

FIVC Static Balancing Valve

Ductile Iron – PN 16 – Fixed Orifice – WRAS – EN 1092-2



FSB series

Technical data

Main features and materials

- Body: Ductile Iron
- Bonnet: Ductile Iron
- Disc: Ductile Iron - WRAS EPDM
- Stem: Stainless Steel
- Handwheel: Ductile Iron
- Dimensions: Face-to-Face acc. to BS 7350:1990
- Drilling: EN 1092-2 PN 16
- Standard: BS EN 12266-1.2003
- Testing: Shell pressure: 2.4 MPa
Seat pressure: 1.76 MPa
- UPS: WRAS-approved.
Hydraulic system balance
Energy- and temperature optimization

Field of applications

- Temperature range: -10 to 85°C
- Max. working pressure: 16 bar
- Accuracy of flow measurement: ±5%
- HVAC
- Cooling system
- Drinking water
- Oil distribution

Description

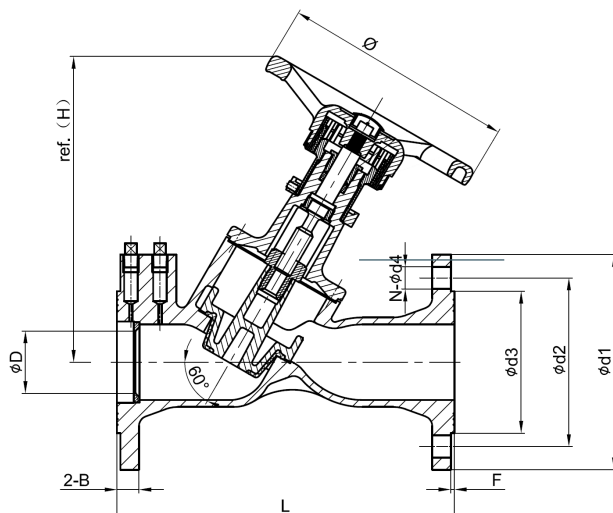
FIVC Static Balancing Valve is designed with integrated pressure probes to determine the flow rate through integrated fixed orifice. The valve controls hydraulic medium flow at HVAC plants and ensures load balance, hence contributes to energy and cost savings.

Further, the FIVC Balancing Valve does, through its reduction of media flow speed, prevents the water hammer phenomenon. This valve is used for drinking water.

Declaration

The product has been inspected and tested in accordance with the European PED Directive No 2014/68/EU, dated 15/05/2014. This valve is WRAS approved.

Dimensions



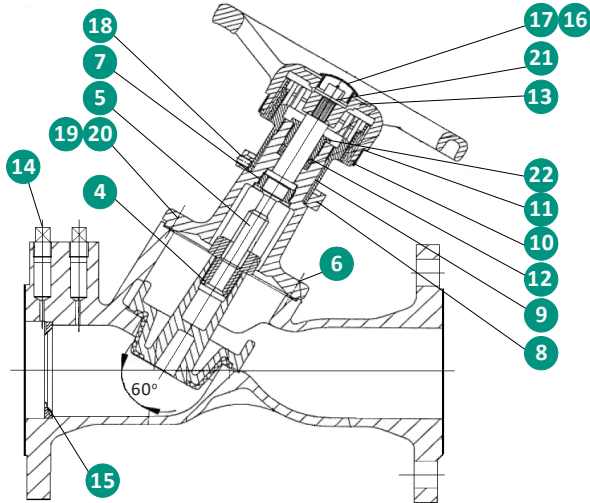
Product code	Size	H	L	B	Ø	ØD	Ød1	Ød2	Ød3	N-Ød4	F	Kg
FSB065N16GF231	65	263	290	19	200	53.7±0.3	185	145	118	4-Ø19	3	17
FSB080N16GF231	80	268	310	19	200	62.3±0.3	200	160	132	8-Ø19	3	20
FSB100N16GF231	100	300	350	19	240	84.8±0.3	220	180	156	8-Ø19	3	29
FSB125N16GF231	125	328	400	19	290	105±0.3	250	210	184	8-Ø19	3	40
FSB150N16GF231	150	340	480	19	290	122.9±0.4	285	240	211	8-Ø23	3	52
FSB200N16GF231	200	525	600	20	350	162.5±0.4	340	295	266	12-Ø23	3	113
FSB250N16GF231	250	572	730	22	420	200±0.4	405	355	319	12-Ø28	3	185
FSB300N16GF231	300	686	850	24.5	420	243±0.4	460	410	370	12-Ø28	4	248

