Piping ball valve, split valve body design
Single- or double-block-and-bleed valve
Models PBV-FS2 and PBV-FS3

Applications

- Oil and gas industry, chemical and petrochemical industries, power plants, water and wastewater, shipbuilding
- Flow control of natural gas, oil and chemicals in a process
- Connection of piping systems and equipment
- Process interface to measuring instrument installations

Special features

- High-quality machining guarantees smooth operation with low torque and low wear
- Compact assembly for a lighter and space-saving installation with less leak paths and easier maintenance
- Fulfils the fugitive emission requirements per ISO 15848-1, class B
- Type tested for fire safety in accordance with API 607
- Customer-specific combination of valves and measuring instruments (instrument hook-up) on request

Fig. left: Model PBV-FS3, double-block-and-bleed
Fig. right: Model PBV-FS2, block-and-bleed

Description

The piping valve is available in floating ball design and with full or reduced bore.

The piping ball valve has been designed to meet the requirements of the process industry, especially for natural gas and aggressive media applications.

Model PBV-FSx valves are used for process isolation or pressure tapping. The compact design integrates one or two shut off valves and a vent valve.

This allows using an arrangement of ball valves and needle valves in single- or double-block-and-bleed configuration.

The valve seat design of the valve body ensures high durability and tightness. This valve fulfils the fugitive emission requirements per ISO 15848-1, class B and is type tested for fire safety in accordance with API 607.

The super-finished machining of the internal parts allows a very smooth and precise operation, even at high pressures and after long periods without valve operation. The surface finish is also minimising corrosion with aggressive media and makes it easier to clean.

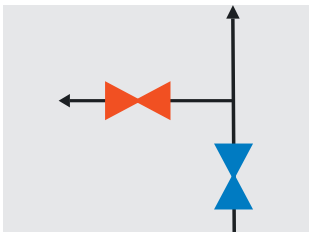
Data sheets showing similar products:
Monoblock with flange connection; model IBF1; data sheet AC 09.30
Monoblock with flange connection; models IBF2 and IBF3; data sheet AC 09.25

Specifications

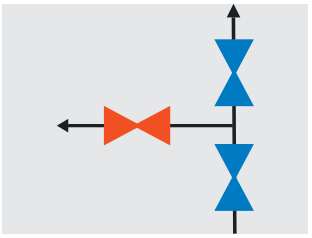
Piping valve, models PBV-FS2 and PBV-FS3			
Standards used			
Design	■ EEMUA publication 182, specification for integral block-and-bleed valve manifolds ■ ASME B16.34, valves - flanged, threaded and welding end ■ ASME B16.5, pipe flanges and flange fittings ■ ASME VIII Div.1, rules for construction of pressure vessels ■ MSS SP 99, valves for measuring instruments		
Production tests	■ API 598, valve inspection and testing ■ ISO 15848-1, valve test and qualification for fugitive emissions (option) ■ API 6D specification for pipeline and piping valves (option)		
Material requirements	NACE MR0175 / ISO 15156, use in H_2S-containing environments in oil and gas production (option)		
Marking	MSS SP 25, standard marking system for valves, fittings, flanges, and unions		
Temperature limits	■ -29 °C / +180 °C [-20 °F / +356 °F] ■ -46 °C / +120 °C [-50 °F / +248 °F]		
Function	■ Model PBV-FS2: Block-and-bleed (shut off and vent), 2 piece split valve body ■ Model PBV-FS3: Double-block-and-bleed (2 x shut off and 1 x vent), 3 piece split valve body		
Arrangement	Shut off valve(s): Ball valve(s) Vent valve: Needle valve or ball valve		
Pipe connection			
Per ASME B16.5	Flange ½" … 2" / class 150 … class 2500		
Per EN 1092-1	Flange DN 15 … DN 50 / PN 16 … PN 420		
Per ASME B1.20.1	Thread ½ ... ¾ NPT		
Surface roughness Ra of the sealing face			
Per ASME B16.5	■ RF: 3.2 ... 6.3 µm [125 ... 250 µin] (spiral surface) ■ RJ: 1.6 µm [63 µin]		
Per EN 1092-1	■ Form B1: 3.2 ... 12.5 µm [125 ... 500 µin]		
Vent connection	■ ½ NPT female; plug screw is included in delivery, though not prefitted. ■ ½" blind flange; pre-fitted including sealing and threaded bolts.		
Ball bore [1]	■ 15 mm [0.59 in] ■ 38 mm [1.5 in]	■ 20 mm [0.79 in] ■ 42 mm [1.65 in]	■ 25 mm [0.98 in] ■ 49 mm [1.93 in]
	Full or reduced bore		
Vent bore [1]	5 ... 10 mm [0.20 ... 0.39 in]		
Ball valve design	■ Antistatic design ■ Blow-out-safe valve stem ■ Self-relieving ball valve cavity		
Needle valve design	■ Non-rotating spindle tip ■ Blow-out-safe spindle tip ■ Back seat design ■ Metal-to-metal seat ■ With OS&Y bonnet		

1) Dimension depends on pipe connection. → See dimensions from page 6.

