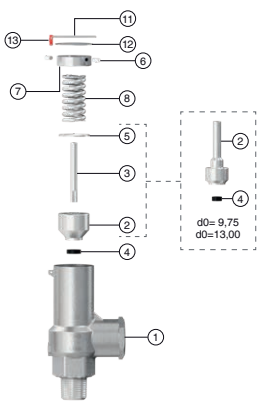

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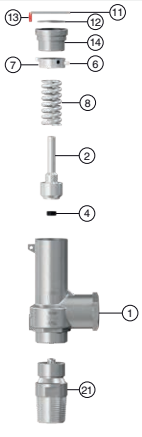
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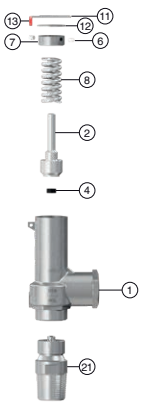
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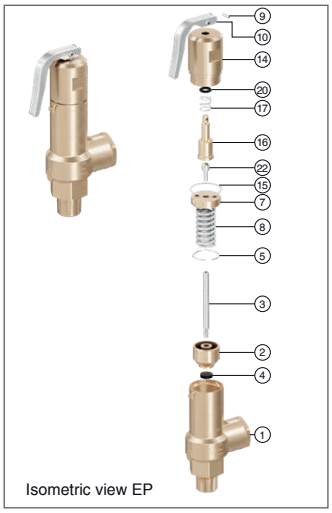


Isometric view EP

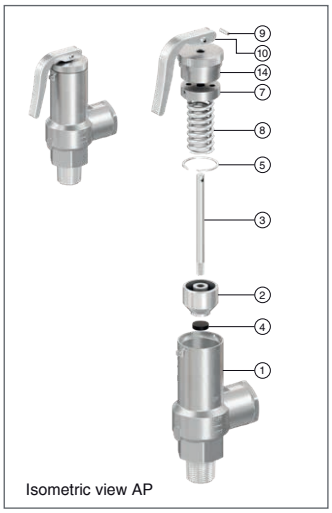
Full lift safety valve with spring loading (AIT) version EP.

1. Disassembly and assembly

1.1 Disassmbly
To replace the spring (8) or clean any of the internal components of the valve, proceed in the following manner:
A - Cut the seal thread (11) with pliers.
B - Withdraw the fastener (9), using a punching tool, until the lever (10) comes free.
C - Unscrew and extract the hood (14).
D - Unscrew the piston (16) from the rod (3) and then the screw cap (22).
E - Holding the rod (3), unscrew the spring press (7) until you note a releasing of the spring (8).
F - Extract the spring (8).

1.2 Assembly
A - Enter the spring (8) through the upper part of the rod (3).
B - Screw the spring press (7) holding the rod (3) and the screw cap (22).
C - Adjust the set pressure with the spring press (7).
D - Screw the piston (16) to the rod (3).
E - Screw the hood (14).
F - Place the lever (10) and fix it with the fastener (9).

2. Adjusting the firing pressure
A - Proceed according to points 1.1.A, 1.1.B, 1.1.C, 1.1.D, 1.1.E.
B - Proceed according to points 1.2.C, 1.2.D, 1.1.E, 1.1.F.



Isometric view AP

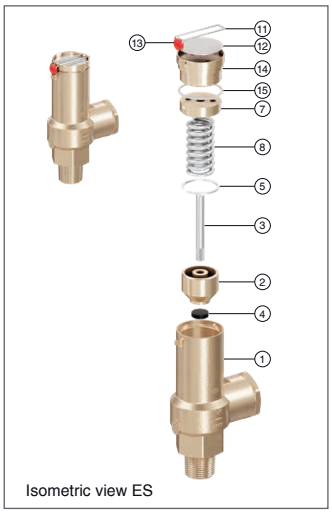
Full lift safety valve with spring loading (AIT) version AP.

