

Kaseman Smart Series Venturi Airflow Control Valve

General

Kaseman venturi valves are mechanically pressure independent airflow control valves designed specifically for room pressurization and fume hood control applications. The highly-engineered internal cone assembly ensures the valve will respond instantaneously to changes in duct static pressure to maintain desired airflow rate control.

Pressure-independent mechanism

The valve performs self-balancing operation to maintain a fixed flow of air by adjusting to changes in duct static pressure within 1 sec.

Quick response

High-speed electric linear actuator mounted onto the valve quickly responds to the changes in airflow command within 1 sec.

Precision airflow rate

All valve are calibrated before ex-factory by certified calibration bench, up to 48 points would be tested to ensure the plus/minus 5% airflow accuracy under any pressure drop across 150Pa – 750Pa.

Easy install

Venturi Valves, unlike flow stations or traditional air damper that do not require any straight duct runs to maintain flow accuracy. Venturi Valves can be mounted next to an elbow, transitions or branches without affecting accuracy

Features

- Mechanical pressure independent
- Stainless steel for main structure
- Available in 8, 10, 12, and 14 inch
- Can be ganged for increased flow
- Durable and easy to install
- Pre-calibrated, no field adjustment required
- Available low pressure & middle pressure
- Coating option to enhance anti-corrosion
- Can be calibrated for vertical up, vertical down or horizontal orientation.
- Designed for low sound power levels to meet or exceed ASHRAE (ANSI) noise
- Support analog signal, dry contact and Modbus 485 communication command
- Fail-safe options include normal close/open or stay in last position
- Shut -off type also available



Variable venturi air valve



Constant venturi air valve

Part number for venturi valve

- | | |
|---|---------------------------------------|
| 1 - Valve type | 9 - Airflow feedback |
| 2 - Shut-off function | 10 - Actuation & adjustment |
| 3 - Application and material of structure, (refer to specification for more detail) | 11 - Number of actuator |
| 4 - Valve body ganged | 12 - Install orientation |
| 5 - Size of diameter | 13 - Fail-safe option |
| 6 - Connection with duct | 14 - Control & communication |
| 7 - Operational pressure range | 15 - Drop pressure alarm across valve |
| 8 - Insulation | 16 - Power-supply |

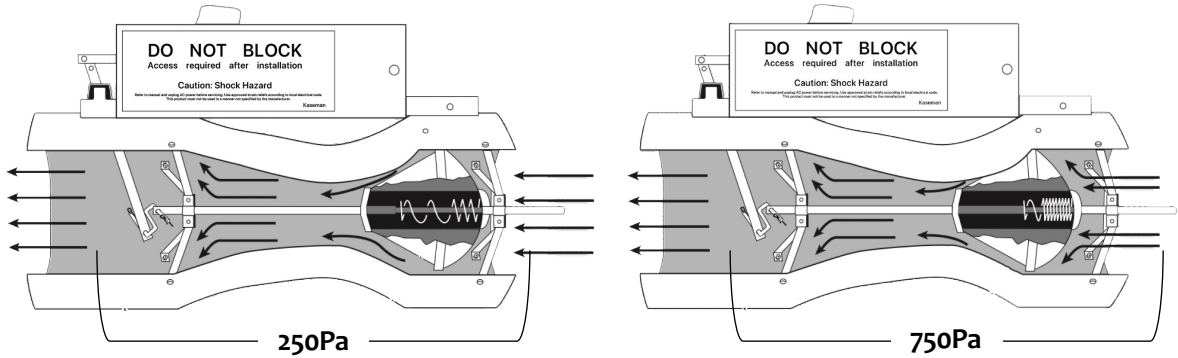
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Description
CV																Constant venturi valve
UV																Universal venturi valve
VV																Versatile venturi valve, especially for fume-hood exhaust control
	A															Standard type
	S*															Shut-off type
		E*														Supply air type
		F*														Exhaust air type
		G*														Anti-corrosion type
			1													Single valve
			2													dual valves
			3*													Triple valves
				08												8", DN200
				10												10", DN250
				12												12", DN300
				14*												14", DN350
					C											Circle slip connection
					F											Circle flange connection
					R*											Rectangle flange connection
						M										Middle operation pressure range, 150pa-750pa
						L*										Low operation pressure range, 75pa-750pa
							N									No insulation wrapped
							B									10mm class B 10mm flexible close cell polyethylene insulation
								C*								Calibrated airflow signal feedback
								N*								No feedback
									F							Fast move actuation
									M							Manual adjust
										S						Single actuator
										D*						Independent actuator pairing with valve body
										N						No actuator
											H					Horizontal install
											U					Vertical up install
											D					Vertical down install
												X*				Fix position
												L				Fail in last position
												D				Normal close or open
													M			Modbus RTU485 communication
														/		(Constant venturi valve leave it blank)
														S*		Equipped with a differential pressure switch
														T*		Equipped with a differential pressure transmitter
														N		No pressure alarm
														L		24VAC, 50Hz/60Hz power supply
														/		(Constant venturi valve leave it blank)

Notes:

- 2-S* : Only available for medium operating pressure UVA and VVA series
- 3-E*,F*,G* : Please refer to "Detail of valve mechanical structure"
- 4-3* : Triple valve start with 12"- DN300
- 5-14* : shut off type not available on 14"(DN 350) type
- 6-R* : Dual and triple valves default using rectangle flange connection
- 7-L* : Low pressure configuration is only available with standard type venturi valve
- 9-C* : Only available for UVA and VVA series
- 9-N* : Only available for CVA series
- 11-D* : For Dual and above 12&14 inch only
- 13-X* : For CVA series only
- 15-S* : Only available for UVA and VVA series
- 15-T* : Only available for UVA and VVA series

Pressure independent mechanism

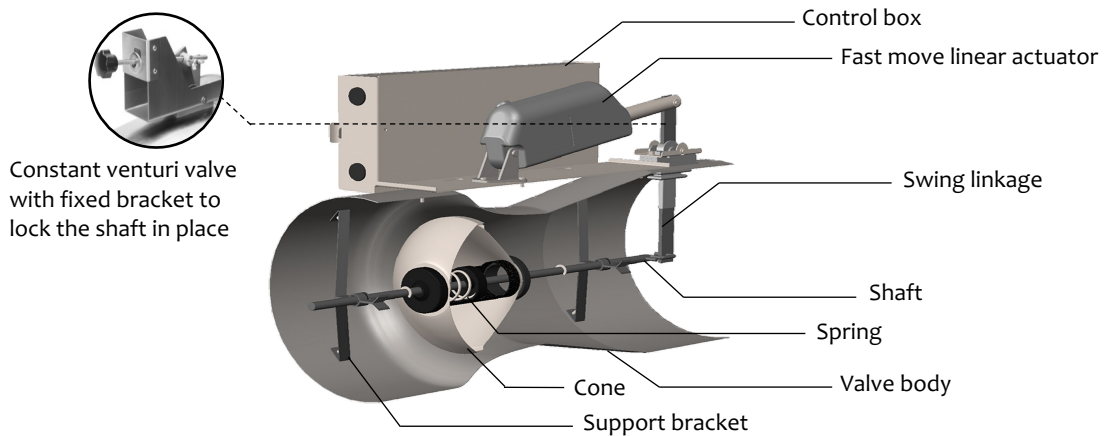
All valves strictly maintain set of flow rate of air by rapidly adjusting to changes in duct static pressure. Each valve has a cone assembly with a spring designed to compensate for changes in duct static pressure.



