FLOWAIR
intelligent air flow

ELIS G INDUSTRIAL AIR CURTAINS

ELiS G

2015

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	ELiS G
Max. range* (m)	7,5
Heating capacity** (kW)	24,4-28,2
Air flow (m³/h)	3000-8600
Weight (kg)	19,3-67
Colour***	silver - grey
Casing	sheet steel + plastic

* Vertical range of isothermal stream (at velocity boundary equal to 3 m/s).
** At inlet/outlet water temperature 90/70°C, inlet air temperature 10°C.
*** On customer's demand, unit is available in other colours.

ELiS G air curtains are high-performance industrial units, which reduce heat losses associated with the exchange of air between the room and the surroundings.

Casing is made of galvanized sheet steel and plastic elements. Adjustable air outlet ±10° enables to set the right angle of the air stream. Curtains can be combined into larger groups and installed in horizontal or vertical position.

They are available in three lengths: 0,5 m, 1,5 m or 2 m and in three versions:

- with water heat exchanger (W), 1,5 m and 2 m length
- with electric heaters (E), 1,5 m and 2 m length
- without heating elements - ambient curtain (N), 0,5 m, 1,5 m and 2 m length

ELiS G-W/N/E-150

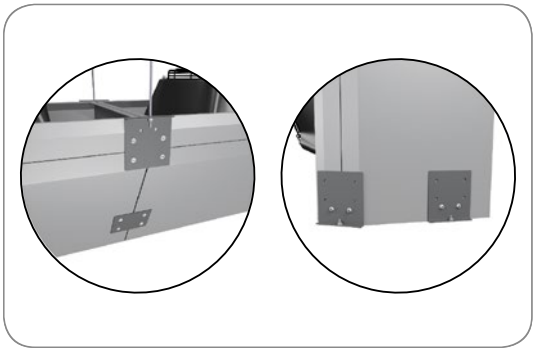
ELiS G-W/N/E-200

CASING

Made of galvanized sheet steel
and plastic elements.

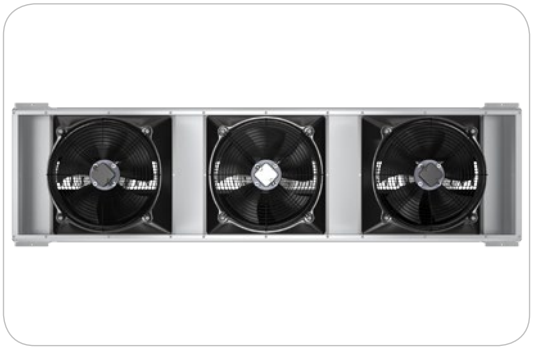
WIDE RANGE OF UNITS

Air curtains with water heat exchanger,
with electric heaters and without heating
components (ambient) are available in
2 lengths - 1,5 m and 2 m. Additionally 0,5 m
length curtain is available in ambient version.



INSTALLATION BRACKETS

Units have installation elements as standard
equipment.



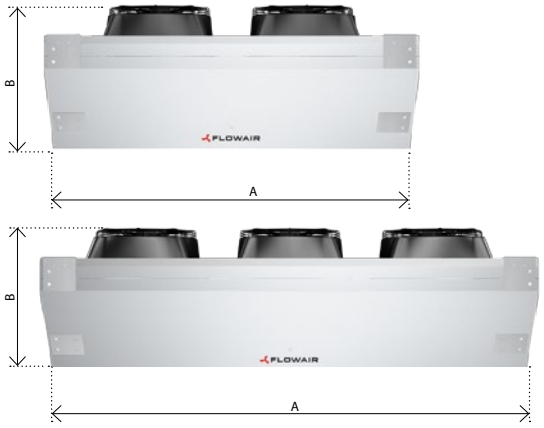
HIGH-EFFICIENT FANS

Air curtains are equipped with highly efficient
axial fans with protection degree IP54.

CONTROL SYSTEM WITH BMS CONNECTION

Air curtains are equipped with simple power
supply and control systems, which can be
connected to the building management
system (BMS).