1. Disassembly and assembly

1.1 Disassmbly
To replace the spring (8) or clean any of the internal components of the valve, proceed in the following manner:
A - Cut the seal thread (11) with pliers.
B - Withdraw the clip (9), using a punching tool, until the lever (10) comes free.
C - Unscrew and extract the hood (14).
D - Holding the rod (3), unscrew the spring press (7) until you note a releasing of the spring (8).
E - Extract the spring (8).1.2 Assembly

1.2 Assembly
A - Enter the spring (8) through the upper part of the rod (3).
B - Screw the spring press (7) holding the rod (3).
C - Adjust the set pressure with the spring press (7).
D - Screw the hood (14).
E - Place the lever (10) and fix it with the fastener (9)

2. Adjusting the firing pressure
A - Proceed according to points 1.1.A, 1.1.B, 1.1.C, 1.1.D.
B - Proceed according to points 1.2.C, 1.2.D, 1.1.E.



Isometric view ES

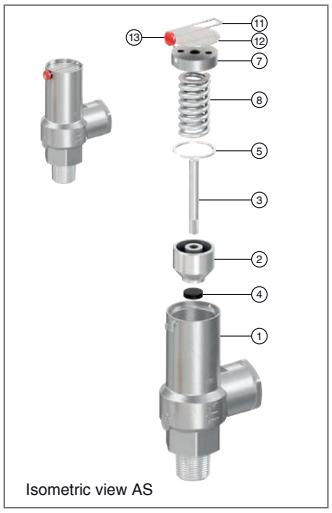
Full lift safety valve with spring loading (AIT) version ES.

1. Disassembly and assembly

1.1 Disassmbly
To replace the spring (8) or clean any of the internal components of the valve, proceed in the following manner:
A - Cut the seal thread (11) with pliers and extract the characteristic plate (12).
B - Unscrew and extract the hood (14).
C - Holding the rod (3), unscrew the spring press (7) until you note a releasing of the spring (8).
D - Extract the spring (8).

1.2 Assembly
A - Enter the spring (8) through the upper part of the rod (3).
B - Screw the spring press (7) holding the rod (3).
C - Adjust the set pressure with the spring press (7).
D - Screw the hood (14).

2. Adjusting the firing pressure
A - Proceed according to points 1.1.A, 1.1.B, 1.1.C.
B - Proceed according to points 1.2.C, 1.2.D..



Isometric view AS

Full lift safety valve with spring loading (AIT) version AS.

