

Air flow units

BMV



Description

- BMV:** single duct variable flow box
- casing in galvanised steel suitable for tie rod assembly
 - Leakage damper according to DIN 1946/4 - Class 4 EN 1751
 - Acoustic double-density rock wool material lined with black glass veil, fire-resistance M0; A1 according to EN 13501-1
 - dynamic Δp probe for measuring and maintaining the required flow rate
 - operating range from 20 to 1500 Pa
 - flow adjustment and control with dedicated compact VAV actuator
 - acoustic tests according to UNI EN 23741

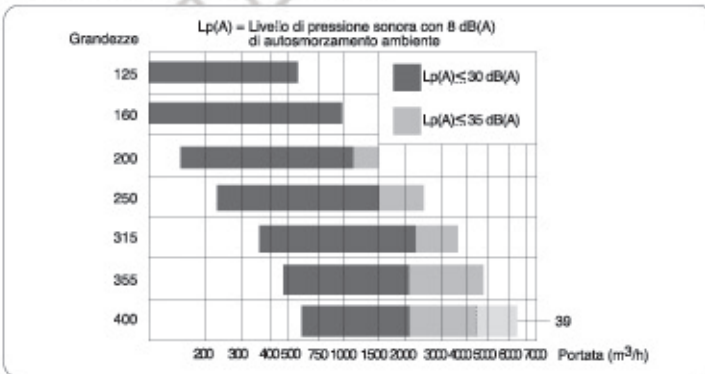
Accessories

- BAC2RR:** water post-heating coil (page 3)
BAE: electric post heating coil (on request)
SA: additional sound attenuator
SA-HY OSPEDALIERO: additional airtight sound attenuator with VDI 6022 glass tissue cover
RF: wire equaliser for assembly near curve or junction box (on request)

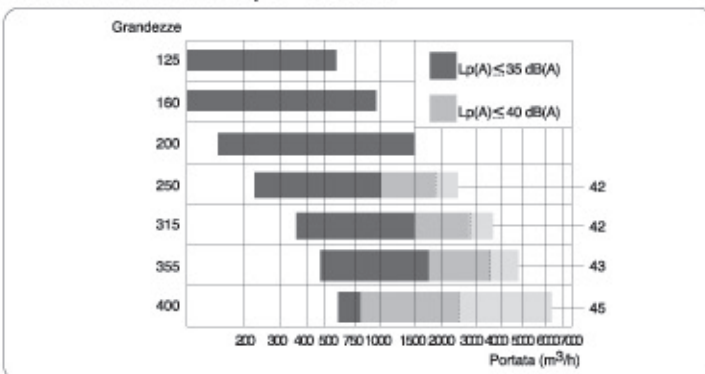
Executions

- BMVB:** with Belimo actuator LMV-D3-MP
BMVLON: with Belimo actuator LMV-D3-LON
BMVBMOD: with Belimo actuator LMV-D3-MOD
BMVSM: with Siemens actuator GDB181.1E/3
BMV...JH: with JOHNSON CONTROLS actuator with integrated DDC controller (BACnet MS/TP) - F4-CVM
BMV...STE: with Sauter actuator
BMV...LL: with HONEYWELL actuator with integrated controller
BMV...HY: made with VDI 6022 certified hygienic standard acoustic material line with glass tissue
BMV...CP: to check room or duct pressure
BMV...I: double casing (B+100 x H+100)
BMV...A: execution for return (price same as supply)
BMV...R: with micro-expanded mesh
BMV... : with fast actuator (on request)

Box noise level with $\Delta p_{st} = 200$ Pa



Box noise level with $\Delta p_{st} = 500$ Pa



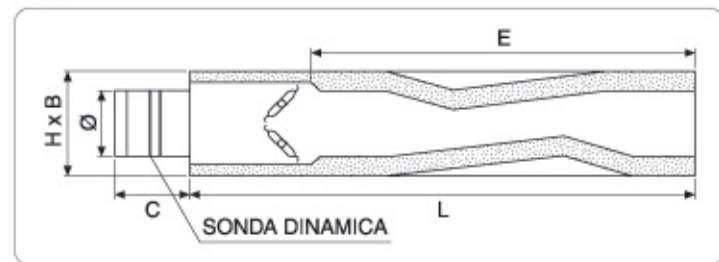
Rapid selection

DN	Flow rate m³/h		Δp_{st} min of operation Pa	
	max	min		
125	570	60	80	20
160	950	100	80	20
200	1530	150	80	20
250	2300	230	80	20
315	3650	360	80	20
355	4800	480	80	20
400	6300	630	80	20

