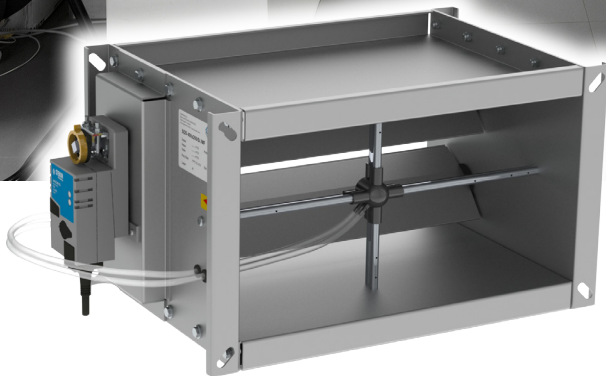




VAV Terminal Units
SDS

VAV Terminal Units

SDS

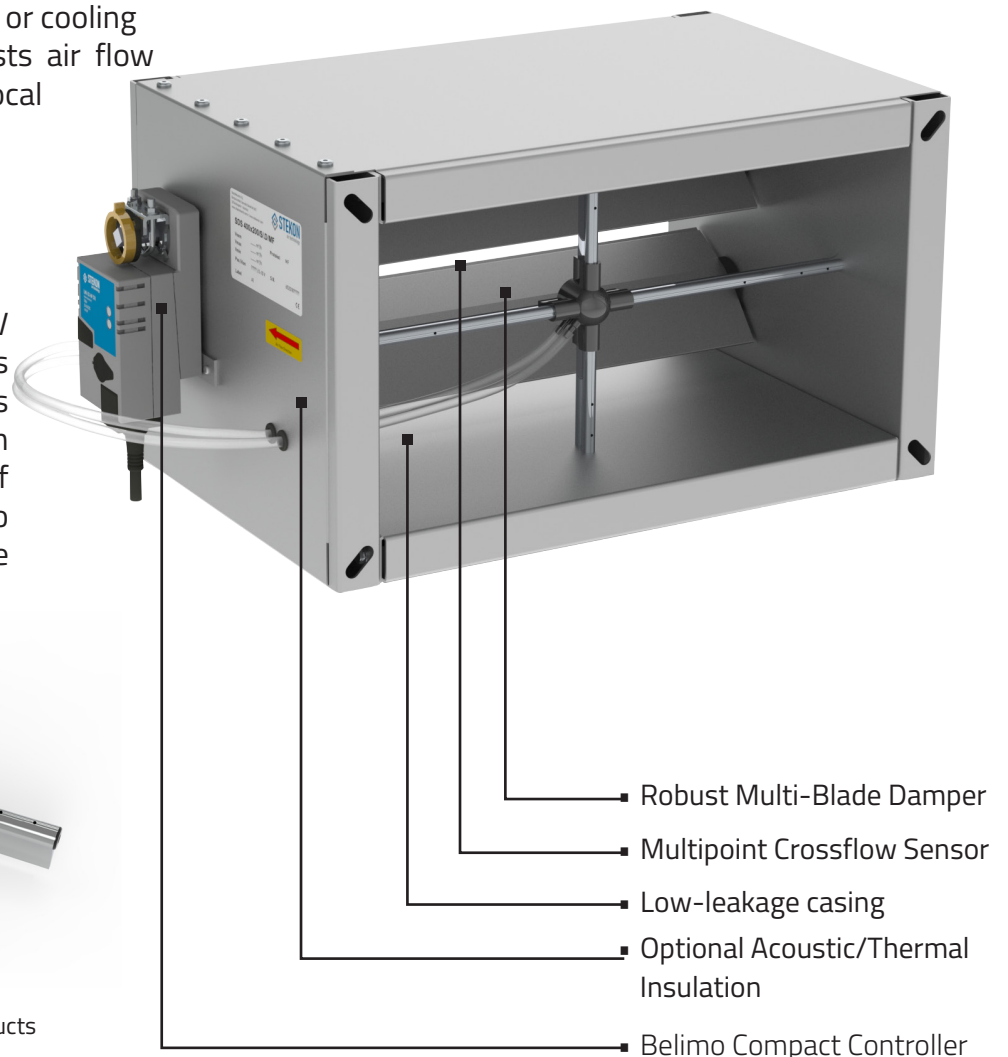
STEKON SDS controls the volume of conditioned air supplied to an occupied space in response to signals from a room thermostat or Building Management System. The unit operates with low pressure drop and low sound levels. Thanks to its specially designed multipoint airflow sensor, it detects changes in airflow accurately and instantly, and adjusts the damper position independently of duct pressure.

Depending on environmental changes such as increased occupancy or cooling demand, The VAV Unit adjusts air flow according to signals from a local or central control system, providing good air quality whilst avoiding excessive ventilation.

The SDS Rectangular VAV Terminal Unit measures airflow at multiple points across the duct cross-section and uses the average of these measurements to provide precise and stable airflow control.



