

# 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:** 1/2"(15mm), 3/4"(20mm), 1"(25mm), 1 1/4"(32mm), 1 1/2"(40mm), 2"(50mm)

**Working pressure:** 2~10 kgf/cm<sup>2</sup> (28~150 psig), 11~20 kgf/cm<sup>2</sup> (156~285 psig)

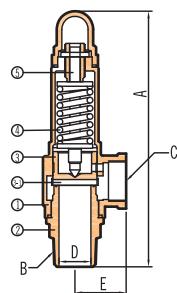
**Working temp.:** -45°C~185°C

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

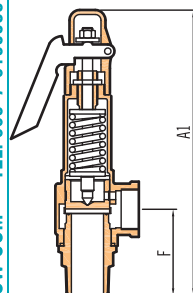


### Dimensions

(unit:mm)



**N9B TYPE**  
Sealing 1/2"~2"



**N9LB TYPE**  
Lever 1/2"~2"

SEALING SERIES							
ITEM	SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A		145	167	202	233	256	283
Inlet B		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Outlet C		1/2"	3/4"	1"	1 1/4"	1 1/2"	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

LEVER SERIES							
ITEM	SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A1		167	190	223	248	272	299
Wt. kg		0.7	0.9	1.4	2.2	2.9	5.0

### Blowout Capacity Table

(unit:mm)

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

### 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		0.3~10kgf/cm <sup>2</sup> , 11~20kgf/cm <sup>2</sup> (Brass Seat) / 2~10 kgf/cm <sup>2</sup> , 11~20kgf/cm <sup>2</sup> (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

### Ordering Information

N9B / N9-LB	Code	Valve Seat					
	0	Forging Brass	P	Forging Brass + PTFE			
		Code	Pressure Rating				
		1	0.3~10 kg/cm <sup>2</sup> (Brass seat only)	2	2~10 kg/cm <sup>2</sup> (PTFE soft seat only)	3	11~20 kg/cm <sup>2</sup>
		Code	Size				
		(A)1/2" (B)3/4" (C)1" (D)1 1/4" (E)1 1/2" (F)2"					
Complete Ordering Code							