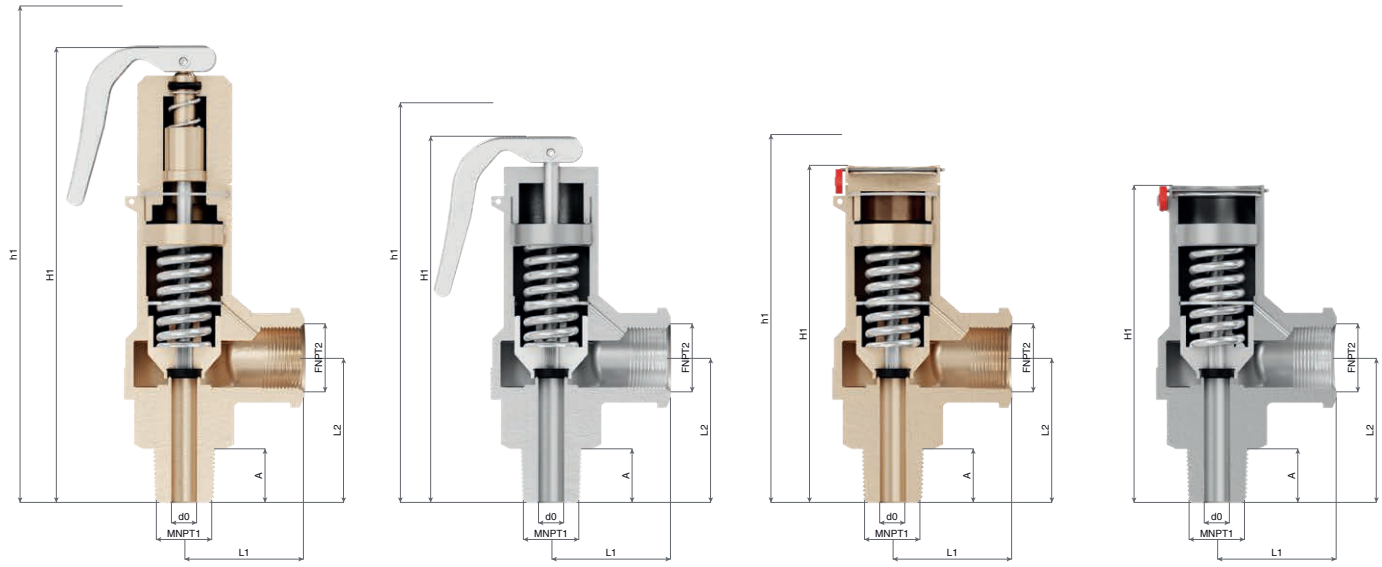
1. Disassembly and assembly

1.1 Disassmbly
To replace the spring (8) or clean any of the internal components of the valve, proceed in the following manner:
A - Cut the seal thread (11) with pliers and extract the characteristic plate (12).
B - Holding the rod (3), unscrew the spring press (7) until you note a releasing of the spring (8).
C - Extract the spring (8).

1.2 Assembly
A - Enter the spring (8) through the upper part of the rod (3).
B - Screw the spring press (7) holding the rod (3).
C - Adjust the set pressure with the spring press (7).

