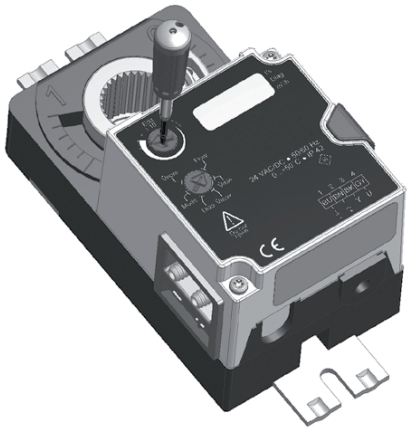
VAV-CS

Circular



VAV valves with actuator type VAV-CS

VAV-CS air flow regulator can be used both for variable and constant flow and, if appropriate, for forced shut-off for both air supply and air exhaust

Application

- Regulating of air volumes to change the temperature or air quality in a room
- Control and regulate the supply air flow and exhaust air flow
- Airflow range can be set between two set values or as constant airflow

Material

- Galvanized steel

Composition

- Operating range is between 1 to 10 m/s
- Integrated flow measurement with seperate measurement nipples for control and manual measurement
- The damper has stable bearings made of nylon and its shaft is mounted in maintenance free nylon headings; damper is equipped with a EPDM rubber blade seal conforms to air tightness class 3
- Blade air tightness class B in accordance with EN1751:1998 due to EPDM Seal around the blade
- Manual measurement of the air flow can be performed without disturbing the control circuit via a separate pressure outlet on the orifice plate of the flow variator
- All duct connections have spigot dimensions and are equipped with sealing rings made of rubber

Controls

- Controller HS25 of 5Nm (size 100 up to 315) and HS26 of 10Nm (size 355 to 630) are pressure regulated actuators for pressure independent controls and with a digital display which enables monitoring the airflow and setting up values without external equipment
- Operating range 0-10V or 2-10V (Standard set on 0-10V)
- A simple scewdriver can adjust the settings on site
- Units of airflow: l/s or m^3/h
- Minimum adjustable air volume set at air velocity at 1m/s and maximum adjustable airvolume set at air velocity of 10m/s

- Running time over the full actuator range : 100s
- Power consumption 2.5W, 4.0VA
- Supply voltage 24V AC/DC

Options

- Insulated version available upon request

Accessories

- Sound attenuator, type **SAR**
- Water heater, type **CWA**
- Electric heater, type **CVA**

Order example

- **VAV-CS 100 + SAR 100**

Explanation:
VAV-CS = Circular Airflow regulator type
100 = Diameter of the damper
SAR 100 = Sound attenuator type

