

Comfort Air Curtains
with in-built dynamic
advertising

Li-DR



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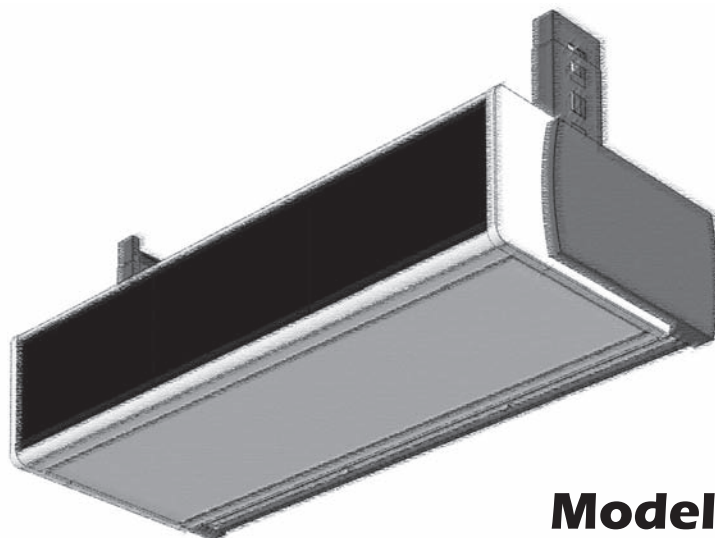
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Comfort air curtains Li are suitable especially for installation in:

- banks and hotels
- office buildings
- light industrial buildings
- shopping malls and supermarkets

Possibilities of airflow temperature:

- use of circulating inside air - room temperature air only
- use of circulating inside air - heated by electrical or hot water heat exchanger



Model Li-DR

Air Curtains „Li“ with in-built dynamic advertising (DR)

Air Curtains Li-DR with in-built dynamic advertisement represent an ideal combination of energy saving product and a modern advertising technology.

The use of TFT opens a new dimension in the use of the air curtain. It creates a very unconventional marketing display which ensures very effective advertising by its unusual positioning. It also reduces the need for other multimedia devices because the unit itself entirely replaces other standard marketing tools. Connection compatibility of the system allows the device to become a part of the local marketing network.

The TFT panels are linked together to create one big screen, which can be easily divided into two independent pictures as well for multiple offers or information.

AIR TO GOLD - possibility of letting the advertising space to other parties.

position: horizontal

heating: ambient (no heating) / heated (water/ electric or eventually steam heated)

for the door heights: 2,2; 2,5; 2,8; 3,5m

for the door widths: 1,0; 1,5; 2,0; 2,5m further linking the unit assembly for any larger widths

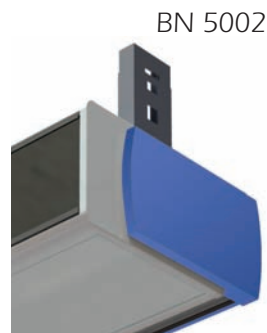
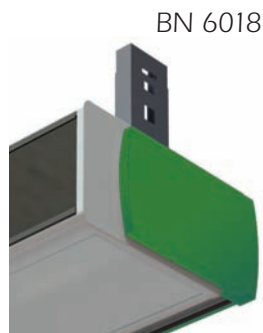
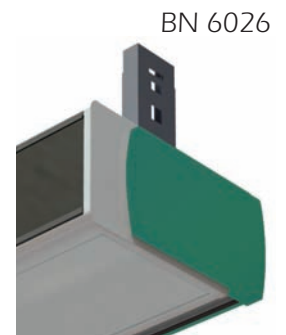
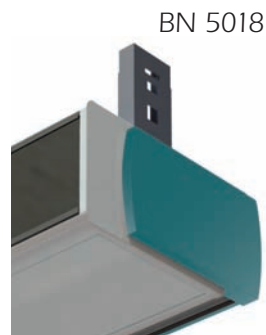
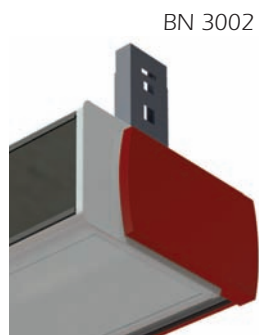
colour: RAL 7047 (grey) in standard, all other RAL palette colours on demand + colour options of unit adapters - BN



Under-view lighting in standard with all models Li-DR

Colour options of unit adapters:

Design adapters can be delivered in several colour options (BN) see pictures below



Description of performance options

PERFORMANCE TYPE A

Supplied in delivery:

Air Curtain with TFT panels, connection cables between unit and PC, hardware for linking the panels to one screen easy to instal to the computer.

Not included in delivery:


PC with hardware and software meeting the technical requirement of manufacturer.

Technical requirements:

Computer needs to be installed in visible distance from the unit to be able to operate the screen. On demand wireless keyboard and mouse can be supplied for easier control. TFT panels surge protection not included in delivery. (supplied by the costumer).