2. Adjusting the firing pressure
A - Proceed according to points 1.1.A, 1.1.B.
B - Proceed according to points 1.2.C.

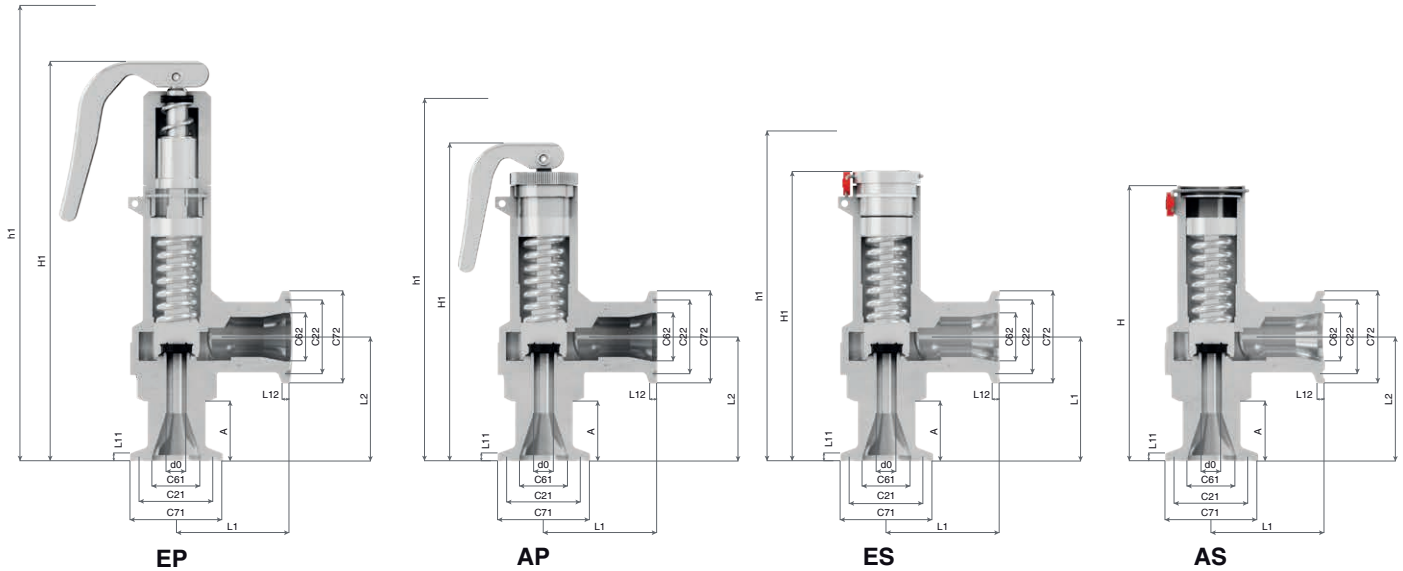
MODEL 685/885/985												
MNPT1 x FNPT2		3/8" x 1/2"				1/2" x 1/2"				1/2" x 3/4"		
CONNECTIONS		Male thread x Female thread NPT ASME B1.20.1										
MODEL 694												
DN1 x DN2		10 x 15				15 x 15				15 x 20		
CONNECTIONS		CLAMP ISO 2852:1993										
d0 [mm]	694/685/885	7,87								9,65		
	985	4,06										
Ao: $\frac{\pi \cdot d0^2}{4}$ ["2]	694/685/885	2,03								3,05		
	985	0,51										
H [mm]	685/885	-	-	-	94,23	-	-	-	98,81	-	-	
	985	-	-	-	105,16	-	-	-	109,73			
	694	-	-	-	101,09	-	-	-	101,09	-	-	
H1 [mm]	685/885	145,29	108,20	99,31	-	146,81	112,78	103,89	-	171,96	134,87	
	985	153,16	119,13	103,89	-	157,73	123,95	114,81	-			
	694	149,10	114,81	106,68	-	149,10	114,81	106,68	-	176,02	138,94	
h1 [mm]	685/885	154,18	125,22	115,32	-	158,75	129,79	119,89	-	185,93	149,86	
	985	165,35	136,14	126,24	-	169,93	140,97	130,81	-			
	694	161,04	132,08	121,92	-	161,04	132,08	121,92	-	190,50	153,92	
A [mm]	685/885/985	15,24				19,81				19,81		
	694	22,10								23,88		
L1 [mm]	685/885/985	36,07								43,94		
	694	41,40								58,42		
L2 [mm]	685/885	38,86				43,43				45,47		
	985	49,78				54,36						
	694	45,72								56,64		
INLET FLANGE PN-16 CLAMP ISO 2852:1993	C61	13,97				18,03				18,03		
	C71	34,04								34,04		
	C21	27,43								27,43		
	L11	2,79								2,79		
OUTLET FLANGE PN-16 CLAMP ISO 2852:1993	C62	18,03								23,62		
	C72	34,04								50,80		
	C22	27,43								43,43		
	L12	2,79								2,79		
WEIGHT [kg]		EP	AP	ES	AS	EP	AP	ES	AS	EP	AP	
685/885/985	BRONZE	0,47	0,38	0,36	0,34	0,47	0,38	0,36	0,34	0,97	0,74	
	STAINLESS STEEL	0,45	0,36	0,34	0,32	0,45	0,36	0,34	0,32	0,95	0,72	
694	STAINLESS STEEL	0,50	0,41	0,39	0,37	0,50	0,41	0,39	0,37	1,06	0,83	
CODE 685	BRONZE 2002-685.	83810	838110	838120	838130	80210	802110	802120	802130	80211	802111	
	STAINLESS STEEL 2002-685.	83820	838210	838220	838230	80220	802210	802220	802230	80221	802211	
885	BRONZE 2002-885.	83810	838110	838120	838130	80210	802110	802120	802130	80211	802111	
	STAINLESS STEEL 2002-885.	83820	838210	838220	838230	80220	802210	802220	802230	80221	802211	
985	STAINLESS STEEL 2002-985.	03820	03821	03822	03823	00220	00221	00222	00223			
694	STAINLESS STEEL 2002-694.	83820	838210	838220	838230	80220	802210	802220	802230	80221	802211	



