



Rectangular VAV dampers type VAV-RS MP

Controls

- Controller type Belimo LMV-D3-MP (5Nm) and Belimo NMV-D3-MP (10Nm) are pressure regulated actuators for pressure independent controls. Settings can be done by using the Assistant App* (smartphone) with NFC connection (Near Field Communication) or by using the service tool ZTH (PC-tool).
- Operating range 0-10V or 2-10V (Standard set on 0-10V)
- Units of airflow: l/s or m³/h
- Minimum adjustable air volume set at air velocity at +/- 2 m/s and maximum adjustable airvolume set at air velocity of 12 m/s
- Differential pressure range Δp @ V_{nom} 38 - 500 Pa
- Running time over the full actuator range : 100s
- Power consumption 5 Nm: 2W, 3.5VA / 10 Nm: 3W , 5VA
- Supply voltage 24V AC/DC

* Assistant App available in App Store & Google Play Store

* For iPhone an ZIP-BT-NFC converter is needed!

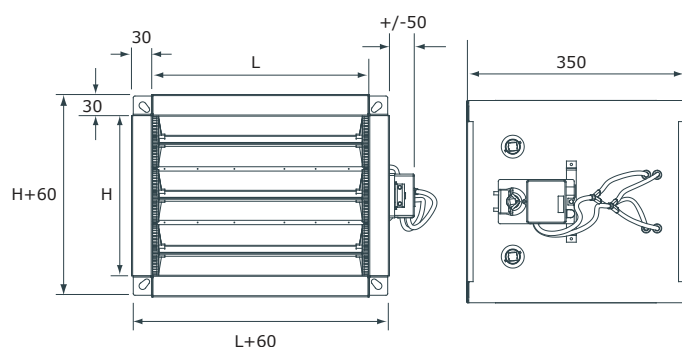
Variable Volume valves (VAV)

Selection table			
Type VAV	Qmin [m³/h]	Qmax [m³/h]	Vnom / Qnom [m³/h]
VAV-RSB 200x100LxH	130	720	720
VAV-RSB 200 x 200 LxH	255	1440	1440
VAV-RSB 300x100 LxH	190	1080	1080
VAV-RSB 300x200 LxH	380	2160	2160
VAV-RSB 300x300 LxH	570	3240	3240
VAV-RSB 400x100 LxH	255	1440	1440
VAV-RSB 400x200 LxH	505	2880	2880
VAV-RSB 400x300 LxH	755	4320	4320
VAV-RSB 400x400 LxH	1005	5760	5760
VAV-RSB 500x200 LxH	630	3600	3600
VAV-RSB 500x300 LxH	940	5400	5400
VAV-RSB 500x400 LxH	1255	7200	7200
VAV-RSB 500x500 LxH	1570	9000	9000
VAV-RSB 600x200 LxH	755	4320	4320
VAV-RSB 600x300 LxH	1130	6480	6480
VAV-RSB 600x400LxH	1505	8640	8640
VAV-RSB 600x500 LxH	755	10800	10800
VAV-RSB 600x600 LxH	2260	12960	12960
VAV-RSB 700x300 LxH	1320	7560	7560
VAV-RSB 700x400 LxH	1755	10080	10080
VAV-RSB 700x500 LxH	2195	12600	12600
VAV-RSB 700x600 LxH	2635	15120	15120
VAV-RSB 700x700 LxH	3070	17640	17640
VAV-RSB 800x300 LxH	1505	8640	8640
VAV-RSB 800x400 LxH	2005	11520	11520
VAV-RSB 800x500 LxH	2510	14400	14400
VAV-RSB 800x600 LxH	3010	17280	17280
VAV-RSB 800x700 LxH	3510	20160	20160
VAV-RSB 900x300 LxH	1695	9720	9720
VAV-RSB 900x400 LxH	2260	12960	12960
VAV-RSB 900x500 LxH	2820	16200	16200
VAV-RSB 900x600 LxH	3385	19440	19440
VAV-RSB 900x700 LxH	3950	22680	22680
VAV-RSB 1000x300 LxH	1880	10800	10800
VAV-RSB 1000x400 LxH	2510	14400	14400
VAV-RSB 1000x500 LxH	3135	18000	18000
VAV-RSB 1000x600 LxH	3760	21600	21600
VAV-RSB 1000x700 LxH	4385	25200	25200

