

## APPLICATION AND KINDS OF EXECUTION

- 781** - for air, steam and other neutral gases and vapours and liquids (for  $b_1=25\%$ ).  
Working temperature: from  $-10^\circ\text{C}$  up to  $+200^\circ\text{C}$ .
- 781C** - for water and other neutral liquids.  
Working temperature: from  $-10^\circ\text{C}$  up to  $+200^\circ\text{C}$ .

Valves are produced in the following executions:

- 781** - in execution **P** – normal; **G** – gas-tight; **WM** – for marine conditions
- 781C** - in execution **P** – normal; **G** – gas-tight; **WM** – for marine conditions

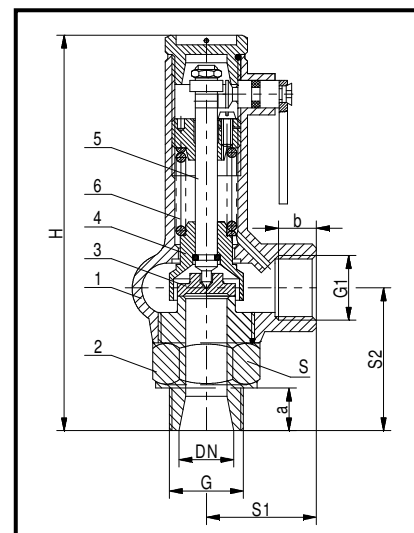
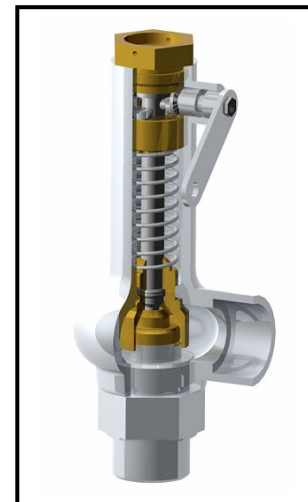
## LIST OF APPLIED MATERIALS

Position No	Name of detail	Material
1	Body <sup>2)</sup>	CuZn39Pb2
2	Nozzle	X39CrMo17-1
3	Disc	X39CrMo17-1
4	Bell	CuZn40Pb2
5	Stem	X20Cr13 <sup>1)</sup>
6	Spring	B1

<sup>1)</sup> for marine execution (WM) stem made of X17CrNi16-2

<sup>2)</sup> nickel-plated

**Valves have approval of Petroleum and Gas Institute for application to liquid gas fuels hydrocarbons (propane-butane) and oil products.**



## OVERALL DIMENSIONS

Size DN	Seat		Inlet		Outlet		Construction length		Construction height	Hexagon	Opening pressure		Weight ca.
	Passage	Section	G	a	G <sub>1</sub>	b	S <sub>1</sub>	S <sub>2</sub>	H	S	min	max.	kg
d <sub>1</sub> x d <sub>2</sub>	d <sub>o</sub>	A	cal	mm	cal	mm	mm			mm	bar		
10x15	10	78,5	3/8	12	1/2	9	35	41	144	27	0,3	16	0,67
15x15	12	113	1/2	13	1/2	9	35	44	147	27	0,3	16	0,71
20x20	16	201	3/4	15	3/4	13	40	52	155	32	0,3	16	0,86
25x25	20	314	1	18	1	14	50	59	162	41	0,3	10	1,20

## TECHNICAL DATA

### Discharge coefficients

Type of valve	DN	For vapours and gases $\alpha$			For liquids $\alpha_c$	
		b <sub>1</sub> = 0,1 bar	b <sub>1</sub> = 10%		b <sub>1</sub> =10%	b <sub>1</sub> =25%
		0,3 ≤ p < 0,5 bar	0,5 ≤ p < 1,5 bar	1,5 ≤ p < 16 bar		
781	10 x 15 to 25 x 25	0,19	0,20	0,25	0,01	0,20
781C	20 x 20	-	-	-	0,20	-
	25 x 25	-	-	-	0,23	-

## Pressure ranges.

DN	Pressure ranges [bar]
10x15	0,3...0,5; 0,5...1,6; 1,5...2,8; 2,7...4,7; 4,5...9,0; 8,5...16
15x15	0,3...0,5; 0,5...1,4; 1,2...2,5; 2,4...4,7; 4,5...16
20x20	0,3...0,5; 0,5...1,5; 1,4...3,3; 3,2...7,0; 6,8...16
25x25	0,3...0,5; 0,5...1,0; 0,9...1,6; 1,5...2,3; 2,2...3,0; 2,8...4,8; 4,5...6,0; 5,5...10

If the required opening pressure appears in two neighbouring pressure ranges, one should to apply valve with spring of higher pressure range.

### NOTES!

1. If condensate accumulates, in the lowest point of blow-out installation should be foreseen dehydration. The dehydration in valve's body is made only on special request of the client. In case of liquids, the blow-out installation should be inclined
2. **The valve should be assembled in vertical position.**

### ORDERING

The order should specify: name and catalogue number of the valve, DN, opening pressure or range of pressures, working temperature and kind of medium.