Distance:

Max. distance PC / unit 20 m (longer distance on demand)

Performance type A	Air Curtain	Computer	Additional monitor	HDMI cables
				
Included in delivery	✓	graphic card —	—	✓
Supplied by the costumer	—	✓	—	—

PERFORMANCE TYPE B

Supplied in delivery:


Air Curtain with TFT panels, connection cables between unit and PC, hardware for linking the panels to one screen easy to instal to the computer Computer with hardware and software meeting the technical requirement of manufacturer, without additional monitor.

Technical requirements:

Computer needs to be installed in visible distance from the unit to be able to operate the screen. On demand wireless keyboard and mouse can be supplied for easier control. TFT panels surge protection not included in delivery. (supplied by the costumer).

Distance:

Max. distance PC / unit 20 m (longer distance on demand)

Performance type B	Air Curtain	Computer	Additional monitor	HDMI cables
				
Included in delivery	✓	✓	—	✓
Supplied by the costumer	—	—	—	—

PERFORMANCE TYPE C

Supplied in delivery:


Air Curtain with TFT panels, connection cables between unit and PC, hardware for linking the panels to one screen easy to instal to the computer. Computer with hardware and software meeting the technical requirement of manufacturer. Additional monitor for controlling the screens from non visible distance (can be used separately as well).

Technical requirements:

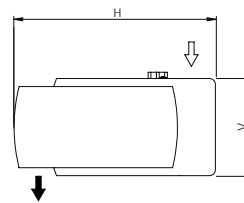
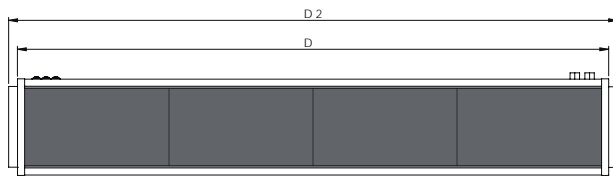
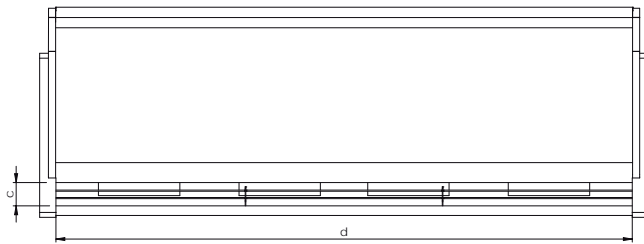
Computer can be installed anywhere within 20m from the unit. TFT panels surge protection not included in delivery. (supplied by the costumer).

Distance:

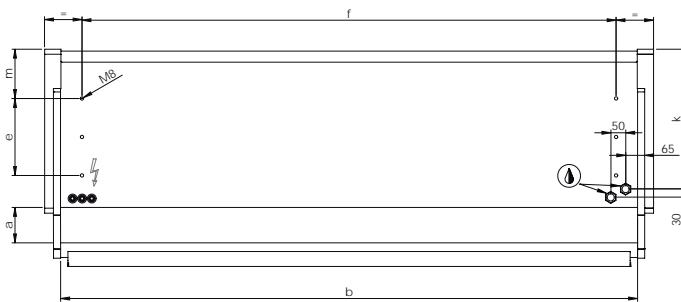
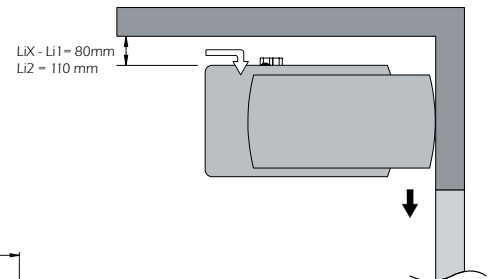
Max. distance PC / unit 20 m (longer distance on demand)

Performance type C	Air Curtain	Computer	Additional monitor	HDMI cables
				
Included in delivery	✓	✓	✓	✓
Supplied by the costumer	—	—	—	—

Built-in computer on demand



Minimum installation distance



Type - comfort air curtain				THCP 100-4-Lix	THCP 150-4-Lix	THCP 200-4-Lix	THCP 250-4-Lix	THCP 100-4-Li0	THCP 150-4-Li0	THCP 200-4-Li0	THCP 250-4-Li0	THCP 100-4-Li1	THCP 150-4-Li1	THCP 200-4-Li1	THCP 250-4-Li1	THCP 100-4-Li2	THCP 150-4-Li2	THCP 200-4-Li2	THCP 250-4-Li2
Recommended installation height			[m]	2,2	2,2	2,2	2,2	2,5	2,5	2,5	2,5	2,8	2,8	2,8	2,8	3,5	3,5	3,5	3,5
Dimensions	length	D	[mm]	1050	1550	2050	2520	1050	1550	2050	2520	1050	1550	2050	2520	1050	1550	2050	2520
	length	D2	[mm]	1110	1610	2110	2580	1110	1610	2110	2580	1110	1610	2110	2580	1110	1610	2110	2580
	height	V	[mm]	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385	385
	depth	H	[mm]	740	740	740	740	740	740	740	740	740	740	740	740	740	740	740	740
Suction grille dimensions	width	a	[mm]	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
	length	b	[mm]	1000	1500	2000	2470	1000	1500	2000	2470	1000	1500	2000	2470	1000	1500	2000	2470
Outlet grille dimensions	width	c	[mm]	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
	length	d	[mm]	1000	1500	2000	2470	1000	1500	2000	2470	1000	1500	2000	2470	1000	1500	2000	2470
Mounting		m	[mm]	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
		e	[mm]	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260
		f	[mm]	860	1360	1860	2330	860	1360	1860	2330	860	1360	1860	2330	860	1360	1860	2330
Connection		k	[mm]	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475	475

