



TANK BLANKETING REGULATORS BKVI2 (Low pressure vent valve)

DESCRIPTION

Tank blanketing valves are commonly used in tank storage systems to prevent and protect against explosions (avoiding flammable liquids being vented from vessel), to control product contamination against external air that may fill the vapour space, to reduce evaporation losses (consequently product losses), to reduce internal corrosion (caused by air and moisture) and to prevent vacuum condition.

The blanketing process consists in covering the stored medium, usually a liquid, with a gas (normally N2).

MAIN FEATURES

Compact design.

No rising stem, except when supplied with top cap.

STANDARD SURFACE FINISH

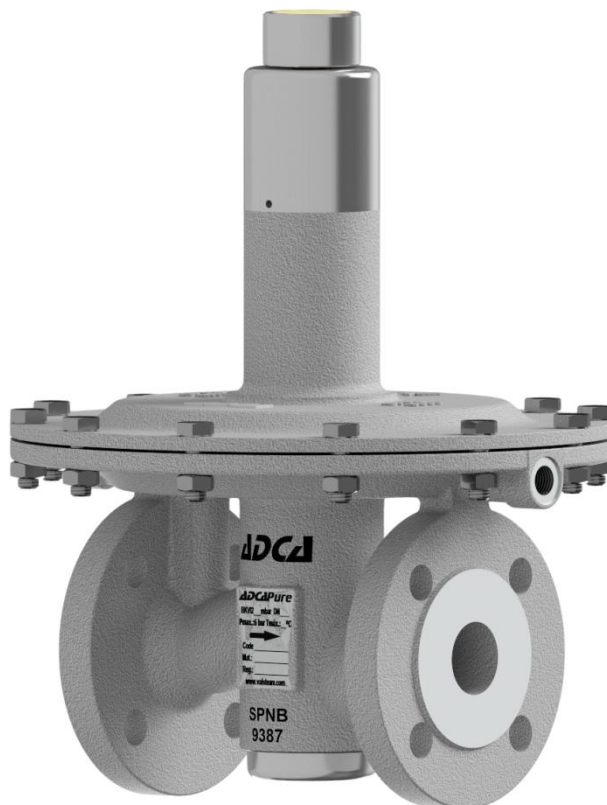
Internal wetted parts: ≤ 0,51 micron Ra – SF1.

Body and cover

Internal: machined / as casted.

External: as casted.

Ultrasonic cleaning.



OPTIONS: Diaphragm leakage line connection.
Gauge connection on body.
External pulse line.
Dome loaded (for higher pressure control).
Blanketing with vacuum.
Top cap (adjusting screw sealing).

USE: Compressed air, nitrogen and other gases compatible with the construction.

AVAILABLE

MODELS: BKVI – Low pressure venting valve.

SIZES: DN 15 and DN 25.

CONNECTIONS: Flanged EN 1092-1 PN16.

OUTLET SPRING RANGES: 5 to 500 mbar (4000mbar with dome load).

INSTALLATION: Vertical installation recommended (to allow draining) or horizontal as close to process as possible in order to prevent long pipe sections and flow restrictions.

ORDER

REQUIREMENTS: Type of fluid.
Maximum operating temperature.
Opening pressure.
Capacity (maximum and minimum).

CE MARKING (PED - European Directive)	
PN 16	Category
DN 15 to 25	SEP

**CAPACITIES in Nm³/h (air)
Seat ø 21 mm**

DN	Set Pressure	Inlet Pressure mbar					
		10	20	40	100	200	500
15	25% Overpressure	4,5	10,5	16	27	45	95
15	50% Overpressure	4,5	10,5	16	27	45	95
15	75% Overpressure	4,5	10,5	16	27	45	95
15	100% Overpressure	4,5	10,5	16	27	45	95
25	25% Overpressure	5,3	11,8	18	31	52	105
25	50% Overpressure	7,2	14,5	26	40	66	125
25	75% Overpressure	8,3	17	30	47	82	136
25	100% Overpressure	9,8	18	36	52	91	148