Model PBV-FS2
Single-block-and-bleed
(shut off and vent)



Model PBV-FS3
Double-block-and-bleed
(2 x shut off and 1 x vent)



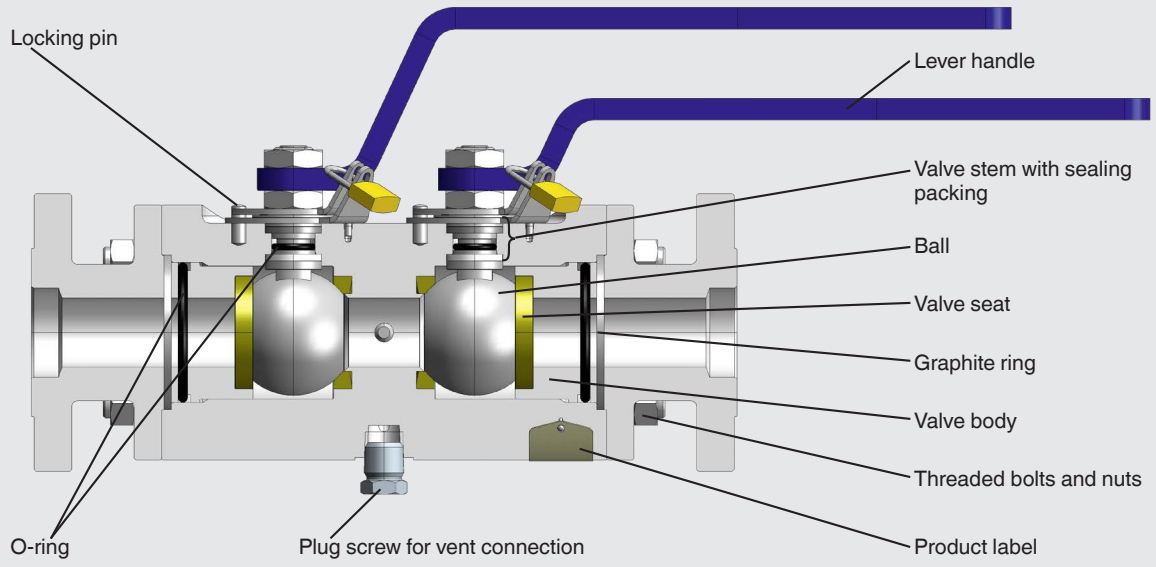
Colour code Blue: Shut off
Red: Vent

Material	
Wetted parts	
Valve body and closures	■ Stainless steel ASTM A182-F316/F316L ■ Stainless steel Duplex ASTM A182-F51 ■ Carbon steel ASTM A350 LF2, class 2 [1)]
Ball, valve stem, bonnet body, spindle tip	■ Stainless steel ASTM A182-F316/F316L ■ Stainless steel Duplex ASTM A182-F51
Valve seats and packings	■ PEEK (ball valve seat) ■ RTFE (ball valve seat) ■ Graphite (needle valve sealing packing)
O-rings	FKM with resistance against explosive decompression (AED) [2)]
Non-wetted parts	
Handle	■ With ball bore 15 mm: Stainless steel 316/316L, PVC coated (blue) ■ With ball bore ≥ 20 mm: Carbon steel, painted (blue)
Bonnet, spindle, locking plate, locking pin, product label, screws	Stainless steel 316/316L
Bolts and nuts	■ Carbon steel A320 GrL7M/A194 Gr7M + HDG (hot-dip galvanized) ■ Stainless steel A193 GrB8MCl2/A194 Gr8M ■ Optional: PTFE-coated
Painting	
Stainless steel	Corrosivity category C4 per ISO 12944 with colour RAL 7038 (agate grey) Epoxy primer + Epoxy intermediate + polyurethane finish
Carbon steel	Corrosivity category C4 per ISO 12944 with colour RAL 7038 (agate grey) Zinc rich primer + Epoxy intermediate + polyurethane finish

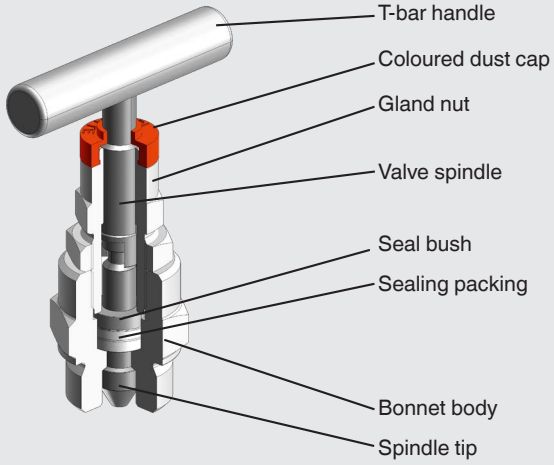
1) Valve body from carbon steel ASTM A350 LF2, the other wetted parts from stainless steel 316/316L
2) O-ring compliant with TotalEnergies SE and NORSOK standards

