

NOTUS-S

CAV Controller
Data Sheet



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Description

NOTUS-S is a constant air volume flow controller with mechanical operation (no need for auxiliary energy or actuation). It is intended to control the constant air flow independently of the duct air pressure in the range of 50 Pa to 1000 Pa. The constant air flow value can be adjusted by a rotating dial within a range dependent on the size of product manually (type M0) or by an electric actuator (type M1).

Highlights

- Easy tool-less setpoint adjustment – manually or by actuator
- CAV control ratio 3:1
- Static pressure independent control in range of 50 Pa to 1000 Pa
- Control accuracy with max. 10% flow volume deviation
- Rectangular sizes up to 600 × 600 mm
- Installable in horizontal and vertical ducts
- Casing tightness class “C” as per EN 1751

Product Types

- NOTUS-S...M0: CAV Controller with Manual Adjustment
- NOTUS-SI...M0: Insulated CAV Controller with Manual Adjustment
- NOTUS-S...M1(M2): CAV Controller with Actuator Adjustment (M1 continuous, M1/M2 2-point)
- NOTUS-SI...M1(M2): Insulated CAV Controller with Actuator Adjustment (M1 continuous, M1/M2 2-point)

NOTE: The type M0 can be additionally equipped by the actuator kit and upgraded so to the type M1 or M2. Types M1 and M2 are available only in sizes with height smaller than 500 mm (single control mechanism).

List of Accessories

Detailed information about accessories for NOTUS-S is available on page 8.

The accessories are available only for NOTUS in sizes with height smaller than 500 mm (single control mechanism)

- M1A-NOTUS: Actuator Kit
Supply AC 24V, continuous control DC 0 V ... 10 V, or 2-point (small CAV dimensions)
- M1B-NOTUS: Actuator Kit
Supply AC 24V, continuous control DC 0 V ... 10 V, or 2-point (large CAV dimensions)
- M2A-NOTUS: Actuator Kit
Supply AC 230V, 2-point control (small CAV dimensions)
- M2B-NOTUS: Actuator Kit
Supply AC 230V, 2-point control (large CAV dimensions)

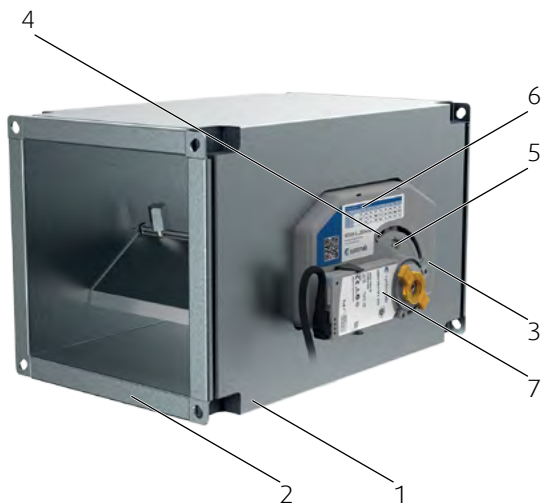
Design

NOTUS-S has a rectangular shaped body made from galvanized steel sheet with 20 mm flange duct connections at the ends. The control damper blade material is aluminium. The control mechanism on the outer surface of the body consists of ABS plastic levers and transmissions, steel springs, silicone-oil-filled rotary shock absorber, all covered by a ABS box. A version with acoustic insulation (NOTUS-SI...) has a 1,5 cm polymere foam layer around the casing, covered by a galvanized sheet mantle. The casing of NOTUS-S in all types has leakage class C according to EN 1751 (the damper blade is not intended for the shut-off function so the blade leakage is not classified). The types M1 and M2 are delivered with a pre-installed flow adjustment actuator. On type M0 (with manual adjustment) the actuator kit can be installed additionally. Types M1 and M2 are available only in sizes with height smaller than 500 mm (single control mechanism).

Controls

Information about controls, installation, maintenance and operation is available in the document "UserManual_NOTUS-S".

Product Parts



Legend

1	Casing with insulation (NOTUS-SI) or without (NOTUS-S)
2	Duct connection flange 20 mm
3	CAV control mechanism
4	Flow adjustment dial (with arresting bolt only on NOTUS-S...M0)
5	Adjustment position indicator
6	Adjustment table
7	Actuator (only for NOTUS-S... M1/M2)

Fig. 1: Components of the NOTUS-S

Setup Possibilities

The constant air flow value can be adjusted by a rotating dial within a range dependent on the size of product manually (type M0) or by an electric actuator (type M1). The actuator position can be controlled continuously by DC 0 V... 10 V signal. The control setpoint can also be chosen by the actuator from two discrete positions adjusted by mechanical stops on the actuator (types M1 and M2). The type M0 can be additionally equipped by the actuator kit and upgraded to the type M1 or M2. The flow volume setup positions with corresponding control voltage values can be found on the product label. Types M1 and M2 are available only in sizes with height smaller than 500 mm (single control mechanism). More information on the adjustment of types M0, M1, M2 can be found in the installation manual „UserManual_NOTUS-S“. The ratio between the minimal and maximal air flow setup value is approx. 1:3. The control error is $\pm 10\%$ of the set-point value on the whole control range. The uncertainty of the setup dial scale is $\pm 4\%$. With standard-sized rectangular connections it fits into rectangular ducts of 200 mm \times 100 mm to 600 mm \times 600 mm (Width \times Height).

