



Constant air volume control dampers type VRS

Adjustable self-regulating constant air volume control dampers in galvanised steel. To be used to regulate airstreams at pressures between 50 and 1000 Pa and temperature ranges between -30°C and 100°C . Air-flow value can easily be changed by use of an allen key SW2

Application

- For air volume regulation in ventilation and air-conditioning systems with following air volumes and duct sizes
 - $\text{Ø}80$: to be set between 40 & $125\text{m}^3/\text{h}$
 - $\text{Ø}100$: to be set between 70 & $220\text{m}^3/\text{h}$
 - $\text{Ø}125$: to be set between 100 & $280\text{m}^3/\text{h}$
 - $\text{Ø}150$: to be set between 170 & $450\text{m}^3/\text{h}$
 - $\text{Ø}160$: to be set between 180 & $500\text{m}^3/\text{h}$
 - $\text{Ø}200$: to be set between 250 & $900\text{m}^3/\text{h}$
 - $\text{Ø}250$: to be set between 500 & $1600\text{m}^3/\text{h}$
 - $\text{Ø}315$: to be set between 800 & $2800\text{m}^3/\text{h}$
 - $\text{Ø}355$: to be set between 900 & $3200\text{m}^3/\text{h}$
 - $\text{Ø}400$: to be set between 1000 & $4000\text{m}^3/\text{h}$
- Accuracy: +/- 10% of the set air volume

Material

- Galvanized steel housing
- Aluminium regulation blade with piston and spring

Composition

- Round housing made out of laser welded galvanised steel in standard duct sizes according to DIN EN 12237
- Airtight connection up to class D with EPDM rubber according to DIN EN 12237
- Balanced self-regulating aluminium blade with PTFE bearing and piston to prevent oscillations

Mounting

- To be inserted at both sides into a round duct and to be equipped with a silencer if necessary
- horizontal or vertical mounting

Accessories

- Stainless steel models or insulation shells available upon request

Text for tender

- The constant volume control dampers shall be of the circular type, made of galvanized steel and to be inserted at both ends in to the ductwork. They shall contain a self regulating valve, piston and stainless steel spring and shall have an adjustable air volume. The valves shall be used for a pressure range between 50 and 1000Pa.
- **Cairox** Type **VRS**

Order example

- **VRS, 125**

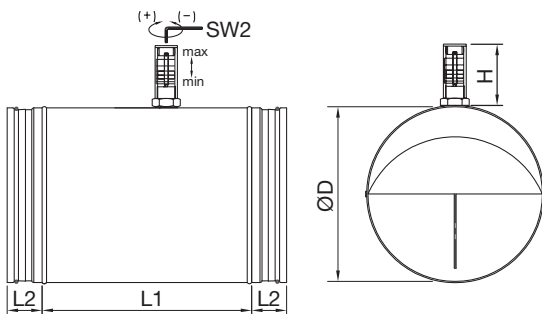
Explanation

VRS = Type of constant air valve

125 = Duct diameter

Other available products

- Version ATEX available upon request



VRS	ØD (mm)	Dimensions		
		L1 (mm)	L2 (mm)	H (mm)
80	79	140	40	70
100	99	170	40	70
125	124	170	40	70
150	149	240	40	70
160	159	240	40	70
200	199	240	40	70
250	249	240	40	70
315	314	225	60	110
355	354	295	60	110
400	398	295	60	110