Spring ranges: 5-10; 10-50; 20-200; 50-500 mbar

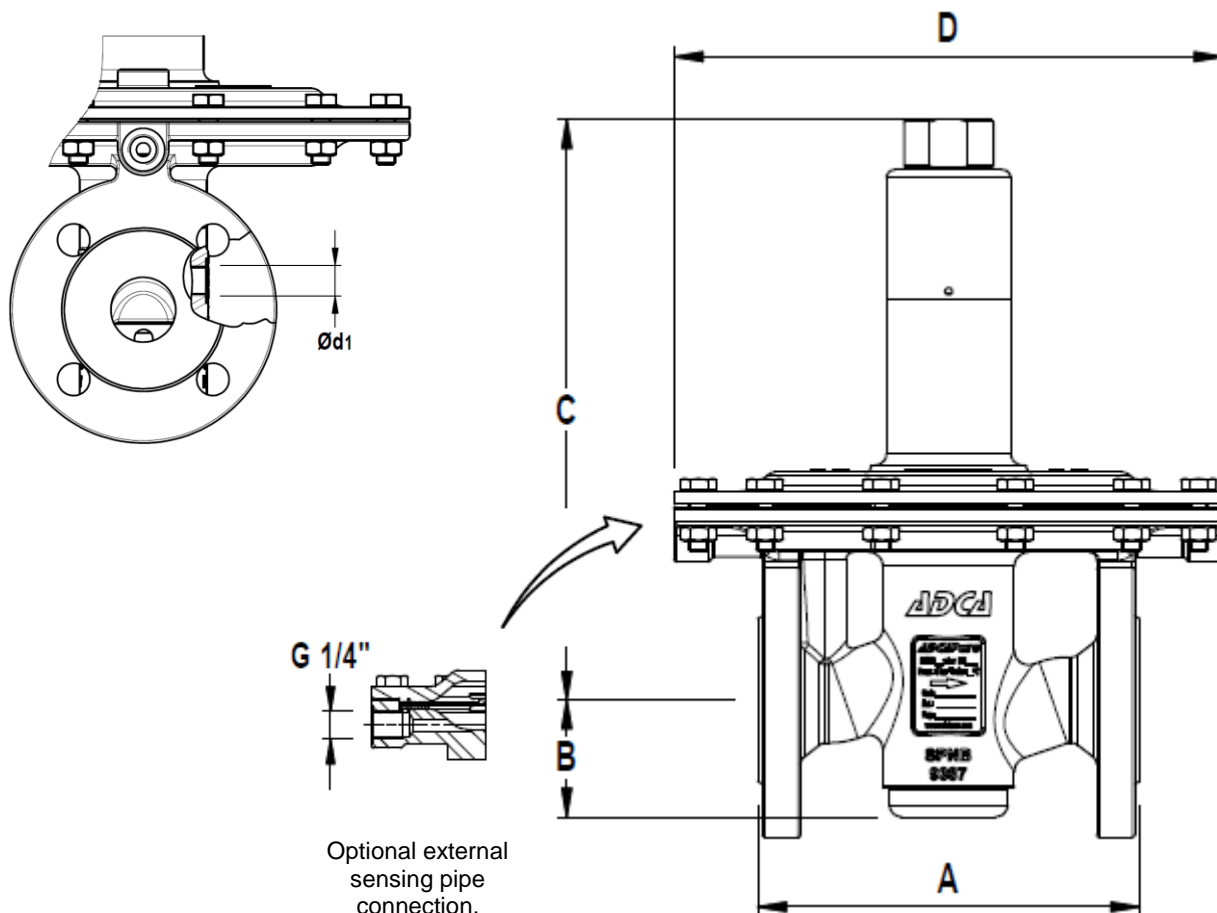
LIMITING CONDITIONS

Valve model	BKV12
Body design conditions	PN 16
Max.operating pressure	6 bar
Min.upstream pressure	5 mbar
Max.upstream pressure	500 mbar
Max.design temperature *	130 °C