Technical data

Technical data	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP
	100-4-Lix N(E)	150-4-Lix N(E)	200-4-Lix N(E)	250-4-Lix N(E)	100-4-Li0 N(E)	150-4-Li0 N(E)	200-4-Li0 N(E)	250-4-Li0 N(E)	100-4-Li1 N(E)	150-4-Li1 N(E)	200-4-Li1 N(E)	250-4-Li1 N(E)	100-4-Li2 N(E)	150-4-Li2 N(E)	200-4-Li2 N(E)	250-4-Li2 N(E)	
Airflow [m³/h]	1750	2640	3540	4420	2290	3490	4690	5890	2830	3980	5720	6950	4230	5720	8880	10250	
hot water heater (water 80/60/18°C)																	
i=18°C capacity [kW]	13,3	22,7	31,2	39,7	15,5	26,7	36,7	47,1	17,4	28,9	41,1	51,7	21,5	35,2	52,4	64,2	
pressure loss [kPa]	1,7	4	2,5	3,1	2,3	5,4	3,4	4,1	2,8	6,2	4,2	4,9	4,1	8,8	6,5	7,2	
flow volume rate [m³/h]	0,54	0,97	1,33	1,69	0,65	1,11	1,55	2,02	0,72	1,22	1,76	2,2	0,9	1,51	2,23	2,74	
hot water heater (water 60/40/18°C)																	
i=18°C capacity [kW]	7,2	12,9	17,6	22,6	8,4	15,1	20,6	26,6	9,3	16,2	22,9	29,1	11,5	19,7	29	35,8	
pressure loss [kPa]	0,6	1,6	1	1,2	0,8	2,1	1,3	1,6	1	2,3	1,6	1,9	1,4	3,3	2,4	2,7	
flow volume rate [m³/h]	0,29	0,54	0,72	0,94	0,32	0,65	0,86	1,11	0,39	0,68	0,97	1,22	0,47	0,83	1,22	1,51	
Connection [DN]	20	20	20	20	20	20	20	20	20	20	20	20	20	20	25	32	
Electric heater	On demand																
Fan																	
fan power input [W]	540	810	1080	1350	540	810	1080	1350	810	1080	1350	1620	1080	1350	2160	2430	
fan current [A]	2,4	3,6	4,8	6,0	2,4	3,6	4,8	6,0	3,6	4,8	6,0	7,2	4,8	6,0	9,8	10,8	
fan voltage [V]	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	
Controller type - ambient and water heated air curtains	DITRONIC (PLUS)																
Controller type - electric heating	DITRONIC (PLUS)																
Degree of protection	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	
Noise level dB (A)	52	53	55	56	55	58	61	63	59	62	62	65	61	63	65	66	
Weight [kg]	43	65	83	108	44	67	85	110	45	69	86	111	60	75	100	130	

Technical data	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP
	100-4-Lix NN	150-4-Lix NN	200-4-Lix NN	250-4-Lix NN	100-4-Li0 NN	150-4-Li0 NN	200-4-Li0 NN	250-4-Li0 NN	100-4-Li1 NN	150-4-Li1 NN	200-4-Li1 NN	250-4-Li1 NN	100-4-Li2 NN	150-4-Li2 NN	200-4-Li2 NN	250-4-Li2 NN	
Airflow [m³/h]	1670	2510	3420	4390	2160	3320	4500	5620	2840	4200	5400	6580	3800	6100	8350	10550	
hot water heater (water 70/50/18°C)																	
i=18°C capacity [kW]	14,9	24,6	34,3	43,9	17,5	29,5	41,1	51,6	20,6	34,1	46,1	57,0	24,4	42,7	60,0	76,1	
pressure loss [kPa]	3,1	4,6	4,3	3,6	4,1	6,3	5,9	4,8	5,5	8,2	7,3	5,8	7,5	12,4	11,8	9,7	
flow volume rate [m³/h]	0,62	1,05	1,44	1,87	0,72	1,26	1,73	2,19	0,86	1,44	1,95	2,45	1,05	1,84	2,56	3,24	
hot water heater (water 60/40/18°C)																	
i=18°C capacity [kW]	10,8	18,1	25,4	32,4	12,6	21,7	30,2	37,9	14,9	25	33,8	41,8	17,5	31,1	43,9	55,4	
pressure loss [kPa]	1,8	2,7	2,6	2,2	2,4	3,8	3,6	2,9	3,2	4,9	4,4	3,4	4,3	7,2	6,9	5,7	
flow volume rate [m³/h]	0,43	0,76	1,08	1,37	0,54	0,9	1,29	1,62	0,61	1,05	1,44	1,76	0,72	1,33	1,87	2,38	
Connection [DN]	20	20	20	20	20	20	20	20	20	20	20	20	20	20	25	32	
Fan																	
fan power input [W]	540	810	1080	1350	540	810	1080	1350	810	1080	1350	1620	1080	1620	2160	2700	
fan current [A]	2,4	3,6	4,8	6,0	2,4	3,6	4,8	6,0	3,6	4,8	6,0	7,2	4,8	7,2	9,6	12,0	
fan voltage [V]	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	
Controller type - ambient and water heated	DITRONIC (PLUS)																
Degree of protection	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	
Noise level dB (A)	52	53	55	56	55	58	61	63	59	62	62	65	61	63	65	66	
Weight [kg]	44	66	85	110	45	68	87	112	47	71	88	113	62	77	103	134	