Dimensions

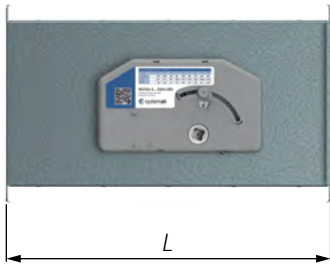


Fig. 2: Dimensions of the NOTUS-S...M0

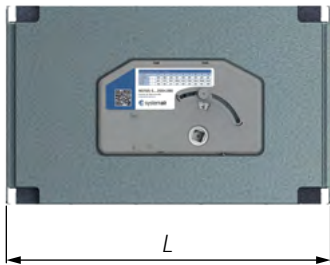
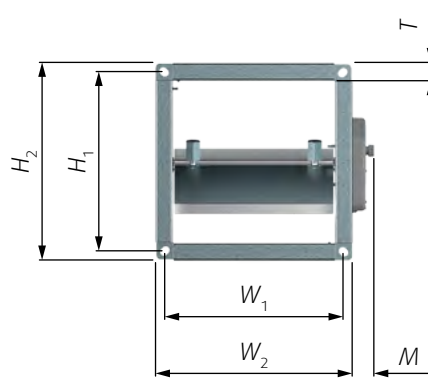


Fig. 3: Dimensions of the NOTUS-SI...M0

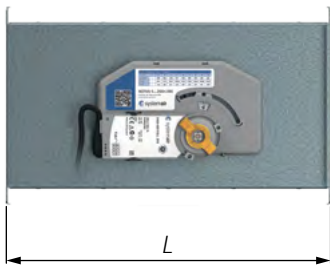
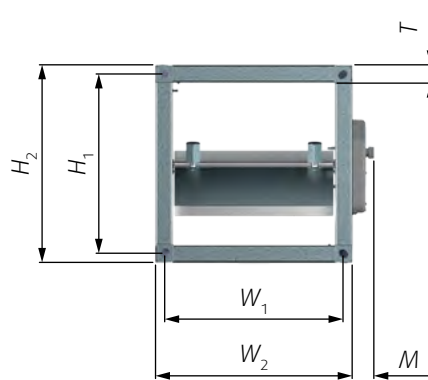


Fig. 4: Dimensions of the NOTUS-S...M1(M2)

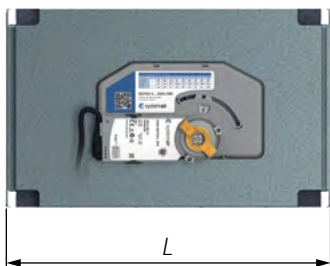
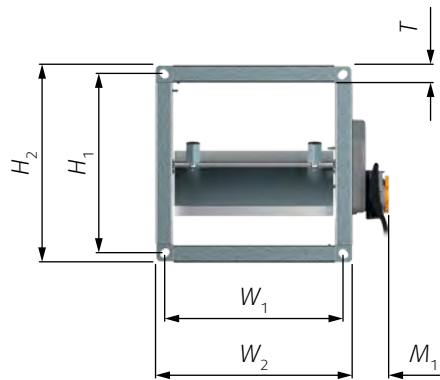
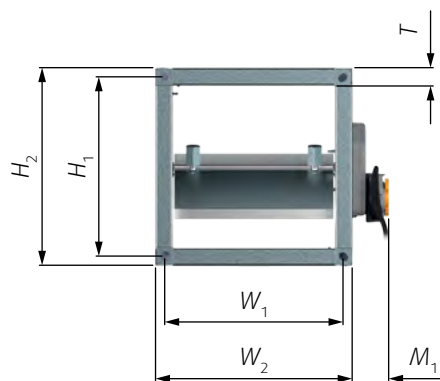


Fig. 5: Dimensions of the NOTUS-SI...M1(M2)



Tab. 1: Dimensions of the NOTUS-S

$W \times H$	L	W_2	W_1	H_2	H_1	T	M	M_1	
(mm)									
200 × 100	400	243	219	143	119	21,5	25	45	
200 × 200				243	219				
300 × 100	400	343	319	143	119	21,5	25	45	
300 × 150				193	169				
300 × 200				243	219		30		
400 × 200	400	443	419	243	219	21,5	30	89	
400 × 250				293	269				
400 × 300				343	319				
400 × 400				443	419		65		
500 × 200	400	543	519	243	219	21,5	30	89	
500 × 250				293	269				
500 × 300				343	319				
500 × 400				443	419		65		
500 × 500				543	519				-
600 × 200	400	643	619	243	219	21,5	30	89	
600 × 250				293	269				
600 × 300				343	319				
600 × 400				443	419		65		
600 × 500				543	519				-
600 × 600				643	619				-

NOTES:

The dimension M is valid for NOTUS-S (SI)...M0.

The dimension M_1 is valid for NOTUS-S (SI)...M1(M2).

Types M1 and M2 are available only in sizes with height (H) smaller than 500 mm (single control mechanism).

