LYNGSON

FLOWAIR
intelligent air flow

ELiS and Slim

Modern air
curtains

FLOWAIR
R&D lab

FLOWAIR - expert and manufacturer of HVAC equipment is a member of the EUROVENT Europe's Industry Association for Indoor Climate. This organisation brings together the largest companies in the industry, which jointly create new guidelines and recommendations that are eventually presented to the European Commission. The Association is looking for solutions related to energy savings inside buildings and the use of air curtains is one of recommended solutions.

The use of air curtains allows for thermal protection of the room. Curtains create an air barrier in the door opening and reduce heat losses / heat gains resulting from the inflow of cold air from outside in the winter, as well as inflow of warm air into the air-conditioned rooms during the summer. Presently, the regulations regarding energy losses when the doors are opened are not very clear.

A special project group at EUROVENT is currently developing a methodology for testing and describing air curtains in terms of their effectiveness to get a reliable comparison of their parameters. FLOWAIR - the only Polish producer participating in the project group has created a test to measure the effectiveness of air curtains. Based on the tests carried out and subsequent results, new tools will be created to simplify making informed investment decisions. Simply put, to help the end clients choose a proper solution.

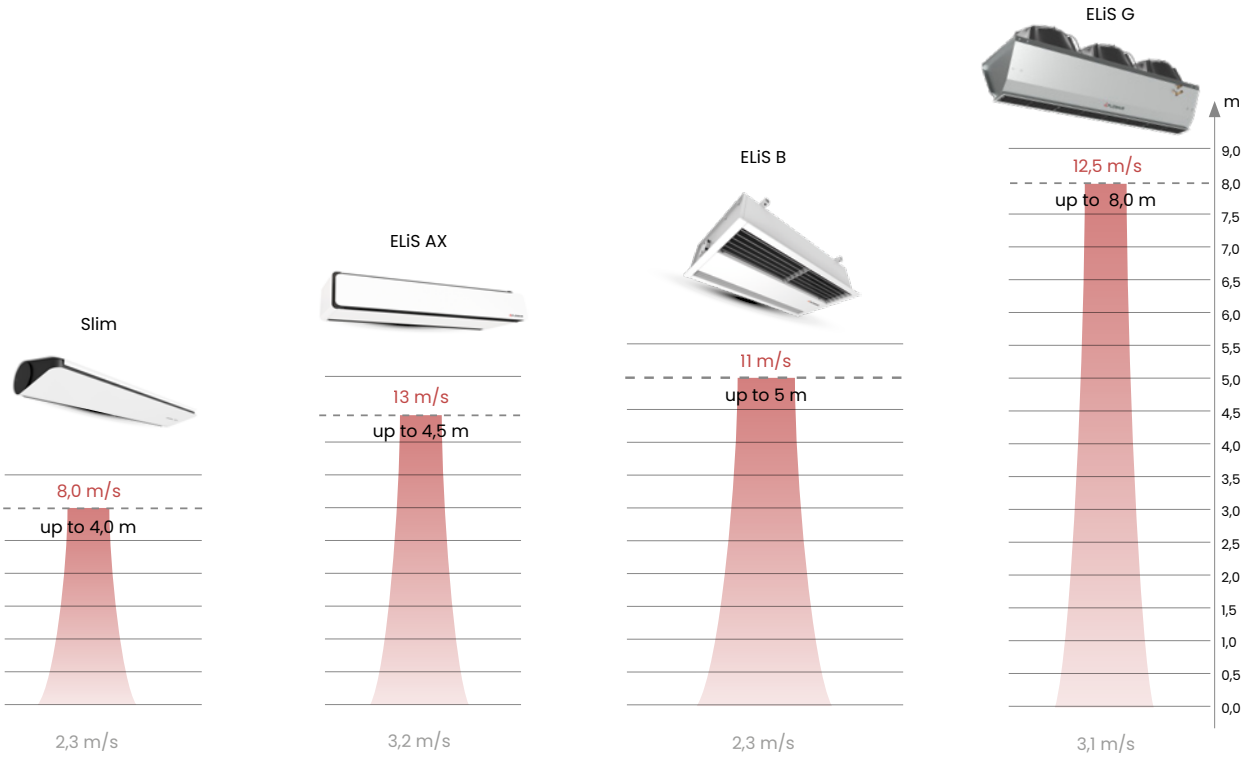
Advantages of laboratory testing for the client

At FLOWAIR, we constantly undertake activities aimed at increasing the quality of our products and services. A laboratory test is yet another step on the way to continuous product improvement and greater customer satisfaction.

- Confirmed parameters
- Reliable comparison
- Energy-saving
- Lower risk of investment

Compare ELiS solutions

Air curtains FLOWAIR is a wide range group of units adapted to various types of commercial and industrial facilities. Depending on the characteristics of the building, it is possible to select a device to individual needs.



N – without heating elements („ambient")

W – water heat exchanger

E – electric heaters

– speed limit at the floor level

– outlet air velocity

	Slim	**ELiS AX**	**ELiS B**	**ELiS G**
Version	W/E/N	W	W/E/N	W/E/N
Height of installation	up to 4,0 m	up to 4,5 m	up to 5 m	up to 8,0 m
Air flow	770–3050 m³/h	up tp 6100 m³/h	2000–6600 m³/h	4100–12800 m³/h
Noise	33,5–58 dB(A)	up to 65 dB(A)	55–66 dB(A)	44–69 dB(A)
BMS	via DRV Slim	as standard	as standard	via DRV ELiS

The sound pressure level measured in a room with an average sound absorption capacity, 1500 m³; directivity factor Q = 2

The new ELiS AX air curtain

Range
up to 4,5 m

Air flow
up to 6100 m³/h

Fan
Highly-efficient EC

Heating capacity
up to 81 kW

Acoustic pressure level
up to 65,0 dB(A)*

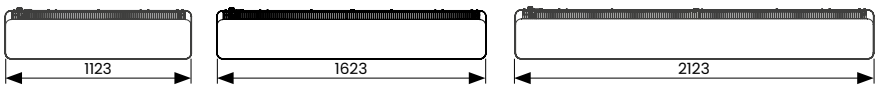
Casing
powder coated steel

Device types available

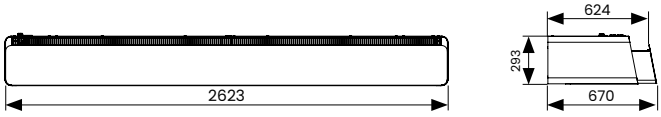
- 4 lengths: 1 m, 1.5 m, 2 m, 2.5 m
- 2 versions: air curtain with a 3-row water heat exchanger (3R) and air curtain with a 4-row water heat exchanger (4R)
- range: AX36 – maximum range 3.6 m and AX45 – maximum range 4.5 m

Dimensions

CAD drawings, Revit files and other documents for all models are available at www.flowair.com



ELiS AX W-100 ELiS AX W-150 ELiS AX W-200



ELiS AX W-250

*acoustic pressure level is given for a 1500 m³ room with an average sound absorption capacity, at a distance of 5 m from the device

Application

The AX air curtains are used both in commercial buildings and in smaller industrial buildings, such as:

- shopping malls
- shops
- restaurants
- car showrooms
- public-use facilities
- small-scale production floors and warehouses

Technical data

	ELiS AX36-W3R-100	ELiS AX36-W3R-150	ELiS AX36-W3R-200	ELiS AX36-W3R-250	ELiS AX36-W4R-100	ELiS AX36-W4R-150	ELiS AX36-W4R-200	ELiS AX36-W4R-250
Power supply [V/Hz]	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50
Max. power consumption [kW]	0,27	0,40	0,67	0,81	0,27	0,40	0,67	0,81
Max. current consumption [A]	2,3	3,3	5,6	6,4	2,2	3,2	5,5	6,3
IP	21	21	21	21	21	21	21	21
Connection ["]	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Air flow(1) [m³/h]	900 - 1800	1200-2700	2000-4300	2300-5300	800-1700	1100-2600	1900-4200	2200-5200
Acoustic pressure level(2) [dB(A)]	42-60	43-61	45-63	46-64	41-59	42-60	44-62	45-63
Acoustic power level(3) [dB(A)]	58-76	59-77	61-79	62-80	57-75	58-76	60-78	61-79
Heating capacity(4) [kW]	8,1-12,9	11,8-20,5	17,1-29,0	21,4-38,0	8,7-15,2	12,7-24,1	20,6-36,7	24,7-46,6
Max. temperature of heating water [°C]	60	60	60	60	60	60	60	60
Max. operating pressure [MPa]	1,6	1,6	1,6	1,6	1,6	1,6	1,6	1,6
Max. temperature of operation [°C]	50	50	50	50	50	50	50	50
Temperature rise(4) (ΔT) [°C]	26-21	29-22	25-20	27-21	32-26	34-27	31-26	33-26
Device weight [kg]	38,5	53,3	71,7	86,8	40,0	55,6	74,8	90,3
Range(1) [m]	3,6	3,6	3,6	3,6	3,6	3,6	3,6	3,6
	ELiS AX45-W3R-100	**ELiS AX45-W3R-150**	**ELiS AX45-W3R-200**	**ELiS AX45-W3R-250**	**ELiS AX45-W4R-100**	**ELiS AX45-W4R-150**	**ELiS AX45-W4R-200**	**ELiS AX45-W4R-250**
Power supply [V/Hz]	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50
Max. power consumption [kW]	0,49	0,65	0,99	1,15	0,49	0,65	0,99	1,15
Max. current consumption [A]	3,3	4,6	6,4	7,6	3,2	4,5	6,3	7,5
IP	21	21	21	21	21	21	21	21
Connection ["]	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Air flow(1) [m³/h]	1100-2500	1500-3500	2200-5000	2400-6100	1000-2400	1400-3400	2100-4900	2300-6000
Acoustic pressure level(2) [dB(A)]	43-61	44-62	45-64	46-65	42-60	43-61	44-63	45-64
Acoustic power level(3) [dB(A)]	59-77	60-78	61-80	62-81	58-76	59-77	60-79	61-80
Heating capacity(4) [kW]	9,3-15,7	13,9-24,1	18,4-31,8	22,1-41,4	10,3-19,1	15,3-28,9	22,2-40,6	25,6-51,3
Max. temperature of heating water [°C]	60	60	60	60	60	60	60	60
Max. operating pressure [MPa]	1,6	1,6	1,6	1,6	1,6	1,6	1,6	1,6
Max. temperature of operation [°C]	50	50	50	50	50	50	50	50
Temperature rise(4) (ΔT) [°C]	25-18	27-20	24-19	27-20	30-23	32-25	31-24	33-25
Device weight [kg]	40,8	55,5	73,7	88,8	42,3	57,8	76,8	92,3
Range(1) [m]	4,5	4,5	4,5	4,5	4,5	4,5	4,5	4,5

