

1811.1 • 3/8" ÷ 3"

1821.1 • 3/8" ÷ 3"

1831.1 • 3/8" ÷ 3"

THE PRESET SAFETY VALVE WITH CONVEYED DISCHARGE CE - 0425 MARKED  
IN COMPLIANCE WITH DIRECTIVE PED 2014/68/EU - RISK CATEGORY IV  
CONNECTIONS: FEMALE - FEMALE



## DESCRIPTION

The preset safety valve with conveyed discharge is a device against over pressure designed to open automatically by means of the fluid energy whenever the internal pressure in the system exceeds the maximum set value of the valve (setting pressure  $P_{nr}$ ). This allows the discharge of the fluid through the valve. When the internal pressure in the system drops below the setting pressure, the safety valve will close automatically preventing further discharge of the fluid. The preset safety valves with conveyed discharge are complying with the guidelines stipulated in the EU Pressure Equipment Directive (PED) 2014/68/EU.

## TECHNICAL FEATURES

### Pressure:

maximum allowable working pressure (PN)  
preset nominal pressure ( $P_{nr}$ )

16 bar (10 bar for 2"1/2 and 3")  
may be requested for a field adjustable from 0.5 to 16 bar (0.5 - 10 bar for 2"1/2 and 3")  
(factory set and sealed and thus the above must be specified when ordering)

minimum accumulation pressure  
overpressure  
reclosing value  
flow coefficient

$P_{nr} - 5\%$   
 $P_{nr} + 10\%$   
 $P_{nr} - 20\%$   
(K) = 0.05

### Threading:

pipeline connections

threads according to ISO 228/1

### Requirements and tests as per:

type test (functional aspects)  
acceptance test  
manufacturing test

with reference to ISO 4126-1  
preset pressure according to UNI 10197  
pressure test in line with Annex I, section 3.2.2 of the PED Directive.

## DESIGN

### Body

Other components in brass

brass CC754S  
brass CW614N  
brass CW617N  
brass CC754S  
brass CW617N  
brass CC754S  
brass CW617N  
brass CW614N  
brass CC754S  
rubber SBR  
PTFE

Bonnet dimensions 3/8" ÷ 1" 1/2  
dimensions 2" ÷ 3"

Obturator cod. 1811 dimensions 3/8" ÷ 2"  
dimensions 2"1/2 - 3"

cod. 1821  
cod. 1831

### Spring

Other components in steel

galvanized steel EN 10270-1 SM  
galvanized carbon steel

## PRODUCT CODES

1811.112	metal seat	3/8"	F/F	1821.112	rubber seat	3/8"	F/F	1831.112	PTFE seat	3/8"	F/F
1811.115	metal seat	1/2"	F/F	1821.115	rubber seat	1/2"	F/F	1831.115	PTFE seat	1/2"	F/F
1811.120	metal seat	3/4"	F/F	1821.120	rubber seat	3/4"	F/F	1831.120	PTFE seat	3/4"	F/F
1811.125	metal seat	1"	F/F	1821.125	rubber seat	1"	F/F	1831.125	PTFE seat	1"	F/F
1811.133	metal seat	1"1/4	F/F	1821.133	rubber seat	1"1/4	F/F	1831.133	PTFE seat	1"1/4	F/F
1811.142	metal seat	1"1/2	F/F	1821.142	rubber seat	1"1/2	F/F	1831.142	PTFE seat	1"1/2	F/F
1811.150	metal seat	2"	F/F	1821.150	rubber seat	2"	F/F	1831.150	PTFE seat	2"	F/F
1811.166	metal seat	2"1/2	F/F	1821.166	rubber seat	2"1/2	F/F	1831.166	PTFE seat	2"1/2	F/F
1811.180	metal seat	3"	F/F	1821.180	rubber seat	3"	F/F	1831.180	PTFE seat	3"	F/F



OFFICINE RIGAMONTI S.p.A.  
via Circonvallazione, 9  
13018 Valduggia (VC), ITALY  
TEL +39 0163.48165  
FAX +39 0163.47254  
www.officinerigamonti.it  
export@officinerigamonti.it

