

BRONZE SAFETY RELIEF VALVES

N9B / N9-LB

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) (Brass Seat);

2~10 kgf/cm² (28~150 psig) (Brass Seat & PTFE Soft Seat are available);

11~20 kgf/cm² (156~285 psig) (Brass Seat & PTFE Soft Seat are available)

21~30 kgf/cm² (298~426 psig) (Brass Seat)

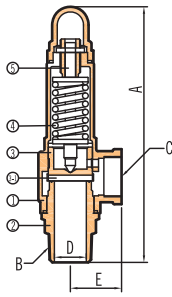
Working Temperature: -45°C~+185°C

Working Fluid: Please refer to the table of "General Material List"



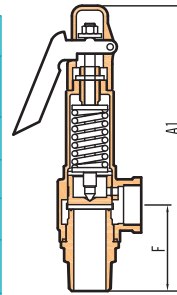
Soft Seal

Dimensions



N9B Type Sealing ½"~2"

SEALING SERIES							
SIZE	½"	¾"	1"	1¼"	1½"	2"	
ITEM							
A	145	167	202	233	256	283	
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	66	
F	49	55	67	79	86	96	
Lift	0.52	0.76	1.00	1.28	1.52	2.00	
Wt. kg	0.5	0.8	1.3	2.2	2.9	4.7	



N9LB Type Lever ½"~2"

LEVER SERIES							
SIZE	½"	¾"	1"	1¼"	1½"	2"	
ITEM							
A1	167	190	223	248	272	299	
Wt. kg	0.7	0.9	1.4	2.2	2.9	5.0	

(unit:mm)

General Material List

NO.	Type	N9B SEALING	N9-LB LEVER
	Parts Name		
1.	Valve Body	Cast Bronze	
2.	Valve Seat	Forging Brass	
3.	Disc	Forging Brass	
3-1.	Soft Seal	Teflon (PTFE)	
4.	Spring	Steel	
5.	Stem	Brass	
Working Pressure		0.3~10 kgf/cm ² , 11~20 kgf/cm ² , 21~30 kgf/cm ² (Brass seat) / 2~10 kgf/cm ² , 11~20 kgf/cm ² (PTFE soft seat)	
Working Temp.		-45°C ~ 185°C	
Working Fluid		Noncorrosive gas, Noncorrosive liquid, Corrosive gas, Corrosive liquid, Air, Steam, Water, Oil	Noncorrosive gas, Corrosive gas, Air, Steam

Blowout Capacity

Please refer the Blowout Capacity Table on next page.

Ordering Information

N9B / N9-LB	Code	Valve Seat	
↓	0	Forging Brass	P Forging Brass + PTFE
		Code Pressure Rating	
	1A	0.3~2 kg/cm ² (Brass seat)	3 11~20 kg/cm ² (Brass seat)
	1B	2~10 kg/cm ² (Brass seat)	4 11~20 kg/cm ² (PTFE soft seat)
	2	2~10 kg/cm ² (PTFE soft seat)	5 21~30 kg/cm ² (Brass seat)
↓	↓	Code	Size
		(A) ½"NPT (B) ¾"NPT (C) 1"NPT (D) 1¼"NPT (E) 1½"NPT (F) 2"NPT	
↓		Complete Ordering Code	