Technical data NX and NY exchangers and valves for temperature regulation

Technical data	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP	THCP
	100-4 Lix NX	150-4 Lix NX	200-4 Lix NX	250-4 Lix NX	100-4 LiO NX	150-4 LiO NX	200-4 LiO NX	250-4 LiO NX	100-4 LiZ NX	150-4 LiZ NX	200-4 LiZ NX	250-4 LiZ NX	100-4 LiZ NY	150-4 LiZ NY	200-4 LiZ NY	250-4 LiZ NY	
Airflow [m ³ /h]	1730	2420	3200	4100	2300	3100	4200	6090	2790	4890	6140	8090	3020	5300	7400	9350	
hot water heater (water 40/30/18°C) capacity [kW]	8,9	13,4	18,3	23,4	10,9	16,2	22,6	31,7	12,5	22,5	29,9	38,9	13,2	23,8	34,1	43,1	
pressure loss [kPa]	7,3	6,5	8,3	6,6	10,6	9,1	12,1	11,4	13,6	16,5	19,9	16,6	14,9	18,3	25,3	19,9	
flow volume rate [m ³ /h]	0,76	1,15	1,55	1,98	0,94	1,37	1,90	2,70	1,04	1,90	2,56	3,31	1,11	2,02	2,92	3,70	
hot water heater (water 35/25/18°C) capacity [kW]	6,0	9,3	12,8	16,3	7,3	11,1	15,6	21,8	8,4	15,2	20,5	26,5	8,8	16,0	23,2	29,3	
pressure loss [kPa]	3,7	3,4	4,4	3,5	5,3	4,7	6,3	6	6,7	8,3	10,3	8,5	7,4	9,2	12,9	10,1	
flow volume rate [m ³ /h]	0,5	0,79	1,08	1,37	0,61	0,94	1,33	1,87	0,68	1,29	1,73	2,27	0,76	1,37	1,98	2,48	
Connection [DN]	20	20	20	20	20	20	20	20	20	20	20	20	20	20	25	32	
Fan fan power input [W]	540	810	1080	1350	810	810	1080	1350	810	1350	1890	2160	1080	1620	2160	2700	
fan current [A]	2,4	3,6	4,8	6,0	3,6	3,6	4,8	6,0	3,6	6,0	8,4	9,6	4,8	7,2	9,6	12	
fan voltage [V]	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	
Controller type - ambient and water heated	DITRONIC (PLUS)																
Degree of protection	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	IP22	
Noise level dB (A)	54	57	57	58	58	60	60	61	58	60	61	62	60	61	64	65	
Weight [kg]	43	59	92	99	50	72	100	110	65	79	120	135	65	79	120	135	

2-way and 3-way valves for temperature regulation

According to the customer requirements, the water heat exchanger can be delivered with integrated 2-way or 3-way valve with a regulation head. The valve gearing can be thermostatic or electrothermic.

Thermostatic valve head is always delivered with separate sensor (20 - 50°C), that is installed behind the heat exchanger - regulation of outlet air.

Thermoelectric valve gearing can be delivered integrated in the heat exchanger. It is characterized by silent and reliable function. If the gearing is in voltage, the sensor is getting warm and after a time delay the gearing continuously closes. When the voltage is out, the gearing starts to continuously open. The gearing is always open with no voltage. electrical data: 230V/50Hz - 3V, IP 42.

Technical data for valves	kv*** value	admissible working temperature [°C]	admissible working pressure [bar]	admissible pressure difference [bar]
2-way valve - DN 25 (1")	2,5	120	10	0,25
2-way valve - DN 32 (5/4")	3,8	120	10	0,25
2-way valve - DN 25 XXL (1")*	4,3	120	16	0,20
3-way valve - DN 25 (1")	4,6	100	10	0,50
3-way valve - DN 32 (5/4")	6,4	100	10	0,25
3-way valve - DN 32 XXL (5/4")***	10,0	120	10	0,20
3-way valve - DN 40 XXL (2")***	12,0	120	10	0,20