Other materials on request

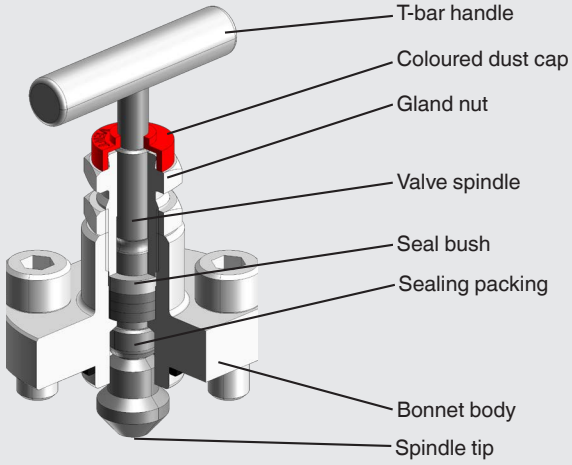
Shut off valve
Ball valve design



Vent valve
Needle valve design with threaded connection
For ball bore 15 mm

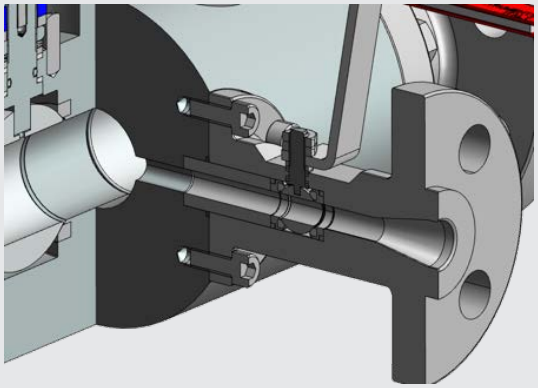


Vent valve
Needle valve design with flange connection
For ball bore ≥ 20 mm

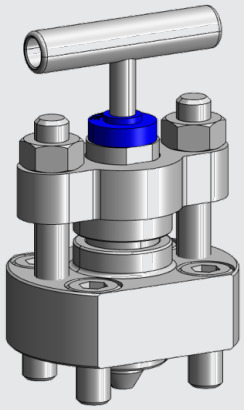


Other versions

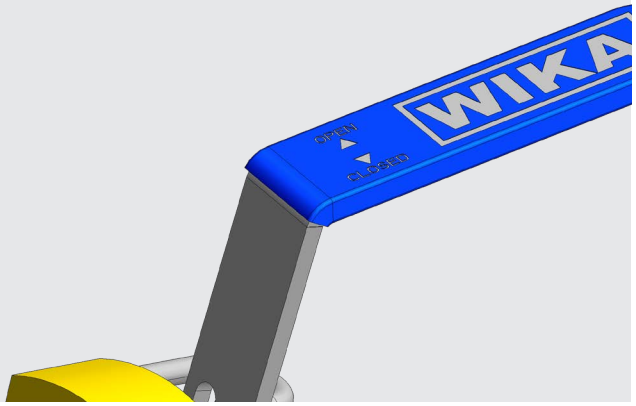
Vent valve
Ball valve design
Vent bore 10 mm



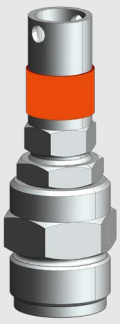
Vent valve
Needle valve design, OS&Y bonnet
Vent bore 6 mm



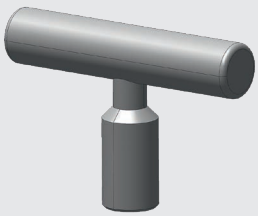
Shut off valve
Lever with padlock



Vent valve
Anti-tamper version

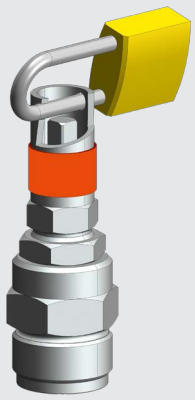


Accessory
Anti-tamper key



Order number: 81640006

Vent valve
Anti-tamper version with padlock

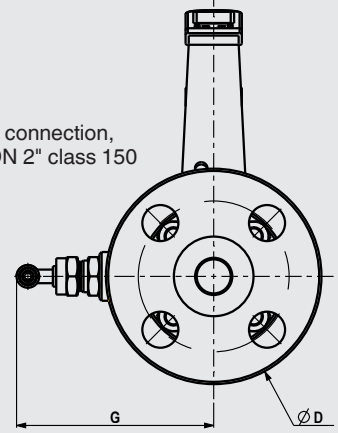


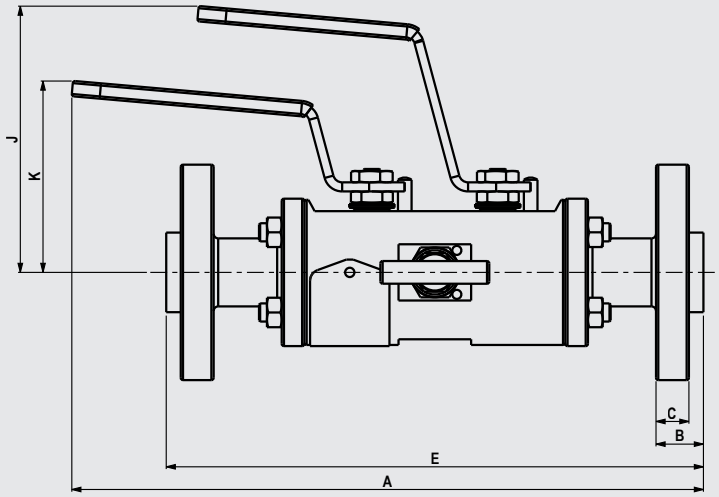
Dimensions in mm [in]