EP **AP** **ES** **AS**

Model 685/885/985

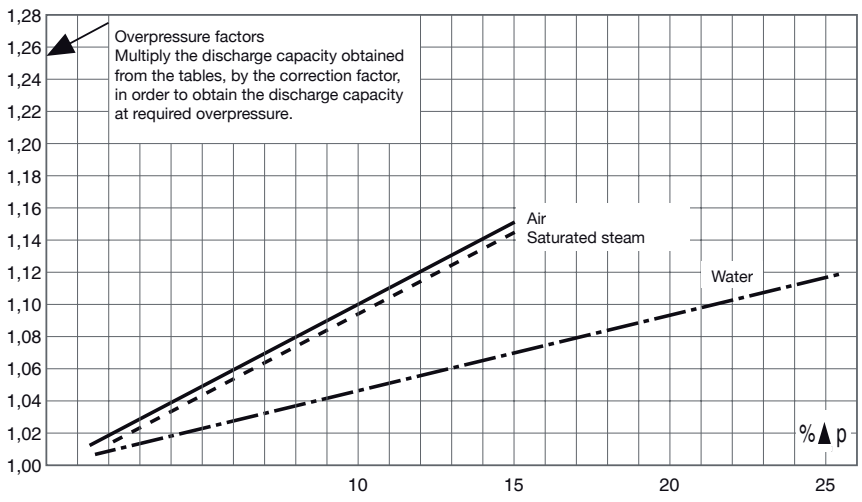
MODEL 685/885/985														
1/2" x 3/4"		3/4" x 3/4"				3/4" x 1"				1" x 1"				
Male thread x Female thread NPT ASME B1.20.1														
MODEL 694														
15 x 20		20 x 20				20 x 25				25 x 25				
CLAMP ISO 2852:1993														
9,65						12,95								
3,05						5,33								
-	116,84	-	-	-	117,09	-	-	-	143,26	-	-	-	146,05	
-	120,90	-	-	-	120,90	-	-	-	147,83	-	-	-	147,83	
123,95	-	162,05	135,13	124,21	-	201,17	164,08	152,15	-	204,22	167,13	155,19	-	
127,76	-	175,77	138,94	127,76	-	205,99	168,91	156,97	-	205,99	168,91	156,97	-	
141,73	-	186,18	150,11	142,24	-	215,14	179,07	170,18	-	218,19	152,15	173,23	-	
145,80	-	189,99	153,92	145,80	-	219,96	183,90	174,75	-	219,96	153,92	174,75	-	
503,17		509,78				509,78				632,21				
23,88						24,89								
43,94						59,94								
51,82						66,80								
45,47		48,51				58,42				61,47				
57,40						68,33								
18,03		23,62				23,62				29,72				
33,78		30,48				30,48								
27,43		43,43				43,43								
2,79						2,79								
23,62						29,72								
30,48						30,48								
43,43						43,43								
2,79						2,79								
ES	AS	EP	AP	ES	AS	EP	AP	ES	AS	EP	AP	ES	AS	
0,72	0,70	0,97	0,74	0,72	0,70	1,67	1,35	1,33	1,31	3,68	2,98	2,93	2,89	
0,70	0,68	0,95	0,72	0,70	0,68	1,65	1,33	1,31	1,29	3,64	2,93	2,89	2,84	
0,81	0,79	1,10	0,87	0,85	0,83	1,74	1,52	1,50	1,48	2,25	3,97	3,92	3,88	
802121	802131	83410	834110	834120	834130	83411	834111	834121	834131	81010	810110	810120	810130	
802221	802231	83420	834210	834220	834230	83421	834211	834221	834231	81020	810210	810220	810230	
802121	802131	83410	834110	834120	834130	83411	834111	834121	834131	81010	810110	810120	810130	
802221	802231	83420	834210	834220	834230	83421	834211	834221	834231	81020	810210	810220	810230	
802221	802231	83420	834210	834220	834230	83421	834211	834221	834231	81020	810210	810220	810230	