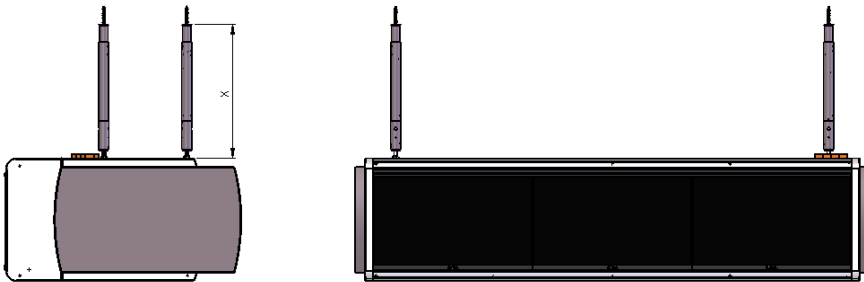
* high flow valve

** for DN25, 32 valid for (K) 3,0, for DN25 XXL valid for (K) 6,0

*** with thermoelectric gearing only



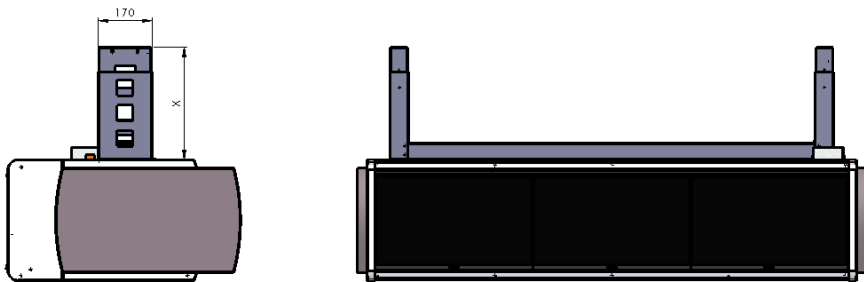
Suspensions type „T“ for Li DR air curtains



The suspension height can be adjusted on demand
 Suspension colour - grey RAL 7011 or anodized aluminium

suspension type	"X" (mm)
suspension type „T1“	220 - 1200*
suspension type „T2“	220 - 2200
* Minimum suspension height 120 mm	

Suspensions type „U“ for Li DR air curtains



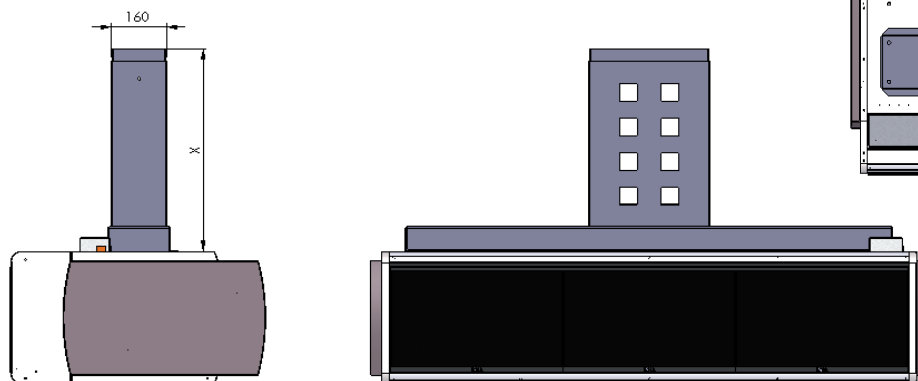
The suspension height can be adjusted on demand
 Suspension colour - grey RAL 7011 or anodized aluminium

Top view



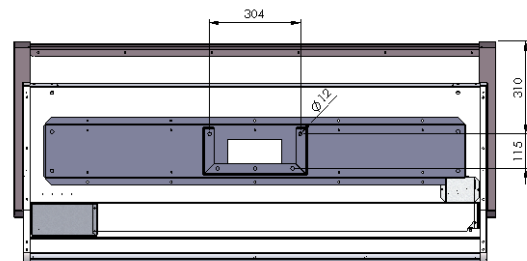
suspension type	"X" (mm)
suspension type „U1“	300 - 465
suspension type „U2“	480 - 810
suspension type „U3“	825 - 1455

Suspensions type „S“ for Li DR air curtains



The suspension height can be adjusted on demand
 Suspension colour - grey RAL 7011 or anodized aluminium

Top view

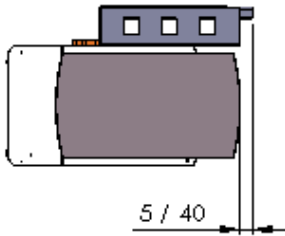


suspension type	"X" (mm)
suspension type „S1“	300 - 480
suspension type „S2“	500 - 875
suspension type „S3“	900 - 1605

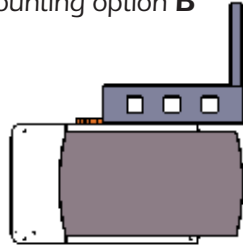
Wall suspensions type „N“ for Li DR air curtains

