Description

Mechanical flow regulator for CAV applications, pre-set to the required flow. Adjusting with spring and balance (no electricity is needed) with air shock absorbers to damp the spurious oscillations. Calibrated flap mounted on low friction support. Possibility to modify the adjustable set flow on site. Installable with horizontal or vertical axis (as long as the rotation axis of the flap is horizontal). Rectangular flanged connections. It is typically used upstream of a filter element to compensate the increased pressure load due to clogging.

Construction

Control case and flap of galvanized steel. PTFE flap Supports.

Dimensions

B (mm) : 150 - 600
H (mm) : 150 - 300

Other versions

FVM-RI30 : with external insulation thickness 30 mm.
For H>300 mm, the regulators can be produced in two overlapping pieces, up to a maximum height H=600 mm.
FVM-R ATEX: Atex execution II 2 G/D.
FVM-RX ATEX: S/S execution AISI 304 Atex II 2 G/D.

Specifications

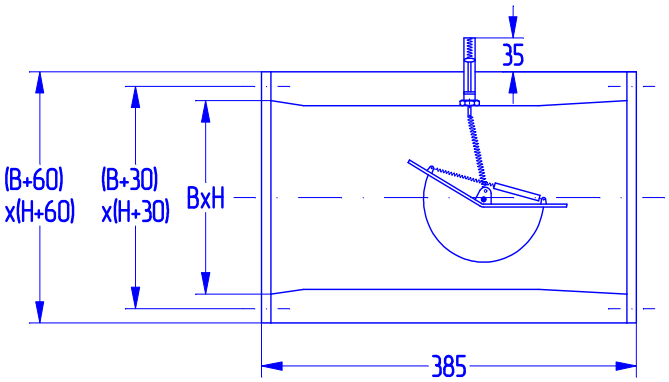
Mechanical flow regulator in galvanized steel for CAV applications. Possibility to modify the adjustable set flow on site. Installable with horizontal or vertical axis. Rectangular flanged connections

BxH	q_{vmin}	q_{vmax}
(mm)	(m^3/h)	(m^3/h)
150x150	200	700
200x150	250	900
300x150	400	1500
400x150	600	1800
200x200	400	1000
300x200	500	2000
400x200	600	2800
500x200	1000	3500
250x250	650	2300
300x250	800	2700
400x250	1000	3500
500x250	1300	4300
300x300	700	3000
400x300	1100	4300
500x300	1000	5500
600x300	1500	6500

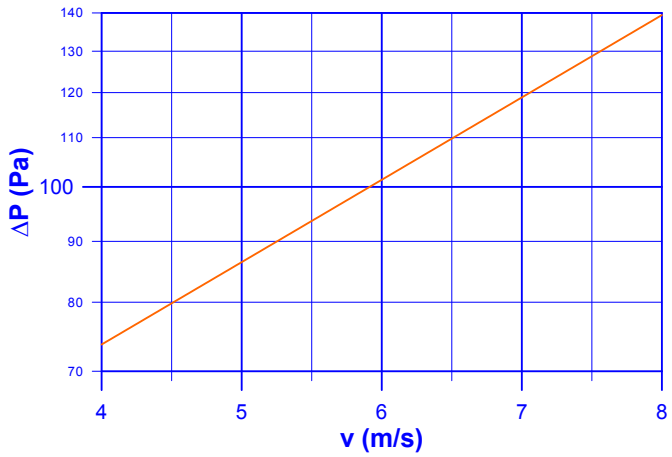
q_{vmin} **min air-flow**
q_{vmax} **max air-flow**

Note

The accuracy is typically ± 10% of the required value if the regulator is installed properly (it is advisable to have a long straight section 2-3 equivalent diameters upstream and downstream) and works in the recommended speed range. The minimum pressure drop across the regulator is specified in the following diagram as a function of average speed. The maximum allowable differential pressure is 1000 Pa.