Tab. 2: Available air flow adjustment types

		H (mm)							
		100	150	200	250	300	400	500	600
W (mm)	200	M0, M1, M2		M0, M1, M2					
	300	M0, M1, M2	M0, M1, M2	M0, M1, M2					
	400			M0, M1, M2	M0, M1, M2	M0, M1, M2	M0, M1, M2		
	500			M0, M1, M2	M0, M1, M2	M0, M1, M2	M0, M1, M2	M0	
	600			M0, M1, M2	M0, M1, M2	M0, M1, M2	M0, M1, M2	M0	M0

Ordering Codes

Nominal Size		NOTUS-S-	
	$W \times H$	<input type="checkbox"/>	<input type="checkbox"/>
Type of Flow Adjustment	Manual	M0	
	Actuator Operated AC/DC 24 V *	M1	
	Actuator Operated AC 230 V 2-point	M2	

Nominal Size		NOTUS-SI-	
	$W \times H$	<input type="checkbox"/>	<input type="checkbox"/>
Type of Flow Adjustment	Manual	M0	
	Actuator Operated AC/DC 24 V *	M1	
	Actuator Operated AC 230 V 2-point	M2	

NOTES:

* AC/DC 24 V contin. 0 V ... 10 V /2-point

Types M1 and M2 are available only in sizes with height (H) smaller than 500 mm (single control mechanism).

Example of the Ordering Code

NOTUS-SI-200×200-M1

Insulated version of CAV controller with nominal dimensions 200 mm × 200 mm, equipped by actuator type M1.

Accessories

M1A-NOTUS

Actuator Kit



CM24-SRV

Description

The actuator kit is intended to upgrade the manually adjusted NOTUS-S (SI)...M0 to the actuator adjusted version M1 on smaller sizes of the CAV controller (see Tab. 1 on page 6). It enables remote adjustment of the CAV controller in continuous or in 2-point mode.

Design

The actuator kit consists of the actuator type Belimo CM24-SRV, the gearing and fixing material.

Power supply: AC 24 V

Control: DC 0 V ... 10 V for continuous positioning or AC 24 V for 2-point positioning

Power consumption: 2 VA

Protection: IP54

The actuator kit fits the following sizes of NOTUS-S (SI):

M1B-NOTUS

Actuator Kit



LM24-SRV

Description

The actuator kit is intended to upgrade the manually adjusted NOTUS-S (SI)...M0 to the actuator adjusted version M1 on larger sizes of the CAV controller (see Tab. 1 on page 6). It enables remote adjustment of the CAV controller in continuous or in 2-point mode.

Design

The actuator kit consists of the actuator type Belimo LM24-SRV, the gearing and fixing material.

Power supply: AC 24 V

Control: DC 0 V ... 10 V for continuous positioning or AC 24V for 2-point positioning

Power consumption: 4 VA

Protection: IP54

The actuator kit fits the following sizes of NOTUS-S (SI):

Tab. 3: Dimensions of the NOTUS-S (SI) on which the actuator kit M1A-NOTUS/M1B-NOTUS can be used

		H (mm)							
		100	150	200	250	300	400	500	600
W (mm)	200	M1A	-	M1A	-	-	-	-	-
	300	M1A	M1A	M1B	-	-	-	-	-
	400	-	-	M1B	M1B	M1B	M1B	-	-
	500	-	-	M1B	M1B	M1B	M1B	-	-
	600	-	-	M1B	M1B	M1B	M1B	-	-

Weight

The weight of the Actuator Kit M1A-NOTUS is 0,4 kg.

Weight

The weight of the Actuator Kit M1B-NOTUS is 0,7 kg.

Ordering Code

M1A-NOTUS

Ordering Code

M1B-NOTUS

M2A-NOTUS

Actuator Kit



CM230

Description

The actuator kit is intended to upgrade the manually adjusted NOTUS-S (SI)...M0 to the actuator adjusted version M1 on smaller sizes of the CAV controller (see Tab. 1 on page 6). It enables remote adjustment of the CAV controller in 2-point mode.

Design

The actuator kit consists of the actuator type Belimo CM230, the gearing and fixing material.

Power supply: AC 230 V

Control: AC 230 V for 2-point positioning

Power consumption: 2 VA

Protection: IP54

The actuator kit fits to the following sizes of NOTUS-S (SI):

M2B-NOTUS

Actuator Kit



LM230

Description

The actuator kit is intended to upgrade the manually adjusted NOTUS-S (SI)...M0 to the actuator adjusted version M2 on larger sizes of the CAV controller (see Tab. 1 on page 6). It enables remote adjustment of the CAV controller in continuous or in 2-point mode.

Design

The actuator kit consists of the actuator type Belimo LM230, the gearing and fixing material.

Power supply: AC 230 V

Control: AC 230 V for 2-point positioning

Power consumption: 4 VA

Protection: IP54

The actuator kit fits to the following sizes of NOTUS-S (SI):

Tab. 4: Dimensions of the NOTUS-S (SI) on which the actuator kit M2A-NOTUS/M2B-NOTUS can be used

		H (mm)							
		100	150	200	250	300	400	500	600
W (mm)	200	M2A	-	M2A	-	-	-	-	-
	300	M2A	M2A	M2B	-	-	-	-	-
	400	-	-	M2B	M2B	M2B	M2B	-	-
	500	-	-	M2B	M2B	M2B	M2B	-	-
	600	-	-	M2B	M2B	M2B	M2B	-	-

Weight

The weight of the Actuator Kit M1A-NOTUS is 0,4 kg.

