

# Excess Pressure Valve

## TYPE EP615-EP615E

### Description

These simple and robust designed excess pressure valves (without auxiliary energy) are adapted to a large number of processes requiring upstream pressure control. The excess pressure valve opens when the upstream pressure increases. The set point is adjustable with a hand wheel which compresses a spring more or less according to the desired set point value. These valves are particularly adapted for liquids (water, oil, acids...) and gases (air, nitrogen...).

Direct passage valve :

- EP615 (Single direct seat)
- EP615E (Single direct seat balanced by piston)

### Characteristics

Flanges : DN15 au/ to DN100

Threaded sleeves : ½" au/to 2"

Material : Acier / Steel 1.0619 – A216 WCB/WCC

Stainless steel 1.4408 – A351 CF8M

Flanges ISO PN16...40 – Class 150, 300

Design ANSI B16-34 PN50

### Options

- Flanges with grooves
- Flanges ANSI Class 150, Class 300
- PTFE soft seal cone (Max. Temp 200°C)
- Seat and exhaust valve : stellit
- Device without copper alloy

### Special features

Wide range of Kvs: 0.5 à/to 296

Pressure set point range: 0.1 to 18.1 bar

### How to order

- Excess pressure valve type EP615 or EP615E

DN, PN, Material, Flanges according to EN. Kvs = \_\_ Ø seat = \_\_\_\_ mm

Internal impulse (or external on pipe). Plug, stem and seat in stainless steel.

- Actuator type \_\_\_\_\_

Diaphragm in EPDM (or NBR or FKM) / Range of adjustment n° \_\_\_\_\_ de/form \_\_\_\_\_ à/to \_\_\_\_\_ bar

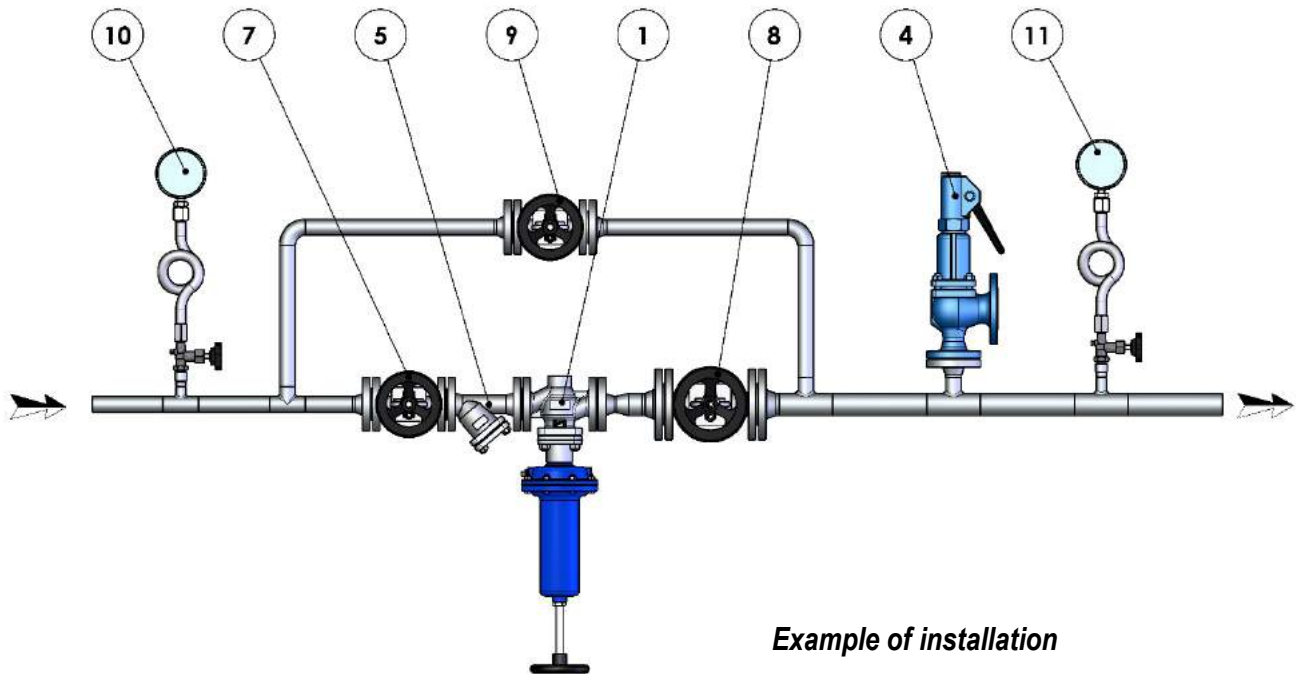
### Certifications

DESP; ATEX II 2 G/D; ISO9001 / PED; ATEX II 2 G/D; ISO9001



## Operation

The excess pressure valves type EP615 and EP615E are self-actuated (without auxiliary energy) controlling the pressure upstream compared to a set point. The excess pressure valve opens by increase in the pressure upstream in a proportional way. The choice of the adjustment range will be carried out according to the pressure upstream to control and of adjustment range table.