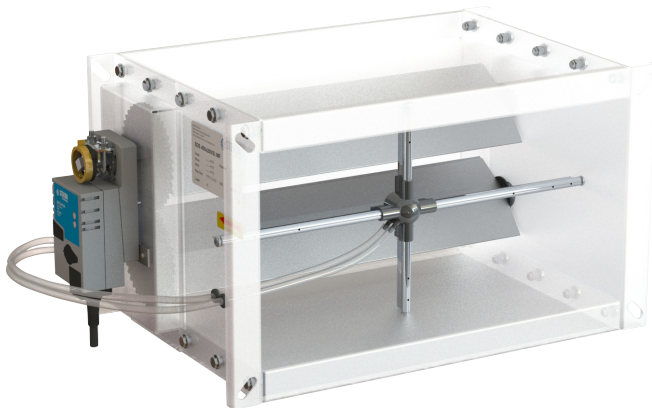
Log-tchebycheff rule for rectangular ducts



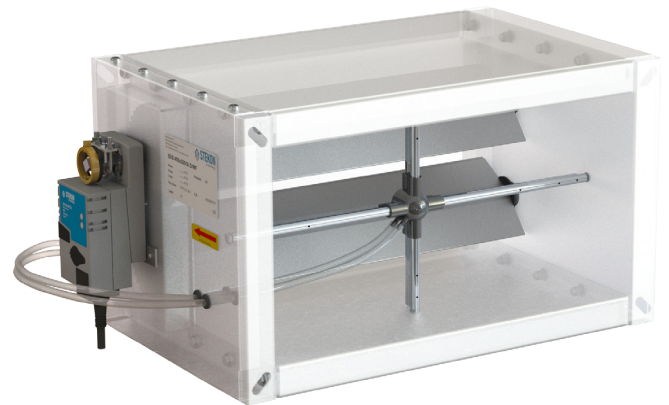


SDS | VAV Terminal Units

SDS (without insulation)



SDS/D (with insulation)



Application

The rectangular air flow control unit SDS is designed to control an initial pressure-independent constant or variable flow rate. Complete shut-off is also possible.

VAV casing is suitable for rectangular air ducts with flanged connection which is drilled into corners. For sound and heat insulation, double skin 40mm mineral wool insulation is available.

Measuring Principle

The specially designed multipoint sensor provides precise flow measurement even at low air velocities by increasing the difference measurement between total pressure and static pressure. Unlike conventional velocity pressure sensors, it eliminates the uniform entry condition requirements for accurate velocity measurement. Thanks to its aerodynamic profile structure, it provides advantages in pressure drop and noise. Multiple pressure ports are located according to ASHRAE reports and tests to maximize accuracy.

Advantage

- Control accuracy $\pm 5\%$
- Low leakage due to the 100% closing capability of the dampers
- Low air leakage rate of damper EN 1751 Class 3
- Overcomes the effects of poor inlet conditions by averaging and amplifying pressure signals
- Hygiene conforms to VDI6022

Construction, Materials

- Rectangular Casing
- Casing, damper, axle, damper bearings galvanized steel
- Sealings of EPDM
- Measuring sensor, plastic and aluminium

Accessories, Special Versions

- Sealed damper design with increased damper leakage performance
- 40mm insulating case for sound and heat insulation
- Duct type sound attenuators
- Compact controller compatible with MP Bus - Modbus/BACnet
- Electrical or Water reheater
- Powder coated casing
- Fast reacting actuator

Selection Recommendations

- Air speed up to 7 m/s
- Damper pressure loss up to 500 Pa
- If airborne noise is critical, terminal units must have sound attenuators
- If casing radiated noise is critical, terminal units must have casing insulation
- Because of only acoustical considerations, after elbows, transitions and duct takeoffs 1D straight duct should be considered before the unit inlet

