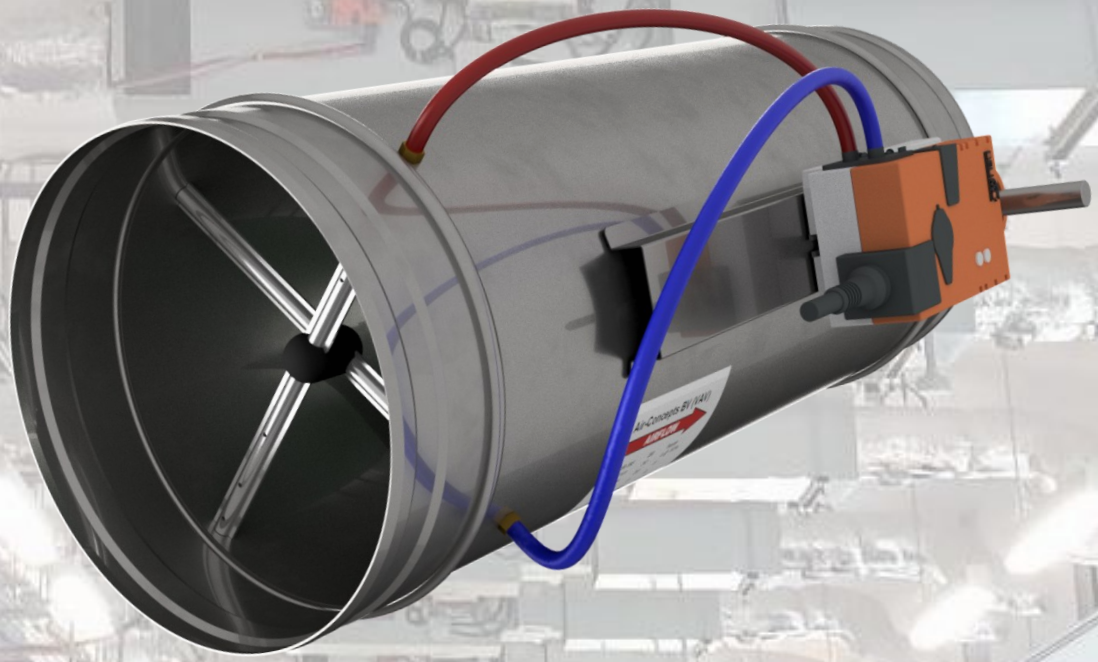
1.1.1 VSR-SW

Circular VAV terminals

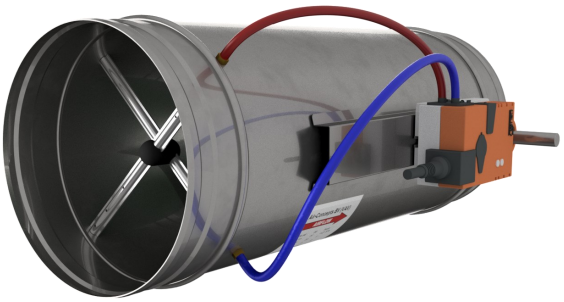


BarcoAir UK

AN AIR-CONCEPTS COMPANY

Application

VAV (Variable-Air-Volume) terminals are commonly used to control room temperature by varying the air volume to the space. If the room temperature raises above the set point, the damper modulates open to supply more (cold) primary air into the room. As the space temperature drops below set point, the VAV terminal modulates to a pre-set minimum airflow, which is usually determined by the minimum level of ventilation required in the room. Should the cooling load drop even further at the minimum airflow setting, a reheat coil (hot water or electric) can be energized to provide heating. preventing the room temperature to drop below setpoint.
VAV can also be used to control ventilation (CO2 and/or PM5) or control pressure in the room.



Type VSR-SW-BE1 (Belimo LMP-D3-MP controller)

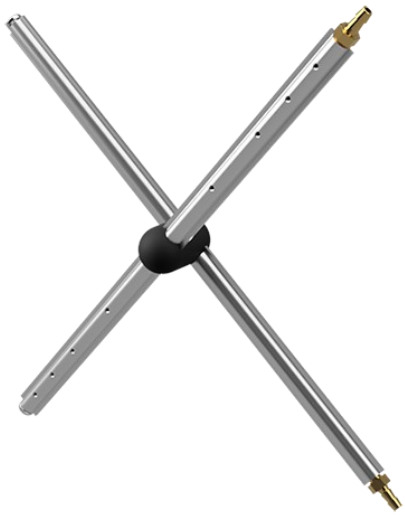
Design features

Casing

- Magnelis® steel. 3x more corrosion resistance than galvanized steel. Self-healing properties ,fully recyclable and lower CO2 footprint due to its reduced zinc content..
- Casing leakage EN 1751 Class C
- Spigots comply with DIN 24145 or DIN 24146.
- Oval shaped damper blade, sandwich construction with glass fibre reinforced rubber seals.
- Damper leakage EN 1751 Class-3
- Damper shaft aluminium, ø12 mm
- Bearings Polyamide (PA6.6)
- Operating temperature +5 to 50°C (controls)
- Storage temperature 0 to +70°C, max R.H. 95%
- Other construction available upon request.