Wall suspensions type „N“

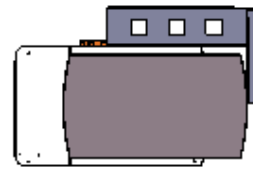
Mounting option **A**



Mounting option **B**

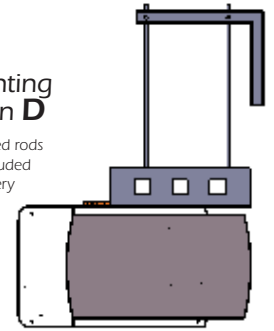


Mounting option **C**

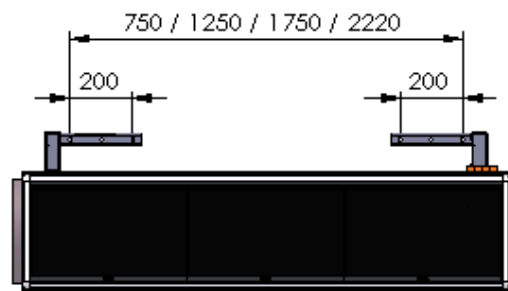
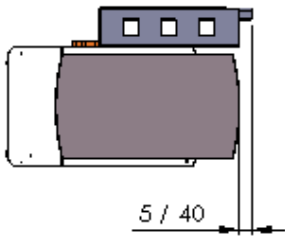


Mounting option **D**

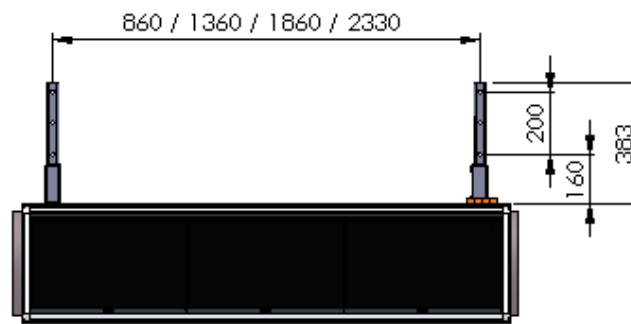
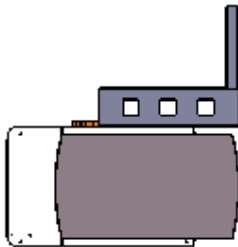
* Threaded rods not included in delivery



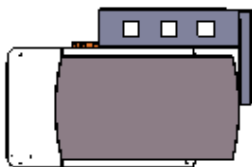
Mounting option **A**



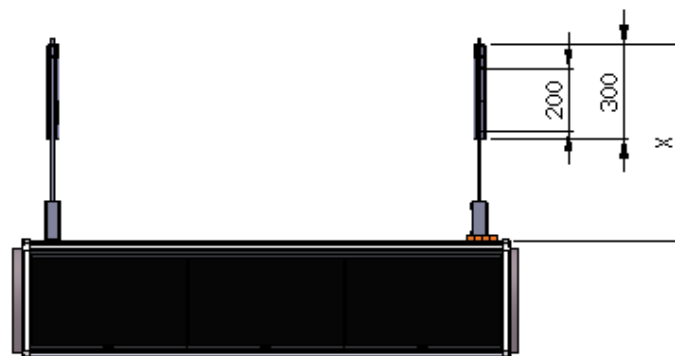
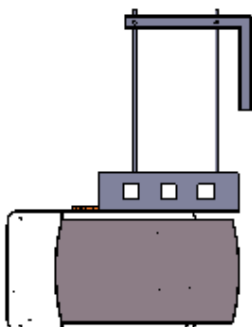
Mounting option **B**



Mounting option **C**



Mounting option **D**



Air curtain regulation

Controllers suitable for water/electric heated and ambient air curtains

Controller type	Water heated	Electric heated
DITRONIC (PLUS)	for all types	for all types

Ditronic / Ditronic Plus controllers

Control specification:

Ditronic / Ditronic Plus controller is fitted with an intelligent processor regulator, designed specifically for Comfort and Designer air curtains that are fitted with AC fans. The unit offers a wide range of functions in the standard version (most control needs in one menu). Due to the units sleek design and readable blue colour screen, it is suitable for most kinds of interior design applications (from a basic type to the more expensive stylish type). There are several levels in the control menu in order to provide the user with different control options, from the very simple to client customised settings. The controller can be locked for user protection and failure and operating output is standard. The Ditronic Plus controller can be remotely operated by use of a PC and the USB port. The Ditronic Plus unit is also suitable for connection using a UTB cable with a RJ45 connector.



Dimensions (mm):

DITRONIC – 148 long x 80 high x 33 deep

DITRONIC PLUS – 148 long x 80 high x 33 deep

The controller is suitable for the wall mounting and IP20 environment.

The controller is to be connected via cable with the RJ45 connector, see picture

Description of standard functions of Ditronic controller for air curtain regulation.



Week time clock

The unit is programmable with simple calendar settings in order to run in different mode on working days and during the weekend (options: 1-7 or 1-5 and 6-7).



Anti-frost protection

All water heated air curtains are equipped with anti-frost protection. This protection works in two stages. When the risk of freezing is detected, the valve opens, the fans turn off and a signal sign is displayed on Ditronic.



Room anti-frost protection

The room sensor controls the temperature inside of the room and sends a signal to the Ditronic controller to avoid the risk of freezing.



Valve settings

The electrothermic valve settings can be changed according to the medium quality.



Indication of the room and outlet temperature

The room, outlet and required temperature is displayed on the front panel.



Door contact

The unit can be controlled with the door contact. After the door is closed, the delayed running is activated. The delayed time period is adjustable.



