PRESSURE RELIEF VALVES
V186 – V86

INSTRUCTIONS MANUAL

BAMO MESURES
22, Rue de la Voie des Bans - Z.I. de la Gare - 95100 ARGENTEUIL
Tél : (+33) 01 30 25 83 20 - Web : www.bamo.fr
Fax : (+33) 01 34 10 16 05 - E-mail : info@bamo.fr

PRESSURE RELIEF VALVES
V186 – V86
12-12-2013 911 M1 04 A

PLAS
911-04/1

1. MANUFACTURER'S DECLARATION

That the pressure relief valves in case of the disqualification by using them with dangerous, inflammable, gaseous media, and as a result of their nominal width and pressure classification, are not part of the EC Directive 97/23 EC. Modifications on the pressure regulating valve which have an effect on the given technical specifications and the intended use render this manufacturer's declaration null and avoid.

2. DESCRIPTION

The pressure relief valves V86 / V186 are installed to maintain constant back pressure in the line upstream of itself. An increase in pressure upstream will cause the valve to open, thereby maintaining the set constant back pressure. The valve works by balancing an adjustable spring force, that pushes downward onto a diaphragm, against the force of the process fluid pushing upward.

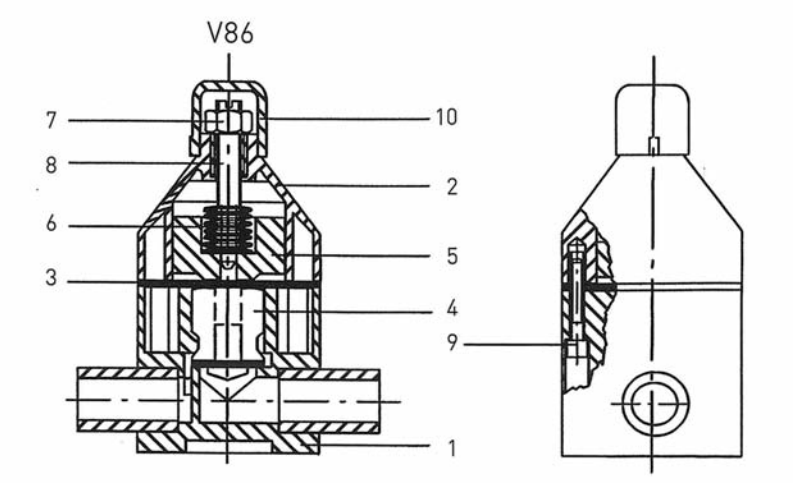
3. TECHNICAL FEATURES

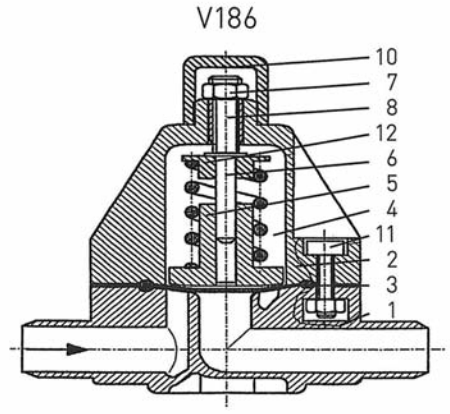
Body parts: PVC, PP or PVDF
Temperature limits PVC: 0...+60 °C
PP: -10...+80 °C
PVDF: -20...+100 °C

Diaphragm: EPDM, PTFE coated

Model V186
Nominal diameter: ND 10 to ND 50
Nominal pressure: PN 10
Adjustable range: 0.5...10 bar

Model V86
Nominal diameter: ND 65 to ND 100
Nominal pressure ND 65 & ND 80: PN 6
ND 100: PN 4
Adjustable range ND 65 & ND 80: 1…6 bar
ND 100: 1…4 bar





Rep.	Designation
1	Valve body
2	Valve housing
3	Diaphragm
4	Piston
5	Compressor spring
6	Assembly
7	Counter nut
8	Set screw
9	Cylinder screw
10	Cap
11	Hexagonal screw with nuts and caps
11	Spring disc

4. MOUNTING

1. The valves should be installed on pipeline systems free of tensions, if possible with a detachable connection [flange or union).
2. It can be installed in any position.
3. Do observe the flow direction! It is marked with an arrow on the valve body.
4. In case of dirty fluids or fluids with particles, we recommend you to install a line strai ner in front of the unit.
5. Before activating you must check the tension of the body and piston bolts. If necessary fix bolts cross-over [behold chart below).

Torque

ND	Screw / Body	Nm
10, 15, 20	M6 x 25	9
25, 32	M6 x 35	12
40, 50	M8 x 120	20
65	M12 x 180	29
80	M12 x 250	29
100	M12 x 250	29
	M12 x 140	29

5. SETTING UP THE OPERATING PRESSURE

1. Unscrew the plastic cap [10] from the top [2] of the valve.
2. Remove the counter nut [7].
3. Turn the set screw with a screwdriver/hexagonal key as follows:
   a] clockwise —> The operating pressure is increasing
   b] counterclockwise —> The operating pressure is decreasing

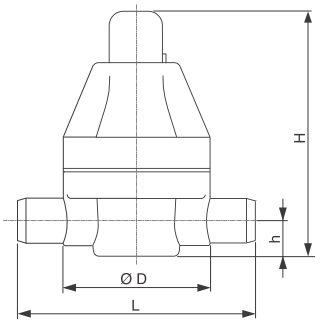
4. Once set up the operating pressure,secure it with the counter nut [7].