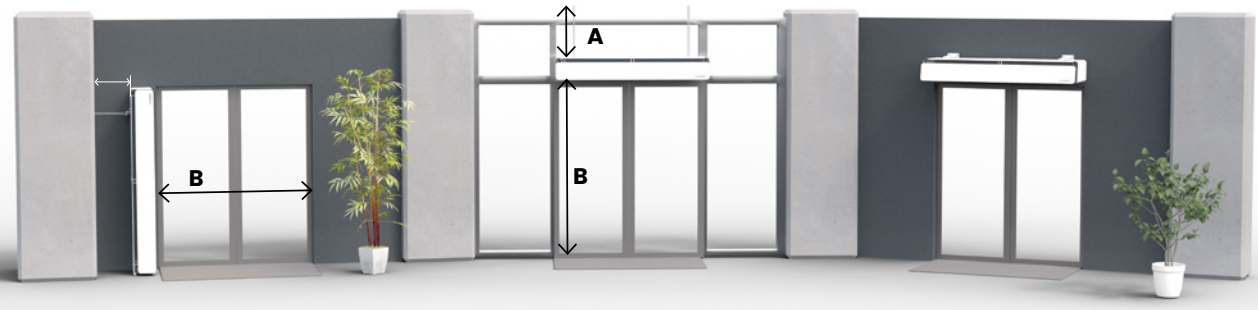
(1) In accordance with ISO 27327-1, air flow is given for fan speeds between 25% and 100%.

(2) Acoustic pressure level is given for a 1500 m³ room with an average sound absorption capacity, directivity factor Q=2, at a distance of 5 m from the curtain

(3) In accordance with ISO 27327-2, acoustic power level is given for fan speeds between 25% and 100%

(4) The range of powers and temperatures is given for the following parameters: fan speed 25%, temperature of the heating medium 60/40°C, temperature of air at the inlet to the device 18°C – fan speed 100%, temperature of the heating medium 60/40°C, temperature of air at the inlet to the device 18°C.

Installation
ELiS AX



A – min. 10 cm

B – max. 3,6 m (ELiS AX36), max. 4,5 m (ELiS AX45)

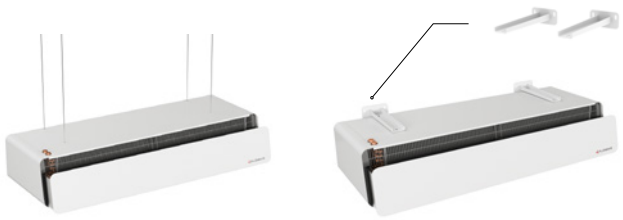
Installation elements

Installation brackets enable vertical mounting

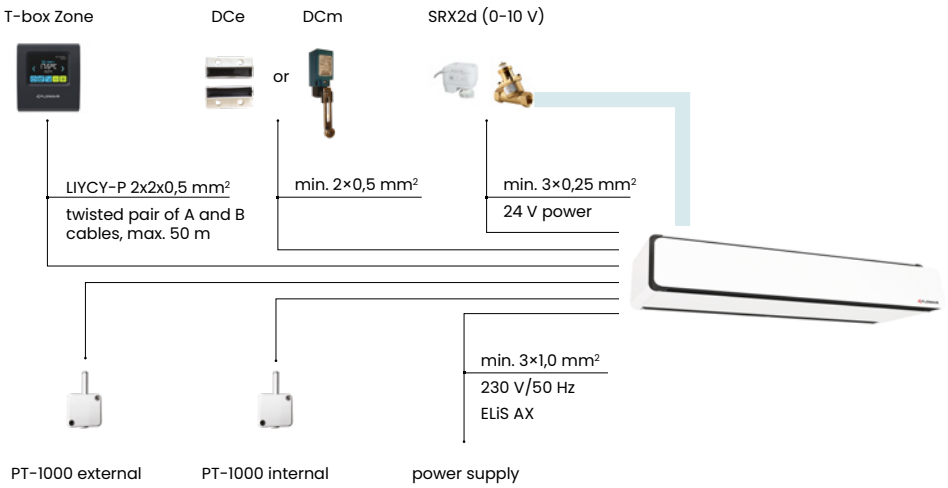
Brackets for vertical mounting. Air curtains may not be mounted vertically on top of each other. Available in white.

Consoles and threaded rods enable horizontal mounting

Consoles enable horizontal mounting (air curtains with a length of up to 2 m are mounted using two consoles, while curtains with a length of 2.5 m are mounted using three consoles). Available in white.



Connection diagrams
ELiS AX



Intelligent control system

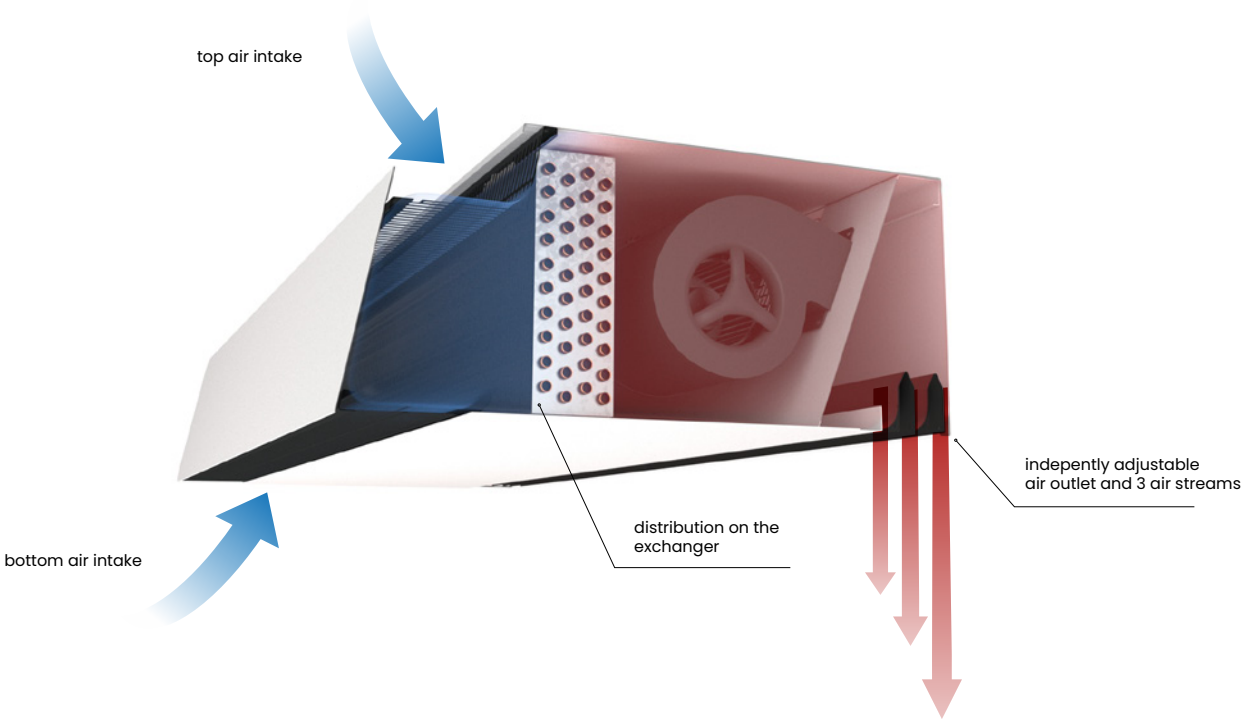
The ELiS AX air curtain has a built-in DRV ELiS EC module that enables intelligent managing operation the T-box Zone controller. It is possible to control the operation of the device using two types of BMS:

- simple control signals: start-stop-failure
- control automation with output to the BMS system (Modbus RTU) or SYSTEM FLOWAIR

ELiS AX
device features

OPTIflow technology

The OPTIflow technology involves directing the air flowing through the curtain in the right way, thus creating an even more effective air barrier during draughts in commercial buildings. Three outlet air streams create a highly efficient barrier against external factors, such as hot and cold air, dust and airborne contaminants. Even and matched airflow throughout the entire exchanger ensures a comfortable temperature and reduced energy consumption



OPTIsmart technology

This technology involves advanced smart automation, which enables precise temperature adjustment. It changes the mode of operation depending on external conditions. It adjusts the air flow of the air curtain depending on the difference in temperatures and intelligently adapts the operating time of the device depending on how often the door is opened.

Air filter

The ELiS AX air curtain can be used in buildings which require installation of devices equipped with a replaceable air filter. It is equipped with a replaceable ISO Coarse 30% filter which improves the air quality, and the device is protected against the ingress of dirt and other contaminants.

EC fan

The device is equipped with silent and energy-efficient EC fans, which enable smooth adjustment of the curtain's air flow.

