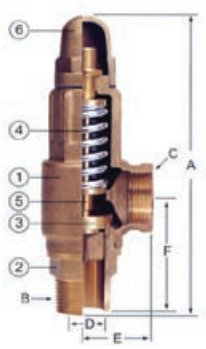
BRONZE SAFETY RELIEF VALVES N3/N3L



N3 Type
Sealing ½"~2"



N3P Type
Sealing ½"~2"



N3L Type
Lever ½"~2"

Technical Data

Low lift safety valves
Material: Body– Cast Bronze; Valve Seat– Brass, PTFE Soft Seat available
Orifice size: ½"(15mm), ¾"(20mm), 1"(25mm), 1¼"(32mm), 1½"(40mm), 2"(50mm)
Working pressure: 0.3~10 kgf/cm² (4.3~150 psig)
Working temp.: –45°C~185°C
Working fluid: Please refer to the table of "*General Material List*"

Dmensions Data

SEALING SERIES

ITEM \ SIZE	½"	¾"	1"	1¼"	1½"	2"
A	138	150	180	206	231	265
Inlet B	½"	¾"	1"	1¼"	1½"	2"
Outlet C	½"	¾"	1"	1¼"	1½"	2"
Valve Seat Orifice D	15	20	25	32	40	50
E	29	36	40	50	54	67
F	50	58	70	82	93	102
Lift	0.52	0.76	1.00	1.28	1.52	2.00
Wt. kg	0.52	0.66	1.09	1.90	2.35	3.85

LEVER SERIES

ITEM \ SIZE	½"	¾"	1"	1¼"	1½"	2"
A1	161	172	202	222	246	282
Wt. kg	0.59	0.74	1.19	1.94	2.39	4.11

(unit:mm)

General Material List

NO.	Type / Parts Name	*N3 SEALING*	*N3L LEVER*
1.	Valve Body	Cast Bronze	Cast Bronze
2.	Valve Seat	Forging Brass or PTFE	Forging Brass or PTFE
3.	Disc	Forging Brass	Forging Brass
4.	Spring	Steel	Steel
5.	Stem	Brass	Brass
6.	Cap	Forging Brass	Cast Bronze
Working Pressure		0.3~10kgf/cm² (Brass seat) ; 3.0~10kgf/cm² (PTFE seat)	
Working Temp.		-45°C~185°C	
Working Fluid		Noncorrosice gas, noncorrosive liquid, air,steam	Noncorrosice gas, air,steam

* The disc can be replaced with PTFE and those type N3P,N3LP.
* The valve seat can be also made of cast bronze on request.

Blowout Capacity

Please refer the Blowout Capacity Table on next page.

Ordering Information

N3 / N3L	Code	Valve Seat		
	0	Forging Brass	P	PTFE (pressure only 3.0~10 kg/cm²)

Code	Pressure Rating		
1	0.3~10 kg/cm² (Brass Seat)	2	3.0~10 kg/cm² (PTFE Seat)

Code	Size
	(A)½" NPT (B)¾" NPT (C)1" NPT (D)1¼" NPT (E)1½" NPT (F)2" NPT

				Complete Ordering Code

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Blowout Capavity Table

– Air

orifice / set press.	Air Blowout Capacity (kg/h)					
	½" (15)	¾" (20)	1" (25)	1¼" (32)	1½" (40)	2" (50)
1 kgf/cm²	30	64	110	180	255	441
2 kgf/cm²	45	97	168	275	388	671
3 kgf/cm²	61	130	226	370	521	902
4 kgf/cm²	77	164	283	464	654	1133
5 kgf/cm²	92	197	341	559	788	1364
6 kgf/cm²	108	230	399	653	921	1595
7 kgf/cm²	123	264	456	748	1054	1825
8 kgf/cm²	139	297	514	842	1188	2056
9 kgf/cm²	155	330	572	937	1321	2287
10 kgf/cm²	170	364	629	1031	1454	2518
11 kgf/cm²	186	397	687	1126	1588	2749
12 kgf/cm²	201	430	745	1220	1721	2979
13 kgf/cm²	217	464	803	1315	1854	3210
14 kgf/cm²	233	497	860	1409	1988	3441
15 kgf/cm²	248	530	918	1504	2121	3672
16 kgf/cm²	264	564	976	1599	2254	3903
17 kgf/cm²	279	597	1033	1693	2388	4134
18 kgf/cm²	295	630	1091	1788	2521	4364
19 kgf/cm²	311	664	1149	1882	2654	4595
20 kgf/cm²	326	697	1206	1977	2787	4826