Model PBV-FS3
Sealing face RF of flange connections per ASME B 16.5

Shut off: 2 x ball valve
Vent: 1 x needle valve

Flange connection,
up to DN 2" class 150





Flange connections from DN 2"
class 300 have 8 holes

DN	class	Dimensions in mm [in]								x [1]	Weight kg [lb]
		A	B	C	Ø D	E	G	J	K		
½"	150	275 [10.8]	11.5 [0.5]	10 [0.4]	89 [3.5]	229 [9]	95 [3.7]	116 [4.6]	83 [3.3]	4	5 [1.97]
	300	284 [11.2]	16 [0.6]	15.5 [0.6]	95 [3.7]	237 [9.4]	95 [3.7]	116 [4.6]	83 [3.3]	4	6 [2.36]
	600	284 [11.2]	21 [0.8]	15.5 [0.6]	95 [3.7]	247 [9.7]	95 [3.7]	116 [4.6]	83 [3.3]	4	6 [2.36]
	900/1500	317 [12.5]	29 [1.1]	22.5 [0.9]	121 [4.8]	309 [12.2]	98 [3.9]	124 [4.9]	91 [3.6]	4	10.5 [4.13]
	2500	324 [12.8]	37 [1.5]	30.5 [1.2]	133 [5.2]	323 [12.7]	98 [3.9]	124 [4.9]	91 [3.6]	4	13 [5.12]
¾"	150	312 [12.3]	13 [0.5]	11.5 [0.5]	99 [3.9]	257 [10.1]	104 [4.1]	128 [5]	96 [3.8]	4	7 [2.76]
	300	326 [12.8]	17.5 [0.7]	16 [0.6]	117 [4.6]	275 [10.9]	104 [4.1]	128 [5]	96 [3.8]	4	9 [3.54]
	600	326 [12.8]	22.5 [0.9]	16 [0.6]	117 [4.6]	285 [11.2]	104 [4.1]	128 [5]	96 [3.8]	4	9 [3.54]
	900/1500	468 [18.4]	32 [1.3]	25.5 [1]	130 [5.1]	348 [13.7]	105 [4.1]	138 [5.4]	97 [3.8]	4	13.5 [5.31]
	2500	474 [18.7]	38.5 [1.5]	32 [1.3]	140 [5.5]	360 [14.2]	105 [4.1]	138 [5.4]	97 [3.8]	4	16 [6.3]
1"	150	431 [17]	14.5 [0.6]	13 [0.5]	108 [4.3]	279 [11]	114 [4.5]	143 [5.6]	102 [4]	4	12.5 [4.92]
	300	445 [17.5]	19 [0.8]	17.5 [0.7]	124 [4.9]	297 [11.7]	114 [4.5]	143 [5.6]	102 [4]	4	14 [5.51]
	600	445 [17.5]	24 [0.9]	17.5 [0.7]	124 [4.9]	307 [12.1]	114 [4.5]	143 [5.6]	102 [4]	4	14 [5.51]
	900/1500	501 [19.7]	35 [1.4]	28.5 [1.1]	149 [5.9]	419 [16.5]	122 [4.8]	145 [5.7]	112 [4.4]	4	27.5 [10.83]
	2500	508 [20]	42 [1.7]	35.5 [1.4]	159 [6.3]	433 [17]	122 [4.8]	145 [5.7]	112 [4.4]	4	30.5 [12.01]
1½"	150	470 [18.5]	17.5 [0.7]	16 [0.6]	127 [5]	326 [12.8]	125 [4.9]	155 [6.1]	114 [4.5]	4	20.5 [8.07]
	300	490 [19.3]	25 [1]	22.5 [0.9]	155 [6.1]	356 [14.1]	125 [4.9]	155 [6.1]	114 [4.5]	4	24.5 [9.65]
	600	490 [19.3]	30 [1.2]	22.5 [0.9]	155 [6.1]	366 [14.4]	125 [4.9]	155 [6.1]	114 [4.5]	4	24.5 [9.65]
	900/1500	822 [32.4]	38.5 [1.5]	32 [1.3]	178 [7]	527 [20.7]	162 [6.4]	199 [7.8]	150 [5.9]	4	84.5 [33.27]
	2500	838 [33]	51 [2]	44.5 [1.8]	203 [8]	559 [22]	162 [6.4]	199 [7.8]	150 [5.9]	4	95 [37.4]
2"	150	512 [20.2]	19 [0.7]	17.5 [0.7]	152 [6]	364 [14.3]	142 [5.6]	182 [7.2]	138 [5.4]	4	36 [14.17]
	300	524 [20.6]	27 [1.1]	25.5 [1]	165 [6.5]	378 [14.9]	142 [5.6]	182 [7.2]	138 [5.4]	8	40 [15.75]
	600	524 [20.6]	32 [1.3]	25.5 [1]	165 [6.5]	388 [15.3]	142 [5.6]	182 [7.2]	138 [5.4]	8	40 [15.75]
	900/1500	687 [27]	44.5 [1.8]	38.5 [1.5]	216 [8.5]	472 [18.6]	142 [5.6]	184 [7.2]	138 [5.4]	8	62 [24.41]
	2500	939 [37]	57.5 [2.3]	51 [2]	235 [9.3]	579 [22.8]	166 [6.5]	175 [6.9]	247 [9.7]	8	120 [47.24]