Sound data										
Ø	Q [m³/h]	Lw (0m (int.) / ext. duct L=6m - 100Pa								
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	LwA
80	40	37 / 1	37 / 4	35 / 3	33 / 10	33 / 16	33 / 21	28 / 17	27 / 16	38 / 25
	82	49 / 13	47 / 14	44 / 12	41 / 18	39 / 22	39 / 27	33 / 22	32 / 21	45 / 30
	125	52 / 16	51 / 18	48 / 16	45 / 22	44 / 27	44 / 32	38 / 27	37 / 26	49 / 35
100	70	40 / 6	39 / 7	38 / 8	36 / 14	35 / 19	36 / 24	30 / 19	29 / 19	41 / 27
	135	50 / 16	48 / 16	45 / 15	42 / 20	41 / 25	40 / 28	34 / 23	33 / 23	46 / 32
	200	54 / 20	52 / 20	49 / 19	47 / 25	45 / 29	45 / 33	39 / 28	38 / 28	51 / 36
125	100	41 / 12	40 / 11	38 / 7	36 / 12	35 / 14	36 / 17	30 / 15	29 / 18	41 / 23
	190	51 / 22	49 / 20	46 / 15	42 / 18	41 / 20	40 / 21	34 / 19	32 / 21	46 / 27
	280	54 / 25	53 / 24	50 / 19	47 / 23	45 / 24	45 / 26	39 / 24	37 / 26	50 / 32
150	150	43 / 18	42 / 17	40 / 17	38 / 19	37 / 23	37 / 25	31 / 20	30 / 21	42 / 40
	270	52 / 27	50 / 25	46 / 23	43 / 24	41 / 27	41 / 29	34 / 23	33 / 24	47 / 35
	400	56 / 31	54 / 29	50 / 27	47 / 28	46 / 32	45 / 33	39 / 28	38 / 29	51 / 39
160	180	44 / 21	43 / 20	41 / 21	39 / 21	38 / 27	38 / 28	32 / 23	31 / 23	43 / 32
	340	53 / 30	51 / 28	48 / 28	44 / 26	43 / 32	42 / 32	36 / 27	34 / 26	48 / 37
	500	57 / 34	55 / 32	52 / 32	49 / 31	47 / 36	47 / 37	40 / 31	39 / 31	52 / 41
200	250	45 / 23	43 / 24	41 / 25	39 / 23	38 / 23	37 / 26	31 / 22	30 / 22	43 / 31
	575	55 / 33	53 / 34	50 / 34	46 / 30	44 / 29	44 / 33	37 / 28	36 / 28	50 / 37
	500	48 / 29	47 / 31	45 / 32	43 / 31	41 / 29	41 / 31	35 / 26	34 / 26	47 / 36
250	1000	57 / 38	55 / 39	52 / 39	49 / 37	47 / 35	46 / 36	39 / 30	38 / 30	52 / 41
	600	48 / 30	46 / 32	44 / 32	41 / 28	39 / 28	39 / 28	32 / 24	31 / 23	44 / 34
	315	1400	57 / 39	55 / 41	52 / 40	48 / 35	46 / 35	45 / 34	39 / 31	37 / 29
355	900	50 / 33	48 / 31	46 / 29	43 / 26	42 / 25	41 / 24	35 / 18	33 / 16	47 / 37
	2000	59 / 42	57 / 40	53 / 36	50 / 33	48 / 31	47 / 30	40 / 23	39 / 22	53 / 43
	400	1000	50 / 33	48 / 37	45 / 35	42 / 32	41 / 31	40 / 31	33 / 26	46 / 37
2200	58 / 41	56 / 45	52 / 42	49 / 39	47 / 37	46 / 37	39 / 32	37 / 31	52 / 43	
Ø	Q [m³/h]	Lw (0m (int.) / ext. duct L=6m - 250Pa								
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	LwA
80	40	39 / 3	42 / 9	43 / 11	44 / 21	44 / 27	46 / 34	41 / 30	41 / 30	50 / 37
	82	51 / 15	51 / 18	50 / 18	49 / 26	48 / 31	49 / 37	44 / 33	44 / 33	54 / 40
	125	61 / 25	60 / 27	57 / 25	54 / 31	53 / 36	53 / 41	47 / 36	46 / 35	58 / 44
100	70	43 / 9	45 / 13	46 / 16	46 / 24	47 / 31	49 / 37	44 / 33	43 / 33	53 / 40
	135	59 / 25	57 / 25	54 / 24	51 / 29	50 / 34	49 / 37	43 / 32	42 / 32	55 / 41
	200	63 / 29	61 / 29	58 / 28	55 / 33	54 / 38	54 / 42	48 / 37	47 / 37	59 / 46
125	100	45 / 16	47 / 18	47 / 16	48 / 24	48 / 27	49 / 30	44 / 29	43 / 32	54 / 36
	190	55 / 26	54 / 25	53 / 22	51 / 27	51 / 30	51 / 32	46 / 31	45 / 34	56 / 38
	280	63 / 34	61 / 32	58 / 27	55 / 31	54 / 33	53 / 34	47 / 32	46 / 35	59 / 40
150	150	47 / 22	49 / 24	49 / 26	49 / 30	50 / 36	45 / 33	45 / 34	44 / 35	55 / 43
	270	56 / 31	56 / 31	54 / 31	52 / 33	52 / 38	52 / 40	46 / 35	46 / 37	57 / 45
	400	64 / 39	62 / 37	59 / 36	56 / 37	54 / 40	54 / 42	48 / 37	46 / 37	60 / 48
160	180	48 / 25	50 / 27	50 / 30	50 / 32	50 / 39	51 / 41	46 / 37	45 / 37	56 / 45
	340	62 / 39	60 / 37	56 / 36	53 / 35	51 / 40	51 / 41	44 / 35	43 / 35	57 / 45