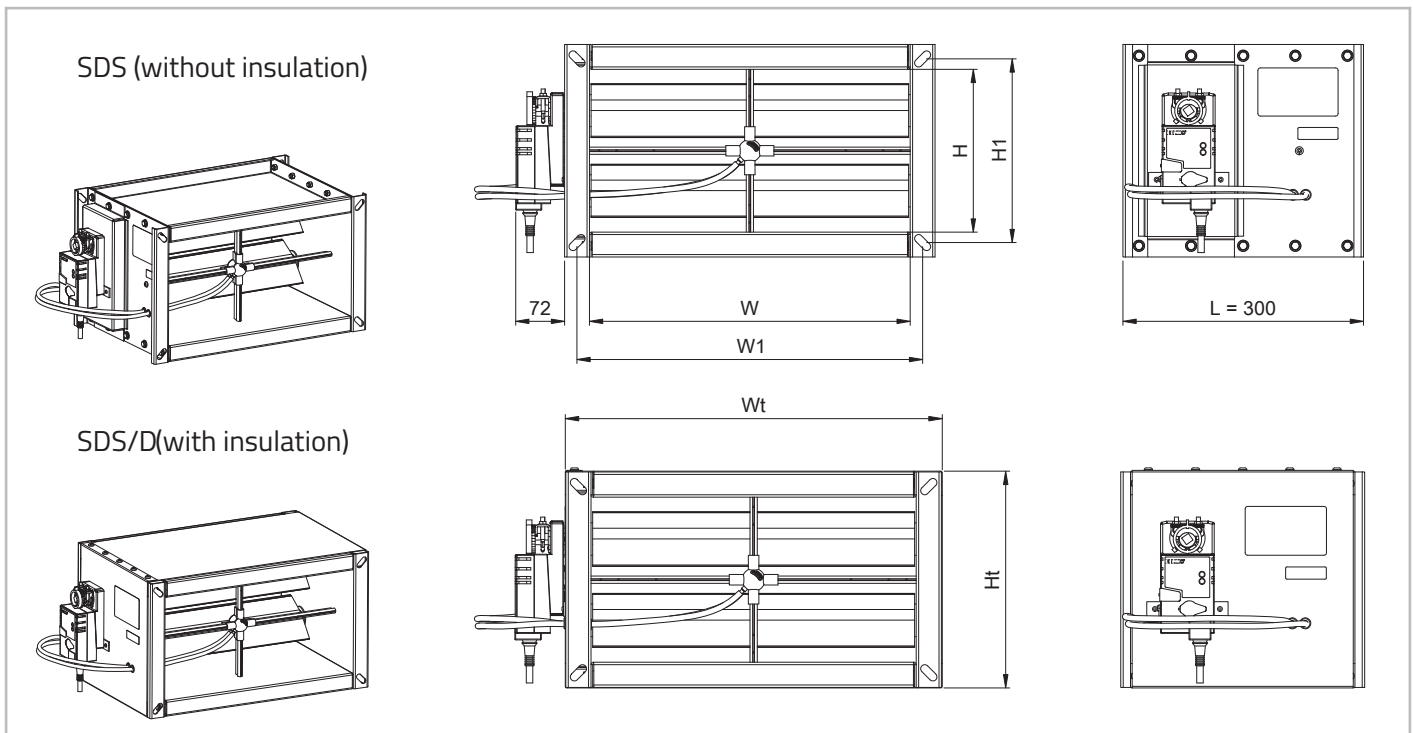
Application Ranges and Limits

- Minimum air velocity 1,2 m/s
- Maximum air velocity 12 m/s
- Static over-pressure in the air duct up to 1000 Pa
- Leakage flow rate via shut damper blade Class 3 acc. to DIN EN 1751
- Leakage flow rate via casing Class C acc. to DIN EN 1751
- Operating temperature range 0 ...+50 °C at 5...95% RH, non-condensing
- Suitable for low-pollution air flows (e.g. ETA1, ETA2 acc. to DIN EN 13779)
- Suitable for non-corrosive air without solvents that may affect the EPDM damper sealing
- Suitable for horizontal and vertical installation
- Air flow direction sticker on the unit should be considered while installation

SIZE WxH (mm)		1,2 m/s	7 m/s		12 m/s	
		$V_{\min}$ [m³/h]	V [m³/h]	$\Delta P_{\min}$ [Pa]	V_{nom} [m³/h]	$\Delta P_{\min}$ [Pa]
200	100	86	504	20	864	50
200	200	173	1008	20	1728	50
300	100	130	756	20	1296	50
300	150	194	1134	20	1944	50
300	200	259	1512	20	2592	50
300	250	324	1890	20	3240	50
300	300	389	2268	20	3888	45
400	100	173	1008	20	1728	50
400	150	259	1512	20	2592	50
400	200	346	2016	20	3456	50
400	250	432	2520	20	4320	50
400	300	518	3024	20	5184	45
400	400	691	4032	20	6912	45
500	100	216	1260	20	2160	50
500	150	324	1890	20	3240	50
500	200	432	2520	20	4320	50
500	250	540	3150	20	5400	50
500	300	648	3780	20	6480	45
500	400	864	5040	20	8640	45
600	100	259	1512	20	2592	50
600	150	389	2268	20	3888	50
600	200	518	3024	20	5184	50
600	250	648	3780	20	6480	50
600	300	778	4536	20	7776	45
600	400	1037	6048	20	10368	45
800	200	691	4032	20	6912	50
800	250	864	5040	20	8640	50
800	300	1037	6048	20	10368	45
800	400	1382	8064	20	13824	45
1000	300	1296	7560	20	12960	45
1000	400	1728	10080	20	17280	45
1200	400	2074	12096	20	20736	50