Heating capacities
ELiS AX

Tw1/Tw2 = 60/40°C					Tw1/Tw2 = 50/40°C					Tw1/Tw2 = 45/35°C					Tw1/Tw2 = 40/30°C				
Tp1	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**
˚C	kW	l/h	kPa	˚C	˚C	kW	l/h	kPa	˚C	˚C	kW	l/h	kPa	˚C	˚C	kW	l/h	kPa	˚C
ELiS AX36-W3R-100																			
Air flow: 100%, V = 1800 m³/h																			
0,0	21,0	915	8,7	34,0	0,0	19,2	1675	26,9	31,5	0,0	17,0	1474	21,7	27,5	0,0	14,7	1273	16,8	24,0
10,0	16,5	721	5,6	37,0	10,0	14,9	1295	16,8	34,0	10,0	12,6	1095	12,6	30,5	10,0	10,3	893	8,8	26,5
20,0	11,9	520	3,1	39,5	20,0	10,4	909	8,8	37,0	20,0	8,1	706	5,6	33,0	20,0	5,7	497	3,0	29,5
ELiS AX36-W3R-150																			
Air flow: 100%, V = 2700 m³/h																			
0,0	32,8	1432	25,1	35,5	0,0	29,7	2583	75,0	32,0	0,0	26,2	2281	60,8	28,5	0,0	22,8	1980	47,8	24,5
10,0	26,1	1137	16,5	38,0	10,0	23,1	2008	47,3	35,0	10,0	19,7	1708	35,8	31,5	10,0	16,2	1406	25,6	27,5
20,0	19,1	835	9,4	40,5	20,0	16,4	1424	25,3	37,5	20,0	12,9	1121	16,6	34,0	20,0	9,4	812	9,4	30
ELiS AX36-W3R-200																			
Air flow: 100%, V = 4300 m³/h																			
0,0	49	2136	3,8	33,5	0,0	45,7	3983	12,4	31,0	0,0	40,1	3489	9,8	27,5	0,0	34,5	2992	7,5	23,5
10,0	38	1659	2,4	36,0	10,0	35,1	3059	7,6	34,0	10,0	29,5	2565	5,5	30,0	10,0	23,8	2061	3,7	26,0
20,0	26,7	1163	1,2	38,0	20,0	24,3	2116	3,8	36,5	20,0	18,5	1611	2,3	32,5	20,0	12,3	1070	1,1	28,5
ELiS AX36-W3R-250																			
Air flow: 100%, V = 5300 m³/h																			
0,0	62,6	2732	6,8	34,5	0,0	57,7	5026	21,5	32,0	0,0	50,8	4417	17,2	28,0	0,0	43,9	3806	13,2	24,0
10,0	49,1	2142	4,3	37,0	10,0	44,5	3877	13,3	34,5	10,0	37,6	3270	9,8	31,0	10,0	30,6	2655	6,8	27,0
20,0	35,1	1532	2,3	39,5	20,0	31,1	2709	6,8	37,0	20,0	24,1	2093	4,3	33,5	20,0	16,7	1450	2,2	29
ELiS AX36-W4R-100																			
Air flow: 100%, V = 1700 m³/h																			
0,0	24,1	1051	14,2	41,5	0,0	21,6	1884	41,9	37,0	0,0	19,2	1666	34,1	33,0	0,0	16,7	1448	26,9	28,5
10,0	19,2	836	9,4	43,0	10,0	16,8	1466	26,5	39,0	10,0	14,4	1249	20,2	34,5	10,0	11,9	1031	14,5	30,5
20,0	14,1	616	5,4	44,5	20,0	12,0	1044	14,3	40,5	20,0	9,5	824	9,5	36,5	20,0	6,9	597	5,4	32
ELiS AX36-W4R-150																			
Air flow: 100%, V = 2600 m³/h																			
0,0	37,8	1648	41,2	42,5	0,0	33,6	2926	119,1	38,0	0,0	29,8	2594	97,4	33,5	0,0	26,1	2262	77,5	29,5
10,0	30,2	1319	27,5	44,0	10,0	26,2	2285	76	39,5	10,0	22,5	1955	58,3	35,5	10,0	18,7	1623	42,4	31,0
20,0	22,6	984	16,2	45,5	20,0	18,8	1638	41,5	41,0	20,0	15,0	1304	28,0	37,0	20,0	11,1	963	16,5	32,5
ELiS AX36-W4R-200																			
Air flow: 100%, V = 4200 m³/h																			
0,0	58,4	2546	20	40,5	0,0	52,5	4569	60,1	36,5	0,0	46,5	4039	48,5	32,5	0,0	40,5	3510	38,0	28,0
10,0	46,4	2024	13,1	42,5	10,0	40,8	3554	37,7	38,5	10,0	34,8	3027	28,4	34,5	10,0	28,8	2497	20,2	30,0
20,0	34,2	1491	7,4	44,0	20,0	29,0	2528	20,1	40,0	20,0	22,9	1994	13,1	36,0	20,0	16,7	1446	7,4	31,5
ELiS AX36-W4R-250																			
Air flow: 100%, V = 5200 m³/h																			
0,0	73,6	3211	35	41,5	0,0	65,8	5728	103,7	37,0	0,0	58,3	5072	84,1	33,0	0,0	50,9	4416	66,2	28,5
10,0	58,7	2562	23,1	43,0	10,0	51,3	4465	65,4	39,0	10,0	43,9	3813	49,6	34,5	10,0	36,4	3157	35,7	30,5
20,0	43,6	1901	13,3	44,5	20,0	36,6	3190	35,2	40,5	20,0	29,1	2530	23,3	36,5	20,0	21,4	1855	13,4	32

Tw1/Tw2 = 60/40°C					Tw1/Tw2 = 50/40°C					Tw1/Tw2 = 45/35°C					Tw1/Tw2 = 40/30°C				
Tp1	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**
˚C	kW	l/h	kPa	˚C	˚C	kW	l/h	kPa	˚C	˚C	kW	l/h	kPa	˚C	˚C	kW	l/h	kPa	˚C
ELiS AX45-W3R-100																			
Air flow: 100%, V = 2500 m³/h																			
0,0	25,7	1123	12,7	30,0	0,0	23,8	2068	39,7	28,0	0,0	20,9	1818	31,8	24,5	0,0	18,1	1569	24,7	21,0
10,0	20,2	883	8,2	33,5	10,0	18,4	1598	24,7	31,5	10,0	15,5	1348	18,4	28,0	10,0	12,6	1097	12,8	25,0
20,0	14,5	635	4,5	37,0	20,0	12,8	1117	12,8	35,0	20,0	10,0	865	8,2	31,5	20,0	7,0	608	4,4	28,0
ELiS AX45-W3R-150																			
Air flow: 100%, V = 3500 m³/h																			
0,0	38,7	1688	33,9	32,5	0,0	35,1	3060	102,2	29,5	0,0	31,1	2701	82,8	26,0	0,0	27,0	2342	65,0	22,5
10,0	30,7	1339	22,2	35,5	10,0	27,3	2377	64,4	33,0	10,0	23,2	2019	48,6	29,5	10,0	19,1	1659	34,6	26,0
20,0	22,5	980	12,6	39,0	20,0	19,3	1680	34,2	36,0	20,0	15,2	1320	22,4	32,5	20,0	11,0	953	12,6	29,0
ELiS AX45-W3R-200																			
Air flow: 100%, V = 5000 m³/h																			
0,0	53,8	2349	4,6	31,5	0,0	50,5	4394	14,9	29,5	0,0	44,3	3847	11,8	26,0	0,0	38,0	3297	9,0	22,0
10,0	41,8	1823	2,8	34,5	10,0	38,7	3371	9,1	32,5	10,0	32,5	2824	6,6	29,0	10,0	26,1	2267	4,5	25,5
20,0	29,3	1278	1,5	37,0	20,0	26,7	2328	4,5	35,5	20,0	20,4	1770	2,8	32,0	20,0	13,6	1180	1,3	28,0
ELiS AX45-W3R-250																			
Air flow: 100%, V = 6100 m³/h																			
0,0	68,5	2987	8,1	33,0	0,0	63,3	5512	25,6	30,5	0,0	55,7	4841	20,4	26,5	0,0	48,1	4169	15,6	23,0
10,0	53,8	2339	5,1	35,5	10,0	48,8	4249	15,7	33,5	10,0	41,2	3582	11,6	30,0	10,0	33,5	2905	8,0	26,0
20,0	38,3	1672	2,7	38,5	20,0	34,0	2965	8,1	36,5	20,0	26,3	2287	5,1	32,5	20,0	18,3	1584	2,6	29,0
ELiS AX45-W4R-100																			
Air flow: 100%, V = 2400 m³/h																			
0,0	30,6	1334	21,9	37,5	0,0	27,7	2408	65,7	33,5	0,0	24,5	2126	53,2	30,0	0,0	21,3	1844	41,8	26,0
10,0	24,2	1057	14,4	39,5	10,0	21,5	1870	41,4	36,0	10,0	18,3	1590	31,3	32,5	10,0	15,1	1307	22,3	28,5
20,0	17,8	775	8,2	41,5	20,0	15,2	1325	22,1	38,5	20,0	12,0	1041	14,5	34,5	20,0	8,7	751	8,1	30,5
ELiS AX45-W4R-150																			
Air flow: 100%, V = 3400 m³/h																			
0,0	45,6	1989	58	39,0	0,0	40,8	3551	169,5	35,0	0,0	36,2	3144	138,3	31,0	0,0	31,6	2738	109,6	27,0
10,0	36,4	1588	38,5	41,5	10,0	31,8	2769	107,7	37,5	10,0	27,2	2365	82,4	33,5	10,0	22,6	1959	59,7	29,5
20,0	27,0	1178	22,4	43,0	20,0	22,7	1977	58,4	39,5	20,0	18,1	1569	39,1	35,5	20,0	13,3	1154	22,8	31,5
ELiS AX45-W4R-200																			
Air flow: 100%, V = 4900 m³/h																			
0,0	64,9	2832	24,4	39,0	0,0	58,6	5099	73,7	35,0	0,0	51,8	4505	59,4	31,0	0,0	45,1	3911	46,4	27,0
10,0	51,5	2248	15,9	41,0	10,0	45,5	3963	46,1	37,0	10,0	38,8	3372	34,7	33,0	10,0	32,0	2777	24,6	29,0
20,0	37,9	1651	9,0	42,5	20,0	32,3	2812	24,4	39,5	20,0	25,5	2215	15,9	35,0	20,0	18,5	1603	8,9	31,0
ELiS AX45-W4R-250																			
Air flow: 100%, V = 6000 m³/h																			
0,0	81,3	3547	42,1	39,5	0,0	72,9	6348	125,4	35,5	0,0	64,6	5616	101,5	31,5	0,0	56,3	4886	79,8	27,5
10,0	64,8	2826	27,7	41,5	10,0	56,8	4944	79	37,5	10,0	48,5	4217	59,8	33,5	10,0	40,2	3488	42,8	29,5
20,0	47,9	2091	15,9	43,5	20,0	40,5	3524	42,3	39,5	20,0	32,1	2790	27,9	35,5	20,0	23,5	2041	16,0	31,5

V – Air flow
PT – Heat capacity
Tp1 – Air temperature at the inlet to the device
Tp2 – Air temperature at the outlet of the device
Tw1 – Heating medium temperature at the inlet to the heat exchanger
Tw2 – Heating medium temperature at the return from the heat exchanger
Qw – Heating medium flow rate in the heat exchanger
Δpw – Pressure drop in the heat exchanger

Select units for other parameters using ours selection programs
available at www.flowair.com

Air curtains Slim

Range
up to 4,0 m

Airflow
770 - 3050 m³/h

Weight
14,7 - 28,4 kg

Heating capacity
1,2 - 47,7 kW

Colors
White with black elements and deep black

Casing
Steel

Device types available

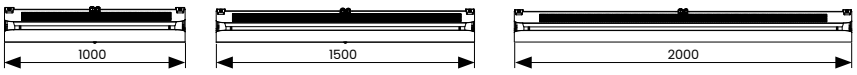
- 3 lengths - 1 m; 1,5 m or 2 m
- 3 versions: W – water heat exchanger, N – without heating elements („ambient"), E – electric heaters

Application

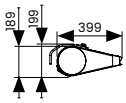
The Slim curtain will work wherever doors are often opened, in shops, restaurants, service salons. Slim fits 99% of door openings. The curtain is designed for horizontal installation directly above the door opening and for vertical installation at the side parts of the opening.