When there is low static pressure, less force is applied to the cone, causing the spring inside the cone to extend. Further, lower velocity with larger opening area provide the desired airflow rate.

As static pressure increase and force on the cone, the spring compresses the cone and move the it toward to shrunken body place. High pressure with faster velocity with smaller opening area combine to maintain set airflow rate.

Parts identification



Detail of valve mechanical structure

Structure	E type, supply air type	F type, exhaust type	G type, anti-corrosion type
Valve body	304 stainless steel	316L stainless steel	316L stainless steel with PTFE coating*
Cone	316L stainless steel	316L stainless steel	316L stainless steel with PTFE coating
Shaft	316L stainless steel	316L stainless steel with PTFE* coating	316L stainless steel with PTFE coating
Support brackets	316L stainless steel	316L stainless steel	316L stainless steel with PTFE coating
Swing Linkage	316L stainless steel	316L stainless steel	316L stainless steel with PTFE coating
Spring	316L stainless steel	316L stainless steel	316L stainless steel with PTFE coating

Notes:

1. PTFE : Polytetrafluoroethylene
2. Customized coating option available

Airflow range – Standard venturi valve

Middle pressure venturi valve airflow range - Single valve			
DN200/8"	60-1200 CMH	17-333 L/S	35-706 CFM
DN250/10"	85-1700 CMH	24-472 L/S	50-1000 CFM
DN300/12"	150-2500 CMH	42-694 L/S	88-1471 CFM
DN350/14"	340-4250 CMH	94-1181 L/S	200-2500 CFM
Middle pressure venturi valve airflow range - Dual valve			
DN200/8"	120-2400 CMH	34-667 L/S	71-1412 CFM
DN250/10"	170-3400 CMH	48-944 L/S	100-2000 CFM
DN300/12"	300-5000 CMH	84-1388 L/S	176-2941 CFM
DN350/14"	680-8500 CMH	189-2362 L/S	400-5000 CFM
Middle pressure venturi valve airflow range - Triple valve			
DN200/8"	/	/	/
DN250/10"	/	/	/
DN300/12"	450-7500 CMH	126-2082 L/S	265-4412 CFM
DN350/14"	1020-17250 CMH	282-3543 L/S	600-7500 CFM

Low pressure venturi valve airflow range - Single valve			
DN200/8"	60-845 CMH	17-235 L/S	35-497 CFM
DN250/10"	85-1000 CMH	24-278 L/S	50-589 CFM
DN300/12"	155-1780 CMH	43-494 L/S	91-1048 CFM
DN350/14"	340-2375 CMH	94-660 L/S	200-1398 CFM
Low pressure venturi valve airflow range - Dual valve			
DN200/8"	120-1690 CMH	33-469 L/S	71-995 CFM
DN250/10"	170-2000 CMH	47-556 L/S	100-1177 CFM
DN300/12"	310-3560 CMH	86-989 L/S	182-2095 CFM
DN350/14"	680-4750 CMH	189-1319 L/S	400-2796 CFM
Low pressure venturi valve airflow range - Triple valve			
DN200/8"	/	/	/
DN250/10"	/	/	/
DN300/12"	465-5340 CMH	129-1483 L/S	274-3143 CFM
DN350/14"	1020-7125 CMH	283-1979 L/S	600-4194 CFM

Notes:

1. Measure error for the airflow range would be $\pm 5\%$
2. Measure in CMH, convert to L/S and CFM
3. Shut-off venturi valve, refer to the shut-off airflow range table for details

Airflow range – Shut-off venturi valve

Middle pressure venturi valve airflow range - Single valve			
DN200/8"	0, 60-1010 CMH	0, 17-280 L/S	0, 35-594 CFM
DN250/10"	0, 85-1440 CMH	0, 24-400 L/S	0, 50-848 CFM
DN300/12"	0, 150-2200 CMH	0, 42-611 L/S	0, 88-1295 CFM
Middle pressure venturi valve airflow range - Dual valve			
DN200/8"	0, 120-2020 CMH	0, 34-561 L/S	0, 71-1189 CFM
DN250/10"	0, 170-2880 CMH	0, 48-800 L/S	0, 100-1695 CFM
DN300/12"	0, 300-4400 CMH	0, 84-1222 L/S	0, 176-2590 CFM
Middle pressure venturi valve airflow range - Triple valve			
DN200/8"	/	/	/
DN250/10"	/	/	/
DN300/12"	0, 450-6600 CMH	0, 126-1833 L/S	0, 265-3885 CFM

Notes:

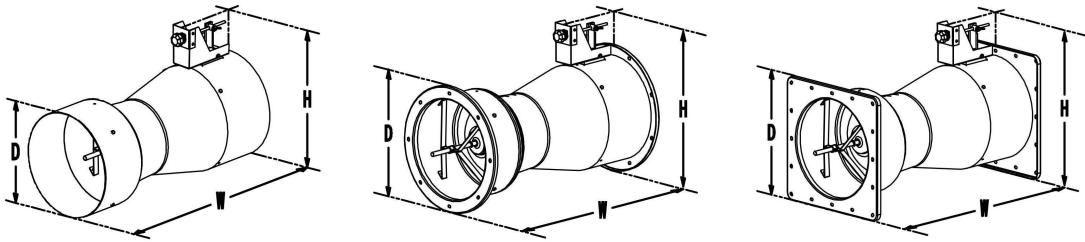
1. Measure error for the airflow range would be $\pm 5\%$
2. Measure in CMH, convert to L/S and CFM
3. Standard venturi valve. Refer to the standard airflow range table for details

General valve specification

	DN200, 8"	DN250, 10"	DN300, 12"	DN350, 14"
Gross weight (kg) – constant venturi valve	6	6.7	8.2	10.3
Gross weight (kg) – variable venturi valve	10.2	11	12.4	15.5
Material of control box*	Galvanized Steel	Galvanized Steel	Galvanized Steel	Galvanized Steel
Thickness of valve body	1 mm	1 mm	1 mm	1 mm
Airflow accuracy	±5%	±5%	±5%	±5%
Operating Temperature	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)
Operating RH	10% to 90% non-condensing	10% to 90% non-condensing	10% to 90% non-condensing	10% to 90% non-condensing
Storage Temperature	-15°C to 55°C (5°F to 131°F)	-15°C to 55°C (5°F to 131°F)	-15°C to 55°C (5°F to 131°F)	-15°C to 55°C (5°F to 131°F)
Storage RH	5% to 95% non-condensing	5% to 95% non-condensing	5% to 95% non-condensing	5% to 95% non-condensing
Actuation*	Full-stroke 2 sec	Full-stroke 2 sec	Full-stroke 2 sec	Full-stroke 2 sec
Control signal*	0-10VDC / Modbus 485	0-10VDC / Modbus 485	0-10VDC / Modbus 485	0-10VDC / Modbus 485
Certificate	CE	CE	CE	CE
Protection	IP65	IP65	IP65	IP65
Package	Carton package	Carton package	Carton package	Carton package

