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NexusValve Fluctus & Vertex

Static balancing valves



aalberts hydronic flow control



NexusValve Fluctus

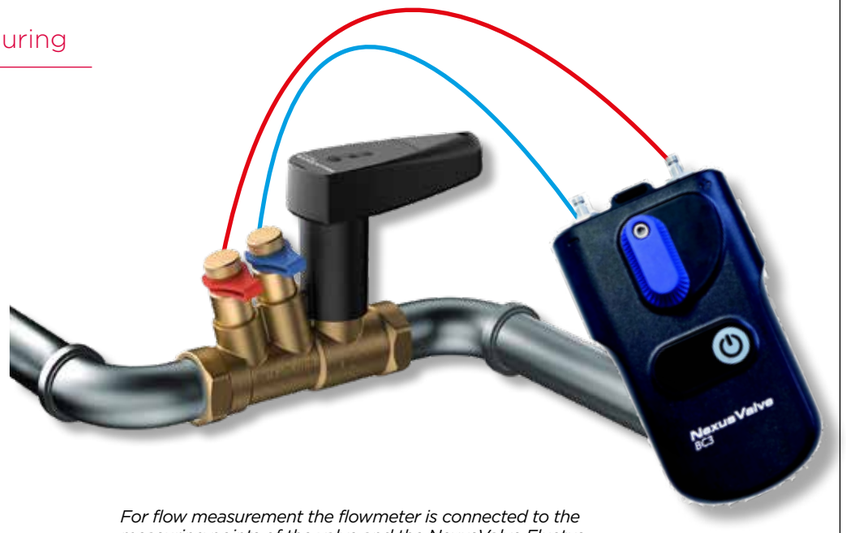
NexusValve Fluctus

Combined static circuit control valve and shut-off valve

The NexusValve Fluctus is a range of manual balancing valves used in water-based heating and cooling systems to ensure an evenly distributed flow in zones, branches, risers and terminal units. The NexusValve Fluctus has a compact design and integrates flow measuring, regulation and isolation functions all in one unit.

Venturi based, accurate measuring

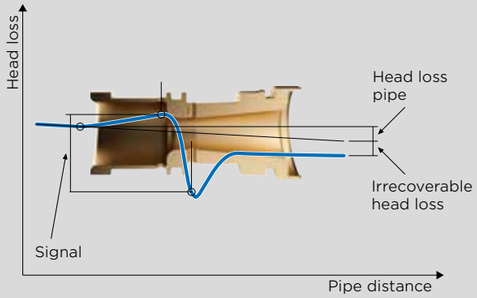
The NexusValve Fluctus has a built-in Venturi nozzle for accurate measuring. This design provides the NexusValve Fluctus with consistent measuring accuracy tolerances within 3%, making the NexusValve Fluctus more accurate than variable orifice double regulating valves. Because of the higher accuracy and low pressure loss, the NexusValve Fluctus is more efficient for reduced energy consumption when heating and cooling systems are balanced. The NexusValve Fluctus is a Fixed Orificed Regulation Valve (FODRV).



For flow measurement the flowmeter is connected to the measuring points of the valve and the NexusValve Fluctus in question is chosen from the displayed list. The flow is thereafter displayed directly.

Main features and benefits

- Setting scale precise and easy to read
- No change in setting when isolated and reopened
- Easy identification of open or isolated position
- No need for straight piping when installed
- Installation directly onto bends, reducers and flexible hoses
- Installation possible in all positions
- Venturi tube: measuring accuracy with a tolerance of only +/-3%
- Seeing the evolution of the flow in direct on the screen of the Balancing Computer



The differential pressure at the Venturi tube is measured at the point where the pressure is highest and lowest. The trumpet-shaped channel of the Fluctus restores a significant part of the pressure.

Range

The range consists of valves in sizes DN 15 - 50, manufactured in dezincification resistant brass (DR), to valves in sizes DN 65 - DN 300, manufactured in steel and cast iron.



NexusValve Fluctus DN 15 – DN 50

Type	Nominal width [DN]	Connection [F x F]	Kvs [m³/h]	Flow range [l/h]	Kvm [m³/h]	Without drain	With drain
Fluctus Rp DN 15 UL	15	Rp 1/2”	0,23	27 - 125	0,163	MN80597.400	MN80597.530
Fluctus Rp DN 15 L	15	Rp 1/2”	0,63	62 - 226	0,359	MN80597.401	MN80597.531
Fluctus Rp DN 15 S	15	Rp 1/2”	1,62	130 - 530	0,746	MN80597.402	MN80597.532
Fluctus Rp DN 15 H	15	Rp 1/2”	2,49	267 - 1170	1,560	MN80597.403	MN80597.533
Fluctus Rp DN 20 L	20	Rp 3/4”	1,43	130 - 530	0,746	MN80597.404	MN80597.534
Fluctus Rp DN 20 S	20	Rp 3/4”	2,82	267 - 1170	1,560	MN80597.405	MN80597.535
Fluctus Rp DN 20 H	20	Rp 3/4”	5,75	511 - 2170	2,950	MN80597.406	MN80597.536
Fluctus Rp DN 25 S	25	Rp 1”	7,54	511 - 2170	2,950	MN80597.407	MN80597.537
Fluctus Rp DN 25 H	25	Rp 1”	12,1	1044 - 4500	6,010	MN80597.408	MN80597.538
Fluctus Rp DN 32	32	Rp 1.1/4”	13,2	1044 - 4500	6,010	MN80597.400	MN80597.539
Fluctus Rp DN 40	40	Rp 1.1/2”	22	1580 - 6760	9,200	MN80597.410	MN80597.540
Fluctus Rp DN 50	50	Rp 2”	36	2950 - 12630	17,100	MN80597.411	MN80597.541