Dimensions

CAD drawings, Revit files and other documents for all models are available at www.flowair.com



SLIM N|W|E-100 SLIM N|W|E-150 SLIM N|W|E-200



Technical data

	SLIM E-100	SLIM W-100	SLIM W-100 -2R	SLIM N-100	SLIM E-150	SLIM W-150	SLIM W-150-2R	SLIM N-150	SLIM E-200	SLIM W-200	SLIM W-200 -2R	SLIM N-200
Power supply [V/Hz]	230 / 50 or 3x400 / 50	230 / 50	230 / 50	230 / 50	230 / 50 or 3x400 / 50	230 / 50	230 / 50	230 / 50	230 / 50 or 3x400 / 50	230 / 50	230 / 50	230 / 50
Max. power consumption [kW]	5,1	0,12	0,1	0,14	9,2	0,17	0,15	0,12	12,2	0,22	0,19	0,23
Max. current consumption [A]	8,5	0,5	0,4	0,6	13,0	0,7	0,7	0,8	17,3	1,0	0,9	1
IP	20	20	20	20	20	20	20	20	20	20	20	20
Connection [“]	–	1/2	1/2	–	–	1/2	1/2	–	–	1/2	1/2	–
Air flow(1) [m³/h]	800–1300	770–1100	770-1050	800–1400	1250–2200	1200–1940	1150-1830	1300–2300	1900–3000	1760–2910	1730–2670	1790–3050
Acoustic pressure level(2) [dB(A)] - 5 m	43–56	45–55	45-55	43–57	40–54	44–56	44-56	41–56	42–57	37–58	37-58	34–56
Acoustic power level(3) [dB(A)]	59–72	61–70	61-70	59–73	56–70	59–72	59–72	56–72	60–73	53–74	53–74	49,5–72
Heating capacity(4) [kW]	2–5	1,2–12,1	1,9 – 20,4	–	3–9	2,6–21,0	4,3–35,3	–	4–12	3,7–29,3	6,4 – 47,7	–
Max. water temperature [°C]	–	110	110	–	–	110	110	–	–	110	110	–
Max. operating pressure [MPa]	–	1,6	1,6	–	–	1,6	1,6	–	–	1,6	1,6	–
Curtain’s air temperature rise(4) (ΔT) [°C]	5,0–19,0	3,0–32,5	5,2 – 57,4	–	4,0–21,0	4,0–32,0	6,8 – 57	–	4,0–19,0	4,0–35,0	6,9 – 55	–
Unit weight [kg]	15,1	16,2	17,3	14,7	19,6	21,5	22,7	19	24,6	26,9	28,4	23,8
Range(1) [m]	3,5	3,5	3,5	4,0	3,5	3,5	3,5	4,0	3,5	3,5	3,5	4,0

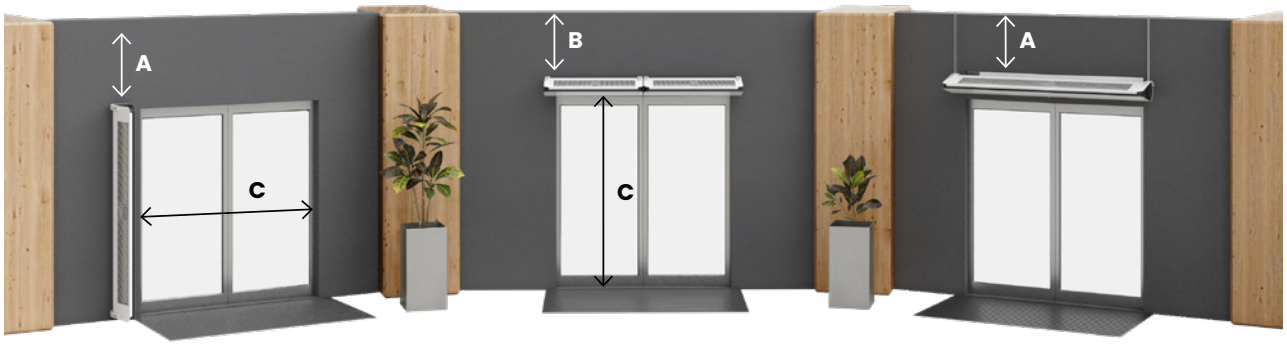
(1) according to ISO 27327-1

(2) the sound pressure level measured in a room with an average sound absorption capacity, 1500 m³; directivity factor Q = 2

(3) sound power level according to ISO 27327-2

(4) Slim W power and temperature range specified for the parameters: fan speed III, heating medium temperature 40/30°C air temperature at the inlet to the device 20°C - fan speed III, heating medium temperature 110/90°C air temperature at the inlet to the device 0°C; Slim E power range for operation at 1N 230/50 to operation at 3N 400/50

Installation Slim



A – min. 10 cm

B – min. 9 cm

C – max. 4.0 m

Installation elements

Brackets for Slim

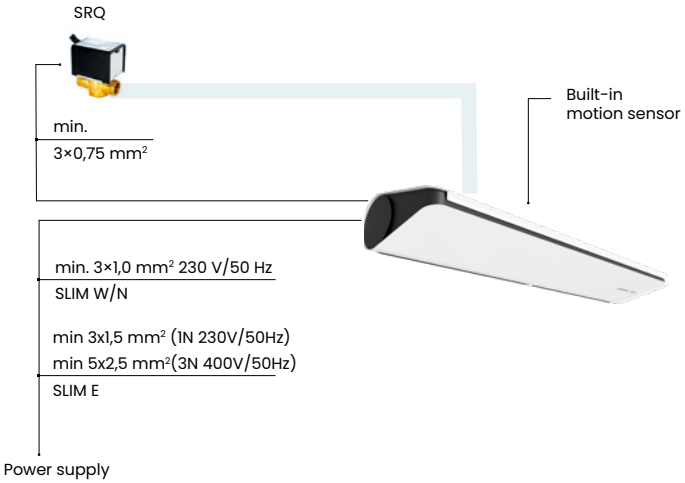
For horizontal or vertical installation of the Slim air curtain. Available in white or black.

Rods

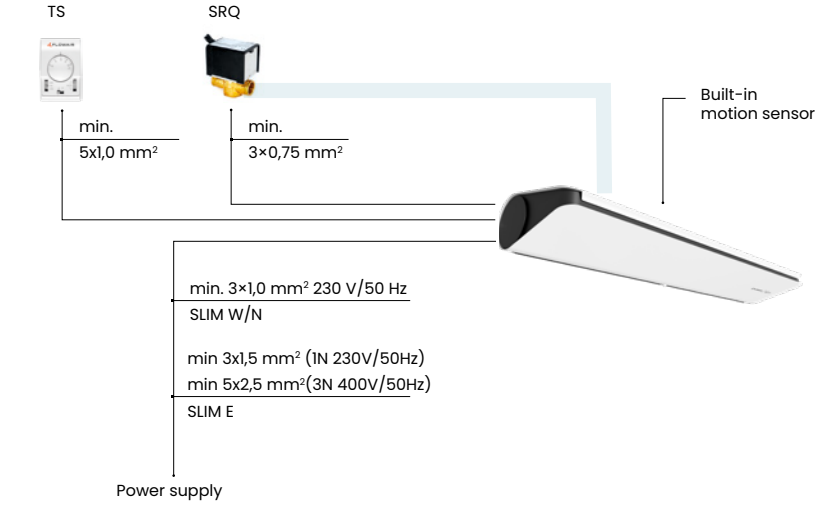
In standard Slim air curtains have special mounting holes for installation with threaded rods.

Connection diagrams Slim

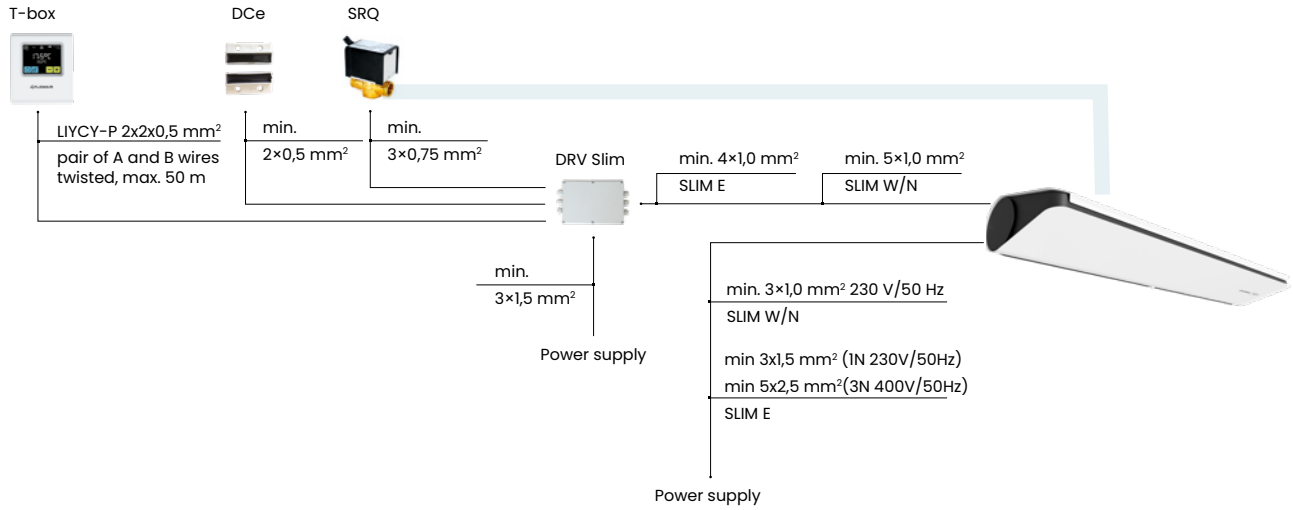
Plug&Play control



TS controller



T-box controller



Available options upon request

TS + motion sensor

The solution will prove useful if you frequently change the curtain's settings and want to have the controller at your fingertips. Select the TS controller, which is as a thermostat and switches on the heating elements.