SDS | VAV Terminal Units

Dimensions and Weights



SIZE DN (mm)	W (mm)	H (mm)	L (mm)	W1 (mm)	H1 (mm)	Wt (mm)	Ht (mm)	Weights (kg)	
								w/ insulation	w/o insulation
200*100	200	105	300	231	136	280	185	6,4	4
200*200	200	205	300	231	236	280	285	7,4	4,6
300*100	300	105	300	331	136	380	185	7,4	4,6
300*150	300	155	300	331	186	380	235	8,1	5,0
300*200	300	205	300	331	236	380	285	8,7	5,4
300*250	300	255	300	331	286	380	335	9,4	5,8
300*300	300	305	300	331	336	380	385	10,0	6,2
400*100	400	105	300	431	136	480	185	8,4	5,2
400*150	400	155	300	431	186	480	235	9,0	5,6
400*200	400	205	300	431	236	480	285	10,1	6,2
400*250	400	255	300	431	286	480	335	10,7	6,6
400*300	400	305	300	431	336	480	385	11,3	7,0
400*400	400	405	300	431	436	480	485	12,3	7,6
500*100	500	105	300	531	136	580	185	9,4	5,8
500*150	500	155	300	531	186	580	235	10,1	6,2
500*200	500	205	300	531	236	580	285	11,3	7
500*250	500	255	300	531	286	580	335	12,0	7,4
500*300	500	305	300	531	336	580	385	11,0	6,8
500*400	500	405	300	531	436	580	485	12,3	7,6
600*100	600	105	300	631	136	680	185	10,4	6,4
600*150	600	155	300	631	186	680	235	11,0	6,8
600*200	600	205	300	631	236	680	285	12,6	7,8
600*250	600	255	300	631	286	680	335	13,2	8,2
600*300	600	305	300	631	336	680	385	13,9	8,6
600*400	600	405	300	631	436	680	485	14,9	9,2
800*200	800	205	300	831	236	880	285	13,9	8,6
800*250	800	255	300	831	286	880	335	15,8	9,8
800*300	800	305	300	831	336	880	385	16,5	10,2
800*400	800	405	300	831	436	880	485	17,5	10,8
1000*300	1000	305	300	1031	336	1080	385	19,1	11,8
1000*400	1000	405	300	1031	436	1080	485	20,4	12,6
1200*400	1200	405	300	1231	436	1280	485	23,3	14,4

Sound Pressure Values - Without Insulation (SDS)

System attenuation according to VDI 2081

Nominal Sizes WxH		Air Velocity (m/s)	Flow Rate (m³/h)	Airborne noise			Radiated noise		
				ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa	ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa
				LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)
200	100	1,2	86	32	34	38	22	25	30
		4	288	38	40	44	30	32	36
		7	504	41	42	46	33	35	39
		12	864	43	45	48	36	38	42
200	200	1,2	173	38	41	48	31	35	42
		4	576	39	43	49	35	38	44
		7	1008	40	43	50	36	39	45
		12	1728	41	44	51	38	40	45
300	100	1,2	130	33	36	42	25	27	31
		4	432	38	41	47	31	34	39
		7	756	40	43	49	34	37	43
		12	1296	42	45	51	37	40	46
300	150	1,2	194	40	41	44	29	32	38
		4	648	42	44	48	35	40	49
		7	1134	43	45	50	38	44	55
		12	1944	44	46	51	41	47	60
300	200	1,2	259	38	41	48	29	33	40
		4	864	41	44	50	33	36	42
		7	1512	43	45	50	35	38	44
		12	2592	44	46	51	37	40	45
300	250	1,2	324	39	42	48	34	37	41
		4	1080	42	45	50	37	39	44
		7	1890	44	46	51	38	40	45
		12	3240	46	48	52	39	42	46
300	300	1,2	389	39	42	47	36	39	43
		4	1296	41	44	49	40	42	46
		7	2268	42	45	50	41	43	47
		12	3888	43	46	52	43	45	48
400	100	1,2	173	35	38	43	26	29	33
		4	576	39	42	47	34	36	39
		7	1008	41	44	49	38	39	42
		12	1728	43	46	51	41	42	44
400	150	1,2	259	40	43	48	31	33	39
		4	864	42	45	49	37	39	44
		7	1512	43	46	50	40	42	46
		12	2592	44	46	51	43	45	49
400	200	1,2	346	39	42	48	36	39	44
		4	1152	41	43	49	38	41	46
		7	2016	41	44	50	39	42	47
		12	3456	42	45	50	40	43	47
400	250	1,2	432	39	42	48	37	39	44
		4	1440	41	44	50	39	42	46
		7	2520	41	45	51	40	43	47
		12	4320	42	45	53	42	44	48

SDS | VAV Terminal Units

Sound Pressure Values - Without Insulation (SDS)