Dimensions are in millimeters

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Product Specification



N°	Name	Material
1	Body	Ductile Iron EN JS 1040/65-45-12
2	Seal gasket	WRAS EPDM
3	Disc	Ductile Iron EN-JS 1040/65-45-12+WRAS EPDM
4	Stem nut	Brass CW617N EN 12165
5	Stem	DN 65-300: Stainless Steel BS 970 410 S21
6	Cover	Ductile Iron EN JS 1040/65-45-12
7	Stem lock bushing	Brass CW617N EN 12165
8	Limit set of indicator	Brass CW617N EN 12165 galvanized
9	Oriented set of indicator	Brass CW617N EN 12165
10	Directed circle	ABS plastic
11	Indicator	ABS plastic
12	Packing	PTFE+WRAS EPDM
13	Handwheel	Ductile Iron EN JS 1040/65-45-12
14	Plug	Steel
15	Orifice insert	DN 65-300: Brass CW617N EN 12165
16	Bolt	Stainless Steel BS 970 304 S15
17	Big gasket	Stainless Steel BS 970 304 S15
18	Hexagon socket screws	Stainless Steel BS 970 304 S15
19	Bolt	Stainless Steel BS 970 304 S15
20	Spring gasket	Stainless Steel BS 970 304 S15
21	Indicator dust cover	ABS plastic
22	Packing gland	DN 65-150: Brass CW617N EN 12165 DN 200-300: Ductile Iron EN JS 1040

Flowrate calculation

The flow rate Q can be determined with the following formula:

$$Q = K_{v_{venturi}} \cdot \sqrt{\Delta p}$$

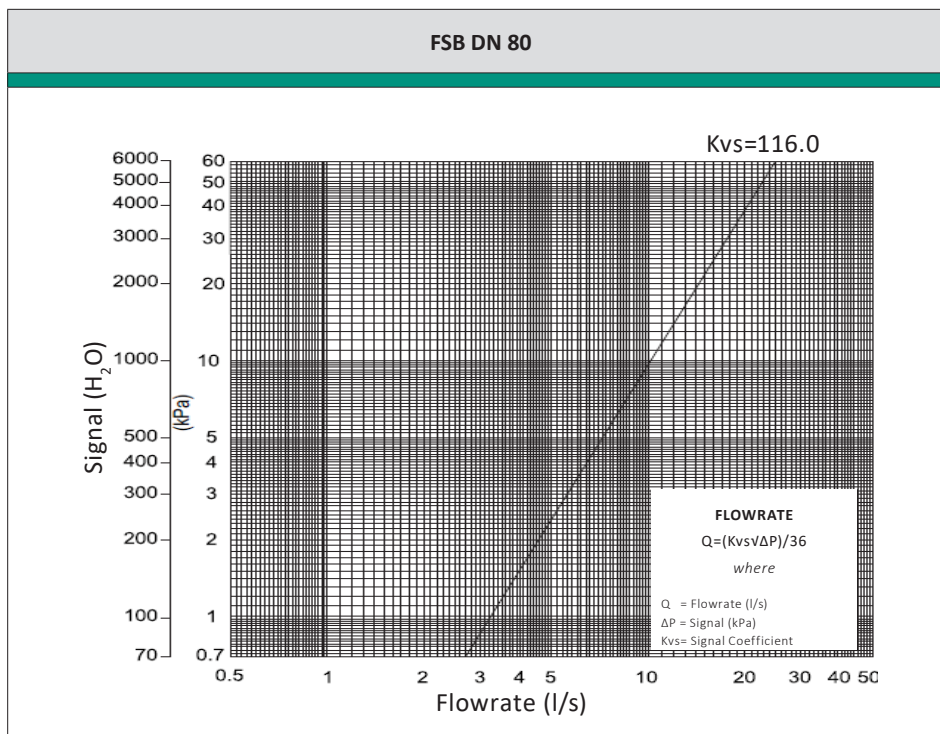
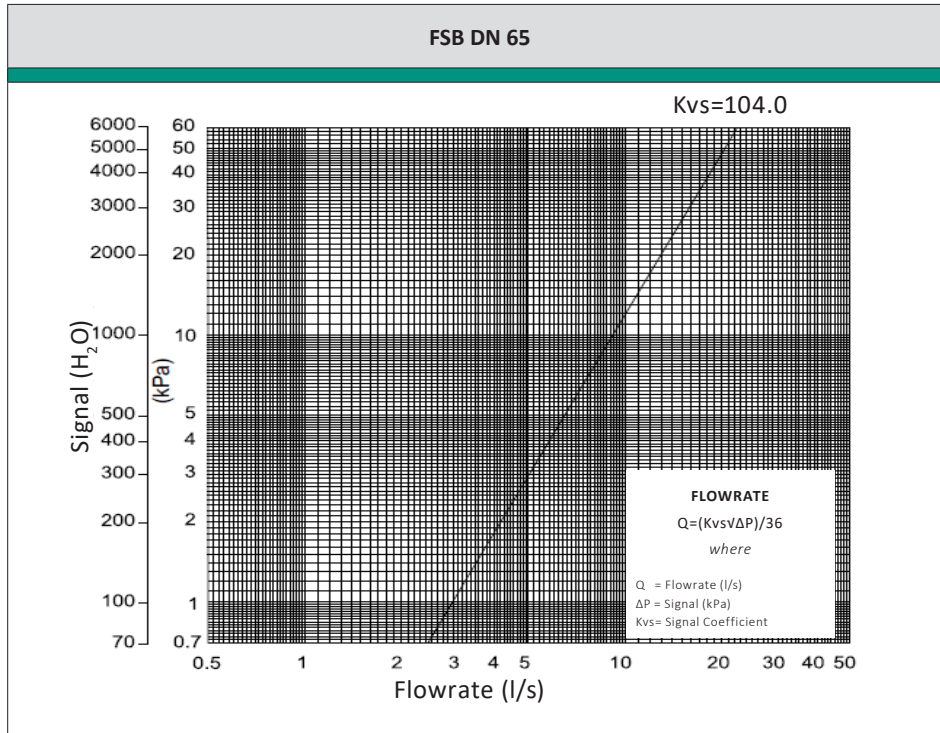
Refer to the $K_{v_{venturi}}$ values included in the table: Δp has to be measured through the pressure outlets. Use the following formula for the liquids having density ρ different from water:

$$Q = K_{v_{venturi}} \cdot \sqrt{\Delta p / \rho}$$

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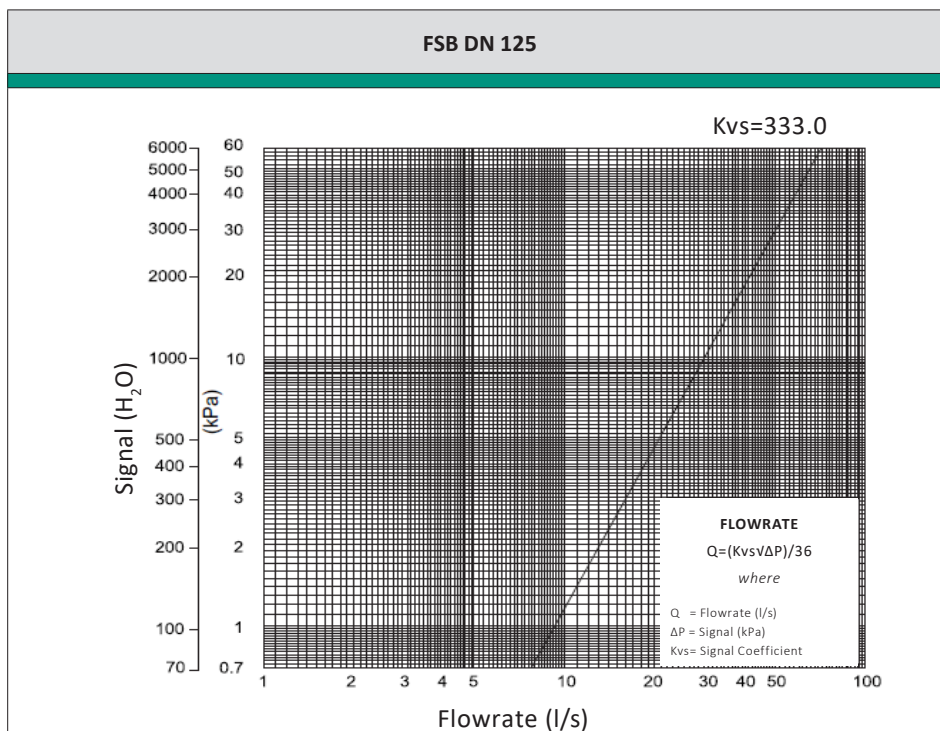
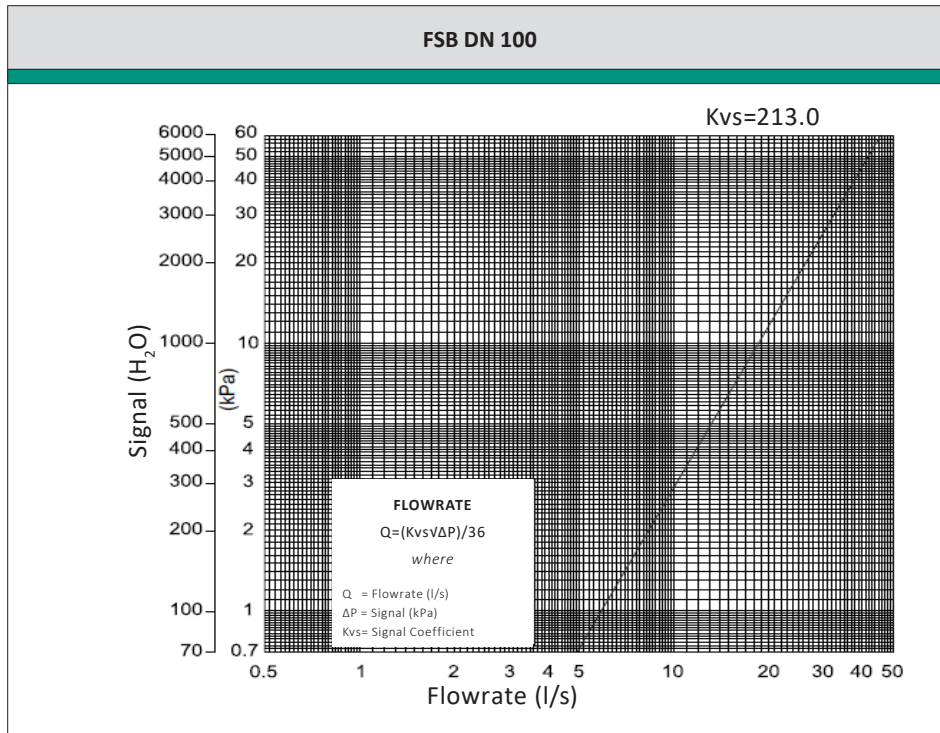
Flow Measurement Graphs