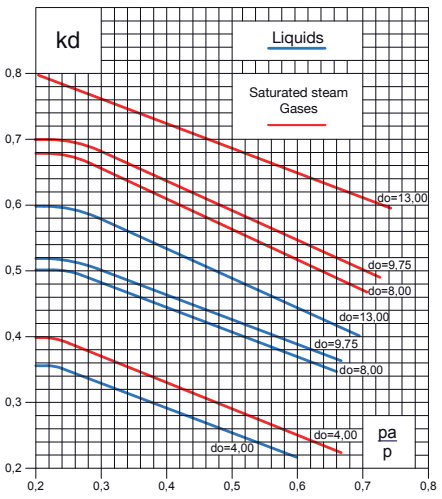


Model 694

SET PRESSURES AND REGULATING RANGES									
MODEL				685/885/985/694					
ENTRY CONNECTION	685/885/985		MNPT1	3/8”	1/2”	1/2”	3/4”	3/4”	1”
	694		DN1	10	15	15	20	20	25
EXIT CONNECTION	685/885/985		FNPT2	1/2”		3/4”		1”	
	694		DN2	15		20		25	
d0 [mm]	685/885/694			8,00		9,75		13,00	
	985			4,00		-			
SET PRESSURE [bar]	MAXIMUM	685/885	PS 36 bar	36		36		36	
		985	PS 144 bar	144		-			
		694	PN-16	16		16		16	
	MINIMUM	685/885	PS 36 bar	0,2		0,2		0,2	
		985	PS 144 bar	36,1		-			
		694	PN-16	0,2		0,2		0,2	
SPRING REGULATING RANGE [bar]	685/885/694	985		-					
	0,20 to 0,70	-	CODE	56160		56169		56178	
	0,60 to 1,60		CODE	56161		56170		56179	
	1,50 to 3,50		CODE	56162		56171		56180	
	3,40 to 5,50		CODE	56163		56172		56181	
	5,40 to 10,00	36,10 to 40,00	CODE	56164-56334		56173		56182	
	9,80 to 15,00	39,00 to 60,00	CODE	56165-56335		56174		56183	
	14,50 to 20,00	58,00 to 80,00	CODE	56166-56336		56175		56184	
	19,00 to 25,00	76,00 to 100,00	CODE	56167-56337		56176		56185	
	24,00 to 36,00	96,00 to 144,00	CODE	56168-56338		56177		56186	

OPENING, OVERPRESSURE AND RESET PRESSURES			
FLUID	OPENING PRESSURE	OVERPRESSURE	RESET PRESSURE
SATURATED STEAM AND GASES	The higher of ± 3% or ± 0,1 bar	The higher of +10% o +0,1 bar	The higher of -15% o -0,3 bar
LIQUIDS	The higher of ± 3% o ± 0,1 bar	The higher of +10% o +0,1 bar	The higher of -20% o -0,6 bar