Air flow sensor FloXact™

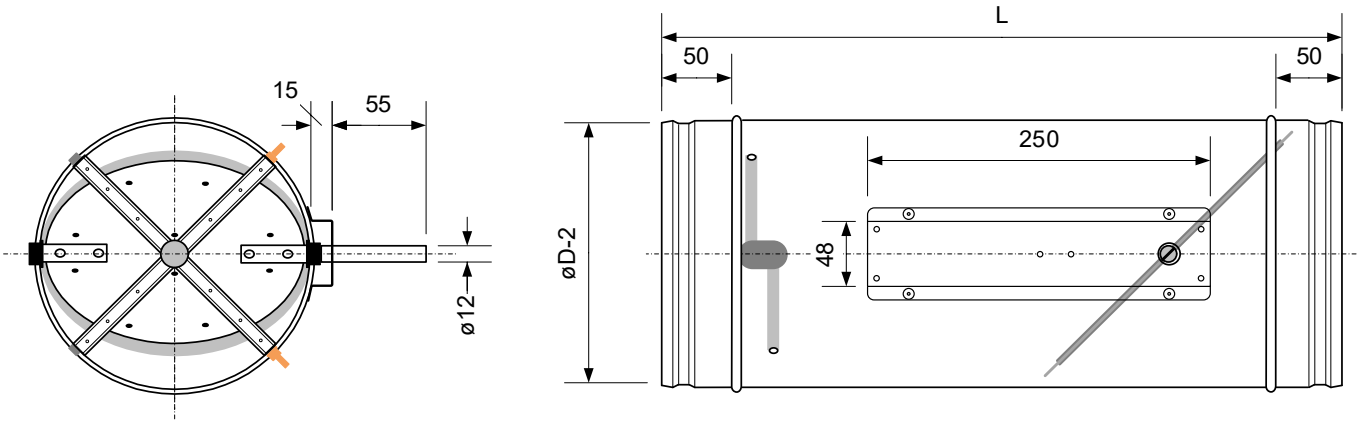
- The unique shape, patent pending, creates a linear amplified signal (at least 2.5x Pdyn) with a very low pressure drop and noise level.
- Multi point averaging according to the "Log-Tchebycheff" method.
- Inaccuracy <2% with 1xD straight duct approach.
- Accurate measuring signal from 0,7 m/s air velocity



FloXact-X multipoint, averaging air flow sensor

Kv Values FloXact-X®

	units	100	125	160	200	250	315	355	400	450
Kv Value	l/s/Pa	5,23	8,89	15,6	25,5	41,3	67,5	86,8	111,3	142,2
	m3/h/Pa	18,8	32,0	56,2	91,9	148,8	243,0	312,3	400,7	511,8
Vnom @ 150Pa	l/s	64	109	191	313	506	827	1.063	1.363	1.741
	m3/h	231	392	688	1.125	1.822	2.976	3.825	4.908	6.268
Vnom @ 250Pa (1"WC)	l/s	83	141	247	404	653	1.067	1.372	1.760	2.248
	m3/h	298	506	888	1.453	2.352	3.842	4.938	6.336	8.093



Type VSR-SW (single wall construction), drawn model 200

Dimensions and weight (without controls)

		100	125	160	200	250	315	355	400	450	500
ød	mm	ø 98	ø 123	ø 158	ø 198	ø 248	ø 313	ø 353	ø 398	ø 448	ø 498
L	mm	500	500	500	500	500	500	500	500	550	600
VSR-SW	Kg	1,3	1,6	2,0	2,6	3,4	4,6	5,3	6,2	7,3	8,5

Accessories / Optional

The units are supplied as standard with controls on the right side (seen in the air direction).