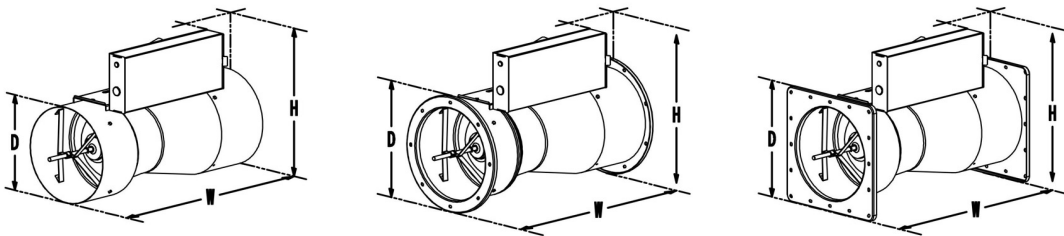
Dimension detail

CVA series - single constant venturi valve



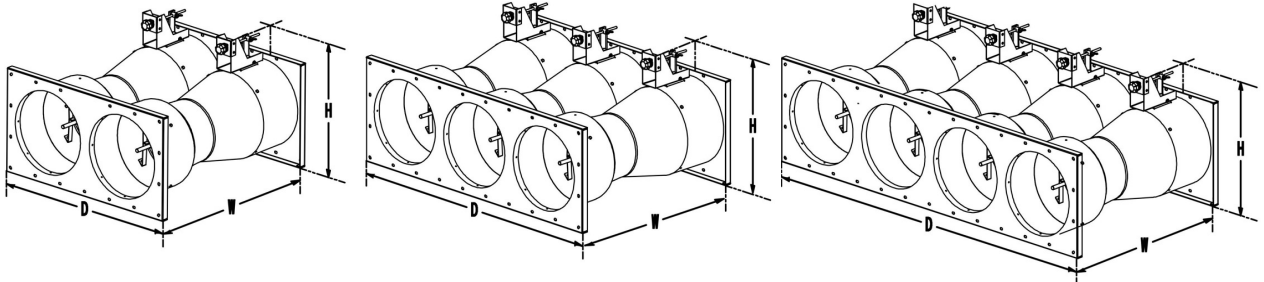
valve size	Venturi valve with circle slip fit			Venturi valve with circle flange			Venturi valve with ractangle flange		
Dimension	D	W	H	D	W	H	D	W	H
DN200/8"	199	595	309	251	578	334	251	578	334
DN250/10"	249	558	359	301	541	384	301	541	384
DN300/12"	298	680	408	352	663	433	352	663	433
DN350/14"	349	752	474	412	731	496	412	731	496

UVA & VA series - single variable venturi valve



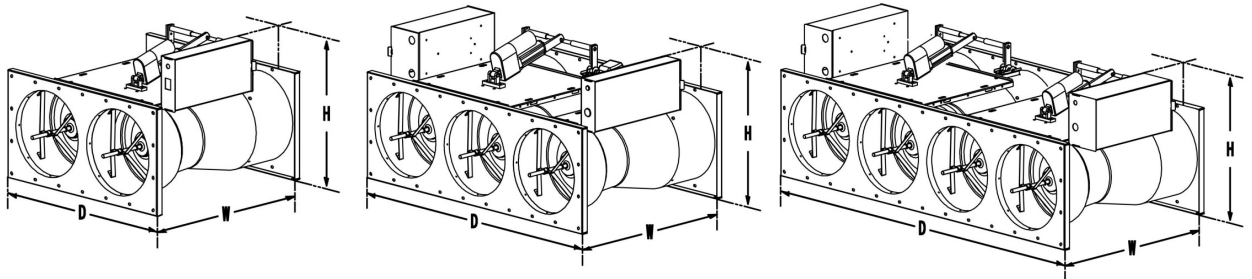
valve size	Venturi valve with circle slip fit			Venturi valve with circle flange			Venturi valve with ractangle flange		
Dimension	D	W	H	D	W	H	D	W	H
DN200/8"	199	595	334	251	578	359	251	578	359
DN250/10"	249	558	384	301	541	409	301	541	409
DN300/12"	298	680	433	352	663	458	352	663	458
DN350/14"	349	752	449	412	731	521	412	731	521

CVA series - dual, triple and quad constant venturi valves



valve size	Dual valve			Triple valve			Quadruple valve		
Dimension	D	W	H	D	W	H	D	W	H
DN200/8"	478	598	337	/	/	/	/	/	/
DN250/10"	579	561	387	/	/	/	/	/	/
DN300/12"	693	683	441	1022	683	441	1351	683	441
DN350/14"	816	755	506	1204	755	506	1592	755	506

UVA &VA series - dual, triple and quad constant venturi valves



valve size	Dual valve			Triple valve			Quadruple valve		
Dimension	D	W	H	D	W	H	D	W	H
DN200/8"	478	598	362	/	/	/	/	/	/
DN250/10"	579	561	412	/	/	/	/	/	/
DN300/12"	693	683	466	1022	683	466	1351	683	466
DN350/14"	816	755	531	1204	755	531	1592	755	531

Notes:

1. Unit : mm
2. Error of all dimension, ± 1 mm

IMPORTANT:

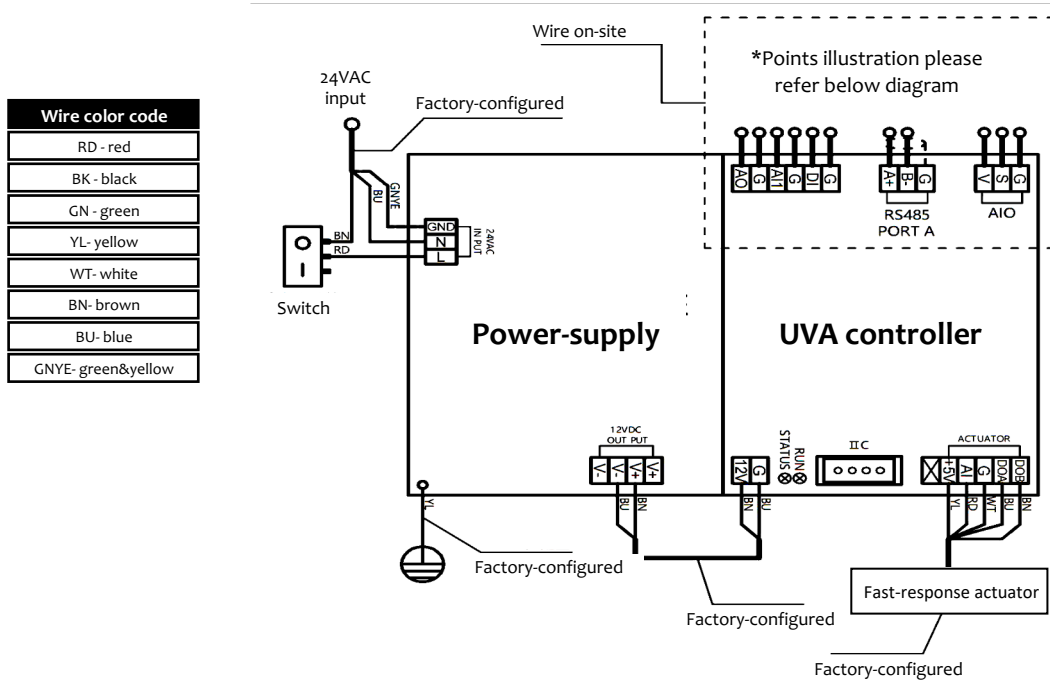
1. Leave minimum of 400 mm clearance around the product for maintenance.
2. When installing the product somewhere in the ceiling, select the location where our serviceperson will be able to perform the maintenance of the product.
3. Dimensions given above are accurate to ± 1 mm. To facilitate the connection of the valve onto a installed duct at a job site, set an adjustment margin on each end of the valve (for flange halls, etc.).
4. No additional straight duct runs before and after the valve is necessary. The shaft, however, needs an unobstructed space larger than dimension W, in the duct on the inlet side of the valve for operation.
5. Dimensions given above do not include 10 mm thick insulation for the valve.
6. Valve body is 1 ± 0.1 mm thick.
7. To keep airflow control accuracy, do not make any changes, such as deforming the valve body to slip into a duct, drilling a hole on the valve body to fix the valve, etc., on the valve body.