DISCHARGE CAPACITY

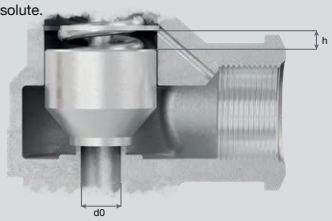
MODEL		685/885*												985					
ENTRY CONNECTION	MNPT1	3/8"		1/2"		1/2"		3/4"		3/4"		1"		3/8"		1/2"			
EXIT CONNECTION	FNPT2	1/2"			3/4"			1"			1/2"								
MODEL		694																	
ENTRY CONNECTION	DN1	10		15		15		20		20		25		-					
EXIT CONNECTION	DN2	15			20			25											
do [mm]		8			9,75			13						4					
$A0=\frac{\pi \cdot do^2}{4}$ [mm²]		50,26			74,66			132,73						12,57					
p [psi]		I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
0,2		0	0	717	0	0	717	0	0	1085	0	0	1085	0	0	2226	0	0	2226
0,5		0	0	1013	0	0	1013	0	0	1535	0	0	1535	0	0	3148	0	0	3148
1,0		36	52	1372	36	52	1372	54	78	2078	54	78	2078	109	158	4262	109	133	4262
1,5		45	65	1680	45	65	1680	68	98	2545	68	98	2545	138	199	5220	138	168	5220
2,0		54	78	1940	54	78	1940	82	118	2939	82	118	2939	166	241	6028	166	203	6028
2,5		63	92	2169	63	92	2169	96	139	3285	96	139	3285	195	282	6739	195	238	6739
3,0		73	105	2376	73	105	2376	110	159	3599	110	159	3599	223	323	7383	223	273	7383
3,5		82	119	2567	82	119	2567	124	179	3887	124	179	3887	252	365	7974	252	308	7974
4,0		91	132	2744	91	132	2744	138	200	4156	138	200	4156	281	406	8525	281	343	8525
4,5		101	146	2910	101	146	2910	152	220	4408	152	220	4408	309	448	9042	309	378	9042
5,0		110	159	3068	110	159	3068	166	240	4646	166	240	4646	338	489	9531	338	413	9531
6,0		129	186	3361	129	186	3361	194	281	5090	194	281	5090	395	572	10440	395	483	10440
7,0		148	213	3630	148	213	3630	222	322	5498	222	322	5498	453	654	11277	453	553	11277
8,0		166	240	3881	166	240	3881	251	362	5877	251	362	5877	510	737	12056	510	623	12056
9,0		185	267	4116	185	267	4116	279	403	6234	279	403	6234	568	820	12787	568	693	12787
10,0		204	294	4339	204	294	4339	307	444	6571	307	444	6571	625	903	13479	625	763	13479
12,0		241	348	4753	241	348	4753	364	525	7198	364	525	7198	741	1068	14765	741	904	14765
13,0		260	375	4947	260	375	4947	392	566	7493	392	566	7493	798	1151	15370	798	975	15370
14,0		279	402	5134	279	402	5134	421	606	7775	421	606	7775	856	1234	15948	856	1045	15948
16,0		317	456	5488	317	456	5488	477	687	8311	477	687	8311	972	1399	17049	972	1186	17049
18,0		355	510	5821	355	510	5821	534	769	8816	534	769	8816	1088	1565	18083	1088	1328	18083
20,0		392	564	6136	392	564	6136	591	850	9293	591	850	9293	1204	1730	19062	1204	1470	19062
22,0		430	618	6435	430	618	6435	649	931	9746	649	931	9746	1320	1896	19992	1320	1612	19992
24,0		468	672	6721	468	672	6721	706	1013	10179	706	1013	10179	1437	2061	20881	1437	1754	20881
26,0		506	726	6996	506	726	6996	763	1094	10595	763	1094	10595	1554	2227	21734	1554	1897	21734
28,0		545	780	7260	545	780	7260	821	1175	10995	821	1175	10995	1671	2392	22554	1671	2040	22554
30,0		583	834	7515	583	834	7515	879	1257	11381	879	1257	11381	1788	2558	23346	1788	2183	23346
32,0		621	888	7761	621	888	7761	936	1338	11754	936	1338	11754	1906	2723	24111	1906	2327	24111
34,0		660	942	8000	660	942	8000	994	1419	12116	994	1419	12116	2024	2889	24853	2024	2471	24853
36,0		698	996	8232	698	996	8232	1052	1500	12467	1052	1500	12467	2142	3054	25574	2142	2615	25574
38,0																	108	154	1451
40,0																	114	162	1489
42,0																	120	170	1526
44,0																	125	178	1561
46,0																	131	186	1597
48,0																		194	1631
50,0																		202	1664
52,0																		210	1697
54,0																		218	1730
56,0																		226	1762
58,0																		234	1793
60,0																		242	1823
62,0																		250	1853
64,0																		257	1883
66,0																		265	1912
68,0																		273	1941
70,0																		281	1969
72,0																		289	1997
74,0																		297	2025
76,0																		305	2052
78,0																		313	2079
80,0																		321	2105
82,0																		329	2132
84,0																		337	2157
86,0																		345	2183
88,0																		353	2208
90,0																		361	2233
92,0																		369	2258
94,0																		376	2282
96,0																		384	2306
98,0																		392	2330
100,0																		400	2354
105,0																		420	2412
110,0																		440	2469
115,0																		460	2524
120,0																		480	2579
125,0																		499	2632
130,0																		519	2684
135,0																		539	2735
140,0																		559	2785
145,0																		579	2835