- Standard Controls:
  -BE1 Belimo LMV-D3-MP. 5Nm, 0-10V with NFC
  -BEX Belimo LMV0D3-FLX. 5Nm, 0-10V without NFC
  -BEM Belimo LMV-D3-MOD. 5Nm, MODbus/BACnet
  -BEB1 Belimo LMV-BAC-001. 5Nm, ZoneEase BACnet
  -BEB2 Belimo LMV-BAC-002. 5Nm, ZoneEase BACnet
  The above controllers are factory mounted, calibrated and, if desired, provided with a location label.
- If desired, Air-Concepts can install free issue controls. We have suitable mounting consoles for all common control manufacturers.
- Transformer 230/24V AC (20 or 30VA)
- Hot water duct heater 1-, 2-, or 3-row. Type HWR
- Duct cooler 3-row. Type CWR
- Electric duct heater. Type HER
- Round sound attenuators type SAR

BEM (LMV-D3-MOD)

BEB2 (LMV-BAC-002)

HWR

CWR

HER

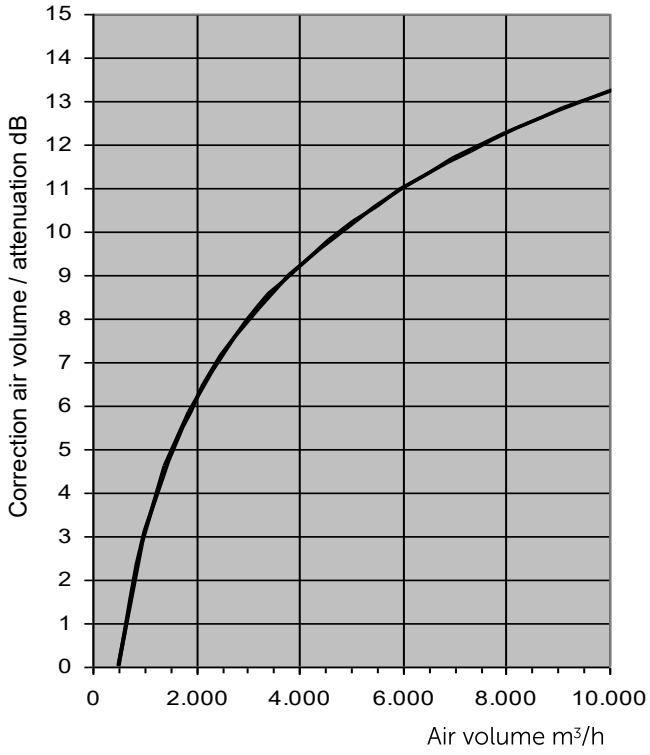
SAR

Sound data dB(A) and NR

1. The discharge sound pressure levels Lp(A), are determined with a room absorption of 7dB/oct and the following assumption for downstream ductwork, diffuser(s) and end reflection:

125	250	500	1k	2k	4k	Hz
-3	-5	-10	-15	-15	-12	dB

2. The discharge sound pressure levels Lp(A) also include a correction for air volume :



3. The Radiated sound pressure levels Lp(A) are determined with a room absorption of 7dB/oct and the following assumption ceiling attenuation:

125	250	500	1k	2k	4k	Hz
-1	-3	-5	-7	-7	-10	dB

4. Sound data is measured in a reverberation room at an independent sound laboratory, according to ISO -3741 and ISO-5135 standards.
5. L_w in dB/Oct are sound power levels (re 10^{-12}W) per octave band in dB for discharge sound and radiated sound. Values less than 17 dB are indicated by "-".
6. n/a Not applicable, static pressure < unit resistance
7. min ΔPs. Unit resistance with fully opened damper blade

Sound data NC

1. The sound pressure levels Lp(A), are determined with the following attenuation factors according to the guidelines in ARI-885-98
2. The discharge sound pressure levels include:

>Environmental effect

125	250	500	1k	2k	4k	Hz
-3	-2	-1	-1	-1	-1	dB

>Duct lining, 5 feet, 1" lining (1.5m, 25mm thick)

125	250	500	1k	2k	4k	Hz
-1	-3	-8	-21	-20	-12	dB

>End Reflection

125	250	500	1k	2k	4k	Hz
-11	-6	-2	0	0	0	dB

>Acoustical flexible duct. 5 ft 8" (1.5m ø200mm)

125	250	500	1k	2k	4k	Hz
-6	-10	-17	-19	-19	-12	dB

>Room effect. 3000 cu ft, 10 ft from source.