DIMENSIONS



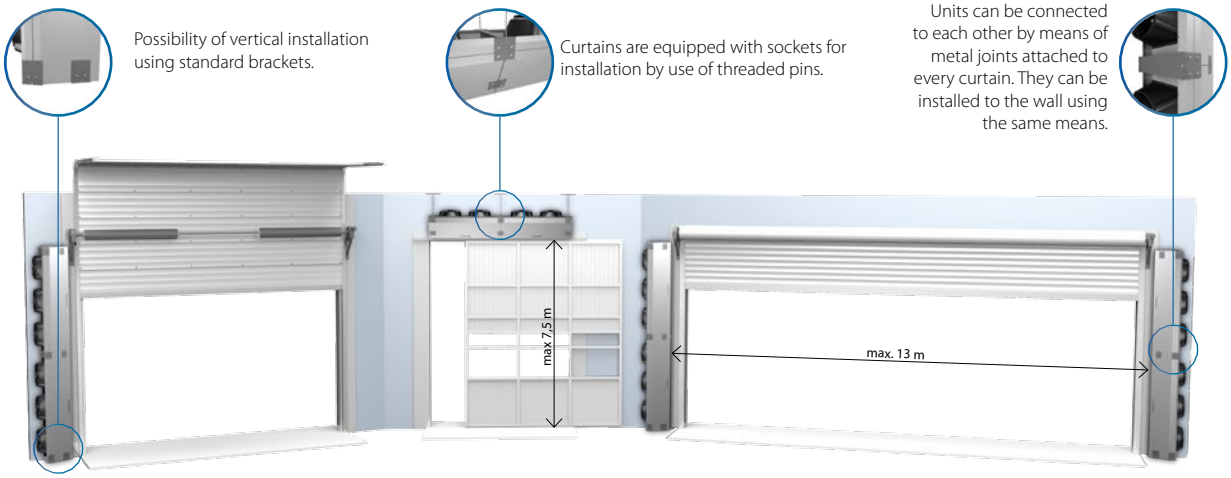
Dimensions [mm]	ELiS G 50	ELiS G 150	ELiS G 200
A	562	1562	2070
B	639	639	639
C	550	550	550
D	125	125	125

TECHNICAL DATA

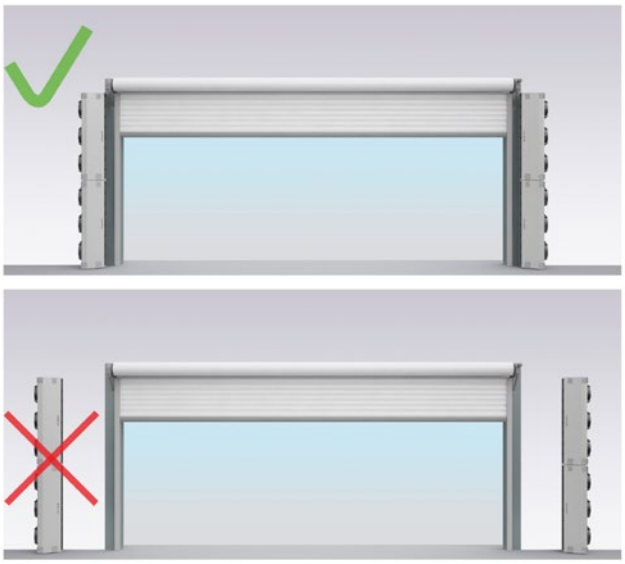
	G1-N-50	G1-W-150	G1-N-150	G1-E-150	G1-W-200	G1-N-200	G1-E-200
Fan	1 x axial	2 x axial			3 x axial		
	single phase, AC						
Max. air flow [m³/h]	3000	6200	6500	6300	8100	8600	8200
Power supply [V/Hz]	230/50	230/50			230/50		
Max. current consumption [A]	1,3	2,6			3,9		
Max. power consumption [kW]	0,3	0,6			0,9		
IP	54	54			54		
Max. acoustic pressure level* [dB(A)]	51	62			64		
Max. air stream range** [m]	7,5	7	7,5	7	7	7,5	7
	-	G1-W-150			G1-W-200		
Heat exchanger	-	Cu – Al, one row					
Heating capacity*** [kW]	-	9,1			13,9		
Curtain's air temperature rise (ΔT)***[°C]	-	12			12		
Max. water pressure [MPa]	-	1,6					
Max. water temperature [°C]	-	130					
Connection ["]	-	¾"					
	-	G1-E-150			G1-E-200		
Heating element	-	6 x PTC heating board			9 x PTC heating board		
Power supply [V/Hz]	-	3x400/50					
Rated current [A]	-	20,5			32		
Heating capacity of electric heaters [kW]	-	12,7			20		
Air temperature rise (ΔT)***[°C]	-	7			7		
	G1-N-50	G1-W-150	G1-N-150	G1-E-150	G1-W-200	G1-N-200	G1-E-200
Unit weight [kg]	19,3	47,4	43	49,8	62	58	67
Weight of unit filled with water [kg]	-	49,7	-	-	64,3	-	-