COEFFICIENT OF DISCHARGE

MODEL			685/885/985						
ENTRY CONNECTION	685/885/985	MNPT1	3/8"	1/2"	1/2"	3/4"	3/4"	1"	
	694	DN1	10	15	15	20	20	25	
EXIT CONNECTION	685/885/985	FNPT2	1/2"		3/4"		1"		
	694	DN2	15		20		25		
d0	685/885/694		8,00		9,75		13,00		
	985		4,00						
h			2,50		4,00		5,50		
h/d0	685/885/694		0,31		0,41		0,42		
	985		0,62						
COEFFICIENT OF DISCHARGE kd (1)	685/885/694	SATURATED STEAM GASES	0,68		0,69		0,79		
	985		0,40						
	685/885/694	LIQUIDS	0,51		0,52		0,60		
	985		0,35						

1) For set pressures less than 3 bar see grapf of discharge coefficient.

pa = Backpressure permitted [bar] absolute.
p = Set pressure [bar] absolute.
αd = Coefficient of discharge.



I - Saturated steam [kg/h].

II - Air to 0 °C and 1.013 bar [Nm^3/h].

III - Water to 20 °C [l/h].

For other, not so dense liquids, other than water at 20 °C apply:

$$V_L = \sqrt{\frac{\varrho_A}{\varrho_L}} \cdot V_A \text{ Ó } V_A = V_L \cdot \sqrt{\frac{\varrho_L}{\varrho_A}}$$

V_A = Water flow according to table.
V_L = Liquid flow.
ϱ_A = Water density at a 20 °C. (ϱ_A = 998 kg/m³)
ϱ_L = Liquid density.

ATTENTION: Flow rates according to ASME VIII Div.1/API 520 with 10% overpressure.
*Minimum set pressure 13 bar.

Características

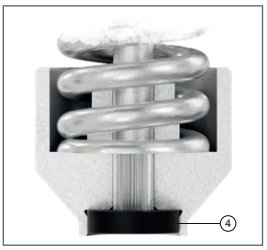
— 90° angular flow.
— Activated by direct action helicoid spring.
— Simplicity of construction ensuring minimum maintenance.
— Materials carefully selected for their resistance to corrosion.
— Internal body designed to offer favourable flow profile.
— Sealing surfaces balanced and making them extremely tightness, even exceeding API-527 requeriments.
— Great discharge capacity. For liquids typically used with openings similar to proportional safety valves.
— Auto-centering plug.
— Totally precise open and close.
— All the valves are supplied sealed at the set pressure requested, simulating operational conditions, and are vigorously tested.
— All components are numbered, registered and checked. If requested in advance, material, casting, test and efficiency certificates will be enclosed with the valve, and the instruction manual, in accordance with P.E.D. 2014/68/EU.

IMPORTANT

1.- Fluorelastomer (Vitón) seals, Silicone's rubber, PTFE (Teflón) o Perfluorelastomer (FFKM).

Achieving leakage levels less than: $0{,}2\text{x}10^{-8}\frac{\text{psi pulg}^3}{\text{seg.}}$

RANGE OF APPLICATION FOR THE SEALS									
FLUID		SET PRESSURE [bar]							
		0,20	1,80	4,80	20,00	30,00	36,01	45,00	144,00
Saturated steam		S	V		K	T			
Liquids and gases		S		V	K		T		
SEALS		TEMPERATURE [ºC]							
		MINIMUM			MAXIMUM				
Silicone's rubber	S	-50			200				
Fluorelastomer (Viton)	V	-20			220				
PTFE (Teflon)	T	-196			260				
Perfluorelastomer (FFKM)	K	-10			230				



Depending on demand:

1. Buna-nitryls seals, Butyl, Natural rubber, E.P.D.M., Chlorosulphonate polyethylene (Hypalon), Neoprene, etc.
2. Possibility of manufacture in other types of material, for use in special working conditions (high temperatures, fluids, etc.).