UVA series control specification

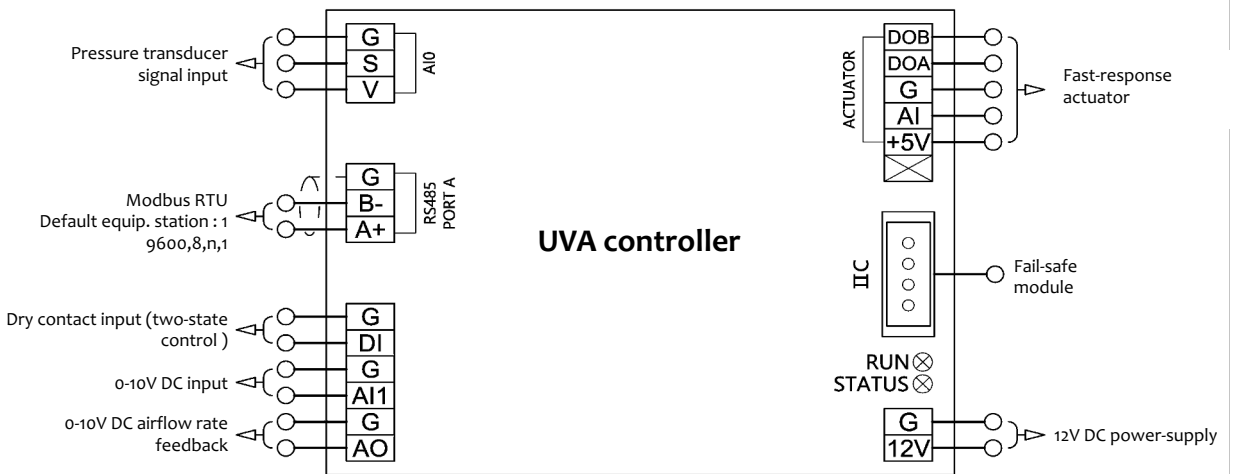
UVA controller support multiple control way to adjust the airflow rate, include analog command signal (0-10VDC), digital signal two-state control, and standard Modbus RTU communication protocol.

UVA could feedback the airflow rate by its (AO) 0-10VDC signal or Modbus RTU to Upper controller or BMS system.

UVA wiring diagram



UVA controller points illustration



UVA controller Modbus communication address list (READ ONLY)

Communication protocol : Modbus RTU

Configuration : Baud rate 9600 bps, data bit 8 digits, stop bit 1 digit, parity check N/A. (9600,8,N,1)

Address : Setting software could set station number, address range : 1-255

Communication port : RS485 PORT A (connect equipment internal network EIN, zone level network, and third party network)

Address	Point	Point instruction	Unit
40060	Valve control mode	01-Analog (AI/AO) mode, 02-Two-state (On/Off) mode, 03-Modbus with DP switch signal, 04-Modbus with DP transmitter	
40062	Actuator status	Indicates whether the actuator is operational or faulty, 00-normal, 85-failure	
40065	UVA controller address	Displays the Modbus station number (1-255) used to identify the controller in communication. This can be adjusted before shipping	
40066	Airflow rate set-point during power loss	Shows the preset airflow value (in CMH) executed by the valve in case of power loss, if the controller includes a fail-safe module for normal open or close operations	CMH
40067	Airflow at DI point OFF	Displays the airflow value (in CMH) when the digital input (DI) point is OFF	CMH
40068	Airflow at DI point ON	Displays the airflow value (in CMH) when the digital input (DI) point is ON	CMH
40069	Pressure drop value	Shows the real-time differential pressure reading (in Pa) from the differential pressure transmitter	Pa
40070	Operation pressure range	00-middle pressure (150-750Pa), 01-low pressure (75-750Pa)	
40071	Valve size	08, 10,12,14,210,212 etc.	
40072	Valve type	00-standard valve , 01-shut off type	
40073	AI signal airflow	Displays the airflow value corresponding to a 10Vdc input signal in analog mode	CMH
40074	AO signal airflow	Displays the airflow value corresponding to a 10Vdc output signal in analog mode	CMH
40075	Valve airflow maximum airflow	Displays the maximum calibrated airflow (in CMH)	CMH
40076	Valve airflow minimum airflow	Displays the minimum calibrated airflow (in CMH)	CMH
40077	Power loss alarm	With fail-safe module, provides feedback to the controller regarding power-loss status, 00-normal, 85-power-losing	
40079	AI control voltage values	Displays the AI point control voltage. Multiply the reading by 0.9775 to approximate the actual voltage (in Vdc)	VDC
40080	AO control voltage values	Displays the AO point control voltage. Multiply the reading by 0.9775 to approximate the actual voltage (in Vdc)	VDC
40081	DI point status	00-Disconnected ,128-Connected	
40084	Actuator current resistance	Displays the resistance value of the actuator's displacement signal, corresponding to the current airflow	
40085	Actuator feedback resistance	Displays the feedback resistance value from the actuator's displacement signal	
40086	Drop pressure alarm status	0-normal, 1-DP switch(DI) low pressure alarm, 2-DP transmitter (AI) low pressure alarm, 3- DP transmitter(AI) over pressure alarm	
40087	UVA controller software version	Displays the system software version. E.g., display: 1400, then V1.40 version	
40088	Actuator feedback airflow	Shows the airflow value (in CMH) corresponding to the actuator's current position	
40089	Over pressure range (750Pa) accumulation	Counts the occurrences of over-pressure events (above 750 Pa)detected by the DP transmitter; resets to zero after a power cycle	

Notes:

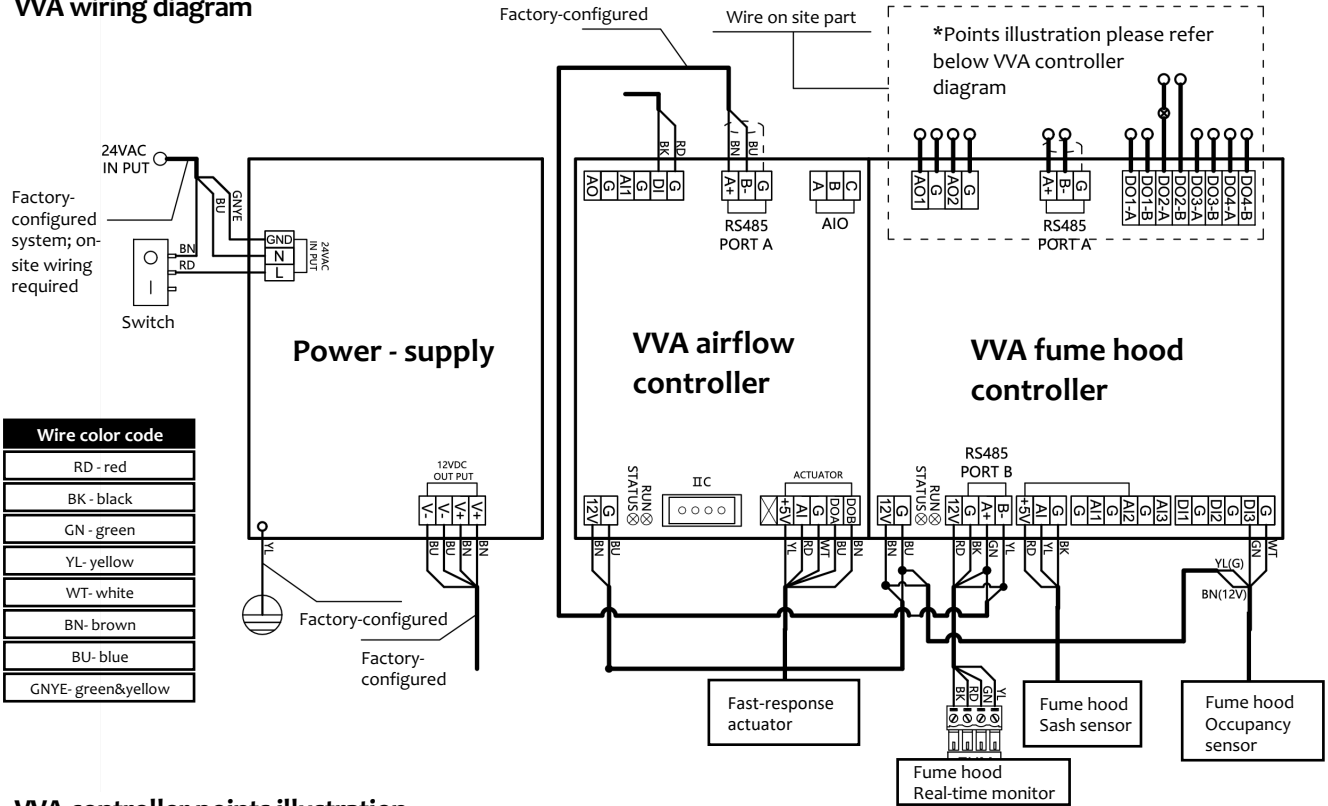
- All addresses are 0-based

VVA series control specification

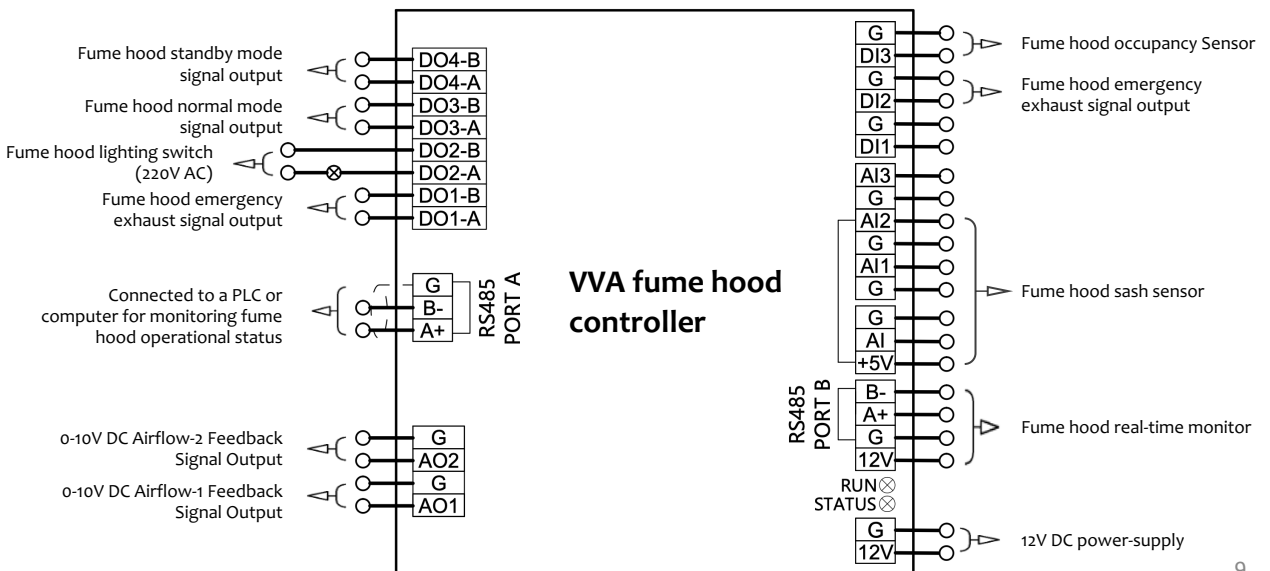
The VVA controller is specifically designed to regulate airflow in fume hood systems, ensuring stable face velocity that complies with international safety standards. It supports multiple control methods, including analog command signals (0-10VDC), digital two-state control, and Modbus RTU communication, to adjust the airflow rate as required.

Additionally, the VVA controller provides real-time airflow feedback via its 0-10VDC analog output (AO) or through Modbus RTU communication. This enables precise monitoring and control, ensuring that fume hood airflow

VVA wiring diagram



VVA controller points illustration



VVA controller Modbus communication address list (READ ONLY)

Communication protocol : Modbus RTU

Configuration : Baud rate 9600 bps, data bit 8 digits, stop bit 1 digit, parity check N/A. (9600,8,N,1)

Address : The default factory address is 1. The address can be modified using a 6.8-inch touchscreen interface, with a configurable range of 1–255.