125	250	500	1k	2k	4k	Hz
-9	-10	-11	-12	-13	-14	dB

>Discharge sound total reduction in dB:

125	250	500	1k	2k	4k	Hz
-30	**-31**	**-39**	**-53**	**-53**	**-39**	dB

3. The Radiated sound pressure levels include:

>Environmental effect

125	250	500	1k	2k	4k	Hz
-3	-2	-1	-1	-1	-1	dB

>Ceilling effect. Mineral fibre 5/8" 20 lb/cu ft

125	250	500	1k	2k	4k	Hz
-9	-10	-12	-14	-15	-15	dB

>Room effect. 3000 cubic ft, 10 ft from source.>

125	250	500	1k	2k	4k	Hz
-9	-10	-11	-12	-13	-14	dB

>Radiated sound total reduction in dB:

125	250	500	1k	2k	4k	Hz
-21	**-22**	**-24**	**-27**	**-29**	**-30**	dB

4. Sound data is measured in a reverberation room at an independent sound laboratory, according to ISO-3741 and ISO-5135 standards.
5. L_w in dB/Oct are sound power levels (re 10^{-12}W) per octave band in dB for discharge sound and radiated sound. Values less than 17 dB are indicated by "-".
6. n/a Not applicable, static pressure < unit resistance
7. min ΔPs. Unit resistance with fully opened damper blade

Pressure drop over unit : 100 Pa

Model	Air Vel.	Air Volume			Min. P_{st}	Discharge sound (Air borne sound)									Radiated sound (Break out sound)								
						Lw (dB/oct) re 10^{-12}W						Quick Sel. L_P			Lw (dB/oct) re 10^{-12}W						Quick Sel. L_P		
mm	m/s	m^3/h	l/s	CFM	Pa	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR	NC	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR	NC
100	0,7	19	5	11	0	26	28	28	24	23	21	--	--	--	-	-	-	-	-	-	--	--	--
	3,0	80	22	47	4	40	39	38	34	29	27	23	--	--	26	22	22	17	18	-	--	--	--
	6,0	160	44	94	16	47	44	43	40	32	30	28	22	--	33	27	27	23	22	19	--	--	--
	9,0	239	67	141	36	51	48	46	43	34	32	31	25	--	37	31	30	26	24	20	20	--	--
	12,0	319	89	188	64	54	50	48	45	35	33	34	28	--	40	33	32	28	25	22	22	--	--
125	0,8	32	9	19	0	28	30	30	26	24	23	--	--	--	-	-	-	-	-	-	--	--	--
	3,0	126	35	74	4	44	41	40	36	30	28	25	--	--	29	24	23	19	18	-	--	--	--
	6,0	253	70	149	15	52	46	45	41	34	31	31	24	--	37	29	28	24	21	19	--	--	--
	9,0	379	105	223	33	58	50	48	44	36	33	35	29	--	43	33	31	27	23	21	22	--	--
	12,0	505	140	297	59	57	52	50	46	37	34	36	30	--	42	35	33	29	25	22	23	--	--
160	0,8	56	16	33	0	31	32	31	27	26	25	--	--	--	-	-	-	-	-	-	--	--	--
	3,0	209	58	123	3	44	43	41	37	33	30	26	20	--	27	26	23	19	-	-	--	--	--
	6,0	418	116	246	13	52	48	46	42	36	34	32	26	--	35	31	28	24	20	20	--	--	--
	9,0	627	174	369	30	56	52	49	46	38	36	34	29	--	39	35	31	28	22	22	22	--	--
	12,0	836	232	492	53	59	54	51	48	39	37	35	30	--	42	37	33	30	23	23	24	--	--
200	0,8	92	26	54	0	32	36	34	30	29	27	19	-	--	-	18	-	-	-	-	--	--	--