System attenuation according to VDI 2081

Nominal Sizes WxH		Air Velocity (m/s)	Flow Rate (m³/h)	Airborne noise			Radiated noise		
				ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa	ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa
				LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)
400	300	1,2	518	38	40	46	38	40	44
		4	1728	40	43	48	40	42	46
		7	3024	42	44	49	42	43	47
		12	5184	43	45	50	43	45	48
400	400	1,2	691	40	42	46	39	41	45
		4	2304	42	44	49	42	44	48
		7	4032	43	46	50	43	45	49
		12	6912	45	47	52	45	47	51
500	100	1,2	216	36	39	44	27	29	34
		4	720	39	42	47	35	37	40
		7	1260	41	43	48	39	40	43
		12	2160	42	45	49	43	44	45
500	150	1,2	324	41	43	48	33	35	39
		4	1080	43	45	50	39	41	45
		7	1890	43	46	51	42	44	48
		12	3240	44	47	52	46	47	51
500	200	1,2	432	42	43	47	34	36	40
		4	1440	42	45	49	36	38	44
		7	2520	43	45	50	36	40	46
		12	4320	43	46	51	37	41	48
500	250	1,2	540	39	42	49	36	37	41
		4	1800	42	45	50	39	40	43
		7	3150	43	46	51	40	42	45
		12	5400	44	47	52	42	43	46
500	300	1,2	648	38	40	46	36	38	41
		4	2160	41	43	48	39	41	45
		7	3780	42	44	48	41	43	46
		12	6480	44	46	49	43	44	48
500	400	1,2	864	37	40	45	38	39	42
		4	2880	41	43	48	43	44	48
		7	5040	42	45	49	45	46	50
		12	8640	44	46	50	47	49	52
600	100	1,2	259	37	39	44	28	30	35
		4	864	40	43	47	36	38	42
		7	1512	42	44	49	40	42	45
		12	2592	43	46	50	44	45	48
600	150	1,2	389	38	41	48	34	36	40
		4	1296	41	44	50	40	43	48
		7	2268	43	45	50	43	46	51
		12	3888	44	47	51	47	49	54
600	200	1,2	518	39	41	46	36	39	44
		4	1728	41	43	49	39	41	47
		7	3024	42	45	50	40	43	48
		12	5184	43	46	52	41	44	49

Sound Pressure Values - Without Insulation (SDS)

System attenuation according to VDI 2081

Nominal Sizes WxH		Air Velocity (m/s)	Flow Rate (m³/h)	Airborne noise			Radiated noise		
				ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa	ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa
				LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)
600	250	1,2	648	38	41	47	37	39	43
		4	2160	41	44	50	40	42	46
		7	3780	43	46	51	42	44	48
		12	6480	45	47	53	43	45	50
600	300	1,2	778	36	40	47	37	39	44
		4	2592	39	43	49	40	42	47
		7	4536	41	44	50	41	44	49
		12	7776	42	45	51	43	45	50
600	400	1,2	1037	40	42	47	38	40	45
		4	3456	42	45	50	42	45	49
		7	6048	44	46	51	44	46	51
		12	10368	45	47	52	46	48	53
800	200	1,2	691	39	41	46	37	40	45
		4	2304	41	43	49	40	43	48
		7	4032	41	44	50	42	44	50
		12	6912	42	45	51	43	46	51
800	250	1,2	864	41	43	47	39	41	46
		4	2880	42	45	50	41	44	48
		7	5040	43	46	51	43	45	50
		12	8640	44	47	52	44	46	51
800	300	1,2	1037	41	43	46	40	42	45
		4	3456	43	45	49	42	44	49
		7	6048	43	46	50	43	46	50
		12	10368	44	47	51	45	47	52
800	400	1,2	1382	36	39	45	40	43	48
		4	4608	40	43	49	44	47	52
		7	8064	41	44	50	46	48	54
		12	13824	43	46	52	47	50	56
1000	300	1,2	1296	38	41	47	40	43	47
		4	4320	42	44	50	44	46	51
		7	7560	43	46	51	46	48	53
		12	12960	45	47	52	47	50	54
1000	400	1,2	1728	40	41	45	42	44	48
		4	5760	42	44	48	46	48	53
		7	10080	44	45	49	48	50	55
		12	17280	45	47	50	50	52	57
1200	400	1,2	2074	37	40	47	43	45	49
		4	6912	42	44	50	47	49	53
		7	12096	44	46	51	49	51	55
		12	20736	46	48	52	51	53	57

SDS | VAV Terminal Units

Sound Pressure Values - With Insulation (SDS/D)