Air flow Characteristics								
VAV-CS	v		1	2	4	6	8	10
100	Qv		28	57	113	170	226	283
	DpT min		4	8	24	47	77	114
	DpT=50Pa	Lw	40	47	45	46	47	48
		NR	34	48	38	40	42	44
	DpT=100Pa	Lw	44	51	52	52	53	53
		NR	40	48	48	46	48	50
	DpT=200Pa	Lw	49	56	62	59	59	60
		NR	48	50	62	54	53	55
	DpT=500Pa	Lw	58	61	67	72	69	69
		NR	58	59	62	72	67	63
125	Qv		44	88	177	265	353	442
	DpT min		4	8	23	44	72	107
	DpT=50Pa	Lw	41	48	46	47	48	49
		NR	35	49	39	41	43	45
	DpT=100Pa	Lw	45	52	53	53	54	54
		NR	41	49	49	47	49	51
	DpT=200Pa	Lw	50	57	63	60	60	61
		NR	49	51	63	55	55	56
	DpT=500Pa	Lw	59	52	68	73	70	70
		NR	59	60	63	73	68	64
160	Qv		72	145	290	434	579	724
	DpT min		4	8	22	41	68	101
	DpT=50Pa	Lw	42	49	47	48	49	50
		NR	36	49	40	43	45	46
	DpT=100Pa	Lw	46	53	54	54	55	55
		NR	42	50	50	48	51	52
	DpT=200Pa	Lw	51	58	64	61	61	62
		NR	50	52	64	56	56	57
	DpT=500Pa	Lw	60	63	69	74	71	71
		NR	60	61	64	74	69	65
200	Qv		113	226	452	679	905	1131
	DpT min		4	8	20	38	63	94
	DpT=50Pa	Lw	43	50	48	49	50	51
		NR	37	50	41	44	46	47
	DpT=100Pa	Lw	47	54	55	55	56	56
		NR	43	51	51	49	52	53
	DpT=200Pa	Lw	52	59	65	62	62	63
		NR	51	53	65	57	57	58
	DpT=500Pa	Lw	61	64	70	75	72	72
		NR	61	62	65	75	70	66
250	Qv		177	353	707	1060	1414	1767
	DpT min		3	7	19	36	59	88
	DpT=50Pa	Lw	44	51	49	50	51	52
		NR	38	51	42	45	47	48
	DpT=100Pa	Lw	48	55	56	56	57	57
		NR	44	52	52	50	53	54
	DpT=200Pa	Lw	53	60	66	63	63	64
		NR	52	54	66	58	58	59
	DpT=500Pa	Lw	62	65	71	76	73	73
		NR	62	63	66	76	71	67
315	Qv		281	561	1122	1683	2244	2806
	DpT min		3	6	18	34	56	84
	DpT=50Pa	Lw	45	52	50	51	52	53
		NR	39	52	43	46	48	50
	DpT=100Pa	Lw	49	56	57	57	58	58
		NR	45	53	53	51	54	56
	DpT=200Pa	Lw	54	61	67	64	64	65
		NR	53	55	67	59	59	60
	DpT=500Pa	Lw	63	66	72	77	74	74
		NR	63	64	67	77	72	68
355	Qv		356	713	1425	2138	2851	3563
	DpT min		3	6	18	33	54	80
	DpT=50Pa	Lw	45	52	50	51	52	53
		NR	40	53	44	47	49	50
	DpT=100Pa	Lw	49	56	57	58	58	59
		NR	46	53	53	52	55	56
	DpT=200Pa	Lw	55	61	67	65	65	65
		NR	54	56	68	59	59	61
	DpT=500Pa	Lw	63	66	73	77	75	74
		NR	63	65	68	77	73	68
400	Qv		452	905	1810	2714	3619	4524
	DpT min		3	6	17	32	53	78
	DpT=50Pa	Lw	45	40	46	50	53	55
		NR	43	37	41	47	51	54
	DpT=100Pa	Lw	39	46	52	56	58	60
		NR	37	43	48	52	55	59
	DpT=200Pa	Lw	48	53	58	61	64	65
		NR	47	50	55	56	60	63
	DpT=500Pa	Lw	58	63	66	69	71	72
		NR	57	60	63	65	66	68
500	Qv		707	1414	2827	4241	5655	7069
	DpT min		3	6	16	30	49	73
	DpT=50Pa	Lw	34	41	47	51	54	56
		NR	31	38	42	48	52	55
	DpT=100Pa	Lw	41	47	53	57	59	61
		NR	39	44	49	53	57	60
	DpT=200Pa	Lw	49	54	59	62	65	66
		NR	48	51	56	57	61	64
	DpT=500Pa	Lw	59	64	67	70	72	73
		NR	58	61	64	66	67	70
630	Qv		1122	2244	4489	6733	8978	11222
	DpT min		2	5	14	28	47	69
	DpT=50Pa	Lw	35	42	48	52	55	57
		NR	32	38	43	49	53	56
	DpT=100Pa	Lw	42	48	54	58	60	62
		NR	40	45	50	54	58	61
	DpT=200Pa	Lw	50	55	60	63	66	67
		NR	49	52	57	58	62	65
	DpT=500Pa	Lw	60	65	68	71	73	74
		NR	59	62	65	67	68	71

Symbols and specifications

- VAV-CS 100, 125, ..., 630 = Variable or constant volume damper with duct connection Ø100, Ø125, ..., Ø630
- v = In-duct average velocity in m/s
- Qv = In-duct average air volume rate in m³/h
- DpT min = minimal total pressure drop when valve is 100% opened in Pa
- Lw, DpT at 50Pa, 100Pa, 200Pa or 500Pa = A-weighted sound power emitted to the connected duct without silencer at total Pressure drop of 50, 100, 200 or 500Pa given in dB(A)
- NR, DpT at 50Pa, 100Pa, 200Pa or 500Pa = Noise rate for sound power emitted to connected duct without silencer at total Pressure drop of 50, 100, 200 or 500Pa

	Dimensions		
	ØD [mm]	L [mm]	L1 [mm]
VAV-CS 100	98	305	40
VAV-CS 125	123	330	40
VAV-CS 160	158	400	40
VAV-CS 200	198	470	40
VAV-CS 250	248	555	40
VAV-CS 315	313	680	40
VAV-CS 355	353	750	40
VAV-CS 400	398	825	40
VAV-CS 500	498	990	40
VAV-CS 630	628	1220	40