TS + door sensor

This solution will prove useful when the motion sensor cannot operate freely due to some obstacles (e.g. a suspended element under the air curtain). In this case the devices' control depends on the signal from door sensor.

T-box

This solution will be useful when you want to connect the curtain to an intelligent building management system BMS. Choose this option if you need a weekly programmer or remote supervision over the operation of devices.

Heating capacities Slim

Tw1/Tw2 = 90/70°C					Tw1/Tw2 = 80/60°C					Tw1/Tw2 = 70/50°C					Tw1/Tw2 = 60/40°C				
Tp1	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**
[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]
SLIM W-100																			
step III : V = 1100 m³/h																			
0,0	9.4	414	5.2	25.5	0,0	8.1	354	4.0	22.0	0,0	6.7	293	3.0	18.0	0,0	5.3	231	2.0	14.5
10,0	8.2	362	4.1	32.0	10,0	6.8	301	3.0	28.5	10,0	5.5	239	2.1	24.5	10,0	4.1	177	1.3	21.0
20,0	7.0	309	3.1	38.5	20,0	5.6	247	2.1	35.0	20,0	4.2	185	1.3	31.5	20,0	2.8	120	0.6	27.5
SLIM W-150																			
step III : V = 1950 m³/h																			
0,0	16.5	726	19.2	25.0	0,0	14.2	624	15.0	21.5	0,0	11.9	522	11.3	18.0	0,0	9.6	420	7.9	15.0
10,0	14.4	637	15.2	32.0	10,0	12.2	534	11.4	28.5	10,0	9.9	431	8.0	25.0	10,0	7.5	328	5.1	21.5
20,0	12.4	547	11.5	38.5	20,0	10.1	443	8.1	35.0	20,0	7.7	339	5.2	31.5	20,0	5.4	234	2.8	28.0
SLIM W-200																			
step III : V = 2850 m³/h																			
0,0	23.0	1016	42.2	24.0	0,0	19.9	874	33.1	21.0	0,0	16.8	734	24.9	17.5	0,0	13.6	594	17.6	14.5
10,0	20.2	892	33.3	31.0	10,0	17.1	750	25.0	27.5	10,0	13.9	608	17.7	24.5	10,0	10.7	467	11.5	21.0
20,0	17.4	768	25.3	38.0	20,0	14.2	624	17.9	34.5	20,0	11.0	480	11.6	31.5	20,0	7.7	336	6.4	28.0

V – Air flow
PT – Heat capacity
Tp1 – Air temperature at the inlet to the device
Tp2 – Air temperature at the outlet of the device

Tw1 – Heating medium temperature at the inlet to the heat exchanger
Tw2 – Heating medium temperature at the return from the heat exchanger
Qw – Heating medium flow rate in the heat exchanger
Δpw – Pressure drop in the heat exchanger

Air curtains ELiS B

Range
5 m

Air flow
2000 - 6600 m³/h

Weight
31,7 - 53,2 kg

Heating capacity
0,9 - 59,0 kW

Color
White

Casing
Steel, plastic, aluminium

Device types available

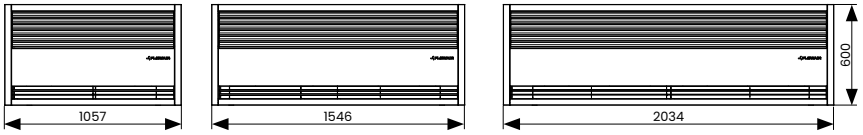
- 3 lengths - 1 m; 1,5 m or 2 m
- 3 versions: W – water heat exchanger (1- or 2-rows), N – without heating elements („ambient"), E – electric heaters

Application

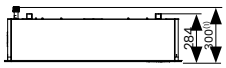
ELiS B air curtains are dedicated for shops, restaurants, exhibition rooms. Units are designed for installation in the ceilings. Advantage is the possibility to install in the existing ceiling without cutting additional holes.

Dimensions

CAD drawings, Revit files and other documents for all models are available at www.flowair.com



B-N|W|E-100 B-N|W|E-150 B-N|W|E-200



Technical data

	ELiS B-W-100	ELiS B-W-100 2R	ELiS B-N-100	ELiS B-E-100	ELiS B-W-150	ELiS B-W-150 2R	ELiS B-N-150	ELiS B-E-150	ELiS B-W-200	ELiS B-W-200 2R	ELiS B-N-200	ELiS B-E-200
Power supply [V/Hz]	230 / 50	230 / 50	230 / 50	3 x 400 / 50	230 / 50	230 / 50	230 / 50	3 x 400 / 50	230 / 50	230 / 50	230 / 50	3 x 400 / 50
Max. power consumption [kW]	0,34	0,34	0,42	7,5	0,36	0,36	0,42	11,5	0,38	0,38	0,49	15,5
Max. current consumption [A]	1,5	1,5	1,9	11	1,6	1,6	2	16,6	1,7	1,7	2,2	22,4
IP	21	21	21	21	21	21	21	21	21	21	21	21
Connection [“]	1/2	1/2	–	–	1/2	1/2	–	–	1/2	1/2	–	–
Air flow(1) [m³/h]	2200–2600	2000–2400	2300–3500	2200–2600	3200–4000	3000–3800	3200–4800	3200–4000	4000–5200	3800–4900	3600–6600	4000–5200
Acoustic pressure level(2) [dB(A)]	55–58	55–57	61–65	55–58	57–62	56–60	58–65	57–62	58–63	56–61	59–66	58–63
Acoustic power level(3) [dB(A)]	70–73	70–72	76–80	70–73	72–77	71–75	73–80	72–77	73–78	71–76	74–81	73–78
Heating capacity(4) [kW]	0,9–13,8	3,5–26,7	–	7,1–7,5	2,6–23,6	6,9–44,6	–	11,0–11,5	4,4–31,8	9,5–59,0	–	14,9–15,5
Max. water temperature [°C]	95	95	–	–	95	95	–	–	95	95	–	–
Max. operating pressure [MPa]	1,6	1,6	–	–	1,6	1,6	–	–	1,6	1,6	–	–
Curtain’s air temperature rise(4) (ΔT) [°C]	1–16	4–33	–	11–12	2–18	5–35	–	12–13	3–18	6–36	–	13–14
Unit weight [kg]	32,3	33,7	31,7	34,5	41,2	43,7	38,9	42,4	50	53,2	47,2	53,2
Range(1) [m]	5	5	5	5	5	5	5	5	5	5	5	5

(1) according to ISO 27327-1

(2) the sound pressure level measured in a room with an average sound absorption capacity, 1500 m³; direction factor Q = 2

(3) sound power level according to ISO 27327-2

(4) B-W power and temperature range specified for the parameters: fan speed III, heating medium temperature 40/30°C air temperature at the inlet to the device 20°C - fan speed III, heating medium temperature 90/70°C air temperature at the inlet to the device 0°C; B-E power range for operation at fan speed I - fan speed III

Installation ELiS B

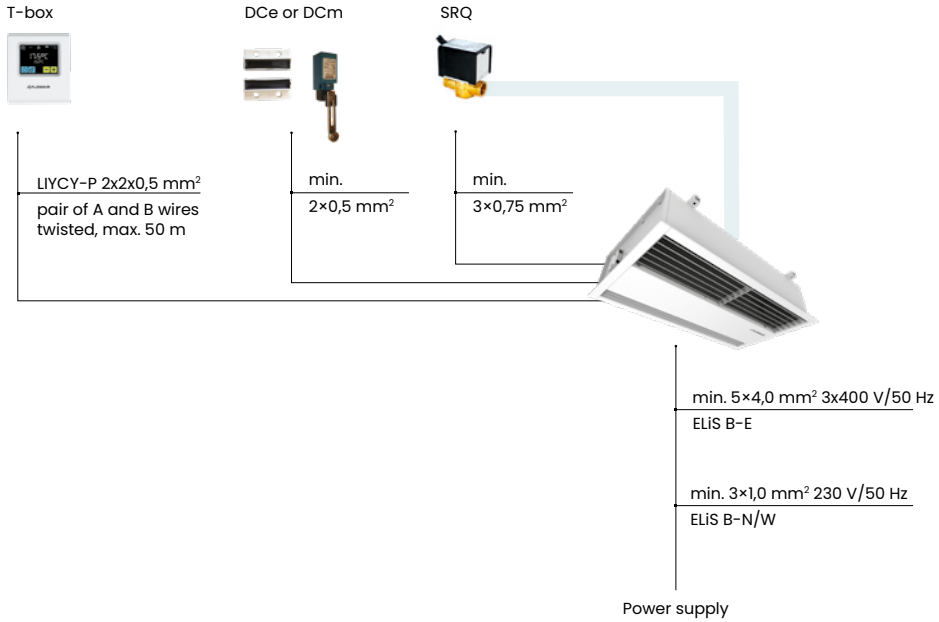
Installation elements

Brackets

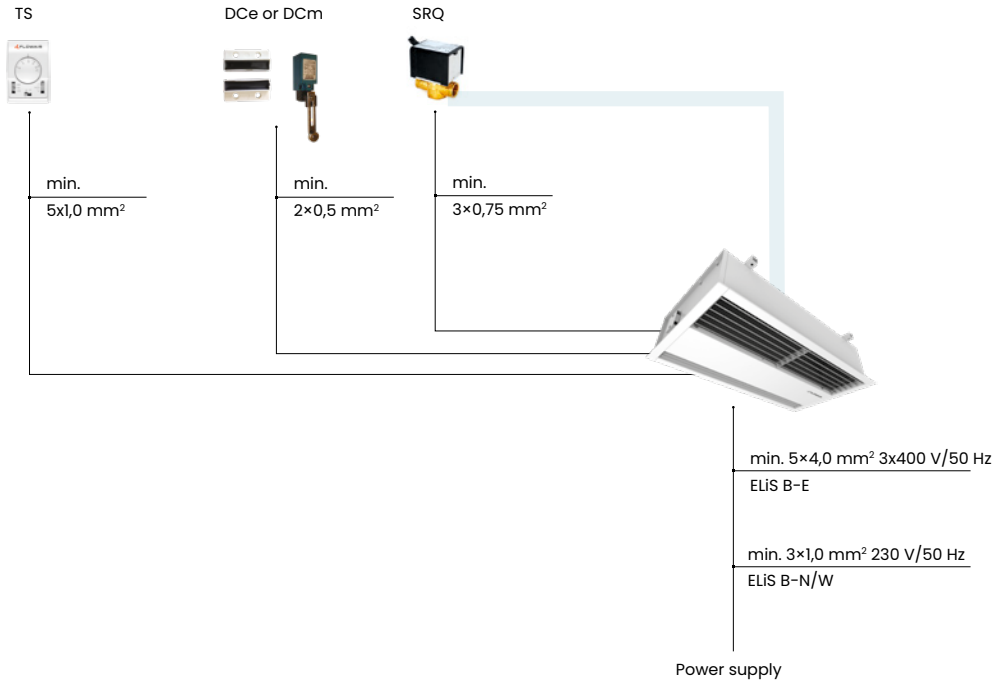
Brackets with mounting holes for installation using threated rods are included.