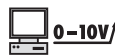
Keyboard Lock

The buttons can be easily locked to prevent any unwanted changes of settings.



Regulation via room or outlet temperature settings.

The system allows to control the temperature according to the room or outlet air temperature. There is an inbuilt function to restrict the min. outlet temperature at the same time.



0-10V/

BMS 0-10V

To control the unit by BMS 0-10V it is necessary to order an additional module.



ON
ALARM

Failure signalization

The unit is equipped with outputs for failure and operation to signalize the failure on the display.



Medium temperature indication

Current medium temperature is indicated on the display (water heated units only).



Restrictive exterior thermostat

When the required temperature is reached, the heating (or the whole unit) can be switched of via the restrictive thermostat.



MASTER/SLAVE

The units can be connected in series as Master and Slaves. The room sensor is used for MASTER unit only.



External contact

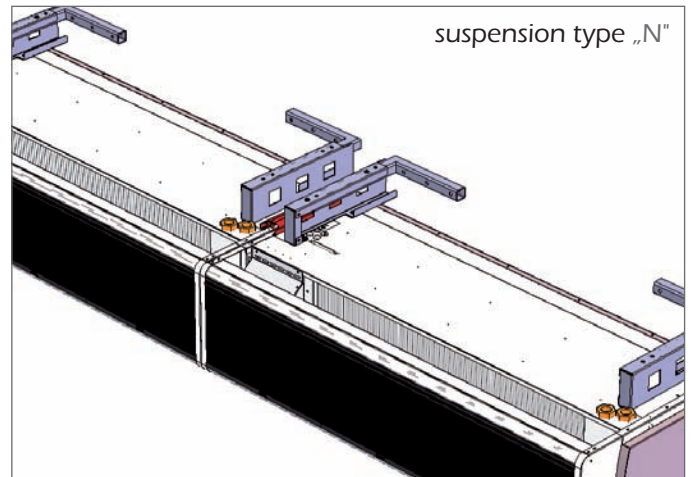
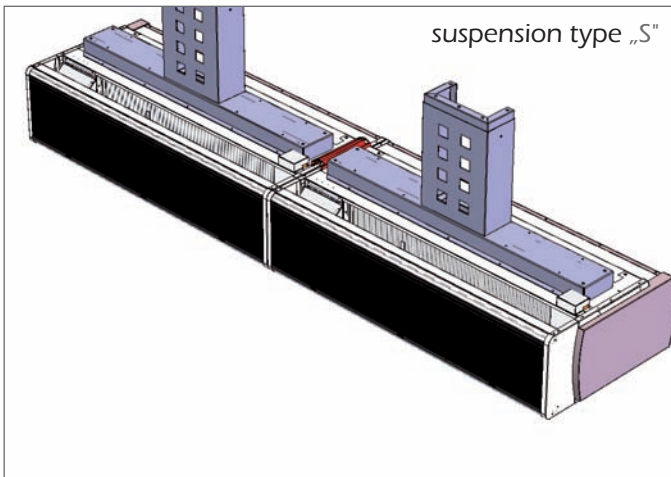
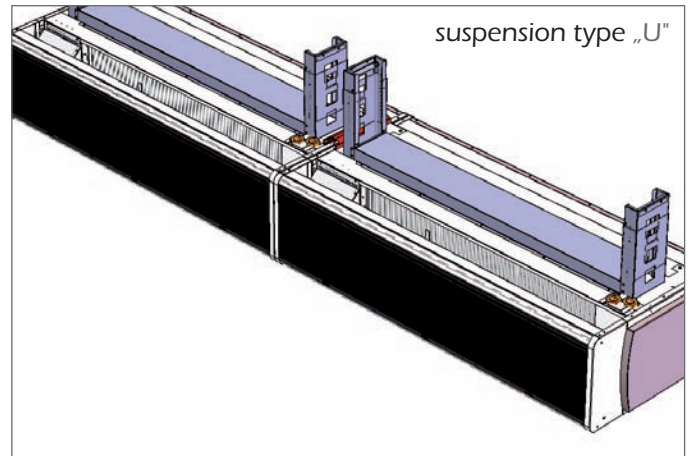
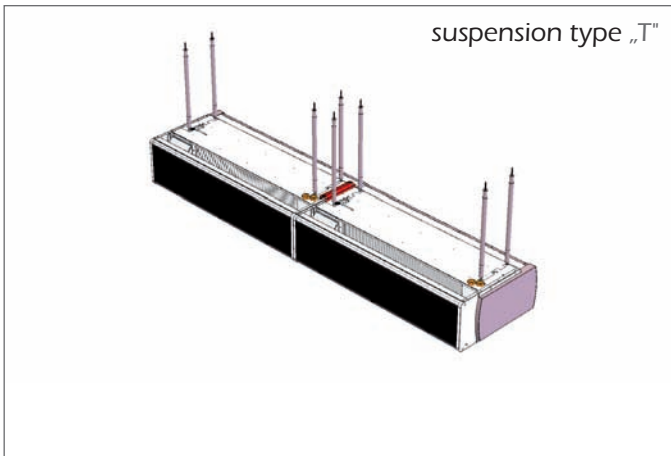
The Air curtain can be switched on/off from a distant place with the external contact.