**Example of installation**

Rep./Item	Description
1	Excess pressure valve
4	Safety valve
5	Y strainer
7	Inlet isolating valve
8	Outlet isolating valve
9	Bypass valve
10	Upstream gauge
11	Downstream gauge

## Mounting

It is imperative to assemble the excess pressure valve, on horizontal piping, the actuator downwards to protect the diaphragm from high temperatures.

However, after consulting our sales department, according to the temperature and the diaphragm material, the device can be assembled with actuator upwards.

## Operational Limits

Excess pressure valve	Nominal Diameter	Leakage rate	Max temperature in actuator
EP615 Single seat	DN 15 ... DN 65	Metallic sealing  < 0,1% Kvs	50°C With NBR diaphragm  130°C With EPDM diaphragm
	EP615E Single seat balancing by piston		DN 20 ... DN 200

### Kvs values (m<sup>3</sup>/h)

EP615								
Sleeves	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	-	-
Flanges	15	20	25	32	40	50	65	80
Ø Seat	Kvs							
2	0.2							
3			0.3					
4	0.5	0.5	0.5					
6	1.0	1.0	1.0					
8	1.7	1.7	1.7					
10			3					
12	2.7	3.7	4	4.1				
15	3.3	4.9	5.2	5.7				
20		6	7.5	8.3	8.5	12		
25			9.2	12	15	17		
32				15	20	24	25	
40					24	30	33	34
50						37	42	44
65							54	59

EP615E Balanced											
Flanges	20	25	32	40	50	65	80	100	125	150	200
Ø Seat	Kvs										
20	6	7.5	8.3	8.5	12						
25		9.2	12	15	17						
32			15	20	24	25		24			
40				24	30	33	34				
50					37	42	44	44			
65						54	59	61			
80							71	76			
100								127			
125									140		
150										212	
200											296

## Adjustment Range (bar eff)

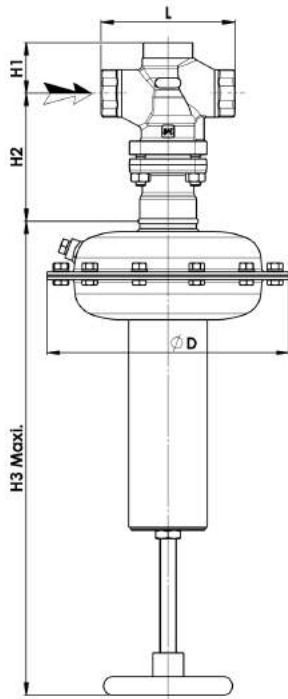
EP615					
Type	Surface	N° Plage Range	R Ressort Spring	Range according to Ø seat	
				Ø2 à/to Ø20 Stroke 5mm	Ø25 à/to Ø65 Stroke 10mm
B	175 cm <sup>2</sup>	24	8-41	0.1 ... 0.6	0.1 ... 0.6
		23	8-40	0.1 ... 1.0	0.2 ... 0.9
		22	8-39	0.2 ... 1.6	0.4 ... 1.5
		21	8-38	0.3 ... 2.1	0.7 ... 1.9
		20	8-37	0.6 ... 3.7	1.2 ... 3.4
C	70 cm <sup>2</sup>	31	8-41	0.1 ... 1.5	0.3 ... 1.5
		30	8-40	0.3 ... 2.4	0.5 ... 2.3
		29	8-39	0.5 ... 3.9	0.9 ... 3.7
		28	8-38	0.8 ... 5.1	1.7 ... 4.7
		27	8-37	1.5 ... 9.3	3.0 ... 8.6
		104	8-98	2.9 ... 15.0	5.7 ... 13.6