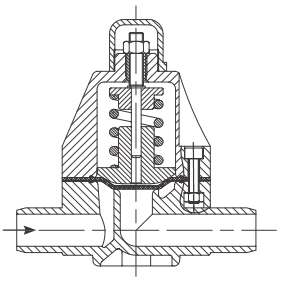
6. MAINTENANCE

1. The pressure relief valves types V86 / V186 require very Little maintenance.
2. In case the fluids are full of dirt and/or particles, the pressure retaining valves need to be cleaned depending on the degree of pollution.
3. When dismantling the retaining valve [e.g. for cleaning], you should unlock the set screw [8] until the spring assembly [6] is discharged. Only after this, you can unlock the cylinder screws [9] / [11] from the relief valve.

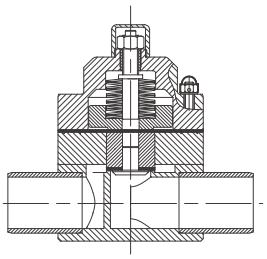
7. DIMENSIONS

ND	d	L	D	h	H
10	16	134	83	20	137
15	20	134	83	20	137
20	25	134	83	20	137
25	32	174	112	27	199
32	40	174	165	27	199
40	50	224	165	43	290
50	63	244	165	43	290
65	75	284	180	–	275
80	90	360	250	–	410
100	110	380	250	–	485





V186

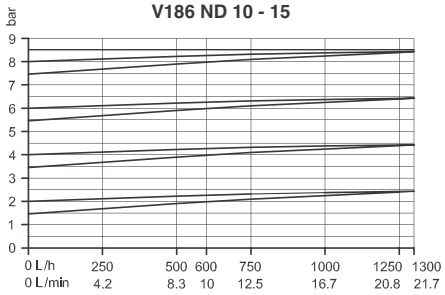


V86

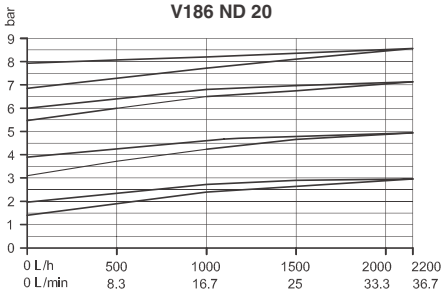
8. CHARACTERISTICS

All following diagrams are established for Water at 20°C.
For each couple of curves, the upper one represents the opening pressure and lower one represents the closing pressure.

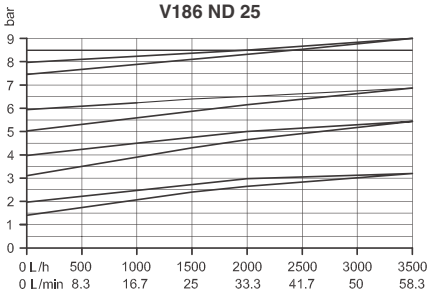
V186 ND 10 - 15



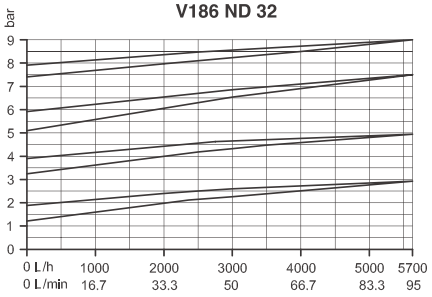
V186 ND 20



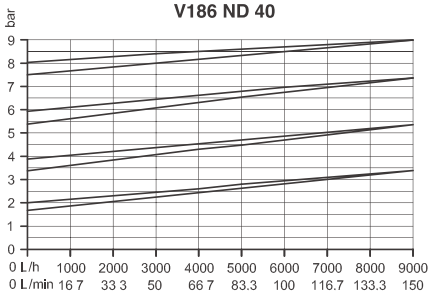
V186 ND 25



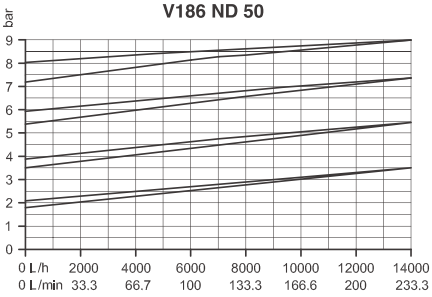
V186 ND 32



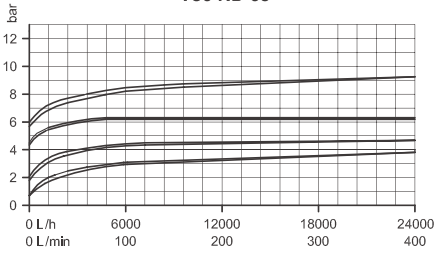
V186 ND 40



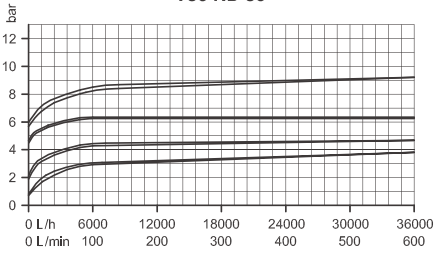
V186 ND 50



V86 ND 65



V86 ND 80



V86 ND 100