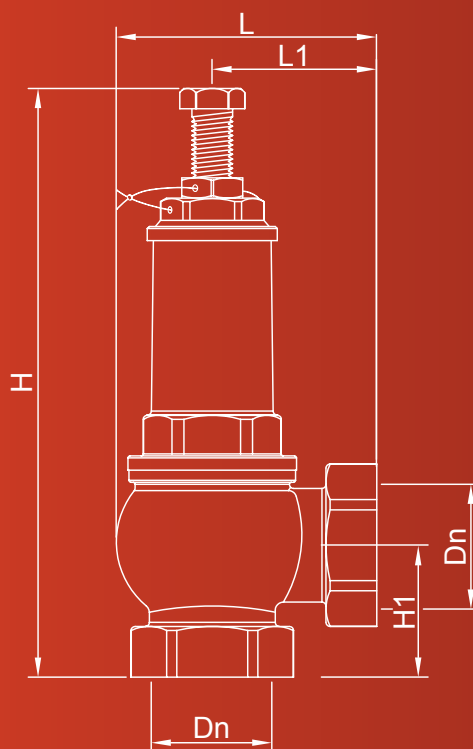
1811.1 • 3/8" ÷ 3"

1821.1 • 3/8" ÷ 3"

1831.1 • 3/8" ÷ 3"

THE PRESET SAFETY VALVE WITH CONVEYED DISCHARGE CE - 0425 MARKED  
IN COMPLIANCE WITH DIRECTIVE PED 2014/68/EU - RISK CATEGORY IV

CONNECTIONS: FEMALE - FEMALE



#### PED OPERATING LIMITS

Code	Obturator Material	Max. allowable Pressure PS	Max. allowable Temperature TS	PED Risk Category	PED Evaluation Procedure	PED supervisory body	Acceptable Fluids
1811	Brass	16 Bar	from 0° to 220°C	IV	Module B+D	0425	L-G-S Group I* and II
1821	SBR Rubber	16 Bar	from 0° to 70°C	IV	Module B+D	0425	L-G Group I* and II
1831	PTFE	16 Bar	from 0° to 180°C	IV	Module B+D	0425	L-G-S Group I* and II

L: Liquids - G: Gas

S: Steam (suitable to be used with steam but not covered by PED certification)

\* Compatibility to substances belonging to "Group I" is limited and requires to be approved by Officine Rigamonti S.p.A.

#### FEATURES

Dn	L [mm]	L1 [mm]	H [mm]	H1 [mm]
3/8"	46	28	115	24
1/2"	56	35	130	30
3/4"	64	39	158	32
1"	76	47	163	40
1"1/4	90	56	192	44
1"1/2	100	63	215	47
2"	124	75	247	60
2"1/2	135	79	280	69
3"	145	84	293	77

1811.1 • 3/8" ÷ 3"

1821.1 • 3/8" ÷ 3"

1831.1 • 3/8" ÷ 3"

THE PRESET SAFETY VALVE WITH CONVEYED DISCHARGE CE - 0425 MARKED  
IN COMPLIANCE WITH DIRECTIVE PED 2014/68/EU - RISK CATEGORY IV  
CONNECTIONS: FEMALE - FEMALE