	500	66 / 43	64 / 41	61 / 41	58 / 40	56 / 45	55 / 45	49 / 40	48 / 40	61 / 50
200	250	51 / 29	52 / 33	52 / 36	51 / 35	51 / 36	51 / 40	45 / 36	44 / 36	56 / 44
	575	64 / 42	62 / 43	58 / 42	55 / 39	53 / 38	53 / 42	46 / 37	45 / 37	59 / 46
	500	54 / 32	56 / 37	55 / 42	55 / 42	54 / 42	55 / 45	49 / 40	48 / 40	60 / 49
250	1000	66 / 44	64 / 45	64 / 48	57 / 45	55 / 43	55 / 45	48 / 39	47 / 39	61 / 50
	600	55 / 33	56 / 37	55 / 43	54 / 41	53 / 42	53 / 42	46 / 38	44 / 36	58 / 47
	315	1400	66 / 44	64 / 45	60 / 48	57 / 44	55 / 44	54 / 43	47 / 39	46 / 38
355	900	57 / 40	58 / 41	57 / 40	56 / 39	55 / 38	55 / 38	49 / 32	47 / 30	60 / 50
	2000	68 / 51	66 / 49	62 / 45	59 / 42	57 / 40	56 / 39	49 / 32	47 / 30	62 / 52
	400	1000	58 / 36	59 / 40	57 / 47	56 / 46	55 / 45	54 / 45	47 / 40	45 / 39
2200	67 / 45	65 / 46	61 / 51	57 / 47	55 / 45	54 / 45	48 / 41	46 / 40	61 / 51	
Ø	Q [m³/h]	Lw (0m (int.) / ext. duct L=6m - 500Pa								
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	LwA
80	40	46 / 10	49 / 16	49 / 17	50 / 27	51 / 34	53 / 41	48 / 37	48 / 37	57 / 44
	82	58 / 22	58 / 25	56 / 24	55 / 32	55 / 38	56 / 44	51 / 40	51 / 40	61 / 48
	125	68 / 32	66 / 33	63 / 31	61 / 38	59 / 42	59 / 47	53 / 42	52 / 41	65 / 50
100	70	49 / 15	52 / 20	52 / 22	53 / 31	54 / 38	55 / 43	50 / 39	50 / 40	60 / 47
	135	60 / 26	60 / 28	58 / 28	57 / 35	57 / 41	58 / 46	53 / 42	52 / 42	63 / 50
	200	70 / 36	68 / 36	65 / 35	62 / 40	61 / 45	60 / 48	54 / 43	53 / 43	66 / 52
125	100	52 / 23	54 / 25	54 / 23	54 / 30	55 / 34	56 / 37	50 / 35	49 / 38	60 / 42
	190	61 / 32	61 / 32	59 / 28	58 / 34	57 / 36	58 / 39	52 / 37	52 / 41	63 / 45
	280	64 / 35	64 / 35	62 / 31	61 / 37	61 / 40	62 / 43	57 / 42	56 / 45	67 / 49
150	150	54 / 29	56 / 31	56 / 33	56 / 37	56 / 42	57 / 45	52 / 41	51 / 42	62 / 50
	270	63 / 38	62 / 37	60 / 37	59 / 40	58 / 44	59 / 47	53 / 42	52 / 43	64 / 52
	400	65 / 40	65 / 40	64 / 41	62 / 43	62 / 48	63 / 51	57 / 46	57 / 48	68 / 56
160	180	55 / 32	57 / 34	57 / 37	57 / 39	58 / 47	53 / 43	51 / 42	53 / 55	62 / 55
	340	64 / 41	64 / 41	62 / 42	60 / 42	60 / 49	60 / 50	55 / 46	54 / 46	65 / 55
	500	72 / 49	70 / 47	67 / 47	64 / 46	62 / 51	62 / 52	56 / 47	54 / 46	68 / 56
200	250	57 / 35	59 / 40	58 / 42	58 / 42	57 / 42	58 / 47	52 / 43	50 / 42	63 / 51
	575	66 / 44	66 / 47	64 / 48	62 / 46	62 / 47	62 / 51	56 / 47	56 / 48	67 / 55
	500	61 / 39	62 / 43	62 / 49	61 / 49	61 / 49	62 / 52	56 / 47	54 / 46	66 / 56
250	1000	69 / 47	68 / 49	67 / 54	65 / 53	64 / 52	64 / 54	59 / 50	58 / 50	69 / 59
	600	62 / 40	63 / 44	62 / 50	61 / 48	60 / 49	59 / 48	53 / 45	51 / 43	65 / 54
	315	1400	70 / 48	69 / 50	67 / 55	65 / 52	64 / 53	64 / 53	58 / 50	57 / 49
355	900	64 / 47	65 / 48	64 / 47	63 / 46	62 / 45	62 / 45	55 / 38	53 / 36	67 / 57
	2000	72 / 55	71 / 54	69 / 52	67 / 50	66 / 49	66 / 49	60 / 43	59 / 42	71 / 61
	400	1000	65 / 43	65 / 46	64 / 54	62 / 52	61 / 51	61 / 52	54 / 47	51 / 45
2200	72 / 50	71 / 52	68 / 58	66 / 56	65 / 55	65 / 56	59 / 52	57 / 51	70 / 61	

Symbols and specifications

- Q [m³/h] = Air volume in m³/h
- Ø = Duct diameter in mm
- 100Pa, 250Pa of 500Pa = Static pressure in Pa
- Lw (0m (int.)) = Generated sound power in the duct divided into dB per octave band at 0 m
- Lw ext. duct L = 6m = The radiated sound of a duct with a length of 6 m expressed as Lw in dB