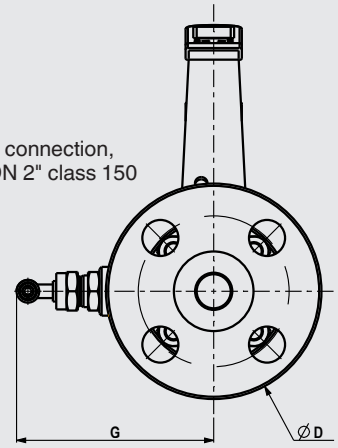
1) Number of screws

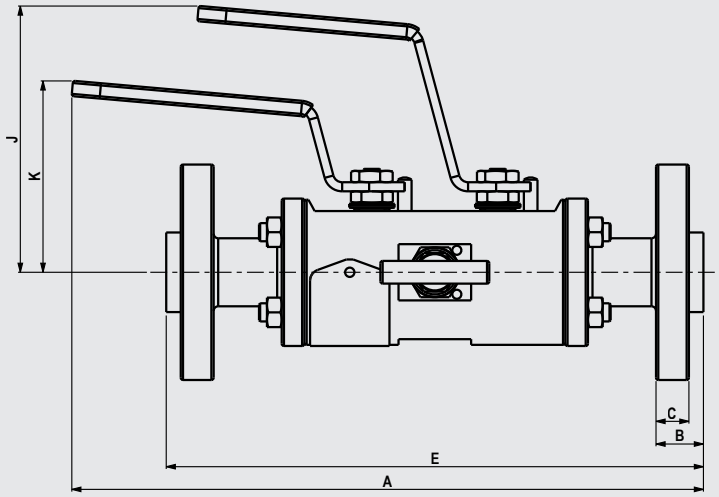
DN	class	Ball bore
½"	150 ... 2500	15 mm [0.59 in]
¾"	150 ... 2500	20 mm [0.79 in]
1"	150 ... 2500	25 mm [0.98 in]
1½"	150 ... 2500	38 mm [1.5 in]
2"	150 ... 1500	49 mm [1.93 in]
	2500	42 mm [1.65 in]

Model PBV-FS3
Sealing face RJ of flange connections per ASME B 16.5

Shut off: 2 x ball valve
Vent: 1 x needle valve

Flange connection,
up to DN 2" class 150





Flange connections from DN 2"
class 300/600 have 8 holes

DN	class	Dimensions in mm [in]								x [1]	Weight kg [lb]
		A	B	C	Ø D	E	G	J	K		
½"	300/600	284 [11.2]	20 [0,8]	15.5 [0.6]	95 [3.7]	245 [9,6]	95 [3.7]	116 [4.6]	83 [3.3]	4	6 [2.36]
	900/1500	317 [12.5]	29 [1,1]	22.5 [0.9]	121 [4.8]	309 [12,2]	98 [3.9]	124 [4.9]	91 [3.6]	4	10.5 [4.13]
	2500	324 [12.8]	37 [1,5]	30.5 [1.2]	133 [5.2]	323 [12,7]	98 [3.9]	124 [4.9]	91 [3.6]	4	13 [5.12]
¾"	300/600	326 [12.8]	22,5 [0,9]	16 [0.6]	117 [4.6]	285 [11,2]	104 [4.1]	128 [5]	96 [3.8]	4	9 [3.54]
	900/1500	468 [18.4]	32 [1,3]	25.5 [1]	130 [5.1]	348 [13,7]	105 [4.1]	138 [5.4]	97 [3.8]	4	13.5 [5.31]
	2500	474 [18.7]	38,5 [1,5]	32 [1.3]	140 [5.5]	360 [14,2]	105 [4.1]	138 [5.4]	97 [3.8]	4	16 [6.3]
1"	150	431 [17]	19,5 [0,8]	13 [0.5]	108 [4.3]	289 [11,4]	114 [4.5]	143 [5.6]	102 [4]	4	12.5 [4.92]
	300/600	445 [17.5]	24 [0,9]	17.5 [0.7]	124 [4.9]	307 [12,1]	114 [4.5]	143 [5.6]	102 [4]	4	14 [5.51]
	900/1500	501 [19.7]	35 [1,4]	28.5 [1.1]	149 [5.9]	419 [16,5]	122 [4.8]	145 [5.7]	112 [4.4]	4	27.5 [10.83]
	2500	508 [20]	42 [1,7]	35.5 [1.4]	159 [6.3]	433 [17]	122 [4.8]	145 [5.7]	112 [4.4]	4	30.5 [12.01]
1½"	150	470 [18.5]	22,5 [0,9]	16 [0.6]	127 [5]	336 [13,2]	125 [4.9]	155 [6.1]	114 [4.5]	4	20.5 [8.07]
	300/600	490 [19.3]	30 [1,2]	22.5 [0.9]	155 [6.1]	366 [14,4]	125 [4.9]	155 [6.1]	114 [4.5]	4	24.5 [9.65]
	900/1500	822 [32.4]	38,5 [1,5]	32 [1.3]	178 [7]	527 [20,7]	162 [6.4]	199 [7.8]	150 [5.9]	4	84.5 [33.27]
	2500	838 [33]	52,5 [2,1]	44.5 [1.8]	203 [8]	563 [22,2]	162 [6.4]	199 [7.8]	150 [5.9]	4	95 [37.4]
2"	150	512 [20.2]	24 [0,9]	17.5 [0.7]	152 [6]	374 [14,7]	142 [5.6]	182 [7.2]	138 [5.4]	4	36 [14.17]
	300/600	524 [20.6]	33,5 [1,3]	25.5 [1]	165 [6.5]	392 [15,4]	142 [5.6]	182 [7.2]	138 [5.4]	8	40 [15.75]
	900/1500	687 [27]	46,5 [1,8]	38.5 [1.5]	216 [8.5]	474 [18,7]	142 [5.6]	184 [7.2]	138 [5.4]	8	62 [24.41]
	2500	939 [37]	59 [2,3]	51 [2]	235 [9.3]	581 [22,9]	166 [6.5]	175 [6.9]	247 [9.7]	8	120 [47.24]