Ordering Code

M2A-NOTUS

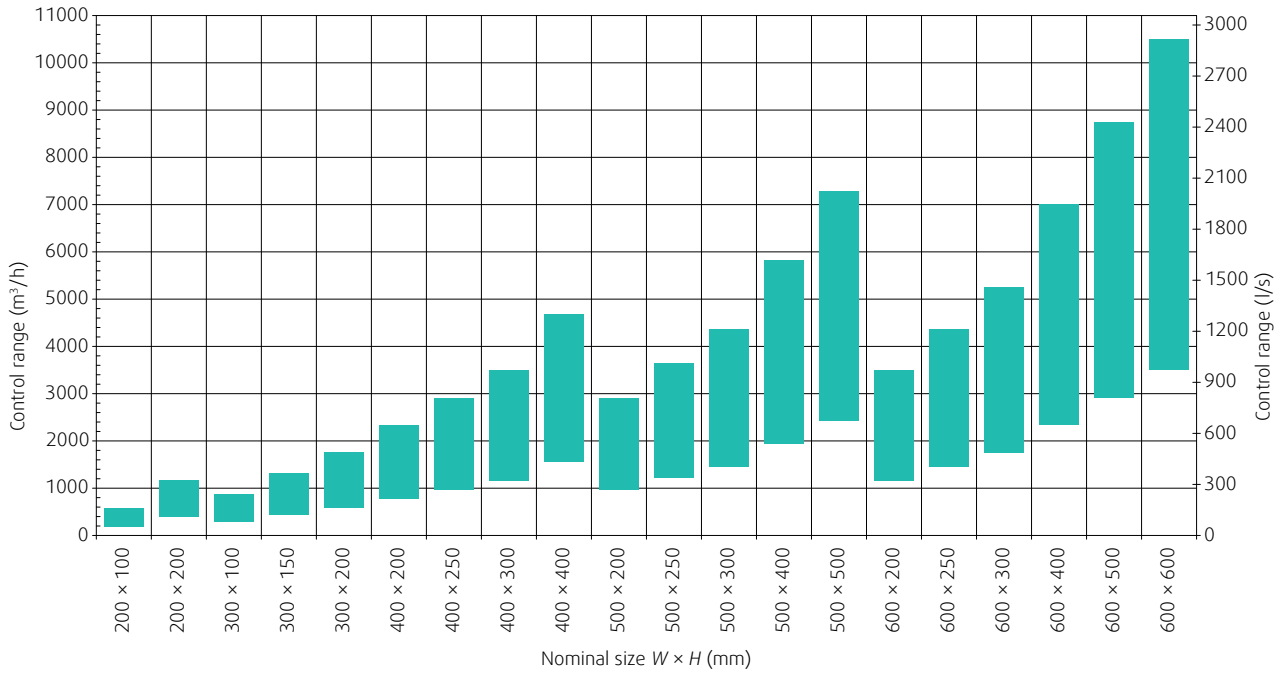
Weight

The weight of the Actuator Kit M1B-NOTUS is 0,7 kg.

Ordering Code

M2B-NOTUS

Quick Selection



Technical Parameters

Legend (Tab. 5 up to Tab. 24)

p_s	Pa	Pressure drop
q_v	m ³ /h	Air flow volume
L_{WA}	dB(A)	A-weighted total discharged sound power level
L_W	dB	Non-weighted total discharged sound power level

Tab. 5: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_W	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-200×100	194	100	44,9	50,9	45	45	44	42	39	39	34	28
		250	51,9	56,0	48	49	50	48	45	45	44	42
		500	58,2	60,8	50	52	53	52	50	50	52	53
		750	62,6	64,4	52	54	56	55	52	53	56	59
		1000	66,0	67,5	53	56	58	57	54	55	60	64
	360	100	50,3	56,9	51	51	50	47	45	43	38	34
		250	57,4	62,5	55	56	57	55	51	49	47	45
		500	63,1	67,3	57	59	62	60	56	54	54	55
		750	66,7	70,4	59	62	65	64	59	57	58	60
		1000	69,3	72,7	60	63	67	66	61	59	61	64
	525	100	54,3	60,0	54	54	53	51	49	47	44	40
		250	61,2	65,7	57	59	60	59	55	53	51	49
		500	66,5	70,5	60	62	65	64	60	58	57	57
		750	69,7	73,4	62	64	68	67	63	60	60	61
		1000	72,0	75,6	63	66	71	70	65	62	63	64

Tab. 6: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level								
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
NOTUS-S-200x200	389	100	49,1	58,9	56	53	47	46	44	42	34	28	
		250	58,3	65,1	59	60	58	56	53	50	45	43	
		500	65,7	71,6	62	66	67	64	59	56	54	54	
		750	70,3	75,9	63	69	72	69	63	59	59	59	61
		1000	73,6	79,2	64	71	76	72	65	62	63	63	65
	778	100	50,6	57,9	55	52	47	47	45	45	37	31	
		250	60,2	66,7	60	62	60	58	54	53	48	45	
		500	67,9	74,5	64	70	69	65	61	59	57	55	
		750	72,6	79,3	67	75	75	70	65	63	62	61	
		1000	76,0	82,9	68	78	79	74	68	66	65	65	
	1166	100	54,2	62,4	59	57	52	52	47	48	43	40	
		250	62,9	69,9	63	66	62	60	56	56	53	50	
		500	69,6	76,3	67	73	70	66	62	63	60	58	
		750	73,6	80,3	70	77	75	70	66	66	64	62	
		1000	76,4	83,2	71	80	78	72	68	69	67	65	