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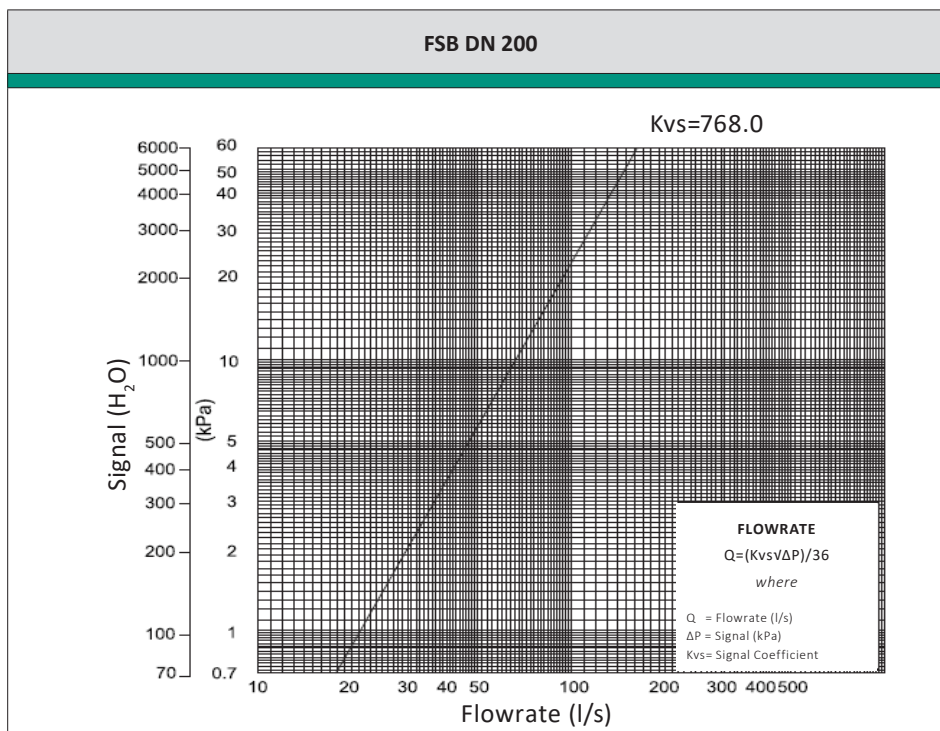
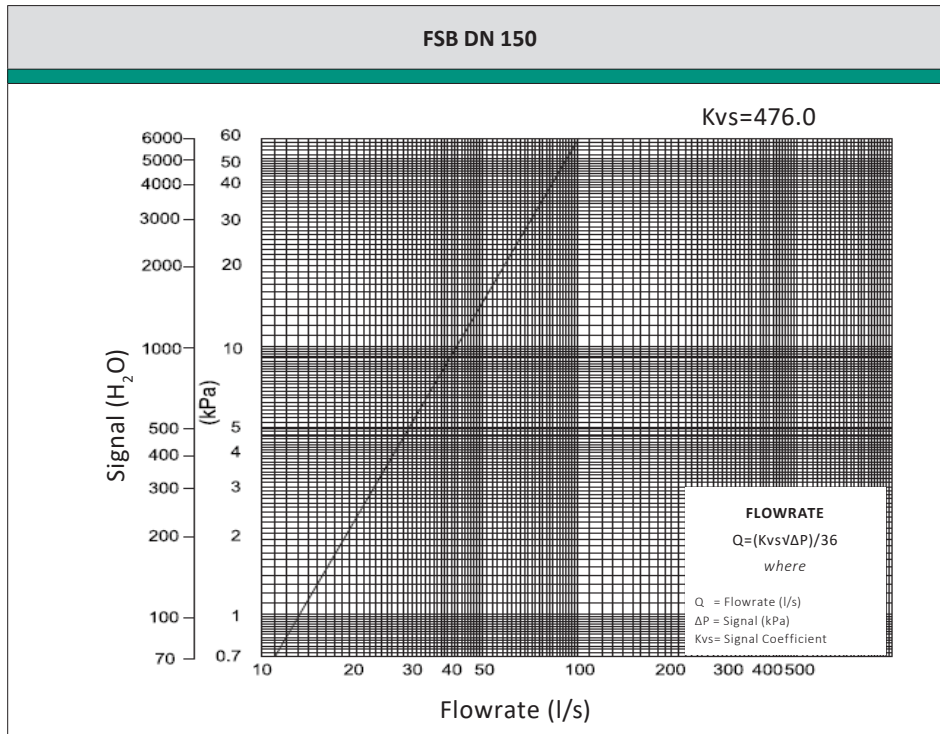
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