System attenuation according to VDI 2081

Nominal Sizes WxH		Air Velocity (m/s)	Flow Rate (m³/h)	Airborne noise			Radiated noise		
				ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa	ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa
				LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)
200	100	1,2	86	32	34	38	13	15	19
		4	288	38	40	44	21	22	26
		7	504	41	42	46	24	26	30
		12	864	43	45	48	27	29	33
200	200	1,2	173	38	41	48	21	23	27
		4	576	39	43	49	26	28	32
		7	1008	40	43	50	28	30	34
		12	1728	41	44	51	30	32	35
300	100	1,2	130	33	36	42	15	16	19
		4	432	38	41	47	23	24	28
		7	756	40	43	49	26	28	32
		12	1296	42	45	51	30	32	35
300	150	1,2	194	40	41	44	19	22	27
		4	648	42	44	48	27	31	38
		7	1134	43	45	50	31	35	43
		12	1944	44	46	51	35	39	47
300	200	1,2	259	38	41	48	22	25	30
		4	864	41	44	50	25	28	32
		7	1512	43	45	50	26	29	34
		12	2592	44	46	51	27	30	35
300	250	1,2	324	39	42	48	24	26	29
		4	1080	42	45	50	27	29	33
		7	1890	44	46	51	29	31	35
		12	3240	46	48	52	30	32	37
300	300	1,2	389	39	42	47	24	26	31
		4	1296	41	44	49	28	31	35
		7	2268	42	45	50	30	33	37
		12	3888	43	46	52	32	34	38
400	100	1,2	173	35	38	43	17	18	22
		4	576	39	42	47	25	26	29
		7	1008	41	44	49	29	30	33
		12	1728	43	46	51	33	34	36
400	150	1,2	259	40	43	48	22	24	27
		4	864	42	45	49	29	31	34
		7	1512	43	46	50	32	34	37
		12	2592	44	46	51	35	37	40
400	200	1,2	346	39	42	48	24	26	29
		4	1152	41	43	49	26	28	33
		7	2016	41	44	50	27	30	35
		12	3456	42	45	50	28	31	37
400	250	1,2	432	39	42	48	24	27	31
		4	1440	41	44	50	28	30	34
		7	2520	41	45	51	30	32	36
		12	4320	42	45	53	31	33	37

Sound Pressure Values - With Insulation (SDS/D)

System attenuation according to VDI 2081

Nominal Sizes WxH		Air Velocity (m/s)	Hava Debileri (m³/h)	Airborne noise			Radiated noise		
				ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa	ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa
				LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)
400	300	1,2	518	38	40	46	25	27	33
		4	1728	40	43	48	29	31	35
		7	3024	42	44	49	30	33	37
		12	5184	43	45	50	32	34	38
400	400	1,2	691	40	42	46	26	28	32
		4	2304	42	44	49	30	33	37
		7	4032	43	46	50	32	35	39
		12	6912	45	47	52	34	36	41
500	100	1,2	216	36	39	44	18	20	22
		4	720	39	42	47	26	28	30
		7	1260	41	43	48	30	31	34
		12	2160	42	45	49	34	35	37
500	150	1,2	324	41	43	48	22	23	26
		4	1080	43	45	50	30	31	33
		7	1890	43	46	51	33	34	36
		12	3240	44	47	52	36	37	39
500	200	1,2	432	42	43	47	24	26	29
		4	1440	42	45	49	27	30	35
		7	2520	43	45	50	29	32	37
		12	4320	43	46	51	30	33	40
500	250	1,2	540	39	42	49	25	27	31
		4	1800	42	45	50	29	31	36
		7	3150	43	46	51	31	33	38
		12	5400	44	47	52	33	35	40
500	300	1,2	648	38	40	46	26	27	31
		4	2160	41	43	48	30	32	36
		7	3780	42	44	48	31	34	39
		12	6480	44	46	49	33	36	41
500	400	1,2	864	37	40	45	28	30	33
		4	2880	41	43	48	33	35	38
		7	5040	42	45	49	36	37	39
		12	8640	44	46	50	38	40	41
600	100	1,2	259	37	39	44	19	20	23
		4	864	40	43	47	27	29	32
		7	1512	42	44	49	31	33	36
		12	2592	43	46	50	35	37	40
600	150	1,2	389	38	41	48	25	26	30
		4	1296	41	44	50	32	34	38
		7	2268	43	45	50	35	38	42
		12	3888	44	47	51	39	41	46
600	200	1,2	518	39	41	46	26	28	32
		4	1728	41	43	49	29	31	36
		7	3024	42	45	50	30	33	38
		12	5184	43	46	52	32	34	39

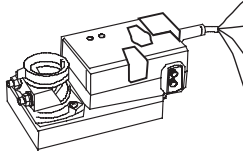
SDS | VAV Terminal Units

Sound Pressure Values - With Insulation (SDS/D)

System attenuation according to VDI 2081

Nominal Sizes WxH		Air Velocity (m/s)	Hava Debileri (m³/h)	Airborne noise			Radiated noise		
				ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa	ΔP:100 Pa	ΔP:150 Pa	ΔP:250 Pa
				LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)	LpA (dBA)
600	250	1,2	648	38	41	47	27	29	33
		4	2160	41	44	50	31	33	37
		7	3780	43	46	51	32	34	39
		12	6480	45	47	53	34	36	40
600	300	1,2	778	36	40	47	27	30	34
		4	2592	39	43	49	31	33	38
		7	4536	41	44	50	33	35	40
		12	7776	42	45	51	34	37	42
600	400	1,2	1037	40	42	47	29	31	33
		4	3456	42	45	50	33	35	37
		7	6048	44	46	51	35	36	39
		12	10368	45	47	52	37	38	41
800	200	1,2	691	39	41	46	27	29	34
		4	2304	41	43	49	30	33	38
		7	4032	41	44	50	32	35	40
		12	6912	42	45	51	33	36	42
800	250	1,2	864	41	43	47	27	29	34
		4	2880	42	45	50	31	34	38
		7	5040	43	46	51	33	36	40
		12	8640	44	47	52	35	38	42
800	300	1,2	1037	41	43	46	28	30	34
		4	3456	43	45	49	32	34	38
		7	6048	43	46	50	34	36	40
		12	10368	44	47	51	36	38	42
800	400	1,2	1382	36	39	45	30	31	35
		4	4608	40	43	49	34	36	40
		7	8064	41	44	50	36	38	42
		12	13824	43	46	52	38	40	44
1000	300	1,2	1296	38	41	47	30	32	36
		4	4320	42	44	50	34	36	41
		7	7560	43	46	51	36	38	43
		12	12960	45	47	52	38	40	45
1000	400	1,2	1728	40	41	45	31	33	38
		4	5760	42	44	48	36	38	42
		7	10080	44	45	49	39	40	44
		12	17280	45	47	50	41	42	46
1200	400	1,2	2074	37	40	47	32	34	38
		4	6912	42	44	50	38	39	42
		7	12096	44	46	51	40	42	44
		12	20736	46	48	52	43	44	46