EP615E						
Type	Surface	N° Plage Range	R Ressort Spring	Range according to Ø seat		
				Ø20 Stroke 5mm	Ø25 to Ø80 Stroke 10mm	Ø100 * Stroke 15mm
B	175 cm <sup>2</sup>	24	8-41	0.1 ... 0.6	0.1 ... 0.6	0.2 ... 0.6
		23	8-40	0.1 ... 1.0	0.2 ... 0.9	0.3 ... 0.9
		22	8-39	0.2 ... 1.6	0.4 ... 1.5	0.5 ... 1.4
		21	8-38	0.3 ... 2.1	0.7 ... 1.9	1.0 ... 1.7
		20	8-37	0.6 ... 3.7	1.2 ... 3.4	1.8 ... 3.1
C	70 cm <sup>2</sup>	31	8-41	0.1 ... 1.5	0.3 ... 1.5	0.4 ... 1.4
		30	8-40	0.3 ... 2.4	0.5 ... 2.3	0.8 ... 2.2
		29	8-39	0.5 ... 3.9	0.9 ... 3.7	1.4 ... 3.4
		28	8-38	0.8 ... 5.1	1.7 ... 4.7	2.5 ... 4.3
		27	8-37	1.5 ... 9.3	3.0 ... 8.6	4.5 ... 7.8
		104	8-98	2.9 ... 15.0	5.7 ... 13.6	8.6 ... 12.1

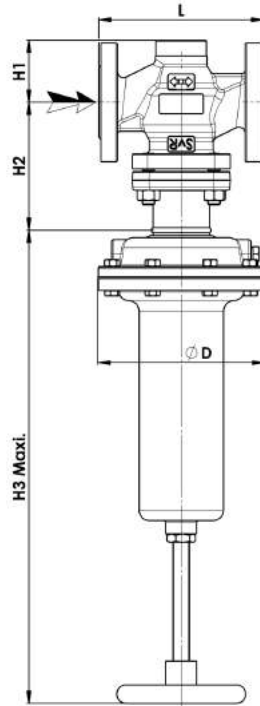
\* Ø above, contact us.

## Dimensions

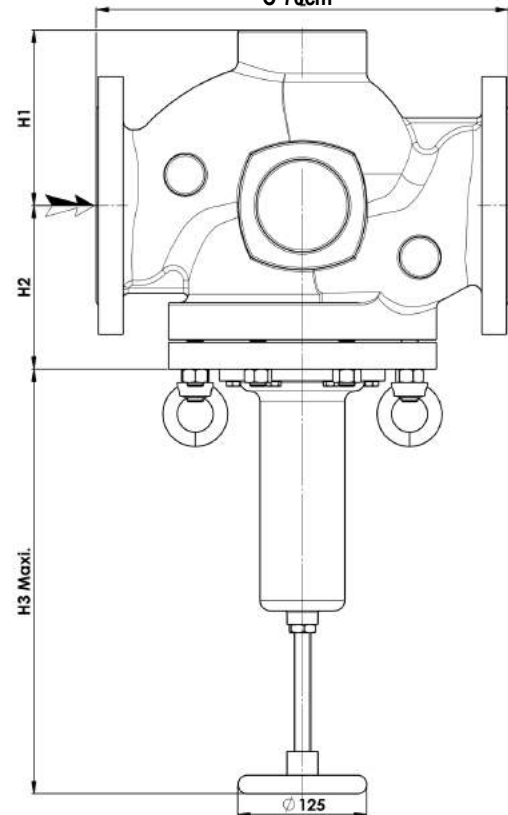
EP615 DN $\frac{1}{2}$ " – DN2" (Sleeve) Actuator  
B 175cm<sup>2</sup>