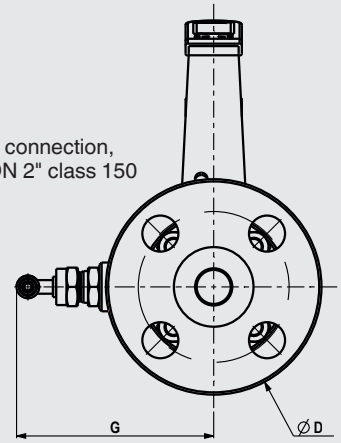
1) Number of screws

DN	class	Ball bore
½"	300 ... 2500	15 mm [0.59 in]
¾"	300 ... 2500	20 mm [0.79 in]
1"	150 ... 2500	25 mm [0.98 in]
1½"	150 ... 2500	38 mm [1.5 in]
2"	150 ... 1500	49 mm [1.93 in]
	2500	42 mm [1.65 in]

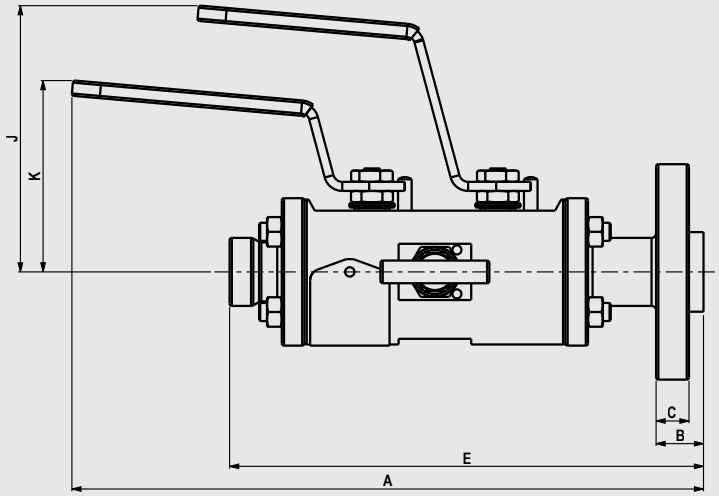
Model PBV-FS3
Sealing face RF of flange connection per ASME B 16.5 /
½ NPT female thread connection per ASME B1.20.1