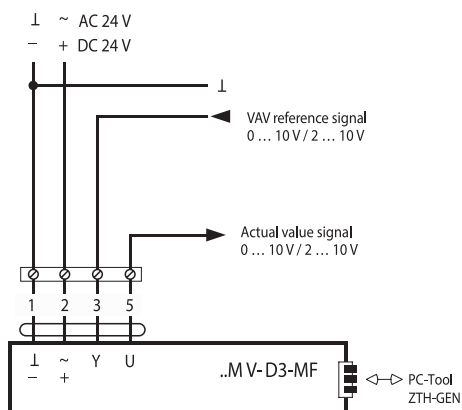
Compact Controller Connection Details



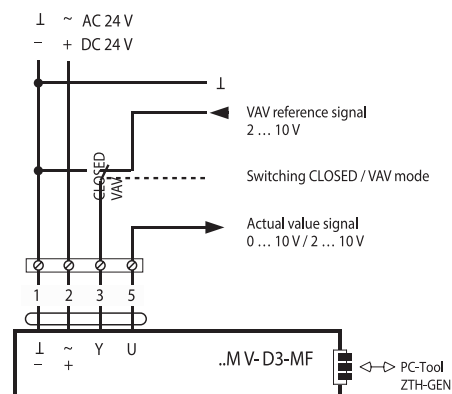
No.	Designation	Wire colour	Function
1	$\perp -$	black	$\perp -$ } AC/DC 24 V supply
2	$\sim +$	red	
3	$\leftarrow Y$	white	Reference signal VAV/CAV
5	$\rightarrow U$	orange	– Actual value signal – Tool communication

VAV - Variable Operation - V_{min} ... V_{max}

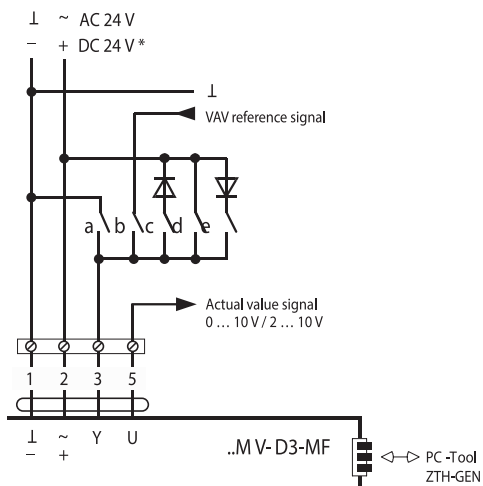
Example 1: VAV with analogue reference signal



Example 2: VAV with shut-off (CLOSE), 2 ... 10 V mode



CAV - Step Mode CLOSED / V_{min} / V_{mid} / V_{max} / OPEN



CAV function: Standard

Mode setting	$\perp -$ 2 ... 10 V	0 ... 10 V 2 ... 10 V	0 ... 10 V 2 ... 10 V	0 ... 10 V 2 ... 10 V	0 ... 10 V 2 ... 10 V
Signal	$\perp -$ 0 ... 10 V 2 ... 10 V	$\sim$ 0 ... 10 V 2 ... 10 V	$\sim +$ 0 ... 10 V 2 ... 10 V	$\sim +$ 0 ... 10 V 2 ... 10 V	$\sim +$ 0 ... 10 V 2 ... 10 V
Function	3	3	3	3	3
Damper CLOSED	a) CLOSED		d) CLOSED *		
$\dot{M}_{min}$... $\dot{M}_{max}$		b) VAV			
CAV – $\dot{M}_{min}$	All open – $\dot{M}_{min}$ active **				
Damper OPEN				e) OPEN *	
CAV – $\dot{M}_{max}$			d) $\dot{M}_{max}$		

Legend

	Contact closed, function active
	Contact closed, function active, only in 2 ... 10 V mode
	Contact open

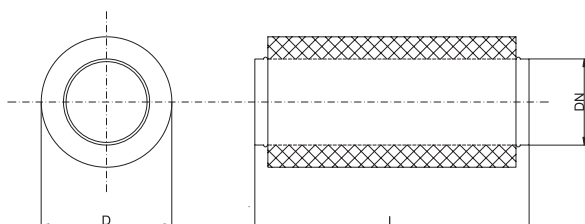
* Not available with DC 24 V supply

** the damper is closed when the 0.5 V shut-off level is used

SDS | VAV Terminal Units

Silencers

The outer surface of the **LR** round silencer is made of galvanized sheet metal, the inner surface is made of perforated galvanized sheet, the insulation material used between the two surfaces is rock wool with 50 mm thickness at 50 kg / m³ density and non-flammable according to DIN 4102 standard A2 class.