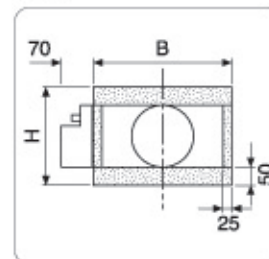
BMV dimensions

\varnothing (mm)	B (mm)	H (mm)	L (mm)	E (mm)	C (mm)
125	250	260	1200	920	150
160	350	260	1200	920	180
200	530	260	1400	1070	200
250	530	360	1500	1170	250
315	750	360	1500	1170	310
355	750	460	1800	1470	350
400	950	460	1800	1470	400

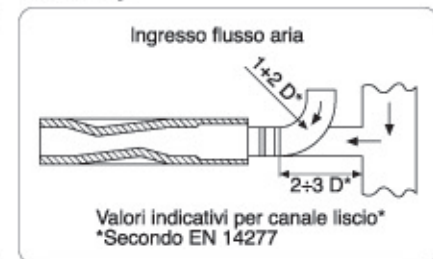
BMV



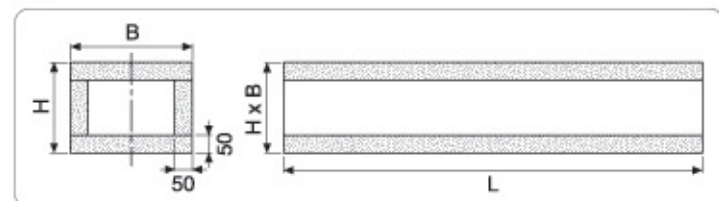
BMV



Assembly



SA



Additional sound attenuator
 L= 900 up to GR 200
 L= 1200 from GR 250

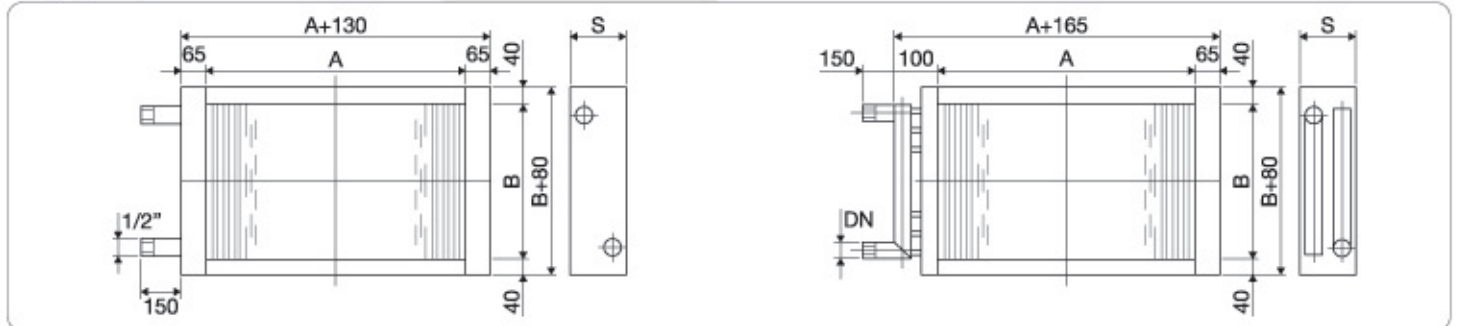
POST HEATING COIL FOR VAV

Description

Hot water coil

- casing in galvanised steel
- copper piping
- aluminium blades

Dimensions



Selection table

Size VAV	40 % nominal			80 % nominal			Water flow rate (l/s)	Ti water (°C)	To water (°C)	Δp Water (kPa)	Power (kW)	Ø water	AxB (mm)	S (mm)	Dim. Outer flange	Type coil pitch
	Air flow rate (m³/h)	Air Ti (°C)	Air To (°C)	Δp 1 air (Pa)	Δp 2 air (Pa)	Air flow rate (m³/h)										
125	230	16	32	28	112	460	0.03	75	65	0.3	1.26	1/2"	200x160	130	330x240	P40 16 2R
			32	34	136		0.03	60	50	0.3	1.26	1/2"		130	330x240	P40 16 2R
			32	80	320		0.03	45	35	0.5	1.26	1/2"		220	330x240	P40 16 5R
160	380	16	32	23	92	760	0.05	75	65	0.5	2.08	1/2"	300x160	100	430x240	P40 16 1R
			32	40	160		0.05	60	50	0.8	2.08	1/2"		130	430x240	P40 16 2R
			32	77	308		0.05	45	35	1.3	2.08	1/2"		190	430x240	P40 16 4R
200	610	16	32	22	88	1230	0.08	75	65	1.3	3.34	1/2"	480x160	100	610x240	P40 16 1R
			32	34	136		0.08	60	50	2	3.34	1/2"		130	610x240	P40 16 2R
			32	78	312		0.08	45	35	3.5	3.34	1/2"		190	610x240	P40 16 4R
250	920	16	32	22	88	1850	0.12	75	65	4	5.03	1/2"	480x240	100	610x320	P60 16 2R
			32	27	108		0.12	60	50	5.6	5.03	1/2"		130	610x320	P60 16 3R
			32	51	204		0.12	45	35	8.7	5.03	1/2"		190	610x320	P60 16 5R
315	1460	16	32	25	100	2950	0.2	75	65	10.6	7.99	1/2"	700x240	100	830x320	P60 16 1R
			32	30	120		0.2	60	50	14.9	7.99	1/2"		130	830x320	P60 16 3R
			32	59	236		0.2	45	35	23.6	7.99	1/2"		190	830x320	P60 16 5R
355	1920	16	32	12	48	3850	0.26	75	65	30	10.5	1/2"	700x360	100	830x440	P60 16 2R
			32	18	72		0.26	60	50	30	10.5	1/2"		100	830x440	P60 16 2R
			32	48	192		0.26	45	35	30	10.5	1"		190	805x440	P60 16 5R
400	2520	16	32	17	68	5050	0.34	75	65	30	13.78	1"	900x360	100	1005x440	P60 16 2R
			32	19	76		0.34	60	50	30	13.78	1"		100	1005x440	P60 16 2R
			32	49	196		0.34	45	35	30	13.78	1"		190	1005x440	P60 16 5R

Key:

Air Ti: air inlet temperature

Air To: air output temperature

Air Δp1: air side pressure drop at a flow rate of 40% of the nominal rate

Air Δp2: air side pressure drop at a flow rate of 80% of the nominal rate

Ti water: water inlet temperature

Water Tu: water outlet temperature

Power: power in kW

AxB: coil air passage

S: coil depth