(Minimum pressure drop accross the regulator)



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BxH	q_v	ΔP = 100 Pa						L_{WAT}*
(mm)	(m^3/h)	125	250	500	1k	2k	4k	(dB_A)
150x150	250	48	47	45	43	41	39	49
	500	54	52	51	49	48	45	55
	750	56	56	54	53	51	49	58
300x150	500	50	49	47	45	43	40	50
	1000	56	54	53	51	49	47	57
	1500	59	58	56	55	53	51	60
200x200	400	50	49	47	45	43	40	50
	800	56	54	53	51	49	47	57
	1200	59	58	56	55	53	51	60
300x200	700	52	50	48	46	44	41	51
	1300	57	56	54	52	50	48	58
	2000	60	59	57	56	54	52	61
400x200	900	52	51	49	47	44	41	52
	1700	58	56	55	53	51	48	58
	2600	61	60	58	56	54	52	62
300x300	1000	53	51	49	47	45	42	53
	2000	58	57	56	54	51	49	59
	3000	62	60	59	57	55	53	63
450x300	1500	54	53	50	48	46	43	54
	3000	60	58	57	55	52	50	60
	4500	63	62	60	58	56	54	64

BxH	q_v	ΔP = 250 Pa						L_{WAT}*
(mm)	(m^3/h)	125	250	500	1k	2k	4k	(dB_A)
150x150	250	56	55	53	51	49	47	57
	500	61	60	59	57	55	53	63
	750	64	63	62	61	59	57	66
300x150	500	58	57	55	53	51	48	58
	1000	64	62	61	59	57	55	65
	1500	66	66	64	63	61	59	68
200x200	400	58	57	55	53	51	48	58
	800	64	62	61	59	57	55	65
	1200	66	66	64	63	61	59	68
300x200	700	60	58	56	54	52	49	59
	1300	65	64	62	60	58	56	66
	2000	68	67	65	64	62	59	69
400x200	900	60	59	57	55	52	49	60
	1700	66	64	63	61	59	56	66
	2600	69	68	66	64	62	60	70
300x300	1000	61	59	57	55	53	50	61
	2000	66	65	63	62	59	57	67
	3000	69	68	67	65	63	61	71
450x300	1500	62	60	58	56	53	51	62
	3000	68	66	65	63	60	58	68
	4500	71	70	68	66	64	62	72

BxH	q_v	ΔP = 500 Pa						L_{WAT}*
(mm)	(m^3/h)	125	250	500	1k	2k	4k	(dB_A)
150x150	250	62	61	59	57	55	53	63
	500	67	66	65	63	62	59	69
	750	70	69	68	67	65	63	72
300x150	500	64	63	61	59	57	54	64
	1000	70	68	67	65	63	61	71
	1500	73	72	70	69	67	65	74
200x200	400	64	63	61	59	57	54	64
	800	70	68	67	65	63	61	71
	1200	73	72	70	69	67	65	74
300x200	700	66	64	62	60	58	55	65
	1300	71	70	68	66	64	62	72
	2000	74	73	71	70	68	65	75
400x200	900	66	65	63	61	58	55	66
	1700	72	70	69	67	65	62	72
	2600	75	74	72	70	68	66	76
300x300	1000	67	65	63	61	59	56	67
	2000	72	71	69	68	65	63	73
	3000	75	74	73	71	69	67	77
450x300	1500	68	67	64	62	59	57	68
	3000	74	72	71	69	66	64	74
	4500	77	76	74	72	70	68	78

Mod.	BxH	Acoustical absorption (dB) **					
	(mm)	125	250	500	1k	2k	4k
FVM-R	150x150	2	2	3	4	6	7
	300x150	4	5	6	8	9	11
	200x200	2	2	3	4	6	7
	300x200	4	5	6	8	9	11
	400x200	4	5	6	8	9	11
	300x300	3	4	5	6	8	9
	450x300	4	4	6	7	9	10
FVM-RI30	150x150	4	6	11	14	17	17
	300x150	6	9	14	18	20	21
	200x200	4	6	11	14	17	17
	300x200	6	9	14	18	20	21
	400x200	6	9	14	18	20	21
	300x300	5	8	13	16	19	19
	450x300	6	8	14	17	20	20

** sound power level transmitted in duct weighted "A" (rif. 10^{-12} W) - ** compared to irradiated noise, assuming a 6 mt long portion of duct*

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