EP615/E DN15 – DN100 (Flanges) Actuator  
C 70cm<sup>2</sup>



EP615E DN125 – DN200 (Flanges) Actuator  
C 70cm<sup>2</sup>



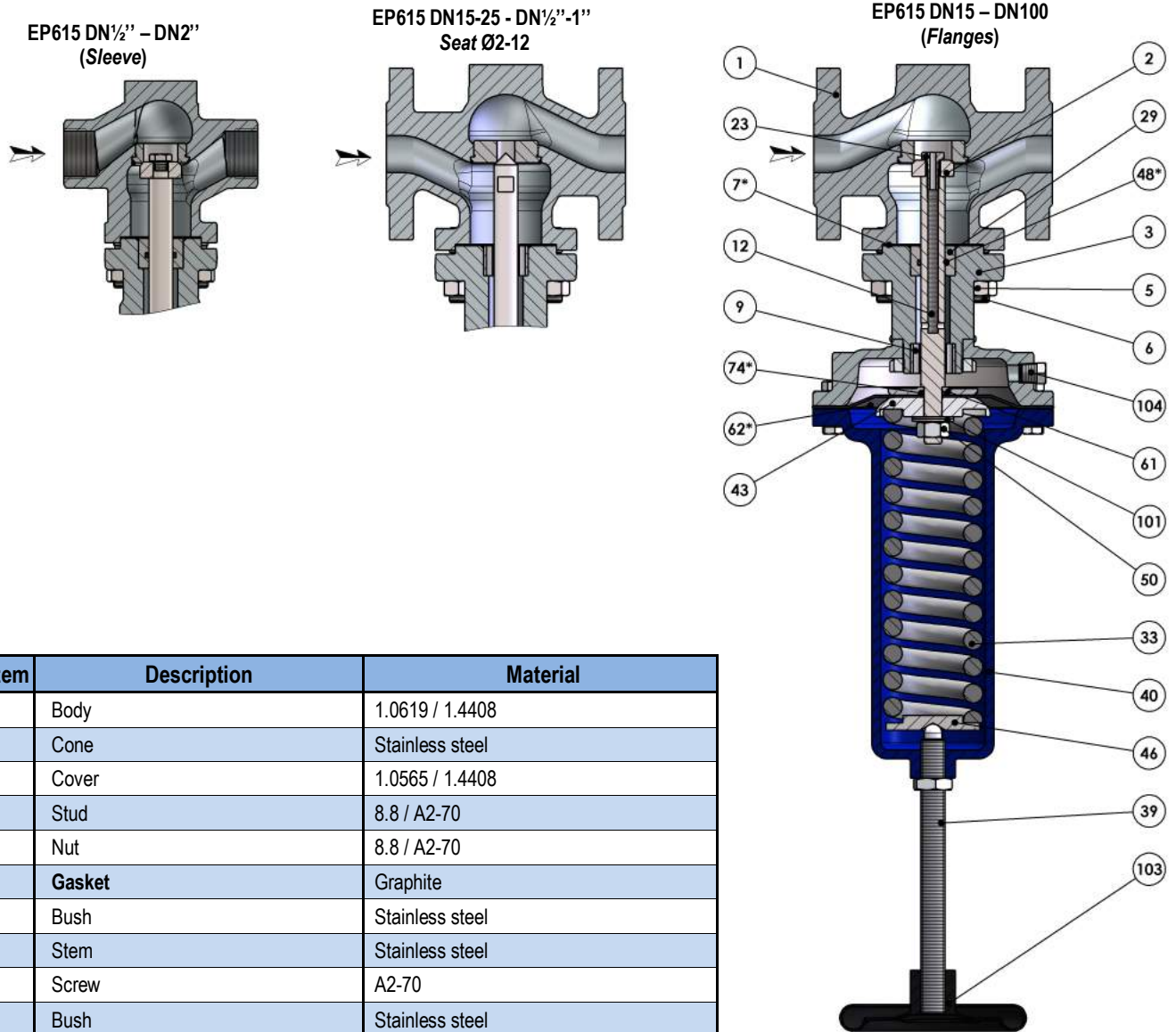
All dimensions in mm

Threaded and welded version						
DN	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
L	130	130	130	200	200	200
H1	60	60	60	90	90	90
H2	125	125	125	150	150	150
H3	460					
Mass (kg)	12.5	12.5	12.5	21	21	21

Flanges version												
DN	15	20	25	32	40	50	65	80	100	125	150	200
L (ISO PN16/25/40)	130	150	160	180	200	230	290	310	350	400	480	600
L (ANSI Class 150 RF)	184	184	184	/	222	254	/	298	353	/	451	543
L (ANSI Class 300 RF)	190	194	197	/	235	267	/	317	368	/	473	568
L (ANSI Class 150 RTJ)	/	/	197	/	235	267	/	311	365	/	464	556
L (ANSI Class 300 RTJ)	201	207	210	/	248	283	/	333	384	/	489	584
H1	45	50	60	70	85	90	100	120	145	156	177	239
H2	125	125	125	130	130	150	155	150	160	160	170	205
H3	460										415	
Mass (kg)	13	14	17	19	23	25	28	40	58	75	110	190

Actuator	B	C
ØD	235	161
Section	175 cm <sup>2</sup>	70 cm <sup>2</sup>
Raccordement Connexion	1/4" NPT	