Connection diagrams ELiS B

T-box controller



TS controller



Heating capacities
ELiS B

Tw1/Tw2 = 90/70°C					Tw1/Tw2 = 80/60°C					Tw1/Tw2 = 70/50°C					Tw1/Tw2 = 60/40°C				
Tp1	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**
[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]
ELiS B-W-100																			
step III : V = 2600 m³/h																			
0,0	13,8	609	2,3	15,5	0,0	11,5	507	1,7	13,0	0,0	9,2	404	1,2	10,5	0,0	6,8	295	0,7	7,5
10,0	11,9	524	1,7	24,5	10,0	9	395	1,1	21,5	10,0	7,2	316	0,7	18,0	10,0	4,6	198	0,3	15,0
20,0	9,9	438	1,2	31,0	20,0	7,6	334	0,8	28,5	20,0	5,1	225	0,4	25,0	20,0	1,7	74	0,1	22,0
ELiS B-W-150																			
step III : V = 4000 m³/h																			
0,0	23,5	1039	7,4	17,5	0,0	20,0	881	5,6	15,0	0,0	16,5	723	4,0	12,5	0,0	13,0	563	2,7	9,5
10,0	20,5	904	5,7	25,0	10,0	17,0	745	4,1	22,5	10,0	13,4	585	2,8	20,0	10,0	9,7	423	1,6	17,0
20,0	17,4	767	4,2	32,5	20,0	13,8	607	2,8	30,0	20,0	10,2	445	1,7	27,5	20,0	6,3	276	0,7	24,5
ELiS B-W-200																			
step III : V = 5200 m³/h																			
0,0	31,8	1402	14,7	18,0	0,0	27,7	1195	11,3	15,5	0,0	22,5	990	8,3	13,0	0,0	18,0	784	5,6	10,5
10,0	27,7	1223	11,5	25,7	10,0	23,1	1016	8,4	22,5	10,0	18,5	809	5,7	20,5	10,0	13,8	601	3,5	18,0
20,0	23,6	1043	8,8	33,0	20,0	19,0	834	5,9	30,5	20,0	14,3	625	3,6	28,0	20,0	9,5	412	1,8	25,0
ELiS B-W-100 2R																			
step III : V = 2400 m³/h																			
0,0	24,5	1080	1,82	30	0,0	20,5	900	1,34	27,0	0,0	11,8	716	0,91	20	0,0	12	521	0,53	15
10,0	21	928	1,38	36	10,0	17	747	0,95	31	10,0	12,8	560	0,58	26	10,0	7,8	341	0,25	20
20,0	17,6	776	0,99	41	20,0	13,5	592	0,63	36	20,0	9	395	0,31	31	20,0	3,3	142	0,05	24
ELiS B-W-150 2R																			
step III : V = 3800 m³/h																			
0,0	42,2	1863	6,1	33	0,0	36	1580	4,6	28	0,0	29,6	1296	3,3	23	0,0	23,2	1010	2,2	18
10,0	39,4	1618	4,7	38,5	10,0	30,4	1334	3,4	33,5	10,0	24	1049	2,3	28,5	10,0	17,4	758	1,3	23,5
20,0	31,1	1373	3,5	44	20,0	24,7	1086	2,3	39	20,0	18,2	797	1,4	34	20,0	11,3	492	0,6	28,5
ELiS B-W-200 2R																			
step III : V = 4900 m³/h																			
0,0	57,2	2524	12,2	34	0,0	49	2153	9,37	29	0,0	40,8	1783	6,85	24	0,0	32,4	1413	4,64	19
10,0	49,9	2200	9,49	39	10,0	41,6	1828	6,95	34	10,0	33,3	1456	4,74	30	10,0	24,8	1082	2,87	25
20,0	42,5	1876	7,09	45	20,0	34,2	1501	4,85	40	20,0	25,7	1125	2,97	35	20,0	17	741	1,46	30

V – Air flow
PT – Heat capacity
Tp1 – Air temperature at the inlet to the device
Tp2 – Air temperature at the outlet of the device
Tw1 – Heating medium temperature at the inlet to the heat exchanger
Tw2 – Heating medium temperature at the return from the heat exchanger
Qw – Heating medium flow rate in the heat exchanger
Δpw – Pressure drop in the heat exchanger

Select units for other parameters using ours selection programs
available at www.flowair.com

Air curtains ELiS G

Range
8 m

Air flow
2400 - 12800 m³/h

Weight
43,0 - 77,9 kg

Heating capacity
7,8 - 71,9 kW

Color
Grey, silver

Casing
Galvanized steel

Device types available

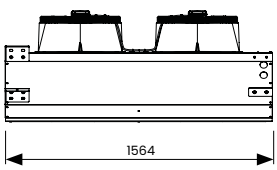
- 3 lengths - 1,5 m; 2 m or 2,5 m
- 3 versions: W – water heat exchanger (1- or 2-rows), N – without heating elements („ambient"), E – electric heaters

Application

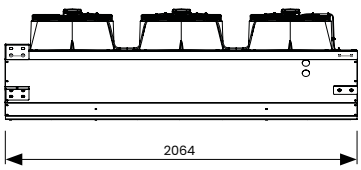
Warehouses, halls, logistics centers. ELiS G devices are intended for horizontal and vertical installation. They create an air barrier that reduces the various losses associated with the exchange of air between the room and the outside area.

Dimensions

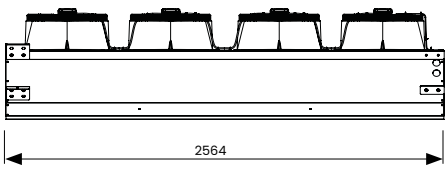
CAD drawings, Revit files and other documents for all models are available at www.flowair.com



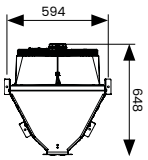
G-150



G-200



G-250



Technical data

	G-E-150	G-N-150	G-W-150	G-W-150 2R	G-E-200	G-N-200	G-W-200	G-W-200 2R	G-E-250	G-N-250	G-W-250
Power supply [V/HZ]	3x400 / 50	230 / 50	230 / 50	230 / 50	3x400 / 50	230 / 50	230 / 50	230 / 50	3x400 / 50	230 / 50	230 / 50
Max. power consumption [kW](1)	13,5 + 0,68	0,67	0,67	0,67	20,5 + 1,05	1,05	1,05	1,05	24,5 + 1,4	1,4	1,4
Max. current consumption [A](1)	19,5 + 3,0	3	3	3	29,5 + 4,5	4,5	4,5	4,5	36,0 + 6,0	6	6
IP	20/F	54/F	54/F	54/F	20/F	54/F	54/F	54/F	20/F	54/F	54/F
Connection	-	-	3/4	3/4	-	-	3/4	3/4	-	-	3/4
Air flow [m^3/h](2)	2600-6300	2800-6550	2500-6200	2400-6100	3400-9400	3900-9700	3300-9100	3100-8800	4900-12400	4900-12800	4300-12000
Acoustic pressure level [dB(A)] - 5 m(3)	44-65	44-65	45-66	46-67	45-66	45-66	46-68	47-69	46-68	46-68	47-69
Acoustic pressure level [dB(A)] - 3 m(3)	45-66	45-66	46-67	47-68	46-67	46-67	47-69	48-70	47-69	47-69	48-70
Acoustic power level [dB(A)](4)	60-81	60-81	61-82	62-83	61-82	61-82	62-84	63-85	62-84	62-84	63-85
Heating capacity [kW](5)	13,5	-	7,8-27	18,7-62,9	20,5	-	8,7-30,0	21,4-71,9	24,5	-	15,0-49,6
Max. water temperature [°C]	-	-	120	120	-	-	120	120	-	-	120
Max. operating pressure [MPa]	-	-	1,6	1,6	-	-	1,6	1,6	-	-	1,6
Curtain's air temperature rise (ΔT) [°C](5)	7,0-16,0	-	4,0-13,0	9,0-30,0	7,0-18,0	-	3,0-11,0	8-27	7,5-16,5	-	4,0-12,0
Unit weight [kg]	47	43	47,4	51,8	62,2	58	62	66,4	77,9	71,5	78,3
Range [m](2)	7,5	8	7,5	7,5	7,5	8	7,5	7,5	7,5	8	7,5

(1) for G-E, the parameters of heating elements powered by 3N 400V and fans powered by 1N 230V are given, respectively
(2) in accordance with ISO 27327-1
(3) acoustic pressure level has been measured in a 1500m^3 space with a medium sound absorption coefficient, directional factor: Q=2
(4) acoustic power level according to ISO 27327-2
(5) G-W range of heating powers and temperatures specified for the parameters: III fan speed, heating medium temperature 40/30 0 °C inlet temperature 20 °C - III fan speed, heating medium temperature 110/90 °C at the device inlet 0 °C; G E power range for operation at 1N 230/50 to operation at 3N 400/50