NexusValve Fluctus DN 65 – DN 300

Type	Dimension		Kvs [m³/h]	Flow range [m³/h]	Part No.
	Nominal width [DN]	Nominal Inch [“]			
Fluctus Fl/Hl DN 65	65	2.1/2”	78,2	6,48 - 25,2	MN80597.471
Fluctus Fl/Hl DN 80	80	3”	169	12,6 - 54,0	MN80597.472
Fluctus Fl/Hl DN 100	100	4”	360	22,3 - 93,6	MN80597.473
Fluctus Fl/Hl DN 125	125	5”	502	32,4 - 144,0	MN80597.474
Fluctus Fl/Hl DN 150	150	6”	1010	60,5 - 205,0	MN80597.475
Fluctus Fl/Hl DN 200	200	8”	1910	101,0 - 360,0	MN80597.476
Fluctus Fl/Hl DN 250	250	10”	2540	148,0 - 565,0	MN80597.477
Fluctus Fl/Hl DN 300	300	12”	4850	259,0 - 814,0	MN80597.478





NexusValve Vertex

Static circuit control valve for basic applications

NexusValve Vertex is a variable orifice double regulating valve for balancing water-based heating and cooling systems. The balancing performed ensures the required distribution of flow in individual risers and terminal units.

Practical design, useful features

The NexusValve Vertex design enables flow measuring, pre-setting and isolation functions all in one unit. The regulation spindle inside the built-in ball valve is set independently from the isolation function of the ball valve. This allows system flow to be isolated and re-opened again without changing the valve setting. Isolating the system flow is done by a simple quarter-turn of the valve handle. The quarter-turn handle position also makes it easy to identify if the valve is open or closed. The compact design and the flow bi-directionality ensures easy and flexible installation of NexusValve Vertex in any system.



Main features and benefits

- Measuring, pre-setting, draining and isolation functions all in one unit
- Flow direction is irrelevant for the valve installation
- Pre-setting is fast and simple using an Allen key
- Setting scale is precise and easy to read
- Isolation of flow is simply done using the quarter-turn handle
- No change in pre-setting when isolated and re-opened
- Drain valve can be rotated 360° for easy service



The regulation spindle inside the built-in ball valve is set independently from the isolation function of the ball valve. This allows system flow to be isolated and re-opened again without changing the valve setting.

Range

NexusValve Vertex is available in valves DN 10 to DN 50, manufactured in dezincification resistant brass (DZR). For valve sizes DN 65 - 350 the NexusValve Vertex valve range is recommended.



NexusValve Vertex DN 15 – DN 50

Type	Nominal width [DN]	Connection [F x F]	Kvs [m³/h]	Flow range [l/h]	Without drain	With drain
NexusValve Vertex DN10	10	Rp 3/8”	0,67	11 - 270	MN80597.699	MN80597.712
NexusValve Vertex DN15	15	Rp 1/2”	1,71	19 – 530	MN80597.700	MN80597.706
NexusValve Vertex DN20	20	Rp 3/4”	4,40	55 – 1170	MN80597.701	MN80597.707
NexusValve Vertex DN25	25	Rp 1”	7,46	84 – 2170	MN80597.702	MN80597.708
NexusValve Vertex DN32	32	Rp 1.1/4”	13,50	310 – 4500	MN80597.703	MN80597.709
NexusValve Vertex DN40	40	Rp 1.1/2”	23,70	450 – 6770	MN80597.704	MN80597.710
NexusValve Vertex DN50	50	Rp 2”	34,50	960 – 12640	MN80597.705	MN80597.711

NexusValve Vertex DN 65 – DN 350

Type	Nominal width [DN]	Kvs [m³/h]	Zeta va-luie	Limitation Delta P [bar]	Part No.
Vertex DN 65	65	74,4	4	16	751512
Vertex DN 80	80	111	5.1	16	751513
Vertex DN 100	100	165	5.3	16	751514
Vertex DN 125	125	242	5.9	16	751516
Vertex DN 150	150	372	6.7	16	751518
Vertex DN 200	200	704	5.8	16	751520
Vertex DN 250	250	812	5.2	16	750750
Vertex DN 300	300	1380	9.5	9	750800
Vertex DN 350	350	1651	6.8	6	750850





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