* Acoustic pressure level measured in the room with average sound absorption, capacity 1500 m³, at distance of 2 m from the unit.
** Vertical range of isothermal stream at velocity boundary equal to 3 m/s.
*** At max. air flow stream, inlet/outlet water temperature 90/70°C, inlet air temperature 18°C.

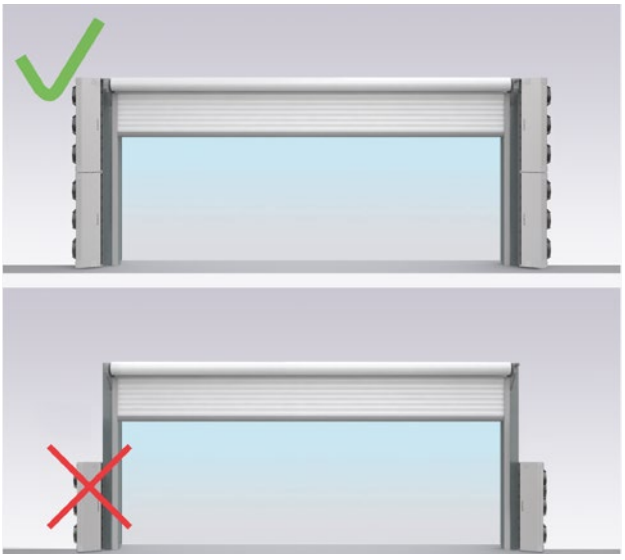
RECOMMENDED INSTALLATION DISTANCES

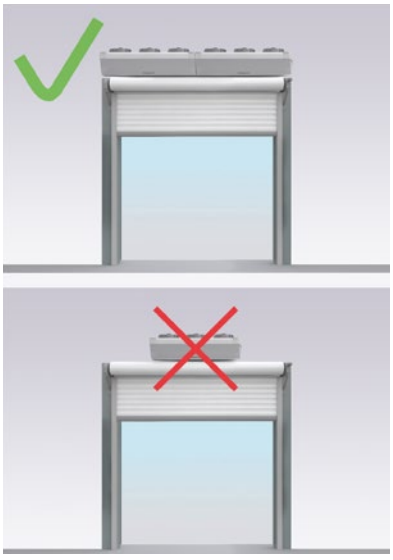


CORRECT INSTALLATION



Proper installation of ELiS G curtains provides effective air barrier for the whole surface of the open gate.
It ensures appropriate working conditions inside regardless of the temperature outside.