Tab. 7: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-300x100	292	100	45,9	52,7	47	46	47	43	40	38	33	29
		250	53,5	58,4	51	52	53	50	47	46	44	43
		500	60,2	63,5	54	55	57	55	52	52	53	54
		750	64,7	67,1	55	58	60	58	55	55	58	61
		1000	68,1	70,1	56	59	62	61	57	58	62	65
	539	100	51,6	58,9	54	53	52	49	46	43	39	34
		250	59,1	64,6	56	58	59	57	53	50	48	46
		500	65,0	69,6	59	62	65	63	58	56	55	55
		750	68,6	72,7	60	64	68	67	62	59	59	61
		1000	71,2	75,0	61	66	70	69	64	61	62	64
	787	100	54,3	61,2	56	56	54	52	48	46	43	38
		250	61,9	67,1	59	61	61	60	56	53	51	49
		500	67,8	72,2	61	65	67	66	62	58	57	57
		750	71,3	75,3	63	67	70	70	65	62	61	62
		1000	73,8	77,7	64	68	73	72	68	64	63	65

Tab. 8: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-300×150	437	100	46,2	56,1	52	51	49	45	39	36	30	26
		250	54,1	61,0	54	55	56	53	47	44	43	41
		500	60,7	65,6	57	58	61	59	53	51	52	52
		750	65,1	68,8	58	60	64	62	56	55	58	59
		1000	68,4	71,4	59	61	66	64	59	58	62	64
	875	100	50,9	60,7	57	56	50	48	46	43	37	32
		250	59,4	66,6	60	62	60	58	54	50	47	44
		500	66,2	72,2	63	66	67	65	60	56	54	53
		750	70,3	75,9	65	69	72	69	63	59	59	59
		1000	73,2	78,6	66	70	75	72	66	62	62	62
	1312	100	54,1	62,9	60	58	52	50	48	48	42	37
		250	62,3	68,9	63	63	62	60	56	54	50	47
		500	69,0	74,8	66	68	70	68	62	59	57	55
		750	73,0	78,7	68	71	75	72	66	62	61	60
		1000	75,9	81,5	69	73	78	76	68	64	63	63

Tab. 9: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-300×200	583	100	46,6	58,2	55	53	48	44	39	38	34	32
		250	56,0	62,9	57	58	57	53	48	47	47	46
		500	63,8	68,4	58	62	64	60	55	54	56	57
		750	68,7	72,4	59	64	68	65	59	58	62	64
		1000	72,3	75,4	60	65	71	67	62	60	66	68
	1166	100	50,8	59,9	57	54	48	45	45	45	39	35
		250	60,2	67,3	61	63	60	57	53	52	49	48
		500	68,0	74,5	64	70	70	66	60	58	57	58
		750	72,8	79,2	66	74	75	72	64	61	62	63
		1000	76,3	82,6	68	77	79	75	67	63	65	67
	1750	100	55,8	65,7	64	59	53	51	49	50	45	43
		250	63,5	70,9	65	66	63	60	56	57	54	53
		500	69,8	76,5	68	72	71	67	61	61	60	60
		750	73,5	80,2	69	76	75	71	65	64	64	65
		1000	76,3	82,9	70	78	79	74	67	66	67	68

Tab. 10: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-400×200	778	100	46,4	58,1	54	54	48	44	39	37	32	29
		250	57,2	65,1	59	61	59	56	50	47	45	43
		500	65,6	71,7	62	66	67	64	58	55	54	54
		750	70,7	76,0	64	69	72	69	63	60	60	61
		1000	74,3	79,3	66	71	76	73	67	64	64	65
	1555	100	51,6	60,5	58	55	50	47	45	46	40	36
		250	61,3	68,8	63	64	62	59	54	54	50	48
		500	69,2	76,3	67	72	71	68	61	59	57	57
		750	74,0	80,9	69	76	77	73	65	63	62	62
		1000	77,4	84,4	71	79	81	76	68	65	65	66
	2333	100	56,9	68,2	66	62	55	53	50	51	45	43
		250	64,4	72,9	68	68	65	61	56	57	54	52
		500	70,4	77,9	70	74	72	68	62	62	61	59
		750	74,1	81,3	72	77	77	72	65	65	64	63
		1000	76,7	83,8	73	79	80	74	67	67	67	66

Tab. 11: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-400×250	972	100	48,2	59,1	56	55	47	45	42	40	34	28
		250	58,8	65,9	60	61	59	57	53	50	47	43
		500	67,1	72,7	62	67	68	65	60	58	57	54
		750	72,1	77,2	64	70	73	70	65	62	62	61
		1000	75,8	80,5	65	72	77	74	68	65	66	66
	1944	100	53,5	60,4	57	55	49	49	49	47	40	32
		250	62,4	68,9	62	64	62	59	57	55	51	46
		500	69,7	76,4	67	72	71	67	62	61	60	57
		750	74,3	81,1	69	77	77	72	66	65	64	63
		1000	77,7	84,5	71	80	81	75	68	67	68	67
	2916	100	58,3	67,2	65	61	56	55	53	52	46	41
		250	65,8	73,2	69	68	65	62	60	59	55	51
		500	71,5	78,5	72	74	71	68	65	65	62	58
		750	75,0	81,8	75	78	75	71	68	68	66	62
		1000	77,5	84,2	76	80	78	73	70	70	69	66

