armak

PROPORTIONAL, SPRING, ANGLE, FLANGE SAFETY VALVE WITH ASSISTANCE BELL

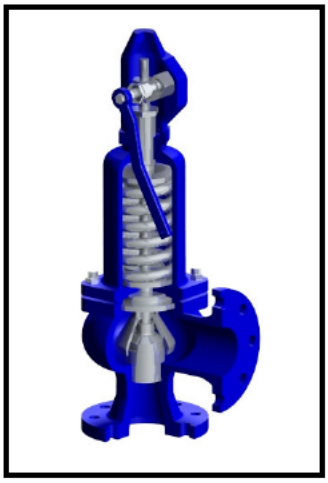
Si 2501

PN 16

CERTIFICATE OF QUALITY MANAGEMENT SYSTEM

CE 0045

APPLICATION AND KINDS OF EXECUTION



Si 2501 - for water, air, steam and other neutral liquids, gases and vapours.
Working temperature: from -10°C up to + 300°C.

Valves are produced in the following executions:

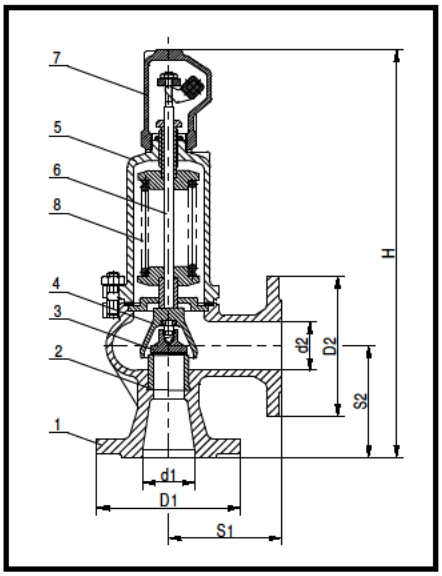
Si 2501 - in execution **P** – normal; **G** – gas-tight; **WM** – for marine conditions

LIST OF APPLIED MATERIALS

Position No	Name of detail	Material
1	Body	EN-GJL-250
2	Seat	X39CrMo17-1
3	Disc	X39CrMo17-1
4	Bell	EN-GJS-400-15
5	Bonnet	EN-GJL-250
6	Spindle[1)]	X20Cr13
7	Lifting Cap	EN-GJS-400-15
8	Spring[2)]	51CrV4

[1)] For marine execution (WM) stem made of: X17CrNi16-2

[2)] Springs with wire diameter up to Φ 6 of patent wire BI,
Max. working temperature is 250°C.



OVERALL DIMENSIONS

Size DN	Seat		Inlet flange	Outlet flange	Length of construction		Height of construction	Opening pressure		Mass ca.
	Passage	Section	PN 16	PN 10						
$d_1 \times d_2$	d_o	A	D_1	D_2	S_1	S_2	H	min	max.[1]	kg
	mm	mm^2	mm					bar		
15 x 15	12	113	95	95	90	90	330	0,45	16	6
20 x 20	12	113	105	105	95	95	335	0,45	16	6
25 x 25	16	201	115	115	100	100	350	0,45	16	8
32 x 32	20	314	140	140	105	105	390	0,45	16	10
40 x 40	25	491	150	150	115	115	420	0,45	16	12
50 x 50	32	804	165	165	125	125	495	0,45	16	20
65 x 65	40	1257	185	185	145	145	550	0,45	16	25
80 x 80	50	1964	200	200	155	155	655	0,45	16	36
100 x 100	63	3117	220	220	175	175	705	0,45	16	47
125 x 125	77	4657	250	250	200	200	810	0,45	16	74
150 x 150	93	6793	285	285	225	225	850	0,45	16	100
200 x 200	110	9503	340	340	250	250	990	0,45	16	140

[1] For steam boilers valid are restrictions according to WUDT-UC-WO-M - it is 10 bar and 200°C.

TECHNICAL DATA

Discharge coefficients

Type of valve	DN	For vapours and gases α	For liquids α_c		
		b_1= 10%	b_1 = 10%	b_1= 25%	
				p < 1,2 bar	p ≥ 1,2 bar
Si 2501	15x15 to 200x200	0,25	0,006	0,065	0,25

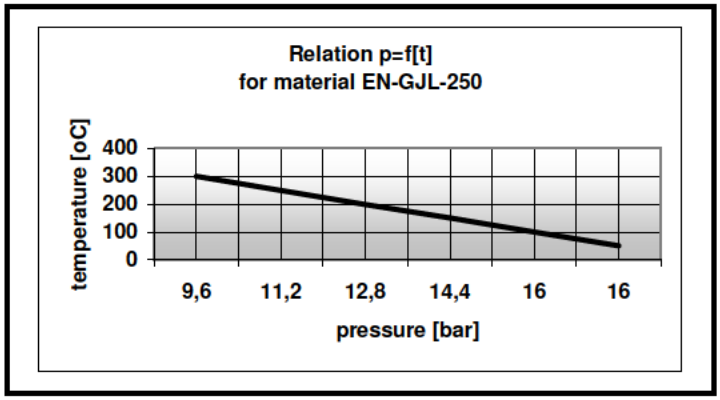
Pressure ranges.

DN	Pressure ranges [bar]
15 x 15	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16
20 x 20	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16
25 x 25	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16
32 x 32	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16
40 x 40	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16
50 x 50	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16
65 x 65	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16
80 x 80	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16
100 x 100	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16
125 x 125	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16
150 x 150	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16
200 x 200	0,45…0,68; 0,66…1,0; 0,95…1,4; 1,3…1,9; 1,8…2,6; 2,5…3,6; 3,5…5,0; 4,8…6,3; 6,0…8,0; 7,5…10; 9,5…12,5; 12…16

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

NOTES!

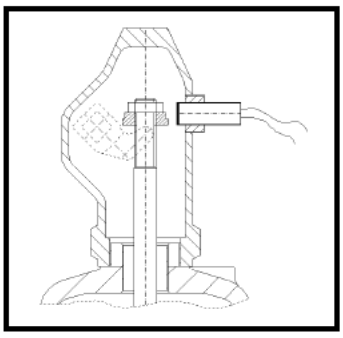
1. If condensate accumulates, in the lowest point of blow-out installation should be foreseen dehydration. The dehydration in valve's body is made only on special request of the client. In case of liquids, the blow-out installation should be inclined
2. **The valve should be assembled in vertical position.**



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. **Because of variety of objective norms, it is advisable to give the norms according to which should be executed the connected flanges of valve.**
Onto client's wish we can deliver counter flanges together with connection elements and gaskets.

For special order are produced valves with inductive proximity detector which signals moment of operation.



Basic data of detector:

Working range [mm]	**3 (M8); 6 (M12); 10 (M18)**
Supply tension [V]	**10 ÷ 30 DC**
Protection grade	**IP67 (M8); IP68 (M12 and M18)**
Working temperature	**-25 ÷ +70°C**
Standard length of cable [mm]	**2000**

The other executions of detector for special order after co-ordination with manufacturer.
Onto client's wish are used detectors working in range of temperature: **-25 ÷ +230°C.**