They are used to reduce airborne noise in air ducts. They are designed to use after the SDR round VAV units and are suitable for round air duct mounting.

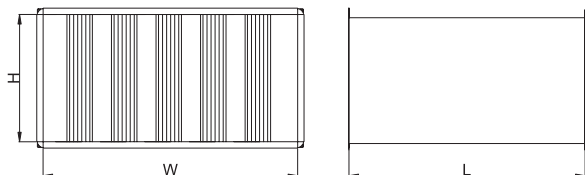
They can be manufactured in all RAL codes if required.

L= 500mm – 950mm

Attenuation values

SIZE DN (mm)	D (mm)	L Standard [mm]	Oktav Bands (Hz)							
			63	125	250	500	1000	2000	4000	8000
			Attenuation Values (dB)							
100	200	950	7	10	20	34	49	51	51	28
125	225	950	5	9	19	31	41	49	42	27
160	260	950	3	8	16	27	36	48	37	22
200	300	950	2	7	13	24	31	43	31	20
250	350	950	1	6	11	21	27	39	25	18
315	415	950	1	5	9	18	23	32	20	18
400	500	950	0	2	6	11	22	20	10	8

The casing of the **LS** rectangular silencer is manufactured from galvanized sheet between 0,8 mm and 1,5 mm according to its size. The splitters are made of galvanized sheet between 0,7 mm and 1 mm according to the silencer size. After that, ready flange and flange corner pieces are mounted.



The insulation material of the splitters is glass wool with 100 mm thick at 50 kg / m³ density and one side coated with glass cloth. The used glass wool is non-flammable according to DIN 4102 standard A2 class and is resistant against decay and moisture.

It is designed to use after the SDS rectangular VAV unit and is suitable for rectangular duct mounting.

Attenuation Values

Oktav Bands (Hz)	63	125	250	500	1000	2000	4000	8000
Attenuation Values (dB)	2	4	8	17	33	32	18	14

Values are given for 1000mm length. Valid for all sizes.

STEKON SDS – Technical Specification

Rectangular flow rate controller designed to control constant or variable air flow rate.

Control range 1.2-12 m/s

The airflow range is 86x20736 m³/h, the control ratio is 10: 1

Minimum - maximum differential pressure range 5 - 1000 Pa

Duct height and width are according to EN 1505.

All measuring elements and compact controller are factory installed.

Display of damper setting and angle scale on the housing's outside.

Casing leakage acc. to DIN EN 1751 Class C

Damper tightness acc. to DIN EN 1751 Class 3

Operating temperature range is 0- + 50 ° C.

Voltage range for the control and measured signal 0...10 V DC.

Unit consisting of:

Galvanized sheet steel casing with 1mm thickness

Aluminium multiblade damper

Galvanized steel damper axle

Differential pressure measurement probe manufactured from plastic and aluminum parts

Mounted and calibrated Belimo VAV compact D3 electronic flow control unit

Actuator, control

Belimo LMV-D3-MF-STK (dynamic measuring principle)

- Working range 0...10 V
- Working range 2...10 V

Unit Sizes: WxH

Accessories

S – Galvanized Sheet Steel T – Powder Coated Body

C - Low leakage damper design with sealing

D – Optionally, 40 mm rockwool insulation, covered with 1 mm galvanized sheet metal, for sound and heat insulation.

ATT – Optionally, with suitable silencer

RHT – Optionally, with suitable electrical or water reheat

Motor/Control – Belimo LMV-D3-MF-STK (dynamic measuring principle)
Optionally MP – Modbus/BACnet protocol

SDS | VAV Terminal Units

Ordering Code

SDS .. x .. / S / D / MF

(1) (2) (3) (4) (5)

(1) Model SDS = Rectangular VAV Unit

(2) Size .. x .. = width x height [mm] (refer to page 6)

(3) Casing S = Galvanized Steel
 T = Powder Coated

(4) Insualation D = with
 - = without

(5) Control Type MF = Standard
 MP = MP-Bus
 MOD = Modbus/BACnet

Additional ordering specifications

Vmin [m³/h] : Minimum air flow

Vmax [m³/h] : Maximum air flow

Mode : 0... 10V or 2... 10V

Ordering Example

SDS 400x200 / S / D / MF, Vmin : m³/h, Vmax: m³/h, Mode 2... 10V