VAV-RSB		Sound data																								
		L																								
		H	100				200				300				400				500							
		Vk [m/s]	3	6	9	12	3	6	9	12	3	6	9	12	3	6	9	12	3	6	9	12				
p _s = 125 Pa	Lw [dB/Okt]	f [Hz]	63	45	55	63	68	51	60	68	73	53	63	71	76	56	65	73	78	59	68	76	81			
		125	46	56	63	68	49	58	66	71	51	60	68	73	52	61	69	74	53	63	71	75				
		250	42	49	54	57	46	53	58	61	48	55	60	63	50	56	62	64	52	59	64	67				
		500	44	47	50	52	45	48	51	53	45	49	51	53	46	49	52	53	46	50	52	54				
		1000	46	49	51	53	48	50	53	54	48	51	53	55	49	52	54	55	50	52	55	56				
		2000	46	49	51	53	49	52	54	56	51	54	56	58	52	55	57	59	54	57	59	60				
		4000	39	43	47	49	41	46	50	52	43	47	51	53	44	49	52	55	45	50	54	56				
8000	32	37	41	43	36	41	45	47	38	43	47	50	40	45	49	51	42	47	51	54						
p _s = 250 Pa	Lw [dB/Okt]	f [Hz]	63	52	61	68	72	56	64	71	75	58	66	73	77	59	68	75	79	61	70	77	81			
		125	49	58	65	70	53	61	69	73	55	64	71	75	56	65	72	77	58	67	74	79				
		250	46	53	58	62	49	56	62	66	51	58	64	68	53	60	66	69	55	62	68	72				
		500	48	52	56	58	50	54	58	60	51	55	59	61	51	56	59	62	52	57	61	63				
		1000	51	54	57	59	52	56	59	61	53	57	60	61	54	57	60	62	55	58	61	63				
		2000	53	56	58	59	56	58	61	62	57	60	62	64	58	61	63	65	60	63	65	66				
		4000	49	52	55	57	51	54	57	59	52	56	59	60	53	56	59	61	54	58	61	63				
8000	45	49	52	54	47	51	54	56	49	53	56	58	50	54	57	59	51	55	58	60						
p _s = 500 Pa	Lw [dB/Okt]	f [Hz]	63	57	65	72	76	60	69	76	80	63	71	78	82	64	73	80	84	67	75	82	86			
		125	53	63	71	77	56	66	74	80	58	68	76	81	59	69	77	83	61	71	79	84				
		250	49	58	66	70	55	64	72	76	59	68	75	80	61	70	78	82	54	74	81	86				
		500	53	59	63	66	56	62	66	69	58	63	68	71	59	65	69	72	61	66	71	73				
		1000	59	62	64	66	61	64	66	67	62	64	67	68	62	65	68	69	63	66	69	70				
		2000	64	65	66	66	66	67	68	69	68	69	70	70	69	70	71	71	70	71	72	73				
		4000	63	64	65	66	65	66	67	68	66	67	68	69	67	68	69	69	68	69	70	70				
8000	59	61	63	64	61	63	65	66	62	65	66	68	63	65	67	69	64	67	69	70						
		L	600												1000											
		H	600				700				800				900				1000							
		Vk [m/s]	3	6	9	12	3	6	9	12	3	6	9	12	3	6	9	12	3	6	9	12				
p _s = 125 Pa	Lw [dB/Okt]	f [Hz]	63	59	68	76	81	62	71	79	84	64	74	82	87	65	75	83	88	66	76	83	88			
		125	53	63	71	75	55	65	73	77	57	66	74	79	57	67	75	80	57	67	75	80				
		250	52	59	64	67	54	61	66	69	56	63	68	71	57	64	69	72	58	64	69	73				
		500	46	50	52	54	47	51	53	55	47	51	53	55	48	51	54	55	48	51	54	55				
		1000	50	52	55	56	51	53	56	57	51	54	56	57	51	54	56	58	51	54	56	58				
		2000	54	57	59	60	56	59	61	62	57	60	62	64	58	61	63	65	58	61	63	65				
		4000	45	50	54	56	47	52	56	58	49	53	57	59	49	54	58	60	49	54	58	60				
8000	42	47	51	54	45	50	54	56	47	52	56	58	48	53	57	59	48	53	57	59						
p _s = 250 Pa	Lw [dB/Okt]	f [Hz]	63	61	70	77	81	63	72	79	83	65	74	80	85	66	75	81	86	66	75	82	86			
		125	58	67	74	79	60	69	77	81	62	71	79	83	63	72	80	84	64	72	80	84				
		250	55	62	68	72	57	65	70	74	59	67	72	76	60	68	73	77	61	68	73	77				
		500	52	57	61	63	54	58	62	64	55	59	63	65	55	60	63	66	55	60	63	66				
		1000	55	58	61	63	56	59	62	64	57	60	63	65	57	61	64	65	57	61	64	65				
		2000	60	63	65	66	62	65	67	68	63	66	68	69	64	67	69	70	64	67	69	70				
		4000	54	58	61	63	56	59	62	64	57	60	63	65	57	61	64	66	57	61	64	66				
8000	51	55	58	60	53	57	60	62	54	58	61	63	55	59	62	64	55	59	62	64						
p _s = 500 Pa	Lw [dB/Okt]	f [Hz]	63	67	75	82	86	69	78	85	89	71	80	87	91	72	81	88	92	72	81	88	92			
		125	61	71	79	84	63	73	81	86	64	74	83	88	65	75	84	89	65	75	84	89				
		250	65	74	81	86	69	78	85	90	72	81	88	93	73	82	89	94	74	83	90	95				
		500	61	66	71	73	63	68	73	75	64	70	74	77	65	71	75	78	65	71	75	78				
		1000	63	66	69	70	64	67	70	71	65	68	70	72	66	69	71	72	66	69	71	72				
		2000	70	71	72	73	72	73	74	75	73	75	75	76	74	75	76	77	74	75	76	77				
		4000	68	69	70	70	69	70	71	72	70	71	72	73	70	72	73	73	70	72	73	73				
8000	64	67	69	70	66	68	70	71	67	69	71	72	68	70	72	73	68	70	72	73						