Air flow units

LMV-D3-MP



Description

- LMV-D3-MP:** VAV-Compact actuator 5 Nm
- AC/DC 24V, modulating, communicating
 - MP-Bus communication
 - operating field 0/2...10V variable
 - feedback volume/position/diff. pressure 0/2...10V variable
 - IP54, manual control with button, fixed or temporary
 - 1 m PVC cable connection
 - mechanical interface, universal clamp 6...20 mm

LMV-D3-MOD



Description

- LMV-D3-MOD:** VAV-Compact actuator 5 Nm
- AC/DC 24 V, modulating, communicating, hybrid
 - BACnet MS/TP, Modbus RTU, MP-Bus communication
 - IP54, manual control with button, fixed or temporary
 - 1 m PVC cable connection
 - mechanical interface, universal clamp 6...20 mm

LMV-D3-LON



Description

- LMV-D3-LON:** VAV-Compact actuator 5 Nm
- AC/DC 24 V, communicating
 - LON communication (FTT-10A)
 - IP54, manual control with button, fixed or temporary
 - 1 m PVC cable connection
 - mechanical interface, universal clamp 6...20 mm

"KNX" VERSION AVAILABLE

CP



Description

CP: system for adjusting the pressure and flow rate. The system includes the pairing of differential pressure probes combined with actuators.

Pressure range:

- -75 / +75 Pa
- 0 / 500 Pa
- 0 / 600 Pa

MP-Bus functions:

- MP-Bus
- Modbus
- BACnet MS/TP

SIEMENS



Description

- GDB181. 1°/3:** compact VAV actuators for systems with variable or constant air flows
- integrated high-precision differential pressure sensor, actuator and configurable digital air volume regulator
 - AC 24V operating voltage for nominal torque of 5 or 10 Nm, angular rotation of the air damper mechanically adjustable between 0 and 90°
 - optional configuration as a compact VAV controller or combined actuator / differential pressure sensor
 - pre-cabled with 0.9 m connection cable
 - operating field 0/2...10V variable
 - feedback volume/position/diff. pressure 0/2...10V variable

JOHNSON CONTROLS®



Description

JOHNSON CONTROLS®: F4-CVM3050 the CVM03050 controllers work on RS-485 BACnet® MS / TP bus like an advanced BACnet (B-AAC) application controller are integrated in Johnson Controls® systems and third-party BACnet.

The CVM03050 controllers have an actuator for the integrated damper, a DPT (Differential Pressure Transmitter) digital sensor and a 32-bit microprocessor.

The CVM03050-0P model is fitted with an integrated potentiometer to detect the actual position of the VAV damper box.

SAUTER



Description

- SAUTER ASV 205 B...:** compact system for measuring and controlling the flow in VAV systems
- BACnet MS/TP communication system

HONEYWELL



Description

- HONEYWELL W7751...Smart VAV::** compact system for measuring and controlling the flow in VAV systems
- Echelon - LonWorks communication system