Shut off: 2 x ball valve
Vent: 1 x needle valve

Flange connection,
up to DN 2" class 150



Flange connections from DN 2"
class 300 have 8 holes



DN	class	Dimensions in mm [in]								x [1]	Weight kg [lb]
		A	B	C	Ø D	E	G	J	K		
½"	150	275 [10.8]	11.5 [0.5]	10 [0.4]	89 [3.5]	229 [9]	95 [3.7]	116 [4.6]	83 [3.3]	4	4,5 [1,77]
	300	284 [11.2]	16 [0.6]	15.5 [0.6]	95 [3.7]	242 [9.6]	95 [3.7]	116 [4.6]	83 [3.3]	4	5 [1,97]
	600	284 [11.2]	21 [0.8]	15.5 [0.6]	95 [3.7]	247 [9.7]	95 [3.7]	116 [4.6]	83 [3.3]	4	5 [1,97]
	900/1500	317 [12.5]	29 [1.1]	22.5 [0.9]	121 [4.8]	309 [12.2]	98 [3.9]	124 [4.9]	91 [3.6]	4	8,5 [3,35]
	2500	324 [12.8]	37 [1.5]	30.5 [1.2]	133 [5.2]	323 [12.7]	98 [3.9]	124 [4.9]	91 [3.6]	4	9,5 [3,74]
¾"	150	276 [10.9]	13 [0.5]	11.5 [0.5]	99 [3.9]	218 [8.6]	95 [3.7]	116 [4.6]	83 [3.3]	4	4,5 [1,77]
	300	290 [11.4]	17.5 [0.7]	16 [0.6]	117 [4.6]	227 [9]	95 [3.7]	116 [4.6]	83 [3.3]	4	5,5 [2,17]
	600	290 [11.4]	22.5 [0.9]	16 [0.6]	117 [4.6]	232 [9.1]	95 [3.7]	116 [4.6]	83 [3.3]	4	5,5 [2,17]
	900/1500	320 [12.6]	32 [1.3]	25.5 [1]	130 [5.1]	274 [10.8]	98 [3.9]	124 [4.9]	91 [3.6]	4	9 [3,54]
	2500	326 [12.8]	38.5 [1.5]	32 [1.3]	140 [5.5]	280 [11]	98 [3.9]	124 [4.9]	91 [3.6]	4	10 [3,94]
1"	150	278 [10.9]	14.5 [0.6]	13 [0.5]	108 [4.3]	220 [8.7]	95 [3.7]	116 [4.6]	83 [3.3]	4	5 [1,97]
	300	292 [11.5]	19 [0.8]	17.5 [0.7]	124 [4.9]	229 [9.1]	95 [3.7]	116 [4.6]	83 [3.3]	4	6 [2,36]
	600	292 [11.5]	24 [0.9]	17.5 [0.7]	124 [4.9]	234 [9.2]	95 [3.7]	116 [4.6]	83 [3.3]	4	6 [2,36]
	900/1500	327 [12.9]	35 [1.4]	28.5 [1.1]	149 [5.9]	281 [11.1]	98 [3.9]	124 [4.9]	91 [3.6]	4	10,5 [4,13]
	2500	304 [12]	42 [1.7]	35.5 [1.4]	159 [6.3]	288 [11.3]	98 [3.9]	124 [4.9]	91 [3.6]	4	12 [4,72]
1½"	150	281 [11.1]	17.5 [0.7]	16 [0.6]	127 [5]	223 [8.8]	95 [3.7]	116 [4.6]	83 [3.3]	4	5,5 [2,17]
	300	301 [11.9]	25 [1]	22.5 [0.9]	155 [6.1]	238 [9.4]	95 [3.7]	116 [4.6]	83 [3.3]	4	8 [3,15]
	600	301 [11.9]	30 [1.2]	22.5 [0.9]	155 [6.1]	243 [9.6]	95 [3.7]	116 [4.6]	83 [3.3]	4	8 [3,15]
	900/1500	335 [13.2]	38.5 [1.5]	32 [1.3]	178 [7]	289 [11.4]	98 [3.9]	124 [4.9]	91 [3.6]	4	13 [5,12]
	2500	351 [13.8]	51 [2]	44.5 [1.8]	203 [8]	305 [12]	98 [3.9]	124 [4.9]	91 [3.6]	4	18 [7,09]
2"	150	287 [11.3]	19 [0.7]	17.5 [0.7]	152 [6]	229 [9]	95 [3.7]	116 [4.6]	83 [3.3]	4	6,5 [2,56]
	300	299 [11.8]	27 [1.1]	25.5 [1]	165 [6.5]	236 [9.3]	95 [3.7]	116 [4.6]	83 [3.3]	8	9 [3,54]
	600	299 [11.8]	32 [1.3]	25.5 [1]	165 [6.5]	241 [9.5]	95 [3.7]	116 [4.6]	83 [3.3]	8	9 [3,54]
	900/1500	337 [13.3]	44.5 [1.8]	38.5 [1.5]	216 [8.5]	291 [11.5]	98 [3.9]	124 [4.9]	91 [3.6]	8	17,5 [6,89]
	2500	354 [13.9]	57.5 [2.3]	51 [2]	235 [9.3]	308 [12.1]	98 [3.9]	175 [6.9]	91 [3.6]	8	24 [9,45]

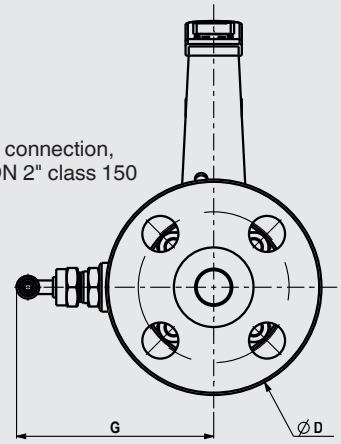
1) Number of screws

DN	class	Ball bore
½"	150 ... 2500	15 mm [0.59 in], full bore
1" ... 2"	150 ... 2500	15 mm [0.59 in], reduced bore

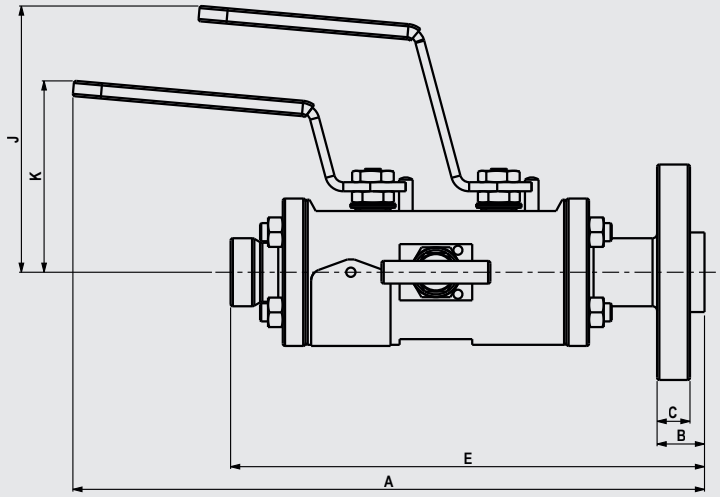
Model PBV-FS3
Sealing face RJ of flange connection per ASME B 16.5 /
½ NPT female thread connection per ASME B1.20.1