	3,0	329	91	194	3	47	46	43	40	35	33	29	24	--	29	28	23	20	-	-	--	--	--
	6,0	658	183	387	12	54	52	49	45	38	36	33	29	--	36	34	29	25	20	20	20	--	--
	9,0	988	274	581	28	58	55	52	48	40	38	35	30	--	40	37	32	28	22	22	23	--	--
	12,0	1317	366	775	50	61	57	54	51	42	39	36	32	--	43	39	34	31	24	23	25	--	--
250	0,9	149	41	88	0	35	36	36	31	30	29	20	-	--	19	20	18	-	-	-	--	--	--
	3,0	517	144	304	3	48	47	45	41	36	35	30	24	--	32	31	28	25	22	23	--	--	--
	6,0	1035	287	609	13	52	52	50	46	40	38	32	27	--	36	36	33	30	26	26	23	--	--
	9,0	1552	431	913	29	57	56	53	49	42	40	34	29	--	41	40	36	33	28	28	26	20	--
	12,0	2070	575	1218	51	62	58	55	52	43	41	35	30	--	46	42	38	36	29	29	29	22	--
315	0,9	243	67	143	0	36	38	37	33	32	31	22	-	--	21	22	21	18	19	19	--	--	--
	3,0	826	229	486	3	49	48	46	42	38	37	29	24	--	34	32	30	27	25	25	20	--	--
	6,0	1651	459	971	12	56	54	52	48	42	40	32	27	--	41	38	36	32	29	29	26	--	--
	9,0	2477	688	1457	26	61	57	55	51	44	42	33	29	--	46	41	39	36	31	31	29	22	--
	12,0	3303	917	1943	47	64	59	57	53	45	43	35	30	--	49	43	41	38	32	32	31	25	--
355	0,9	312	87	184	0	37	39	38	34	34	33	23	20	--	23	23	22	19	22	23	--	--	--
	3,0	1051	292	618	3	50	49	48	43	40	39	29	24	--	36	33	32	28	28	29	22	--	--
	6,0	2102	584	1236	11	57	55	53	49	44	43	32	27	--	43	39	37	34	32	33	27	21	--
	9,0	3153	876	1855	25	57	58	56	52	46	45	33	29	--	43	42	40	37	34	35	30	24	--
	12,0	4204	1168	2473	44	61	61	58	54	47	46	34	30	--	47	45	42	39	35	36	32	26	--
400	0,9	401	111	236	0	35	41	40	35	35	33	24	20	--	20	25	24	20	23	23	--	--	--
	3,0	1337	371	786	3	50	51	49	44	41	39	29	24	--	36	35	33	29	29	29	23	--	--
	6,0	2674	743	1573	10	58	56	54	50	45	43	32	27	--	44	40	38	35	33	33	28	22	--
	9,0	4011	1114	2359	24	62	60	57	53	47	45	34	29	--	48	44	41	38	35	35	32	25	--
	12,0	5348	1485	3146	42	65	62	59	55	48	46	35	30	--	51	46	43	40	36	36	34	27	--
450	0,9	512	142	301	0	38	41	40	36	35	34	25	20	--	24	25	24	21	23	24	--	--	--
	3,0	1695	471	997	3	45	51	49	45	42	40	28	24	--	31	35	33	30	30	30	24	--	--
	6,0	3390	942	1994	10	58	57	55	51	45	43	31	27	--	44	41	39	36	33	33	29	23	--
	9,0	5085	1412	2991	23	63	60	58	54	48	45	33	29	--	49	44	42	39	36	35	32	26	--
	12,0	6779	1883	3988	40	66	63	60	56	49	47	34	30	--	52	47	44	41	37	37	35	28	--
500	0,9	636	177	374	0	39	42	41	36	36	34	24	20	--	25	26	25	21	24	24	--	--	--
	3,0	2095	582	1232	2	51	52	50	46	42	40	28	23	--	37	36	34	31	30	30	24	20	--
	6,0	4190	1164	2465	10	59	57	55	51	46	44	31	27	--	45	41	39	36	34	34	30	23	--
	9,0	6286	1746	3697	22	63	61	58	54	48	46	33	28	--	49	45	42	39	36	36	33	26	--
	12,0	8381	2328	4930	38	66	63	61	57	50	47	34	30	--	52	47	45	42	38	37	35	29	--