Variable Volume valves (VAV)

- VAV-RSB = Variable or constant volume damper
- Q = In-Duct air volume in m^3/h
- $Q_{\min}$ - $Q_{\max}$ = minimum and maximum set point in m^3/h
- V_k = Average velocity in the damper in m/s
- P_s = Pressure drop over the damper according to the position of the blade
- L_w [dB/Okt] = Sound power given at a specific pressure drop P_s for the frequencies f [Hz] from 63 up to 8000 Hz in dB
- Correction factor for other widths in relation to the sizes $L=600\text{mm}$ and $L=1000\text{mm}$ in dB



VAV-RSB	Dimensions		
	L [mm]	H [mm]	kg
200 x 100	200	100	2.8
200 x 200	200	200	3.7
300 x 100	300	100	3.3
300 x 200	300	200	4.5
300 x 300	300	300	5.8
400 x 100	400	100	3.7
400 x 200	400	200	5.4
400 x 300	400	300	7.1
400 x 400	400	400	8.8
500 x 200	500	200	6.2
500 x 300	500	300	8.3
500 x 400	500	400	10.4
500 x 500	500	500	12.6
600 x 200	600	200	7.1
600 x 300	600	300	9.6
600 x 400	600	400	12.1
600 x 500	600	500	14.7
600 x 600	600	600	17.2
700 x 300	700	300	10.9
700 x 400	700	400	13.8
700 x 500	700	500	16.8
700 x 600	700	600	19.7
700 x 700	700	700	22.7
800 x 300	800	300	12.1
800 x 400	800	400	15.5
800 x 500	800	500	18.9
800 x 600	800	600	22.3
800 x 700	800	700	25.7
900 x 300	900	300	13.4
900 x 400	900	400	17.2
900 x 500	900	500	21
900 x 600	900	600	24.8
900 x 700	900	700	28.6
1000 x 300	1000	300	14.7
1000 x 400	1000	400	18.9
1000 x 500	1000	500	23.1
1000 x 600	1000	600	27.3
1000 x 700	1000	700	31.6