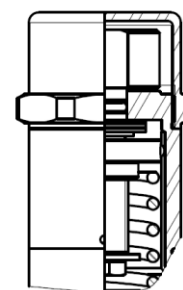
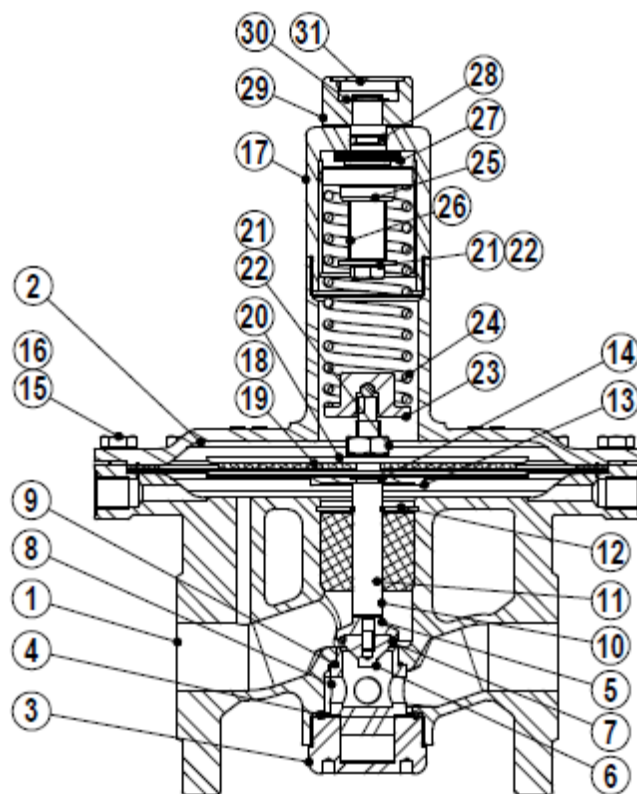
*Other on request.

DIMENSIONS (mm) FLANGES EN PN16

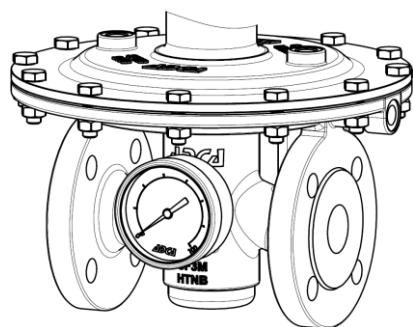
SIZE DN	A	B	C	D	d1	WGT. Kg
15	130	47,5	243,5	230	1/4"	9,7
25	160	57,5	243,5	230	1/4"	10,8



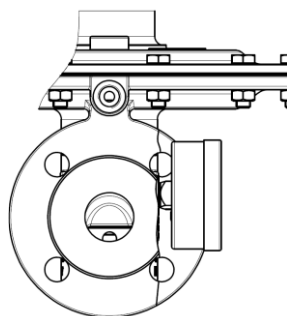
MATERIALS		
POS.	DESIGNATION	MATERIAL
1	Valve body	CF3M / 1.4409
2	Diaphragm top cover	CF3M / 1.4409
2A	Diaphragm low er	AISI316L / 1.4404
3	Seat cover	AISI316L / 1.4404
4	* O-ring	EPDM
5	Plug disc	AISI316L / 1.4404
6	* Valve head	AISI316L / 1.4404
7	* O-ring	EPDM
8	Seat	AISI316L / 1.4404
9	* O-ring	EPDM
10	Stem	AISI316L / 1.4404
11	Stem guide	PTFE
12	Retaining ring	St. steel A2
13	Diaphragm plate	AISI316L / 1.4404
14	* O-ring	EPDM
15	Bolts	St. steel A2-70
16	Nuts	St. steel A2-70
17	Spring cover	AISI316L / 1.4404
18	* Low er diaphragm	PTFE
19	* Upper diaphragm	VITON
20	Diaphragm plate	AISI316L / 1.4404
21	Nut	St. steel A2-70
22	Washer	AISI316 / 1.4401
23	Low er spring guide	AISI316L / 1.4404
24	* Regulat ing spring	AISI302 / 1.4300
25	Top spring plate	AISI316L / 1.4404
26	Adjustment screw	AISI304 / 1.4301
27	Bearing	Corrosion res. Steel
28	* O-ring	EPDM
29	Regulating nut	AISI316L / 1.4404
30	Ext. bow ed shaft ring	Stainless steel
31	Cover nut	Plastic