## Part List - EP615 DN15 – DN80 / DN½” - DN2”



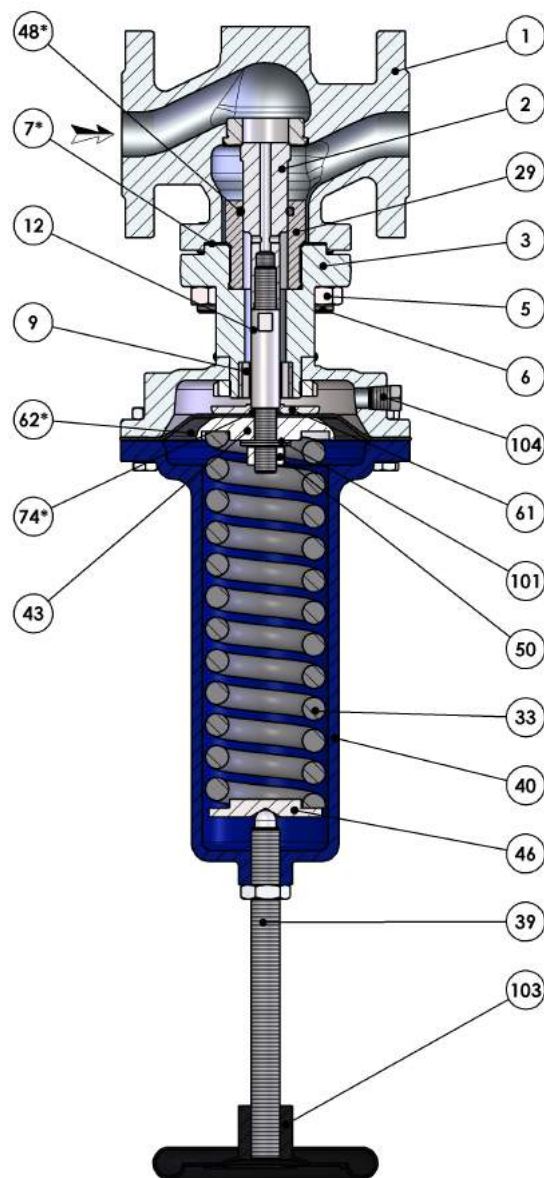
Rep./Item	Description	Material
1	Body	1.0619 / 1.4408
2	Cone	Stainless steel
3	Cover	1.0565 / 1.4408
5	Stud	8.8 / A2-70
6	Nut	8.8 / A2-70
7*	<b>Gasket</b>	Graphite
9	Bush	Stainless steel
12	Stem	Stainless steel
23	Screw	A2-70
29	Bush	Stainless steel
33	Spring	Steel
39	Adjusting screw	Stainless steel
40	Spring case	Cast iron –Stainless steel
46	Spring washer	Steel
48*	<b>O-ring</b>	FKM
50	Nut	A2-70
61	Diaphragm plate	Steel
62*	<b>Diaphragm</b>	EPDM / FKM / NBR
74*	<b>O-ring</b>	FKM
101	Spring washer	Steel
103	Handwheel	Steel
104	Cap	Stainless steel

\* Spare parts

## Part List - EP615E DN20 – DN100

Rep./Item	Description	Material
1	Body	1.0619 / 1.4408
2	Cone	Stainless steel
3	Cover	1.0565 / 1.4408
5	Stud	8.8 / A2-70
6	Nut	8.8 / A2-70
7*	<b>Gasket</b>	Graphite
9	Bush	Stainless steel
12	Stem	Stainless steel
29	Bush	Stainless steel
33	Spring	Steel
39	Adjusting screw	Stainless steel
40	Spring case	Cast iron –Stainless steel
46	Spring washer	Steel
48*	<b>O-ring</b>	FKM
50	Nut	A2-70
61	Diaphragm plate	Steel
62*	<b>Diaphragm</b>	EPDM / FKM / NBR
74*	<b>O-ring</b>	FKM
101	Spring washer	Steel
103	Handwheel	Steel
104	Cap	Stainless steel

\* Spare parts



## Part List - EP615E DN125 – DN200

Item	Description	Material
1	Body	1.0619 / 1.4408
2	Cone	Stainless steel
3	Cover	1.0565 / 1.4408
5	Stud	8.8 / A2-70
6	Nut	8.8 / A2-70
7*	<b>Gasket</b>	Graphite
9	Bush	Stainless steel
12	Stem	Stainless steel
15	Piston	Stainless steel
23	Screw	A2-70
33	Spring	Steel
37	Lifting eye nut	Steel - Stainless steel
39	Adjusting screw	Stainless steel
40	Spring case	Cast iron –Stainless steel
46	Spring washer	Steel
48*	<b>O-ring</b>	FKM
50	Nut	A2-70
61	Diaphragm plate	Steel
62*	<b>Diaphragm</b>	EPDM / FKM / NBR
74*	<b>O-ring</b>	FKM
101	Spring washer	Steel
103	Handwheel	Steel
104	Cap	Stainless steel

\* Spare parts