To configure the address for connecting the fume hood system to the BMS:

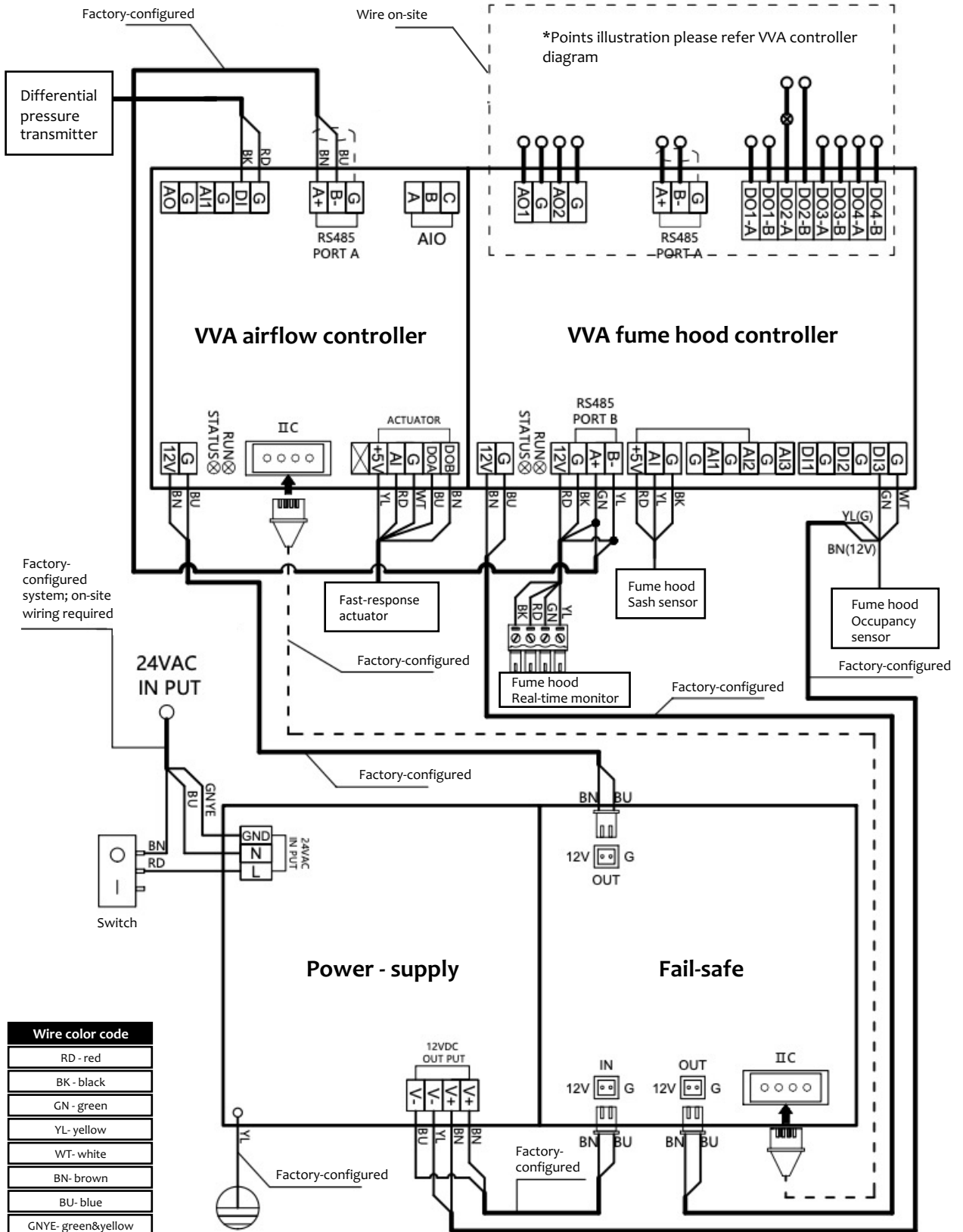
1. Navigate to the User Parameter Settings menu on the controller interface
2. Select the Controller 485 Address option
3. Modify the desired address within the allowable range (1–255)
4. Save and write the new address to the controller to apply the changes

Address	Point	Point instruction	Unit
40060	Fume hood face velocity	Defines the airflow rate required to maintain stable face velocity during fume hood operation, ensuring compliance with safety standards	CMH
40061	Fume hood sash height	Indicates the current opening height of the fume hood sash. This parameter directly affects the required airflow to maintain proper face velocity	CM
40062	Fume hood sash opening area	Represents the effective operational area of the fume hood when the sash is open, calculated as the product of the sash width and height	m ²
40063	Fume hood operational state	The operational state of the fume hood is indicated by specific codes: 0: Standard Mode (normal operation) / 1: Standby Mode (reduced airflow) / 2: Minimum Exhaust Mode / 8: Sash Height Alarm (excessive opening detected) / 9: Low Pressure Warning / 10: High Pressure Warning / 13: Overlimit Warning / 14: Emergency Mode / 15: Zone Failure / 16: Displacement Failure / 17: Actuator Failure	
40067	VVA controller software version	Displays the current version of the VAV system	
40068	Fume hood real-time face velocity	Provides the current face velocity reading in real-time to ensure safe and efficient operation of the fume hood	m/s

Notes:

1. All addresses are 0-based

VVA – Fail safe wiring diagram



Test result : casing Leakage rate

The test was conducted by TÜV in accordance based on ANSI/AMCA 500-D-07

Valve size		DN200, 8"			
Static pressure (Pa)	150	250	500	750	
Leakage (CC/min)	0	0	0	0	
Valve size		DN250, 10"			
Static pressure (Pa)	150	250	500	750	
Leakage (CC/min)	0	0	0	0	
Valve size		DN300, 12"			
Static pressure (Pa)	150	250	500	750	
Leakage (CC/min)	0	0	0	0	
Valve size		DN350, 14"			
Static pressure (Pa)	150	250	500	750	
Leakage (CC/min)	0	0	0	0	

Test result : radiated Sound Power Level (dBA)

The test was conducted by TÜV in accordance based on

- A) AHRI standard 800-2008 "Performance Rating of Air Terminals"
- B) ANSI/ASHRAE standard 130-1996 "Method of testing for rating ducted air terminal units"

Unit	Air Flow		150Pa (0.6" W.G.)							Overall A-Weighted (dBA)
			1/1 Octave Band Frequency (Hz)							
Size	l/s	cfm	125	250	500	1000	2000	4000	8000	
DN200 (8")	51	108	26.3	32.33	25.1	24.48	24.76	22.52	18.58	35.2
	153	324	31.55	38.91	41.42	35.29	35.87	33.64	28.33	45.2
	204	432	32.76	39.64	45.24	38.75	39.68	35.38	28.28	48.2
	323	685	36.26	43.64	50.37	45.49	45.98	40.89	34.51	53.5
DN250 (10")	53	112	26.69	31.1	20.3	13.72	16.69	18.11	16.62	33.1
	142	301	31.24	36.58	27.07	16.62	17.28	18.44	16.74	38.2
	250	530	33.63	39.79	33.14	32.52	31.18	22.64	18.41	42.4
	394	835	39.7	51.56	49.23	46.7	46.86	37.49	30.25	55.3
DN300 (12")	103	218	25.17	30.7	20.38	17.99	20.53	25.76	16.64	33.4
	193	409	32.07	37.33	28.67	24.7	22.52	21.4	17.09	39.3
	389	825	32.75	38.38	31.2	31.5	28.12	25.87	18.98	41
	500	1060	37.57	43.15	34.88	33.24	29.54	27.19	19.89	45.2
SN350 (14")	167	354	35.46	40.63	32.41	15.83	19.45	24.38	16.87	42.4
	311	659	41.05	47.41	47.03	44.01	43.25	39	26.07	52.4
	472	1001	40.9	46.32	37.25	32.6	31.65	31.52	19.44	48.1
	632	1340	42.85	48.9	41.47	37.34	31.44	35.24	26.07	50.8
	750	1590	41.77	47.22	41.97	40.31	35.07	38.1	32.74	50.2