Pressure drop over unit : 200 Pa

Model	Air Vel.	Air Volume			Min. P_{st}	Discharge sound (Air borne sound)									Radiated sound (Break out sound)								
						Lw (dB/oct) re 10^{-12}W						Quick Sel. L_P			Lw (dB/oct) re 10^{-12}W						Quick Sel. L_P		
mm	m/s	m^3/h	l/s	CFM	Pa	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR	NC	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR	NC
100	0,7	19	5	11	0	29	33	34	29	28	27	--	--	--	-	-	18	-	18	-	--	--	--
	3,0	80	22	47	4	44	44	44	40	35	34	28	23	--	30	27	28	23	25	22	--	--	--
	6,0	160	44	94	16	51	50	49	45	38	37	34	28	--	37	33	33	28	28	26	23	--	--
	9,0	239	67	141	36	55	53	52	48	40	39	37	31	--	41	36	36	31	30	28	26	20	--
	12,0	319	89	188	64	58	55	54	50	42	40	39	34	--	44	38	38	33	32	29	28	22	--
125	0,8	32	9	19	0	32	35	35	31	30	29	20	--	--	-	18	18	-	17	-	--	--	--
	3,0	126	35	74	4	48	46	46	41	36	35	30	24	--	33	29	29	24	24	23	--	--	--
	6,0	253	70	149	15	56	52	51	46	40	38	36	30	--	41	35	34	29	28	26	24	--	--
	9,0	379	105	223	33	62	55	54	50	42	40	40	34	--	47	38	37	33	30	28	27	21	--
	12,0	505	140	297	59	61	57	56	52	43	42	41	36	--	46	40	39	35	31	30	29	23	--
160	0,8	56	16	33	0	35	38	37	33	32	31	22	--	--	18	21	19	-	-	17	--	--	--
	3,0	209	58	123	3	48	48	47	43	39	38	32	26	--	31	31	29	25	23	24	--	--	--
	6,0	418	116	246	13	56	54	52	48	42	41	37	32	--	39	37	34	30	26	27	24	--	--
	9,0	627	174	369	30	60	57	55	51	44	43	40	35	--	43	40	37	33	28	29	27	21	--
	12,0	836	232	492	53	63	60	58	53	46	44	41	36	--	46	43	40	35	30	30	29	23	--
200	0,8	92	26	54	0	36	41	40	36	35	34	25	20	--	18	23	20	-	-	18	--	--	--
	3,0	329	91	194	3	51	52	50	45	41	40	35	30	--	33	34	30	25	23	24	20	--	--
	6,0	658	183	387	12	58	57	55	51	45	43	39	35	--	40	39	35	31	27	27	25	--	--
	9,0	988	274	581	28	62	61	58	54	47	45	41	36	--	44	43	38	34	29	29	29	22	--
	12,0	1317	366	775	50	65	63	60	56	48	47	42	38	--	47	45	40	36	30	31	31	25	--
250	0,9	149	41	88	0	39	42	42	37	36	36	26	22	--	23	26	25	21	22	24	--	--	--
	3,0	517	144	304	3	52	52	51	46	43	42	36	30	--	36	36	34	30	29	30	24	--	--
	6,0	1035	287	609	13	56	58	56	52	46	45	38	33	--	40	42	39	36	32	33	29	23	--
	9,0	1552	431	913	29	62	61	59	55	49	47	39	35	--	46	45	42	39	35	35	32	26	--
	12,0	2070	575	1218	51	66	64	62	57	50	49	41	36	--	50	48	45	41	36	37	35	29	--
315	0,9	243	67	143	0	40	44	43	38	38	38	28	24	--	25	28	27	23	25	27	--	--	--
	3,0	826	229	486	3	53	54	53	48	45	44	35	30	--	38	38	37	33	32	33	27	22	--
	6,0	1651	459	971	12	61	59	58	53	48	47	38	33	--	46	43	42	38	35	36	32	26	--
	9,0	2477	688	1457	26	65	63	61	56	51	49	39	35	--	50	47	45	41	38	38	35	29	--
	12,0	3303	917	1943	47	68	65	63	59	52	51	40	36	--	53	49	47	44	39	40	37	31	20
355	0,9	312	87	184	0	41	45	45	39	40	41	30	27	--	27	29	29	24	28	31	20	--	--
	3,0	1051	292	618	3	54	55	54	49	47	47	35	30	--	40	39	38	34	35	37	28	25	--
	6,0	2102	584	1236	11	61	61	59	54	50	50	38	33	--	47	45	43	39	38	40	33	29	--
	9,0	3153	876	1855	25	61	64	62	58	52	52	39	35	--	47	48	46	43	40	42	36	31	--
	12,0	4204	1168	2473	44	65	67	64	60	54	54	40	36	--	51	51	48	45	42	44	38	33	21
400	0,9	401	111	236	0	39	46	46	41	42	41	31	27	--	25	30	30	26	30	31	21	20	--
	3,0	1337	371	786	3	54	56	55	50	48	47	35	30	--	40	40	39	35	36	37	30	25	--
	6,0	2674	743	1573	10	62	62	60	56	52	51	38	33	--	48	46	44	41	40	41	35	29	--
	9,0	4011	1114	2359	24	66	65	64	59	54	53	39	35	--	52	49	48	44	42	43	38	32	20
	12,0	5348	1485	3146	42	69	68	66	61	55	54	40	37	--	55	52	50	46	43	44	40	34	22
450	0,9	512	142	301	0	42	47	47	41	42	41	31	27	--	28	31	31	26	30	31	22	20	--
	3,0	1695	471	997	3	50	57	56	51	48	47	35	30	--	36	41	40	36	36	37	30	26	--
	6,0	3390	942	1994	10	62	63	61	56	52	51	37	33	--	48	47	45	41	40	41	35	29	--
	9,0	5085	1412	2991	23	67	66	64	59	54	53	39	35	--	53	50	48	44	42	43	38	32	21
	12,0	6779	1883	3988	40	70	68	66	62	56	54	40	36	--	56	52	50	47	44	44	40	35	23
500	0,9	636	177	374	0	43	48	47	42	43	42	31	27	--	29	32	31	27	31	32	23	20	--
	3,0	2095	582	1232	2	56	57	56	51	49	48	35	30	--	42	41	40	36	37	38	31	26	--
	6,0	4190	1164	2465	10	63	63	62	57	53	51	37	33	--	49	47	46	42	41	41	36	30	--
	9,0	6286	1746	3697	22	67	67	65	60	55	53	39	35	--	53	51	49	45	43	43	39	33	21
	12,0	8381	2328	4930	38	70	69	67	62	56	55	40	36	--	56	53	51	47	44	45	41	35	24