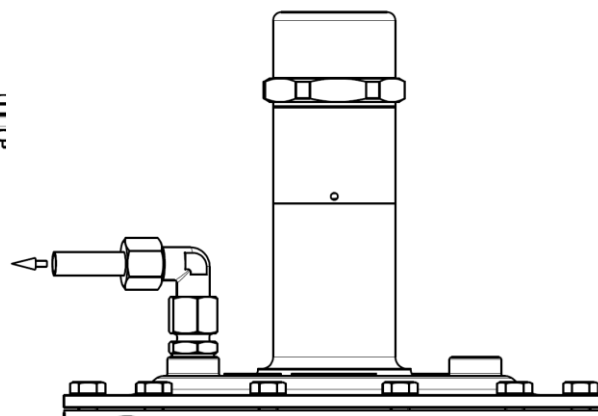
Optional top cap adjusting screw sealing.



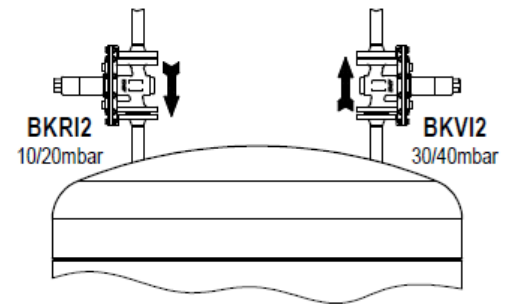
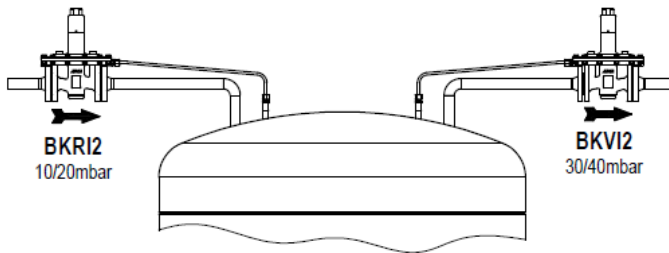
Optional pressure gauge connection.



Optional 1/4" diaphragm leakage connection.



Blanketing valves are not substitute of safety valves or vacuum relief valves

Typical installation

Blanketing with overpressure

ORDERING CODES BKVI2												
Valve Model	BV	I	0	2		E	E					D 25
BKVI2 - Blanketing vent valve	BV											
Body material												
CF3M 1.4409 Stainless steel		I										
Outlet spring range												
5 to 10 mbar			0									
10 to 50 mbar			1									
20 to 200 mbar			2									
50 to 500 mbar			3									
Valve seat orifice												
Seat diameter 21mm				2								
Top cap												
None							(*)					
Adjusting screw sealing							T					
Valve head												
EPDM							E					
Diaphragm material												
PTFE / EPDM							E					
Special services / options												
Standard surface finish								(*)				
Mechanical polish								1				
Electropolishing								2				
Gauge port												
Without gauge ports									(*)			
Threaded gauge port on the left side (Rel. to the flow direction)									4			
Threaded gauge port on the right side (Rel. to the flow direction)									3			
Threaded gauge port on both sides									2			
Leakage connection												
None										(*)		
Diaphragm cover leakage connection in case of diaphragm failure										R		
Dome loaded												
None											(*)	
Dome loaded for higher pressure control											A	
External pulse line												
Internal pulse orifice											(*)	
External pulse line											1	
Pipe connection												
Flanged EN1092-1 PN16												L
Size												
DN 15												15
DN 25												25
Special valves / Extras a)												E

(*) Omitted if a standard valve is requested

a) Full description or additional codes have to be added in case of non-standard combination.