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/cm ²	30	64	110	180	255	441
2 kgf/cm ²	45	97	168	275	388	671
3 kgf/cm ²	61	130	226	370	521	902
4 kgf/cm ²	77	164	283	464	654	1133
5 kgf/cm ²	92	197	341	559	788	1364
6 kgf/cm ²	108	230	399	653	921	1595
7 kgf/cm ²	123	264	456	748	1054	1825
8 kgf/cm ²	139	297	514	842	1188	2056
9 kgf/cm ²	155	330	572	937	1321	2287
10 kgf/cm ²	170	364	629	1031	1454	2518
11 kgf/cm ²	186	397	687	1126	1588	2749
12 kgf/cm ²	201	430	745	1220	1721	2979
13 kgf/cm ²	217	464	803	1315	1854	3210
14 kgf/cm ²	233	497	860	1409	1988	3441
15 kgf/cm ²	248	530	918	1504	2121	3672
16 kgf/cm ²	264	564	976	1599	2254	3903
17 kgf/cm ²	279	597	1033	1693	2388	4134
18 kgf/cm ²	295	630	1091	1788	2521	4364
19 kgf/cm ²	311	664	1149	1882	2654	4595
20 kgf/cm ²	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/cm ²	8.2	17.6	30.4	49.8	70.2	121.6
2 kgf/cm ²	11.6	24.8	43.0	70.4	99.3	171.9
3 kgf/cm ²	14.2	30.4	52.6	86.3	121.6	210.6
4 kgf/cm ²	16.4	35.1	60.8	99.6	140.5	243.2
5 kgf/cm ²	18.4	39.3	68.0	111.4	157.0	271.9
6 kgf/cm ²	20.1	43.0	74.5	122.0	172.0	297.8
7 kgf/cm ²	21.7	46.5	80.4	131.8	185.8	321.7
8 kgf/cm ²	23.2	49.7	86.0	140.9	198.6	343.9
9 kgf/cm ²	24.7	52.7	91.2	149.4	210.7	364.7
10 kgf/cm ²	26.0	55.5	96.1	157.5	222.1	384.5
11 kgf/cm ²	27.3	58.2	100.8	165.2	232.9	403.2
12 kgf/cm ²	28.5	60.8	105.3	172.5	243.3	421.2
13 kgf/cm ²	29.6	63.3	109.6	179.6	253.2	438.4
14 kgf/cm ²	30.8	65.7	113.7	186.3	262.8	454.9
15 kgf/cm ²	31.8	68.0	117.7	192.9	272.0	470.9
16 kgf/cm ²	32.9	70.2	121.6	199.2	280.9	486.3
17 kgf/cm ²	33.9	72.4	125.3	205.3	289.6	501.3
18 kgf/cm ²	34.9	74.5	129.0	211.3	297.9	515.8
19 kgf/cm ²	35.8	76.5	132.5	217.1	306.1	530.0
20 kgf/cm ²	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/cm ²	18.4	39.2	67.90	111.3	156.9	271.7
2 kgf/cm ²	27.7	59.1	102.4	167.7	236.6	409.5
3 kgf/cm ²	37.0	79.0	136.9	224.2	316.2	547.4
4 kgf/cm ²	46.3	98.9	171.3	280.7	395.8	685.2
5 kgf/cm ²	55.7	118.8	205.8	337.1	475.4	823.1
6 kgf/cm ²	65.0	138.7	240.2	393.6	555.0	960.9
7 kgf/cm ²	74.3	158.7	274.7	450.1	634.7	1099
8 kgf/cm ²	83.6	178.6	309.2	506.5	714.3	1237
9 kgf/cm ²	92.9	198.5	343.6	563.0	793.9	1374
10 kgf/cm ²	102.3	218.4	378.1	619.5	893.5	1512
11 kgf/cm ²	111.6	238.3	412.5	675.9	953.2	1650
12 kgf/cm ²	120.9	258.2	447.0	732.4	1033	1788
13 kgf/cm ²	130.2	278.1	481.5	788.8	1112	1926
14 kgf/cm ²	139.5	298.0	515.9	845.3	1192	2064
15 kgf/cm ²	148.9	317.9	550.4	901.8	1272	2202
16 kgf/cm ²	158.2	337.8	584.9	958.3	1351	2239
17 kgf/cm ²	167.5	357.7	619.3	1014.7	1431	2477
18 kgf/cm ²	176.8	377.6	653.8	1071.2	1511	2615
19 kgf/cm ²	186.1	397.5	688.2	1127.6	1590	2753
20 kgf/cm ²	195.4	417.4	722.7	1184.1	1670	2891