Unit	Air Flow		250Pa (1.0" W.G.)							Overall
			1/1 Octave Band Frequency (Hz)							A-Weighted (dBA)
Size	l/s	cfm	125	250	500	1000	2000	4000	8000	
DN200 (8")	54	114	25.47	30.96	24.41	23.76	24.25	21.53	17.68	34.1
	153	324	35.4	39.14	39.6	33.64	34.41	31.4	24.95	44.4
	239	507	35.83	39.34	43.18	36.51	37.46	33	25.39	46.6
	319	676	36.91	44.8	47.87	42.43	42.14	36.78	30.02	51.3
DN250 (10")	50	106	29.17	33.95	23	14	16.89	18.16	16.67	35.7
	142	301	31.36	36.97	27.29	15.73	17.12	18.44	16.75	38.5
	237	502	32.91	38.5	31.42	30.14	28.55	23.13	19.86	41
	395	837	38.7	49.75	47.26	44.19	44.56	35.6	29.37	53.3
DN300 (12")	108	229	28.11	32.31	21.48	20.91	23.18	28.74	16.95	35.6
	192	407	32.26	37.05	28.19	25.4	26.01	23.64	17.77	39.3
	383	812	33.57	38.66	31.98	32.41	30.87	28.66	20.84	41.8
	515	1092	36.77	42.63	34.36	32.59	31.15	28.78	20.68	44.7
SN350 (14")	165	350	35.2	40.16	31.98	16.83	19.57	24.52	16.92	42
	330	700	39	47.67	51.27	49.26	48.75	42.99	31.83	55.8
	500	1060	37.98	42.23	36.19	34.39	33.74	32.53	23.04	45.3
	625	1325	41.79	46.99	41.79	39.72	34.68	37.3	34.51	50
	744	1577	41.58	46.85	41.02	39.52	34.96	37.59	34.59	49.8

Unit	Air Flow		500Pa (2.0" W.G.)							Overall
			1/1 Octave Band Frequency (Hz)							A-Weighted (dBA)
Size	l/s	cfm	125	250	500	1000	2000	4000	8000	
DN200 (8")	50	106	25.55	31.12	24.06	26.89	27.65	26.25	21.25	35.5
	164	348	35	40.22	38.68	32.76	33.58	30.44	23.95	44.2
	233	494	32.8	39.47	34.71	32.86	33.61	30.55	27.37	42.9
	325	689	37.11	44.05	38.01	35.03	35.87	31.07	27.04	46.6
DN250 (10")	56	119	27.07	30.88	22.84	23.87	26.04	23.3	21.25	34.7
	147	312	30.93	36.21	27.84	25.31	27.39	24.57	21.99	38.7
	234	496	32.73	37.75	30.39	30.18	30.32	27.53	25.2	40.8
	404	856	41.75	52.52	50.12	48.15	47.98	40.12	35.74	56.4
DN 300 (12")	103	218	25.12	31.35	23.5	26.88	31.07	26.87	19.25	36.3
	192	407	32.75	37.45	29.6	31.79	35.43	32.35	25.68	41.9
	382	810	33.31	37.9	30.08	30.79	33.13	31.12	24.91	41.5
	500	1060	35.61	41.85	33.57	32.46	34.68	32.5	28.43	44.5
SN350 (14")	176	373	34.41	38.19	30.45	24.94	25.12	27.26	21.88	40.7
	331	702	38.07	42.93	41.81	38.8	37.82	34.53	26.64	47.6
	472	1001	39.54	42.68	34.17	32.65	32.06	30.82	31.76	47.2
	585	1240	41.97	46.96	39.58	37.64	35.33	39.87	34.69	49.8
	722	1531	41.4	46.46	39.71	38.43	35.51	39.46	34.52	49.5

Unit	Air Flow		750Pa (3.0" W.G.)							Overall
			1/1 Octave Band Frequency (Hz)							A-Weighted (dBA)
Size	l/s	cfm	125	250	500	1000	2000	4000	8000	
DN200 (8")	51	108	30.29	37.15	28.87	29.05	29.9	27.54	21.52	39.8
	142	301	32.17	37.86	30.44	33.64	34.12	32.34	34.94	42.7
	250	530	36.22	43.1	35.96	36.05	37.01	38.97	34.72	46.9
	306	649	36.96	45.35	35.89	36.08	36.8	34.8	35.36	47.7
DN250 (10")	58	123	31.51	36.49	29.27	31.31	32.59	35.26	31.68	41.2
	139	295	31.64	36.52	29.39	31.36	32.61	32.61	31.34	41.2
	250	530	36.43	42.34	35.16	35.75	35.91	38.28	34.29	46.2
	402	852	40.47	49.62	46.2	43.52	43.83	40.48	37.85	53.2
DN 300 (12")	108	229	35.15	39.76	29.81	33.11	38.24	35.46	31.71	44.4
	177	375	35.49	39.37	30.02	33.19	38.53	35.64	32.24	44.4
	381	808	31.01	36.62	29.46	32.26	35.5	34.28	32.51	42.2
	515	1092	34.79	41.75	34.1	34.33	37.65	36.19	34.25	45.6
DN350 (14")	176	373	38.96	43.97	34.68	31.46	32.4	38.49	31.96	46.8
	331	702	37.77	41.94	33.74	31.38	32.36	35.04	34.28	45.2
	472	1001	38.55	43.04	34.4	32.6	33.64	37.46	32.32	46.2
	585	1240	42.71	47.17	38.86	36.95	36.8	39.06	36.82	50
	722	1531	43.61	48.34	41.81	40.46	38.43	40.07	36.8	51.4

Test result : discharge Sound Power Level (dBA)

The test was conducted by TÜV in accordance based on

- A) AHRI standard 800-2008 "Performance Rating of Air Terminals"
- B) ANSI/ASHRAE standard 130-1996 "Method of testing for rating ducted air terminal units"

Unit	Air Flow		150Pa (0.6" W.G.)							Overall
			1/1 Octave Band Frequency (Hz)							A-Weighted (dBA)
Size	l/s	cfm	125	250	500	1000	2000	4000	8000	
DN200 (8")	50	106	53.26	58.6	42.08	31.75	24.48	24.85	18.09	59.8
	140	297	48.64	56.1	46.52	47.03	45.95	45.7	40.98	58.2
	239	507	49.38	56.91	47.37	46.77	45.18	44.76	39.76	58.8
	304	644	53.82	60.2	50.33	47.63	45.34	41.65	34.94	61.8
DN250 (10")	55	117	55.91	60.07	47.07	34.73	25.77	23.23	18.02	61.6
	143	303	51.87	57.92	54.61	53.2	48.6	46.91	40.78	61.5
	255	541	58.13	62.17	52.15	51.98	45.39	41.94	33.64	64.3
	417	884	55.17	60.41	54	54.61	49.5	46.93	40.02	63.3
DN300 (12")	100	212	52.26	56.72	45.67	42.62	38.12	30.16	18.41	58.5
	189	401	50.05	56.17	45.72	42.29	38.58	28.02	19.44	57.6
	347	736	56.07	60.9	51.25	49.56	45.67	39.3	26.73	62.8
	486	1030	60.94	66.24	53.03	41.81	37.88	34.75	21.13	67.5
SN350 (14")	150	318	48.75	53.2	44.59	39.46	39.71	40.71	30.27	55.4
	300	636	48.39	53.67	45.56	41.62	42.21	43.06	34.4	55.9
	450	954	49.65	54.84	46.35	40.39	40.36	41.57	34.06	56.8
	600	1272	49.01	54.7	46.1	41.07	41.35	42.56	34.38	56.7
	750	1590	50.73	56.69	47.43	40.91	39.97	38.33	28.5	58.3