Tab. 12: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-400×300	1166	100	49,1	58,2	55	53	47	46	44	42	35	30
		250	59,6	66,1	59	61	60	58	53	51	47	44
		500	68,0	73,6	62	67	69	66	61	59	57	55
		750	72,9	78,4	65	71	75	72	65	63	62	61
		1000	76,6	82,0	66	74	79	75	68	66	66	66
	2333	100	56,3	63,4	60	58	53	52	52	50	43	37
		250	64,0	70,9	65	67	63	61	58	57	53	49
		500	70,3	77,3	69	73	71	68	63	62	60	57
		750	74,1	81,3	72	77	76	72	66	65	64	62
		1000	76,9	84,2	74	80	79	75	68	67	67	66
	3499	100	62,9	71,3	68	65	60	59	57	56	52	50
		250	68,7	75,8	71	71	67	65	62	62	59	56
		500	73,2	79,7	73	75	72	70	66	66	63	61
		750	75,9	82,1	74	78	75	73	69	68	66	64
		1000	77,8	83,9	75	80	78	75	70	70	68	66

Tab. 13: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-400×400	1555	100	54,4	62,1	58	56	55	52	49	46	40	35
		250	63,4	68,5	61	62	63	60	58	56	52	50
		500	70,5	74,3	63	66	69	67	64	63	61	60
		750	74,9	78,0	64	69	73	70	68	67	67	67
		1000	78,1	80,8	65	71	76	73	71	70	70	71
	3110	100	58,2	64,0	60	57	55	56	53	51	45	40
		250	67,6	72,4	64	66	67	66	62	60	56	53
		500	75,0	79,8	68	73	75	73	68	66	64	63
		750	79,5	84,3	70	77	81	77	72	70	69	69
		1000	82,6	87,7	72	80	84	80	75	73	73	73
	4666	100	63,2	69,0	65	62	60	61	57	56	51	46
		250	70,5	75,2	68	69	68	68	64	63	60	57
		500	76,3	80,6	70	75	75	73	70	69	67	65
		750	79,7	84,0	71	78	79	76	73	72	71	69
		1000	82,2	86,5	72	81	81	78	76	74	74	73

Tab. 14: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-500x200	972	100	48,2	60,8	57	57	50	46	40	38	32	27
		250	58,3	66,4	60	62	60	57	51	49	45	42
		500	66,5	72,3	62	66	68	65	59	57	55	54
		750	71,5	76,3	64	68	72	70	64	62	61	62
		1000	75,1	79,4	65	70	76	73	67	65	65	67
	1944	100	53,1	63,4	60	59	51	50	47	47	39	33
		250	62,7	70,6	65	66	63	61	55	54	50	46
		500	70,4	77,4	68	72	72	70	62	60	58	56
		750	75,1	81,8	71	76	78	75	66	64	63	62
		1000	78,6	85,1	72	79	82	78	69	67	66	67
	2916	100	60,3	70,2	67	66	59	58	53	53	48	44
		250	66,8	75,3	70	71	67	65	59	59	55	53
		500	71,9	79,6	73	75	73	71	64	63	61	59
		750	75,0	82,3	75	77	77	74	66	66	64	63
		1000	77,3	84,2	76	79	79	76	68	68	66	66

Tab. 15: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-500x250	1215	100	46,1	59,3	57	54	46	42	40	38	32	27
		250	58,0	65,2	59	60	59	56	51	49	46	43
		500	67,6	73,1	60	66	69	66	60	58	56	55
		750	73,3	78,5	60	70	75	72	65	62	62	62
		1000	77,5	82,5	61	73	80	76	69	66	66	67
	2430	100	52,4	60,4	57	55	51	49	47	46	39	33
		250	61,8	69,0	63	64	62	59	55	54	50	47
		500	69,3	76,3	68	72	71	67	61	61	59	57
		750	73,8	80,8	71	76	76	71	65	65	64	63
		1000	77,1	84,1	73	79	80	74	67	68	67	68
	3645	100	58,1	66,6	64	60	57	56	52	51	46	41
		250	65,9	72,8	68	67	65	64	59	58	55	52
		500	71,8	77,8	72	72	71	69	65	64	62	59
		750	75,3	80,9	74	75	75	73	68	68	66	64
		1000	77,8	83,2	75	77	77	75	70	70	69	67