Installation ELiS G

A – max. 8 m

B – max. 14 m

Installation elements

Brackets

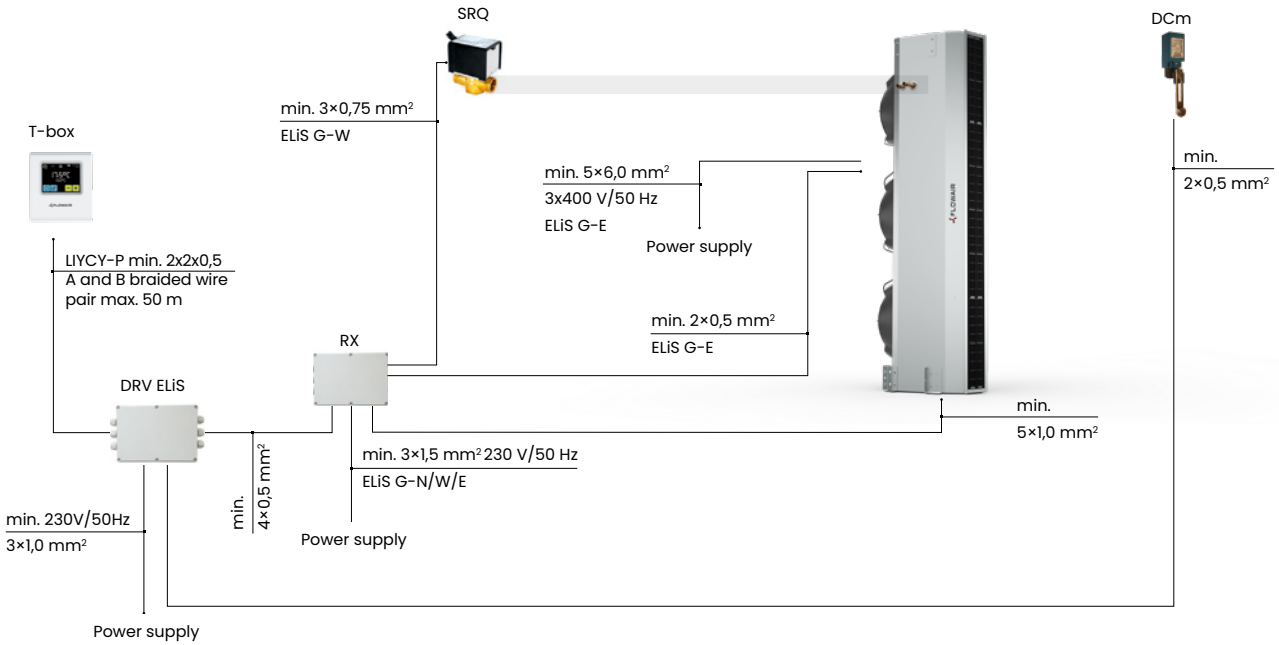
Possibility of vertical and horizontal installation using mounting brackets.

Rods

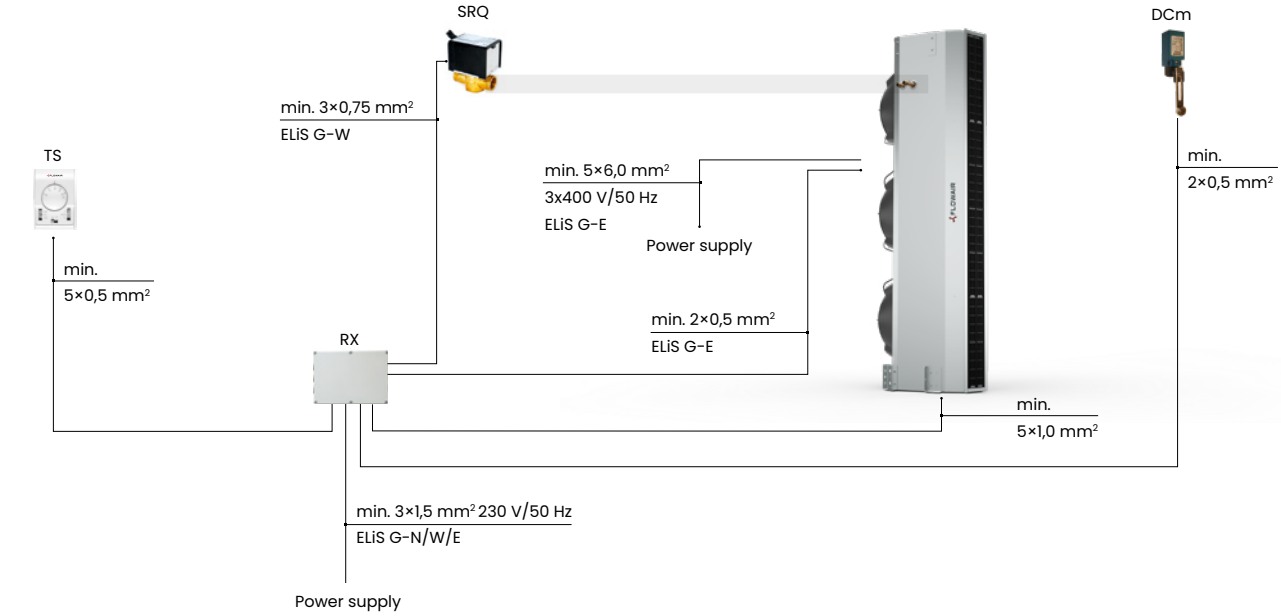
ELiS G air curtains have special mounting holes for installation using threaded rods.

Connection diagrams air curtain ELiS G

T-box controller



TS controller



Heating capacities
ELiS G

Tw1/Tw2 = 90/70°C					Tw1/Tw2 = 80/60°C					Tw1/Tw2 = 70/50°C					Tw1/Tw2 = 60/40°C				
Tp1	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**	**Tp1**	**PT**	**Qw**	**Δpw**	**Tp2**
[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]	[°C]	[kW]	[l/h]	[kPa]	[°C]
ELiS G-W-150																			
step III : V = 6200 m³/h																			
0,0	27	1 190	4,5	12,5	0,0	23,2	1 020	3,5	11	0,0	19,4	848	2,5	9	0,0	15,5	674	1,7	7,5
10,0	23,6	1 043	3,5	21	10,0	19,8	871	2,6	19,5	10,0	15,9	697	1,8	17,5	10,0	11,9	519	1,1	15,5
20,0	20,1	887	2,6	29,5	20,0	16,3	714	1,8	27,5	20,0	12,3	539	1,1	26	20,0	8,1	353	0,5	24
ELiS G-W-200																			
step III : V = 9100 m³/h																			
0,0	29,9	1 321	5,5	11	0,0	25,8	1 132	4,2	9,5	0,0	21,5	941	3,1	8	0,0	17,2	749	2,1	6,5
10,0	26,2	1 158	4,3	19,5	10,0	22	966	3,1	18	10,0	17,7	774	2,1	16,5	10,0	13,2	578	1,3	15
20,0	22,3	985	3,2	28	20,0	18	793	2,2	26,5	20,0	13,7	599	1,3	25	20,0	9	394	0,7	23,5
ELiS G-W-250																			
step III : V =12000 m³/h																			
0,0	49,6	2 191	18,6	12	0,0	43	1 889	14,5	10,5	0,0	36,2	1 586	10,8	9	0,0	29,4	1 284	7,6	7
10,0	43,6	1 926	14,7	20,5	10,0	36,9	1 621	11	19	10,0	30,1	1 316	7,7	17,5	10,0	23,2	1 011	4,9	15,5
20,0	37,3	1 647	11	29	20,0	30,5	1 341	7,7	27,5	20,0	23,6	1 035	5	26	20,0	16,6	724	2,7	24
ELiS G-W-150 2R																			
step III : V = 6100 m³/h																			
0,0	62,9	2776	21,2	30,0	0,0	54,4	2391	16,5	26,0	0,0	45,9	2010	12,3	22,0	0,0	37,3	1628	8,5	18,0
10,0	55,0	2427	16,5	36,5	10,0	46,5	2046	12,3	32,5	10,0	38,0	1664	8,6	28,0	10,0	29,3	1277	5,4	24,0
20,0	46,7	2063	12,2	42,5	20,0	38,3	1683	8,6	38,5	20,0	29,7	1301	5,5	34,0	20,0	20,9	912	2,9	30,0
ELiS G-W-200 2R																			
step III : V = 8800 m³/h																			
0,0	71,9	3171	27,2	27,0	0,0	62,1	2729	21,2	23,5	0,0	52,4	2293	15,6	19,5	0,0	42,5	1856	10,9	16,0
10,0	62,8	2773	21,2	33,5	10,0	53,2	2337	15,8	30,0	10,0	43,3	1897	11,0	26,5	10,0	33,4	1456	6,9	22,5
20,0	53,4	2355	15,6	40,0	20,0	43,7	1919	11	36,5	20,0	33,9	1483	7,0	32,5	20,0	23,8	1039	3,7	29,0

V – Air flow
PT – Heat capacity
Tp1 – Air temperature at the inlet to the device
Tp2 – Air temperature at the outlet of the device
Tw1 – Heating medium temperature at the inlet to the heat exchanger
Tw2 – Heating medium temperature at the return from the heat exchanger
Qw – Heating medium flow rate in the heat exchanger
Δpw – Pressure drop in the heat exchanger

Select units for other parameters using ours selection programs
available at www.flowair.com

Control elements

TS controller – basic version

Simplest regulation of 3-step fans. Fan heater operation is controlled by 3-step fan speed controller with thermostat.

T-box controller – BMS version

Intelligent regulation system of 3-step fans. Speed regulation of energy-efficient fan via T-box controller.

T-box Zone controller – BMS version with zones

T-box is an advanced intelligent touch screen controller with zoning function..

- controls up to 31 units or zones
- weekly programmer for each zone
- individual temperature setting for each zone

	Controller **TS**	Controller **T-box**	Controller **T-box Zone**
Controlling options			
Type of devices	Slim, ELiS B, ELiS G	Slim(1), ELiS B, ELiS G(1)	Slim(1), ELiS B, ELiS G(1), ELiS AX
Manual 3-step air flow regulation	✓	✓	✓
Modes			
Heating/Ventilation	✓	✓	✓
Operation depending on door sensor and temperature	✓	✓	✓
Weekly programmer		✓	✓
BMS		✓	✓
Switch-off delay		✓	✓
Idle speed mode		✓	✓
Integration with FLOWAIR SYSTEM		✓	✓
Weekly programmer for each zone			✓
Individual setting for each zone			✓
Individual naming of each zone			✓
Antifreeze for each zone			✓
Max. number of connected units			
Via controller	ELiS B – 5, Slim/ELiS G – 1	31	31
Via additional splitters	ELiS G – 9, Slim/ELiS T – 18	n/a	n/a

(1) External control module DRV Slim required
(2) External control module DRV ELiS required

Control elements for air curtains

Door sensors

Door sensors inform the control system about the opening / closing of the door.

Compatibility of sensors with ELiS air curtains

Sensor	ELiS AX	Slim	ELiS B	ELiS G
DCet		✓		
DCe	✓		✓	
DCm	✓		✓	✓

Valves

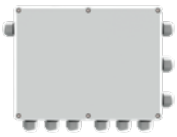
Two or three-way valves with an electric actuator are available to control the flow of the heating medium.