SETTINGS

Discharging flow H<sub>2</sub>O (m<sup>3</sup>/h) cod. 1811.1-1821.1-1831.1

P set	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"
1	2,9	4,8	10,2	18,7	27,2	40,8	65,1	115,8	169,7
2	3,6	5,8	12,5	22,9	33,3	50,0	79,7	141,8	207,9
3	4,2	6,8	14,4	26,4	38,4	57,7	92,1	163,7	240,0
4	4,6	7,6	16,1	29,5	42,9	64,5	103,0	183,0	268,4
5	5,1	8,3	17,7	32,3	47,0	70,7	112,8	200,5	294,0
6	5,5	8,9	19,1	34,9	50,8	76,3	121,8	216,6	317,6
7	5,9	9,6	20,4	37,3	54,3	81,6	130,2	231,5	339,5
8	6,2	10,1	21,6	39,6	57,6	86,6	138,1	245,6	360,1
9	6,6	10,7	22,8	41,7	60,7	91,2	145,6	258,8	379,5
10	6,9	11,2	23,9	43,8	63,7	95,7	152,7	271,5	398,1
11	7,2	11,7	25,0	45,7	66,5	100,0	159,5		
12	7,5	12,2	26,0	47,6	69,2	104,0	166,0		
13	7,8	12,6	27,0	49,4	71,9	108,0	172,3		
14	8,1	13,1	27,9	51,1	74,4	111,8	178,3		
15	8,3	13,5	28,9	52,8	76,8	115,4	184,2		
16	8,6	13,9	29,7	54,4	79,2	119,0	189,8		

Discharging flow STEAM (kg/h) cod. 1811.1-1831.1

P set	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"
1	3,8	6,2	13,1	24,0	34,9	52,5	83,7	148,7	218,1
2	5,6	9,1	19,4	35,5	51,6	77,7	123,9	220,2	322,9
3	7,4	12,0	25,6	46,9	68,2	102,6	163,7	291,0	426,8
4	9,2	14,9	31,8	58,2	84,7	127,4	203,3	361,3	529,9
5	11,0	17,8	38,0	69,5	101,1	152,1	242,7	431,3	632,5
6	12,8	20,7	44,1	80,7	117,5	176,7	281,9	501,0	734,8
7	14,6	23,6	50,2	91,9	133,8	201,3	321,1	570,6	836,8
8	16,3	26,5	56,3	103,1	150,1	225,7	360,1	639,9	938,5
9	18,1	29,3	62,4	114,3	166,4	250,2	399,1	709,3	1040,3
10	19,9	32,2	68,5	125,4	182,6	274,6	438,0	778,4	1141,6
11	21,6	35,1	74,6	136,6	198,8	299,0	477,0		
12	23,4	37,9	80,7	147,7	215,0	323,3	515,8		
13	25,4	41,2	87,7	160,6	233,8	351,6	560,9		
14	27,2	44,1	93,9	171,8	250,1	376,2	600,1		
15	29,0	47,0	100,0	183,1	266,6	400,9	639,5		
16	30,8	49,9	106,2	194,4	283,0	425,6	679,0		

Discharging flow GAS (kg/h) cod. 1811.1-1821.1- 1831.1

P set	3/8"	1/2"	3/4"	1"	1"1/4	1"1/2	2"	2"1/2	3"
1	6,3	10,2	21,6	39,6	57,6	86,7	138,3	245,8	360,5
2	9,4	15,3	32,5	59,4	86,5	130,1	207,5	368,7	540,7
3	12,5	20,3	43,3	79,2	115,3	173,4	276,6	491,6	721,0
4	15,7	25,4	54,1	99,0	144,1	216,8	345,8	614,5	901,2
5	18,8	30,5	64,9	118,8	172,9	260,1	414,9	737,4	1081,5
6	21,9	35,6	75,7	138,6	201,8	303,5	484,1	860,3	1261,7
7	25,1	40,7	86,5	158,4	230,6	346,8	553,2	983,2	1442,0
8	28,2	45,8	97,4	178,2	259,4	390,2	622,4	1106,1	1622,2
9	31,3	50,8	108,2	198,0	288,2	433,5	691,5	1229,0	1802,4
10	34,5	55,9	119,0	217,8	317,1	476,9	760,7	1351,9	1982,7
11	37,6	61,0	129,8	237,6	345,9	520,2	829,9		
12	40,8	66,1	140,6	257,4	374,7	563,6	899,0		
13	43,9	71,2	151,5	277,2	403,5	606,9	968,2		
14	47,0	76,3	162,3	297,0	432,4	650,3	1037,3		
15	50,2	81,3	173,1	316,8	461,2	693,6	1106,5		
16	53,3	86,4	183,9	336,6	490,0	737,0	1175,6		