Tab. 16: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-500×300	1458	100	45,8	56,2	53	52	46	42	40	38	33	29
		250	57,8	64,6	58	60	58	55	51	50	47	45
		500	67,2	72,4	63	66	68	65	60	58	58	57
		750	72,9	77,5	65	70	73	71	65	63	64	64
		1000	76,9	81,2	67	73	77	75	69	67	68	68
	2916	100	52,2	59,6	56	54	50	48	48	45	40	34
		250	61,3	68,0	61	64	61	58	55	54	51	47
		500	68,7	75,3	66	71	70	66	60	60	59	58
		750	73,2	79,8	68	75	75	71	64	64	64	64
		1000	76,5	83,2	70	79	79	74	66	66	68	68
	4374	100	57,3	65,8	62	61	56	54	52	50	45	40
		250	64,9	71,7	66	67	64	62	59	57	55	51
		500	70,8	76,7	69	72	70	68	64	63	62	60
		750	74,4	79,8	71	75	74	71	67	66	66	65
		1000	77,0	82,1	72	77	76	74	69	69	69	68

Tab. 17: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-500×400	1944	100	57,3	65,3	61	60	58	56	51	49	42	38
		250	65,0	70,7	63	65	65	62	59	57	53	51
		500	71,1	75,5	64	69	71	68	65	63	61	61
		750	74,9	78,6	65	71	74	71	69	67	66	66
		1000	77,7	80,9	66	73	76	73	71	70	70	71
	3888	100	59,0	65,2	60	59	57	58	53	51	44	39
		250	68,5	73,5	65	66	68	67	62	60	55	52
		500	75,8	80,6	68	73	76	74	69	67	64	63
		750	80,1	84,9	70	76	81	79	73	70	69	69
		1000	83,3	88,0	72	79	85	82	76	73	72	73
	5832	100	63,0	69,2	65	63	59	61	57	57	50	45
		250	70,4	75,4	68	70	69	68	64	63	59	56
		500	76,1	81,0	70	75	76	74	70	68	66	64
		750	79,6	84,4	72	78	80	77	73	71	70	69
		1000	82,1	87,0	73	80	83	79	75	73	72	72

Tab. 18: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-500x500	2430	100	58,8	64,1	58	56	56	59	53	49	43	39
		250	69,7	73,3	63	64	66	69	64	60	55	53
		500	78,0	81,0	67	70	74	77	73	68	65	64
		750	82,9	85,6	70	74	79	82	78	73	70	70
		1000	86,4	88,9	72	77	82	85	81	77	74	74
	4860	100	59,1	64,5	59	56	55	59	54	50	44	41
		250	69,3	73,2	64	65	66	68	64	61	56	54
		500	77,2	80,5	68	72	74	75	72	69	65	64
		750	81,9	85,0	70	76	79	79	77	74	71	70
		1000	85,3	88,2	72	79	83	82	80	77	75	74
	7290	100	61,6	66,9	61	59	58	61	56	53	46	43
		250	70,5	74,5	66	67	67	69	65	62	58	55
		500	77,5	80,8	70	73	74	75	72	69	66	65
		750	81,6	84,6	72	77	78	78	77	74	71	71
		1000	84,6	87,5	73	80	81	81	80	77	75	75

Tab. 19: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-600x200	1166	100	48,0	60,9	58	56	49	46	41	39	33	28
		250	58,4	66,3	60	62	60	56	52	49	46	43
		500	66,7	72,6	62	67	68	65	60	57	55	54
		750	71,6	76,9	63	70	73	69	64	62	61	60
		1000	75,1	80,1	63	72	77	73	67	65	65	65
	2333	100	51,7	62,8	60	58	51	48	45	45	39	33
		250	61,8	70,4	65	66	63	59	54	53	50	46
		500	69,8	77,5	68	73	73	68	61	60	58	55
		750	74,7	82,1	70	77	78	74	66	63	62	61
		1000	78,2	85,4	72	80	82	77	69	66	66	65
	3499	100	58,2	69,7	66	66	59	54	50	51	46	42
		250	65,4	74,8	69	71	67	62	57	58	54	51
		500	71,1	79,4	72	76	74	69	62	62	60	57
		750	74,5	82,4	73	78	77	72	65	65	64	61
		1000	76,9	84,6	74	80	80	75	68	67	66	64

Tab. 20: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level								
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
NOTUS-S-600×250	1458	100	47,9	59,6	56	55	48	45	41	41	36	30	
		250	59,9	66,8	60	62	60	58	53	51	49	46	
		500	69,3	74,5	63	68	70	68	62	60	59	58	
		750	75,0	79,7	64	72	76	74	67	64	64	65	65
		1000	79,0	83,5	65	75	80	78	71	68	68	69	70
	2916	100	53,8	62,3	59	58	52	50	48	48	42	36	
		250	63,2	70,2	63	66	63	60	56	56	52	49	
		500	70,6	77,2	67	73	72	68	62	62	60	59	
		750	75,1	81,6	69	77	77	73	66	66	65	65	
		1000	78,3	84,8	71	80	81	76	68	68	68	69	
	4374	100	59,9	68,9	65	64	60	57	53	53	49	45	
		250	67,5	74,4	68	70	67	65	60	60	57	55	
		500	73,5	79,3	70	74	73	71	66	65	64	62	
		750	77,0	82,3	72	77	77	75	69	69	68	67	
		1000	79,5	84,5	73	79	80	77	71	71	70	70	