CONTROL SYSTEM

S1G
Power and control box for 1 air curtain

S3G
Power and control box for 3 air curtains

SRQ2d
two-way valve with actuator

SRQ3d
three-way valve with actuator

RA
room thermostat

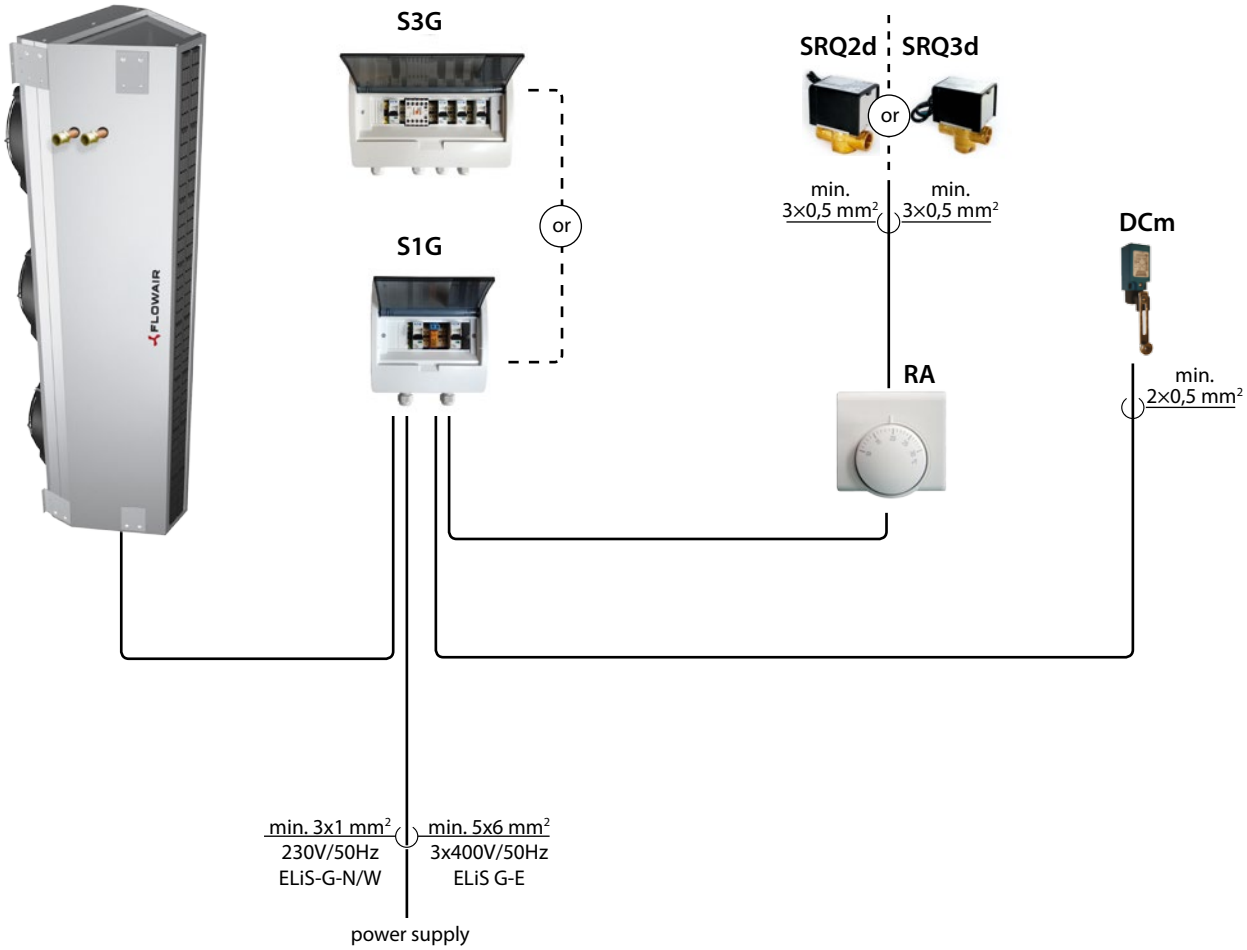
DCm
mechanical door switch

Control box supplies Elis G curtains. It has built-in overload protection and allows to connect door contact DCm and room thermostat. On request there is available control box equipped with BMS comunicating protocol - Modbus (RTU).

CONTROL SYSTEM COMPONENTS

Category	Symbol	Picture	Technical data
valves with actuator	SRQ2d two-way valve 3/4" with actuator		Protection degree: IP20 Power supply: 200-240 V 50/60 Hz Max. water temperature: +93°C Max. operating pressure: 1,6 MPa Kvs: 6,5 m^3/h Installation: on water outlet pipe Opening/closing time: 18s/5s Dimensions (HxWxL): 108x86x66 mm
	SRQ3d three-way valve 3/4" with actuator		Protection degree: IP20 Power supply: 200-240 V 50/60 Hz Max. water temperature: +93°C Max. operating pressure: 2,0 MPa Kvs: 6,5 m^3/h Installation: on water inlet pipe Opening/closing time: 18s/5s Dimensions (HxWxL): 118x86x66 mm
door contacts	DCm mechanical door contact		Operating temperature range: -10 ... +80°C Protection degree: IP65 Casing: plastic Connection wire length: none Type: 1xNC and 1xNO Resistance contacts load: 10 A Max. contacts voltage: 300 VAC or 250 VDC
boards	S1G Power and control box for 1 air curtain		Operating temperature range: 0 ... +40°C Installation: on the wall Dimensions (HxWxL): 190x90x225 mm Protection degree: IP40 Casing: plastic
	S3G Power and control box for 3 air curtains		Operating temperature range: 0 ... +40°C Installation: on the wall Dimensions (HxWxL): 212x98x303 mm Protection degree: IP40 Casing: plastic
thermostat	RA room thermostat		Operating temperature range: 0 ... +40°C Protection degree: IP30 Contacts load: inductive 4 A, resistance 6 A