Pressure drop over unit : 300 Pa

Model	Air Vel.	Air Volume			Min. P_{st}	Discharge sound (Air borne sound)									Radiated sound (Break out sound)								
						Lw (dB/oct) re 10^{-12}W						Quick Sel. L_P			Lw (dB/oct) re 10^{-12}W						Quick Sel. L_P		
mm	m/s	m^3/h	l/s	CFM	Pa	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR	NC	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	dB (A)	NR	NC
100	0,7	19	5	11	0	31	36	37	32	31	31	21	--	--	17	19	21	-	21	20	--	--	--
	3,0	80	22	47	4	46	47	48	43	39	38	32	27	--	32	30	32	26	29	27	21	--	--
	6,0	160	44	94	16	53	53	53	48	42	41	37	32	--	39	36	37	31	32	30	26	21	--
	9,0	239	67	141	36	58	56	56	51	44	43	40	35	--	44	39	40	34	34	32	29	24	--
	12,0	319	89	188	64	61	59	58	53	45	44	42	37	--	47	42	42	36	35	33	31	26	--
125	0,8	32	9	19	0	34	38	39	34	33	33	23	--	--	19	21	22	-	21	21	--	--	--
	3,0	126	35	74	4	50	49	49	44	40	39	33	28	--	35	32	32	27	28	27	22	--	--
	6,0	253	70	149	15	59	55	54	50	44	43	39	33	--	44	38	37	33	32	31	27	21	--
	9,0	379	105	223	33	64	58	57	53	46	45	43	37	--	49	41	40	36	34	33	31	24	--
	12,0	505	140	297	59	63	61	59	55	47	46	44	39	--	48	44	42	38	35	34	32	26	--
160	0,8	56	16	33	0	37	41	41	36	36	35	25	22	--	20	24	23	18	20	21	--	--	--
	3,0	209	58	123	3	51	52	51	46	43	42	35	30	--	34	35	33	28	27	28	22	--	--
	6,0	418	116	246	13	58	57	56	51	46	45	41	36	--	41	40	38	33	30	31	27	22	--
	9,0	627	174	369	30	62	60	59	54	48	47	43	38	--	45	43	41	36	32	33	30	25	--
	12,0	836	232	492	53	65	63	61	56	50	49	44	39	--	48	46	43	38	34	35	33	27	--
200	0,8	92	26	54	0	39	45	44	39	39	38	29	25	--	21	27	24	19	21	22	--	--	--
	3,0	329	91	194	3	53	55	53	49	45	44	38	33	--	35	37	33	29	27	28	23	--	--
	6,0	658	183	387	12	60	61	58	54	49	48	42	38	--	42	43	38	34	31	32	29	22	--
	9,0	988	274	581	28	65	64	62	57	51	50	44	40	--	47	46	42	37	33	34	32	26	--
	12,0	1317	366	775	50	68	66	64	59	52	51	45	41	21	50	48	44	39	34	35	34	28	--
250	0,9	149	41	88	0	41	45	45	40	40	40	30	27	--	25	29	28	24	26	28	--	--	--
	3,0	517	144	304	3	54	56	55	50	47	46	39	34	--	38	40	38	34	33	34	28	23	--
	6,0	1035	287	609	13	59	61	60	55	50	50	41	37	--	43	45	43	39	36	38	33	27	--
	9,0	1552	431	913	29	64	65	63	58	52	52	43	39	--	48	49	46	42	38	40	36	30	--
	12,0	2070	575	1218	51	68	67	65	60	54	53	44	40	--	52	51	48	44	40	41	38	32	21
315	0,9	243	67	143	0	43	47	47	41	42	42	32	29	--	28	31	31	26	29	31	22	20	--
	3,0	826	229	486	3	56	57	56	51	49	48	39	33	--	41	41	40	36	36	37	30	26	--
	6,0	1651	459	971	12	63	63	62	56	52	52	41	36	--	48	47	46	41	39	41	35	30	--
	9,0	2477	688	1457	26	67	66	65	60	54	54	42	38	--	52	50	49	45	41	43	38	33	21
	12,0	3303	917	1943	47	70	69	67	62	56	55	44	40	--	55	53	51	47	43	44	40	35	24
355	0,9	312	87	184	0	43	48	48	43	44	45	33	31	--	29	32	32	28	32	35	24	24	--
	3,0	1051	292	618	3	56	58	58	52	50	51	39	34	--	42	42	42	37	38	41	32	30	--
	6,0	2102	584	1236	11	64	64	63	58	54	55	41	37	--	50	48	47	43	42	45	37	33	--
	9,0	3153	876	1855	25	63	67	66	61	56	57	42	39	--	49	51	50	46	44	47	40	35	23
	12,0	4204	1168	2473	44	68	70	68	63	58	58	43	40	20	54	54	52	48	46	48	42	36	25
400	0,9	401	111	236	0	41	50	50	44	45	45	34	32	--	27	34	34	29	33	35	25	24	--
	3,0	1337	371	786	3	57	60	59	53	52	51	39	34	--	43	44	43	38	40	41	33	30	--
	6,0	2674	743	1573	10	64	65	64	59	55	55	41	37	--	50	49	48	44	43	45	38	33	21
	9,0	4011	1114	2359	24	69	69	67	62	58	57	43	39	--	55	53	51	47	46	47	41	35	24
	12,0	5348	1485	3146	42	72	71	70	64	59	58	44	40	20	58	55	54	49	47	48	43	38	26
450	0,9	512	142	301	0	45	50	50	45	46	46	35	32	--	31	34	34	30	34	36	26	24	--
	3,0	1695	471	997	3	52	60	60	54	52	52	38	34	--	38	44	44	39	40	42	34	30	--
	6,0	3390	942	1994	10	65	66	65	60	56	55	41	37	--	51	50	49	45	44	45	39	34	21
	9,0	5085	1412	2991	23	69	69	68	63	58	57	42	39	--	55	53	52	48	46	47	42	36	25
	12,0	6779	1883	3988	40	72	72	70	65	60	59	43	40	20	58	56	54	50	48	49	44	38	27
500	0,9	636	177	374	0	45	51	51	45	47	46	34	31	--	31	35	35	30	35	36	26	25	--
	3,0	2095	582	1232	2	58	61	60	55	53	52	38	33	--	44	45	44	40	41	42	34	30	--
	6,0	4190	1164	2465	10	65	67	66	60	57	56	41	36	--	51	51	50	45	45	46	39	34	22
	9,0	6286	1746	3697	22	70	70	69	63	59	58	42	38	--	56	54	53	48	47	48	42	37	25
	12,0	8381	2328	4930	38	73	72	71	66	60	59	43	40	20	59	56	55	51	48	49	45	39	28