Tab. 21: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level								
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	
NOTUS-S-600×300	1750	100	47,0	57,3	54	53	47	44	41	40	34	30	
		250	58,3	64,4	57	59	58	56	52	51	48	45	
		500	67,2	71,6	60	65	67	65	60	59	58	57	
		750	72,5	76,4	61	68	71	71	65	64	64	63	63
		1000	76,3	79,9	63	71	75	74	68	67	67	68	68
	3499	100	55,9	64,0	60	59	55	53	51	49	43	38	
		250	64,1	70,3	63	65	64	61	58	57	53	50	
		500	70,6	75,9	66	70	71	68	63	63	61	60	
		750	74,6	79,4	68	73	75	71	66	66	66	65	
		1000	77,4	82,0	69	76	77	74	68	69	69	69	
	5249	100	61,7	69,1	65	63	61	59	56	54	50	46	
		250	67,5	73,4	68	67	67	64	61	60	57	54	
		500	72,0	76,9	70	70	71	69	65	65	63	60	
		750	74,7	79,1	71	72	73	71	68	68	66	63	
		1000	76,6	80,7	72	74	75	73	69	69	68	66	

Tab. 22: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-600x400	2333	100	60,4	65,3	60	57	57	60	56	51	45	41
		250	69,1	73,4	65	66	67	68	64	61	56	54
		500	75,9	79,8	70	72	74	74	70	68	65	63
		750	79,9	83,7	72	76	78	78	74	72	70	69
		1000	82,9	86,5	74	79	81	80	76	75	73	73
	4666	100	62,2	67,6	64	60	56	61	57	55	48	45
		250	70,8	74,8	68	67	67	69	66	63	58	57
		500	77,5	81,0	71	73	74	75	72	69	66	65
		750	81,5	84,9	73	76	79	79	76	73	71	70
		1000	84,3	87,7	74	79	82	82	79	76	74	74
	6998	100	68,1	72,3	66	66	63	66	63	61	55	52
		250	74,2	77,8	69	70	70	72	69	66	62	61
		500	79,0	82,3	71	74	75	77	74	71	68	67
		750	81,8	85,0	73	76	78	80	76	74	71	71
		1000	83,8	86,9	74	78	81	82	78	75	73	74

Tab. 23: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-600x500	2916	100	59,5	64,7	59	56	57	59	54	50	44	41
		250	70,1	73,2	62	62	66	70	65	60	57	54
		500	78,2	80,7	65	67	72	78	73	69	66	65
		750	83,0	85,2	66	70	76	82	78	74	71	71
		1000	86,4	88,5	67	72	79	85	81	77	75	75
	5832	100	60,0	65,0	59	57	57	60	54	51	45	42
		250	70,0	73,7	63	65	67	69	64	62	57	55
		500	77,8	81,0	67	71	76	76	72	70	66	65
		750	82,5	85,5	68	75	81	80	77	74	72	71
		1000	85,8	88,8	70	78	84	83	80	77	76	75
	8748	100	62,0	66,8	60	58	59	62	56	53	47	44
		250	70,9	74,2	64	65	67	70	65	63	58	56
		500	77,8	80,4	66	71	73	75	73	70	67	66
		750	82,0	84,3	68	74	77	79	77	74	72	71
		1000	85,1	87,2	69	77	80	81	80	77	75	75

Tab. 24: Discharged sound power levels depending on duct static pressure and air flow volume

	Air Flow	p_s	L_{WA}	L_w	Non-weighted Sound Power Level							
	m ³ /h	Pa	dB(A)	dB	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
NOTUS-S-600×600	3499	100	58,4	64,0	58	56	56	59	52	48	42	37
		250	67,3	71,6	63	64	65	66	62	58	54	51
		500	74,4	77,9	67	70	72	72	69	66	64	61
		750	78,7	81,7	69	73	76	75	73	71	69	68
		1000	81,9	84,6	71	76	79	78	76	74	73	72
	6998	100	59,7	65,4	60	58	58	59	54	50	43	38
		250	68,5	72,7	64	65	66	67	63	60	55	52
		500	75,5	78,8	67	71	72	73	70	68	64	62
		750	79,6	82,5	69	74	76	77	74	73	69	67
		1000	82,7	85,2	70	76	79	79	77	76	73	72
	10498	100	60,0	65,8	61	58	58	60	54	50	44	38
		250	69,4	73,3	64	65	67	68	64	61	56	52
		500	76,8	79,8	67	70	74	75	72	69	65	63
		750	81,2	83,7	68	74	78	78	76	73	70	69
		1000	84,3	86,7	69	76	80	81	79	77	74	73

Installation, Maintenance & Operation

NOTUS-S (SI) is intended for installation in rectangular ducts by flanges. The position of the controller body can be horizontal, vertical or diagonal. For proper operation it is recommended that the control damper shaft always remains in the horizontal position. Operating temperature range: -20°C to 70 °C.

Detailed information about installation, maintenance and operation is available in the document "UserManual_NOTUS-S".

Transport & Storage

Dry indoor conditions with a temperature range of -40°C to +80°C.

Supplement

Any deviations from the technical specifications contained herein and the terms should be discussed with the manufacturer. We reserve the right to make any changes to the product without prior notice, provided that these changes do not affect the quality of the product and the required parameters.

Current information on all products is available at www.systemair.com

Related Products

OPTIMA-S

VAV Controller

Product information is available within the technical documentation "DataSheet_OPTIMA-S" and at www.systemair.com



NOTUS-R

CAV Controller

Product information is available within the technical documentation "DataSheet_NOTUS-R" and at www.systemair.com