CONNECTION DIAGRAMS



ELiS G1-W 200									
Tp1	**V**	**PT**	**Qw**	**Δpw**	**Tp2**	**PT**	**Qw**	**Δpw**	**Tp2**
°C	**m³/h**	**kW**	**l/h**	**kPa**	**°C**	**kW**	**l/h**	**kPa**	**°C**
		Tw1 / Tw2 = 90/70°C				**Tw1 / Tw2 = 70/50°C**			
0	8100	39,1	1720	8	13,5	28,1	1230	5	9,5
5		36,1	1590	8	17,5	25,2	1100	5	14
10		33,2	1460	7	22	22,4	980	4	18
15		30,3	1340	6	26	19,7	860	3	22
20		27,5	1210	5	30	17	740	3	26,5
		Tw1 / Tw2 = 60/40°C				**Tw1 / Tw2 = 80/60°C**			
0	8100	22,5	980	4	7,5	33,6	1480	7	11,5
5		19,7	860	3	12	30,7	1350	6	15,5
10		17	740	3	16	27,8	1220	5	20
15		14,3	620	2	20	25	1100	5	24
20		11,6	510	1	24,5	22,3	980	4	28
		Tw1 / Tw2 = 70/40°C				**Tw1 / Tw2 = 50/40°C**			
0	8100	23,6	690	2	8	21,6	1880	11	7,5
5		20,8	600	2	12,5	18,8	1640	9	11,5
10		18	520	1	16,5	16,1	1400	7	15,5
15		15,3	440	1	20,5	13,4	1170	5	20
20		12,6	370	1	24,5	10,8	940	4	24

ELiS G1-W 150									
Tp1	**V**	**PT**	**Qw**	**Δpw**	**Tp2**	**PT**	**Qw**	**Δpw**	**Tp2**
°C	**m³/h**	**kW**	**l/h**	**kPa**	**°C**	**kW**	**l/h**	**kPa**	**°C**
		Tw1 / Tw2 = 90/70°C				**Tw1 / Tw2 = 70/50°C**			
0	6200	33,8	1490	7	15	24,3	1060	5	11
5		31,2	1370	6	19	21,8	950	4	15
10		28,7	1260	5	23,5	19,4	850	3	19
15		26,2	1150	5	27,5	17	740	3	23
20		23,7	1050	4	31,5	14,7	640	2	27
		Tw1 / Tw2 = 60/40°C				**Tw1 / Tw2 = 80/60°C**			
0	6200	19,5	850	3	9	29	1280	5	13
5		17,1	750	3	13	26,5	1160	5	17
10		14,7	640	2	17	24	1060	5	21
15		12,4	540	1	21	21,6	950	4	25
20		10,1	440	1	25	19,2	850	3	29,5
		Tw1 / Tw2 = 70/40°C				**Tw1 / Tw2 = 50/40°C**			
0	6200	20,4	600	2	9	18,7	1620	9	8,5
5		18	530	2	13	16,3	1410	7	12,5
10		15,6	450	1	17,5	13,9	1210	5	16,5
15		13,3	390	1	21,5	11,6	1010	5	20,5
20		10,9	320	1	25,5	9,3	810	3	24,5

For operating parameters concerning other water temperatures, please contact Sales Office.

V – air flow
PT – heating capacity
Tp1 – inlet air temperature
Tp2 – outlet air temperature
Tw1 – inlet water temperature
Tw2 – outlet water temperature
Qw – water flow rate in heat exchanger
Δpw – water pressure drop in heat exchanger

WITH ELECTRIC HEATERS

	G1-E-150	**G1-E-200**
Power supply [V/Hz]	3x400/50	
Rated current [A]	20,5	32
Heating capacity [kW]	12,7	20
Air temperature rise ΔT [°C]	7	7

* inlet air temperature 10°C

NOTES