Unit	Air Flow		250Pa (0.6" W.G.)							Overall
			1/1 Octave Band Frequency (Hz)							A-Weighted (dBA)
Size	l/s	cfm	125	250	500	1000	2000	4000	8000	
DN200 (8")	50	106	52.44	57.83	41.77	39.69	36.83	29.36	21.56	59.1
	140	297	47.83	55.61	47.17	50.13	49.95	49.77	46	59.1
	239	507	48.4	56.49	48	50.35	49.81	49.24	45.5	59.5
	304	644	53.63	60.81	52.68	52.25	50.43	47.76	42.61	63
DN250 (10")	55	117	56.36	60.6	46.33	41.67	37.3	28.1	20.84	62.2
	143	303	50.45	56.94	59.08	58.75	56.35	54.5	49.83	64.7
	255	541	58.67	62.45	53.69	55.26	50.09	47.09	40.01	65.1
	417	884	56.63	60.27	59.02	60.43	58.04	55.22	50.18	66.5
DN300 (12")	100	212	52.26	56.72	45.67	42.62	38.12	30.16	18.41	58.5
	189	401	50.05	56.17	45.72	42.29	38.58	28.02	19.44	57.6
	347	736	56.07	60.9	51.25	49.56	45.67	39.3	26.73	62.8
	486	1030	60.94	66.24	53.03	41.81	37.88	34.75	21.13	67.5
SN350 (14")	150	318	47.86	52.44	46.86	45.6	45.95	45.07	42.49	56.1
	300	636	47.87	53.09	47.48	46.1	46.51	45.2	43.05	56.6
	450	954	48.64	54.08	47.55	45.75	46.15	44.6	43.14	57.1
	600	1272	48.29	54.17	47.44	45.7	45.97	44.49	43.07	57.1
	750	1590	50.16	55.74	50	48.53	47.98	45.08	43.74	58.9

Unit	Air Flow		500Pa (0.6" W.G.)							Overall
			1/1 Octave Band Frequency (Hz)							A-Weighted (dBA)
Size	l/s	cfm	125	250	500	1000	2000	4000	8000	
DN200 (8")	50	106	51.24	55.04	40.36	44.94	45.1	44.54	34.06	57.5
	140	297	48.92	56.55	53.07	57.06	60.56	51.1	58.59	66.4
	239	507	49.66	57.16	54.69	58.15	61.27	61.67	59.29	67.2
	304	644	55.23	63.62	61.59	62.39	61.71	59.77	56.49	69.4
DN250 (10")	55	117	52.33	56.36	44.88	49.92	48.52	48.49	38.4	59.5
	143	303	51.8	58.77	61.07	67.65	63	62.12	58.16	70.9
	255	541	60.05	65.29	61.33	61.99	60.33	57.74	53.01	69.6
	417	884	56.45	62	63.61	65	63.19	60.83	56.59	70.5
DN 300 (12")	100	212	51.83	56.25	52.19	55.78	52.56	45.84	35.89	61.3
	189	401	50.12	56.2	53.92	55.59	57.83	56.26	47.53	63.5
	347	736	57.08	62.95	59.54	62.65	60.43	56.71	47.97	68.4
	486	1030	63.75	68.21	60.21	57.69	55.36	52.04	43.53	70.5
SN350 (14")	150	318	48.75	53.2	44.59	39.46	39.71	40.71	30.27	55.4
	300	636	48.39	53.67	45.56	41.62	42.21	43.06	34.4	55.9
	450	954	49.65	54.84	46.35	40.39	40.36	41.57	34.06	56.8
	600	1272	49.01	54.7	46.1	41.07	41.35	42.56	34.38	56.7
	750	1590	50.73	56.69	47.43	40.91	39.97	38.33	28.5	58.3

Unit	Air Flow		750Pa (0.6" W.G.)							Overall
			1/1 Octave Band Frequency (Hz)							A-Weighted (dBA)
Size	l/s	cfm	125	250	500	1000	2000	4000	8000	
DN200 (8")	50	106	52.05	56.16	41.81	47.71	49.89	50.92	42.83	59.5
	140	297	50.52	58.68	56.75	59.89	63.66	64.83	63.03	69.9
	239	507	51	58.86	57.84	60.53	63.84	64.79	63.01	70
	304	644	56.67	66.31	66.45	66.51	66.1	64.03	61.03	73.3
DN250 (10")	55	117	50.57	54.14	44.25	51.93	52.48	53.27	46.27	59.9
	143	303	52.97	59.55	59.46	73.2	68.54	68.63	64.55	76
	255	541	61.5	69.17	67.64	67.78	65.97	64.38	59.98	74.6
	417	884	57.43	66.02	68.08	72.07	69.48	67.89	63.42	76.5
DN300 (12")	100	212	52.14	56.59	50.1	56.4	55.57	52.4	42.59	62.3
	189	401	51.35	58.31	57.38	58.81	60.31	59.41	54.04	66.4
	347	736	58.19	66.24	64.99	68.25	66.33	62.74	55.91	73.3
	486	1030	65.79	70.88	65.74	62.96	60.43	57.72	50.4	73.7
SN350 (14")	150	318	47.86	52.44	46.86	45.6	45.95	45.07	42.49	56.1
	300	636	47.87	53.09	47.48	46.1	46.51	45.2	43.05	56.6
	450	954	48.64	54.08	47.55	45.75	46.15	44.6	43.14	57.1
	600	1272	48.29	54.17	47.44	45.7	45.97	44.49	43.07	57.1
	750	1590	50.16	55.74	50	48.53	47.98	45.08	43.74	58.9

Note before installation



Precautions for storage and usage

1. This product is suitable for air volume control under special requirement. It is a product designed for scientific research institutions, biological laboratories, chemical laboratories, clean rooms, animal research laboratories, isolation room etc, where precise and reliable air volume control is required. Please contact the Kaseman local contact if you have question with regards to system design and application requirement
2. If you need to use the venturi air valve in an environment containing corrosive gas. If you need to use it in an environment containing corrosive or explosive gas that may corrode the valve body, valve controller and other parts, please consult a professional or our sales staff.
3. Please use this product within the scope of use specified on the product label and logo or in the product manual (rated input and output, adjustable air volume range), otherwise it may cause equipment failure.
4. When storing this product, it should be placed in a dry and damp-free place; when it is stacked, the larger and heavier multiple valve body or single valve body should be placed below, and the smaller and lighter valve body should be placed above. The stacking height should not exceed 2 meters, so as to prevent the packaging from deforming and damaging the product, or inconvenient access to the product which may cause injury to personnel. (See Venturi valve body weight reference table for details)
5. Do not place heavy objects or stand on the valve body to avoid equipment failure and damage
6. When disposing of this product, please do not incinerate it. In addition, after dismantling, do not reuse part or all the parts. Please dispose of them as industrial waste in accordance with local government regulations.

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