VSR - SW - 250 - BEM

Type | Construction | Model | Controls

Type:

- VSR - VAV terminal met round in– and outlet. Supply and return application.

Construction:

- SW - Single wall construction

Model:

- Ø - 100, 125, 160, 200, 250, 315, 355, 400 or 450

Controls:

- BEX - Belimo LMV-D3-FX (5Nm, 0-10V w/o NFC)
- BE1 - Belimo LMV-D3-MP (5Nm 0-10V with NFC)
- BE2 - Belimo NMV-D3-MP (10Nm 0-10V with NFC)
- BEM - Belimo LMV-D3-MOD (MODbus/BACnet
- BA1 - Belimo LMV-BAC-001 (5Nm BACnet)
- BA2 - Belimo LMV-BAC-002 (5NmBACnet)
- FIC - Fitting free issue controls, upon request

Specify as:

Example:
Supply and install, VAV terminal, double wall constructing, from galvanized sheet steel, duct sleeve connections suitable for DIN 24 145 or DIN 24 146. Casing leakage rate to class II, VDI 3803/ DIN 24 194. The VAV units should have a low leakage, sandwich construction damper blade with SBR gasket and an aluminium damper shaft with self lubricating Nylon bearings and averaging airflow sensor type FloXact®.
For:

Air volume	.... m3/h
Unit size	.... mm
Max. pressure loss	.... Pa
Max. discharge SPL	.... dB(A)
Max. radiated SPL	.... dB(A)
Controller	Belimo LMV-D3-MP (factory fitted and calibrated)
Manufacturer	AIR-CONCEPTS BV
Type	VSR-DW-250-BE1-xxx-

Barcol-Air UK Ltd
128, City Road
London, EC1V 2NX
United Kingdom
+44 1225 310309
info@barcol-air.co.uk
www.barcol-air.co.uk