Compatibility of valves with ELiS air curtains

Valve	ELiS AX	Slim	ELiS B	ELiS G
SRQ2d ½"		✓	✓	
SRQ2d ¾"				✓
SRQ3d ½"		✓	✓	
SRQ3d ¾"				✓
SRX (0-10 V)	✓			

RX splitters

Control signal distributor for connecting several ELiS G air curtains with 3-stage fans to one controller



The maximum number of devices supported by one controller

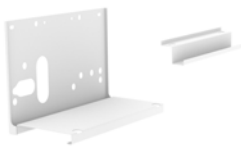
Splitter	Slim	ELiS G
1 szt. RX	6(1)	3
2 szt. RX	12(1)	6
3 szt. RX	18(1)	9

(1) maksymalna ilość urządzeń dotyczy kurtyn o tej samej lengths

Installation elements for air curtains

Brackets ELiS AX

Console for vertical installation up to 2,5 meters . No possibillity of joining curtains together.



White brackets for horizontal installation.

– up to 2 meters curtains - 2 brackets

– 2,5 meter curtain - 3 brackets

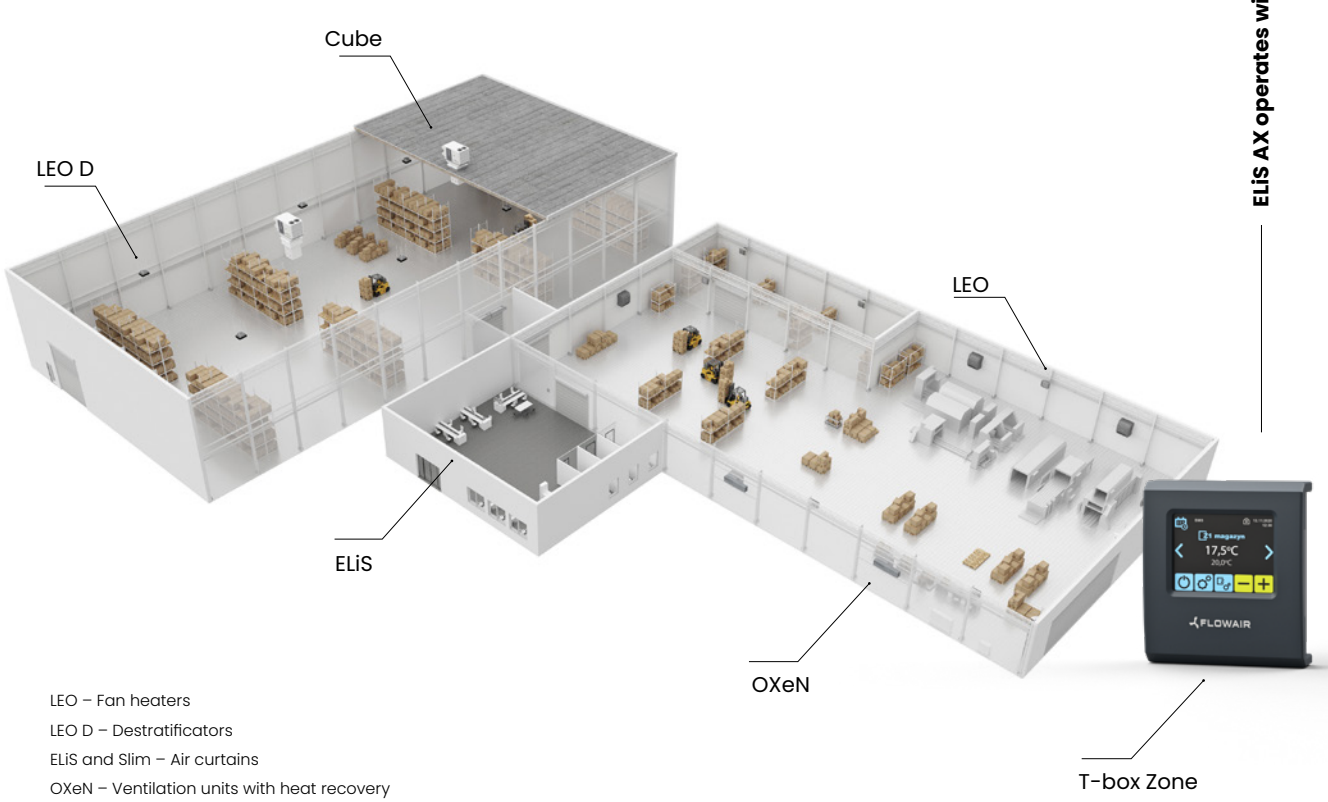
Brackets Slim

For horizontal or vertical installation of the Slim air curtain. Available in white or black.

SYSTEM FLOWAIR

The SYSTEM FLOWAIR is a complete range of heating and ventilation devices integrated by a single controller. The T-box Zone controller allows up to 31 devices from the range to work together in 31 independent zones.

ELiS AX operates within the SYSTEM



LEO – Fan heaters
LEO D – Destratificators
ELiS and Slim – Air curtains
OXeN – Ventilation units with heat recovery
Cube – Rooftop devices

Control of device operation

Local adjustment of device operation

Advanced control of ventilation and heating devices

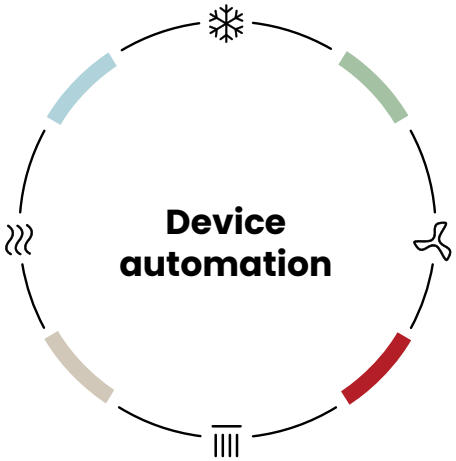
Adjustment of device operation schedule to individual needs

Antifreeze – protection of the building and equipment against excessively low temperatures

Integration and interoperability of devices

The T-box Zone smart touch controller has a number functions necessary to effectively manage the operation of the heating and ventilation system that until now were restricted to extensive Building Management Systems (BMS).

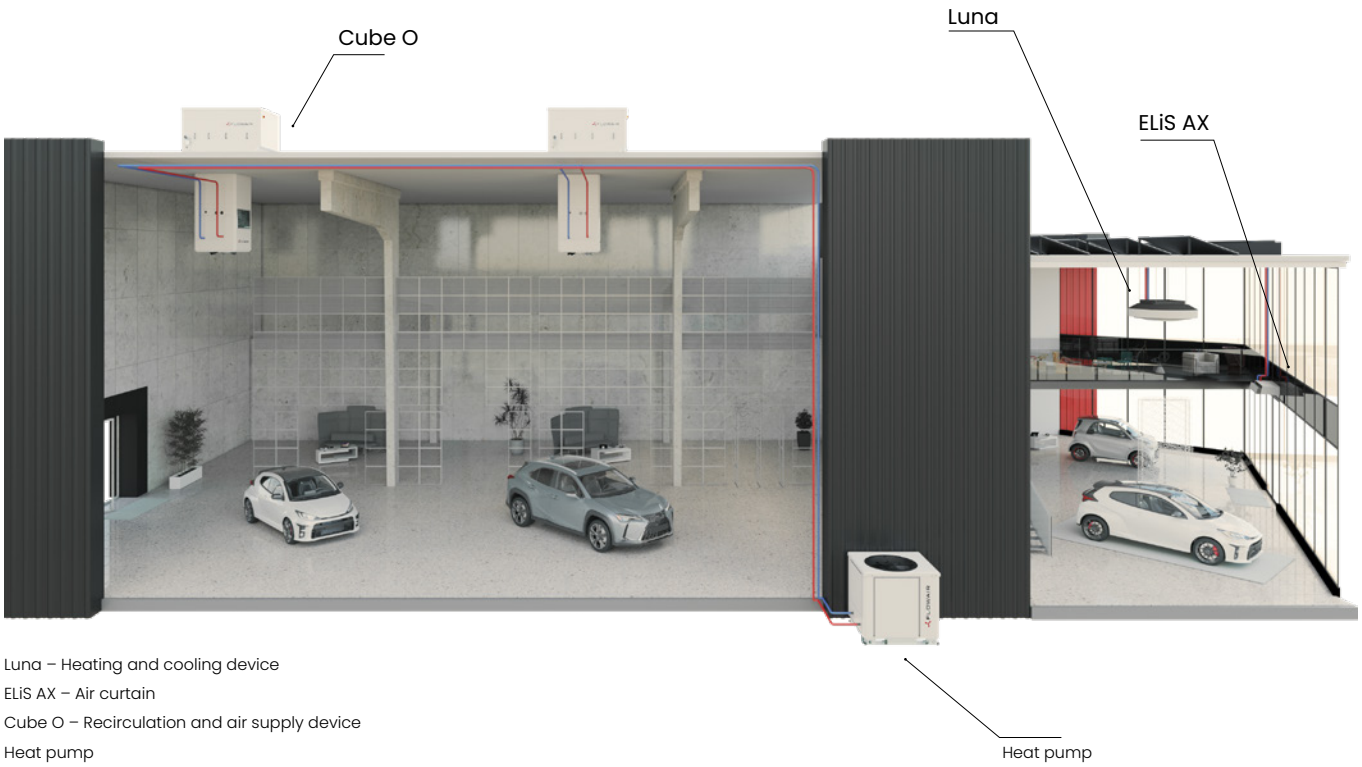
The SYSTEM enables devices to work together to ensure a higher thermal comfort and improve energy efficiency. The combined operation of heaters and destratificators makes it possible to effectively utilise heat from the upper parts of the room, while saving the heat energy supplied by the heaters.



Interoperability with heat pumps

The ELiS AX air curtain is an energy efficient solution, in line with the green trends and the zero-emission policy. It is equipped with a 3- or 4-row water heat exchanger, which works together with low-temperature heat sources. It can be supplied with a low-temperature heating medium (60–40°C).

Advanced control ensures service-free interoperability with heat pumps. Another advantage of the solution is that it uses water as the heating or cooling medium, which increases safety and decreases the impact on the environment compared to air conditioning systems which use CFCs.



Luna – Heating and cooling device
ELiS AX – Air curtain
Cube O – Recirculation and air supply device
Heat pump

FLOWAIR
intelligent air flow

Manufacturer:

FLOWAIR Sp. z o.o.
Chwaszczyńska 135,
81-571 Gdynia

www.flowair.com