– Water

orifice / set press.	Water Blowout Capacity (L/Min)					
	½" (15)	¾" (20)	1" (25)	1¼" (32)	1½" (40)	2" (50)
1 kgf/cm²	8.2	17.6	30.4	49.8	70.2	121.6
2 kgf/cm²	11.6	24.8	43.0	70.4	99.3	171.9
3 kgf/cm²	14.2	30.4	52.6	86.3	121.6	210.6
4 kgf/cm²	16.4	35.1	60.8	99.6	140.5	243.2
5 kgf/cm²	18.4	39.3	68.0	111.4	157.0	271.9
6 kgf/cm²	20.1	43.0	74.5	122.0	172.0	297.8
7 kgf/cm²	21.7	46.5	80.4	131.8	185.8	321.7
8 kgf/cm²	23.2	49.7	86.0	140.9	198.6	343.9
9 kgf/cm²	24.7	52.7	91.2	149.4	210.7	364.7
10 kgf/cm²	26.0	55.5	96.1	157.5	222.1	384.5
11 kgf/cm²	27.3	58.2	100.8	165.2	232.9	403.2
12 kgf/cm²	28.5	60.8	105.3	172.5	243.3	421.2
13 kgf/cm²	29.6	63.3	109.6	179.6	253.2	438.4
14 kgf/cm²	30.8	65.7	113.7	186.3	262.8	454.9
15 kgf/cm²	31.8	68.0	117.7	192.9	272.0	470.9
16 kgf/cm²	32.9	70.2	121.6	199.2	280.9	486.3
17 kgf/cm²	33.9	72.4	125.3	205.3	289.6	501.3
18 kgf/cm²	34.9	74.5	129.0	211.3	297.9	515.8
19 kgf/cm²	35.8	76.5	132.5	217.1	306.1	530.0
20 kgf/cm²	36.8	78.5	135.9	222.7	314.1	543.7

– Steam

orifice / set press.	Steam Blowout Capacity (kg/h)					
	½" (15)	¾" (20)	1" (25)	1¼" (32)	1½" (40)	2" (50)
1 kgf/cm²	18.4	39.2	67.90	111.3	156.9	271.7
2 kgf/cm²	27.7	59.1	102.4	167.7	236.6	409.5
3 kgf/cm²	37.0	79.0	136.9	224.2	316.2	547.4
4 kgf/cm²	46.3	98.9	171.3	280.7	395.8	685.2
5 kgf/cm²	55.7	118.8	205.8	337.1	475.4	823.1
6 kgf/cm²	65.0	138.7	240.2	393.6	555.0	960.9
7 kgf/cm²	74.3	158.7	274.7	450.1	634.7	1099
8 kgf/cm²	83.6	178.6	309.2	506.5	714.3	1237
9 kgf/cm²	92.9	198.5	343.6	563.0	793.9	1374
10 kgf/cm²	102.3	218.4	378.1	619.5	893.5	1512
11 kgf/cm²	111.6	238.3	412.5	675.9	953.2	1650
12 kgf/cm²	120.9	258.2	447.0	732.4	1033	1788
13 kgf/cm²	130.2	278.1	481.5	788.8	1112	1926
14 kgf/cm²	139.5	298.0	515.9	845.3	1192	2064
15 kgf/cm²	148.9	317.9	550.4	901.8	1272	2202
16 kgf/cm²	158.2	337.8	584.9	958.3	1351	2239
17 kgf/cm²	167.5	357.7	619.3	1014.7	1431	2477
18 kgf/cm²	176.8	377.6	653.8	1071.2	1511	2615
19 kgf/cm²	186.1	397.5	688.2	1127.6	1590	2753
20 kgf/cm²	195.4	417.4	722.7	1184.1	1670	2891

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