Shut off: 2 x ball valve
Vent: 1 x needle valve

Flange connection,
up to DN 2" class 150



Flange connections from DN 2"
class 300/600 have 8 holes



DN	class	Dimensions in mm [in]								x [1]	Weight kg [lb]
		A	B	C	Ø D	E	G	J	K		
½"	300/600	284 [11.2]	20 [0.8]	15.5 [0.6]	95 [3.7]	245 [9.6]	95 [3.7]	116 [4.6]	83 [3.3]	4	5 [1,97]
	900/1500	317 [12.5]	29 [1.1]	22.5 [0.9]	121 [4.8]	309 [12.2]	98 [3.9]	124 [4.9]	91 [3.6]	4	8,5 [3,35]
	2500	324 [12.8]	37 [1.5]	30.5 [1.2]	133 [5.2]	323 [12.7]	98 [3.9]	124 [4.9]	91 [3.6]	4	9,5 [3,74]
¾"	300/600	290 [11.4]	22.5 [0.9]	16 [0.6]	117 [4.6]	232 [9.1]	95 [3.7]	116 [4.6]	83 [3.3]	4	5,5 [2,17]
	900/1500	320 [12.6]	32 [1.3]	25.5 [1]	130 [5.1]	274 [10.8]	98 [3.9]	124 [4.9]	91 [3.6]	4	9 [3,54]
	2500	326 [12.8]	38.5 [1.5]	32 [1.3]	140 [5.5]	280 [11]	98 [3.9]	124 [4.9]	91 [3.6]	4	10 [3,94]
1"	150	278 [10.9]	19.5 [0.8]	13 [0.5]	108 [4.3]	225 [8.9]	95 [3.7]	116 [4.6]	83 [3.3]	4	5 [1,97]
	600	292 [11.5]	24 [0.9]	17.5 [0.7]	124 [4.9]	234 [9.2]	95 [3.7]	116 [4.6]	83 [3.3]	4	6 [2,36]
	900/1500	327 [12.9]	35 [1.4]	28.5 [1.1]	149 [5.9]	281 [11.1]	98 [3.9]	124 [4.9]	91 [3.6]	4	10,5 [4,13]
	2500	304 [12]	42 [1.7]	35.5 [1.4]	159 [6.3]	288 [11.3]	98 [3.9]	124 [4.9]	91 [3.6]	4	12 [4,72]
1½"	150	281 [11.1]	22.5 [0.9]	16 [0.6]	127 [5]	228 [9]	95 [3.7]	116 [4.6]	83 [3.3]	4	5,5 [2,17]
	600	301 [11.9]	30 [1.2]	22.5 [0.9]	155 [6.1]	243 [9.6]	95 [3.7]	116 [4.6]	83 [3.3]	4	8 [3,15]
	900/1500	335 [13.2]	38.5 [1.5]	32 [1.3]	178 [7]	289 [11.4]	98 [3.9]	124 [4.9]	91 [3.6]	4	13 [5,12]
	2500	351 [13.8]	52.5 [2.1]	44.5 [1.8]	203 [8]	307 [12.1]	98 [3.9]	124 [4.9]	91 [3.6]	4	18 [7,09]
2"	150	287 [11.3]	24 [0.9]	17.5 [0.7]	152 [6]	234 [9.2]	95 [3.7]	116 [4.6]	83 [3.3]	4	6,5 [2,56]
	600	299 [11.8]	33.5 [1.3]	25.5 [1]	165 [6.5]	243 [9.6]	95 [3.7]	116 [4.6]	83 [3.3]	8	9 [3,54]
	900/1500	337 [13.3]	46.5 [1.8]	38.5 [1.5]	216 [8.5]	292 [11.5]	98 [3.9]	124 [4.9]	91 [3.6]	8	17,5 [6,89]
	2500	354 [13.9]	59 [2.3]	51 [2]	235 [9.3]	309 [12.2]	98 [3.9]	175 [6.9]	91 [3.6]	8	24 [9,45]

1) Number of screws

DN	class	Ball bore
½"	300 ... 2500	15 mm [0.59 in], full bore
¾"	300 ... 2500	15 mm [0.59 in], reduced bore
1" ... 2"	150 ... 2500	15 mm [0.59 in], reduced bore

Approvals

Logo	Description	Region
CE	**EU declaration of conformity (option)** Pressure equipment directive Up to category III	European Union
EAC	**EAC (option)** Pressure equipment directive	Eurasian Economic Community

Manufacturer's information and certificates

Logo	Description
-	**Type test for fire safety in accordance with API 607, ISO 10497, BS 6755-2**
-	**Type test for fugitive emissions in accordance with EN ISO 15848-1**
-	**Positive material identification (PMI) test certificate (option)**
-	**Dye penetrant inspection (DPI) test certificate (option)**
-	**Magnetic particles inspection (MPI) test certificate (option)**
-	**Ultrasonic test (UT) certificate (option)**

Certificates

3.1 inspection certificate per EN 10204 (option)
- Material certificate for all wetted parts per NACE MR0103/MR0175
- Confirmation of pressure tests per API 598 [1)]

1) Shell test: 15 s test duration with 1.5 times the permissible working air pressure
Seat test: 15 s test duration with 6 bar air/nitrogen

→ For approvals and certificates, see website

WIKA Alexander Wiegand SE & Co. KG
Alexander-Wiegand-Straße 30
63911 Klingenberg/Germany
Tel. +49 9372 132-0
Fax +49 9372 132-406
info@wika.de
www.wika.de