AUTO

Automatic mode

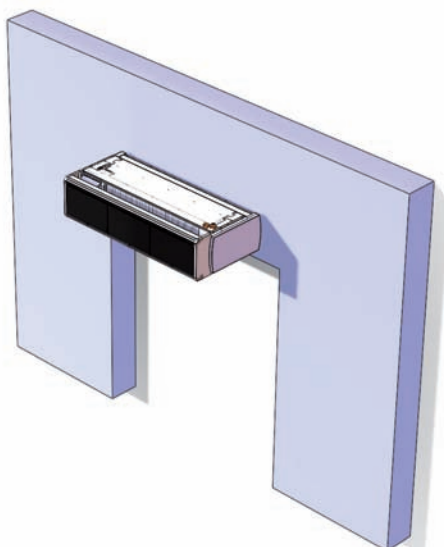
The unit can run in the automatic mode. When the door is closed, the unit runs on the first step (fan and heating). When the door opens, the fans and heating run on the second or third step depending on the controller settings.

Unit linking „Li DR“

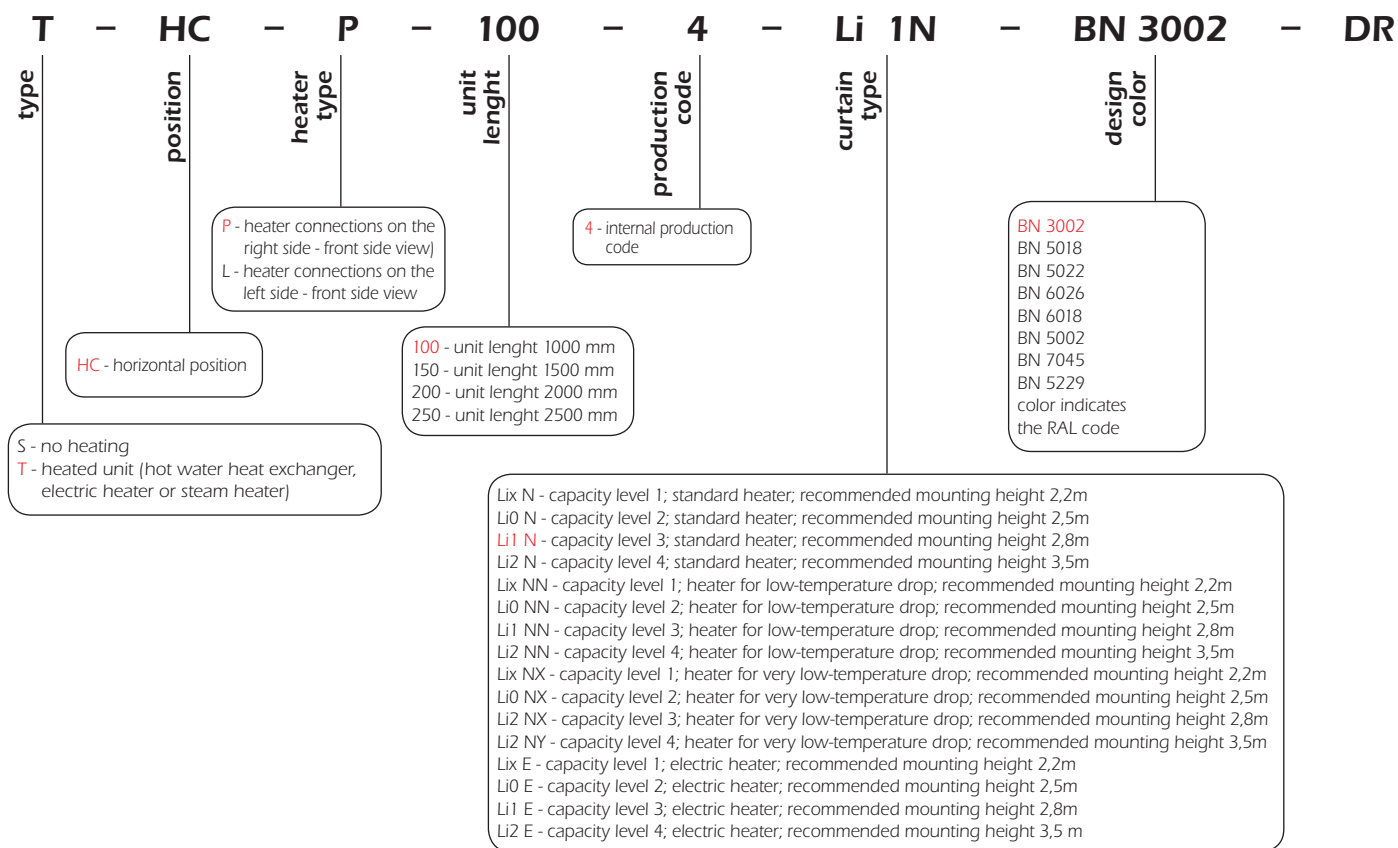


Installation of „Li DR“

horizontal: type „HC“ „XX0“

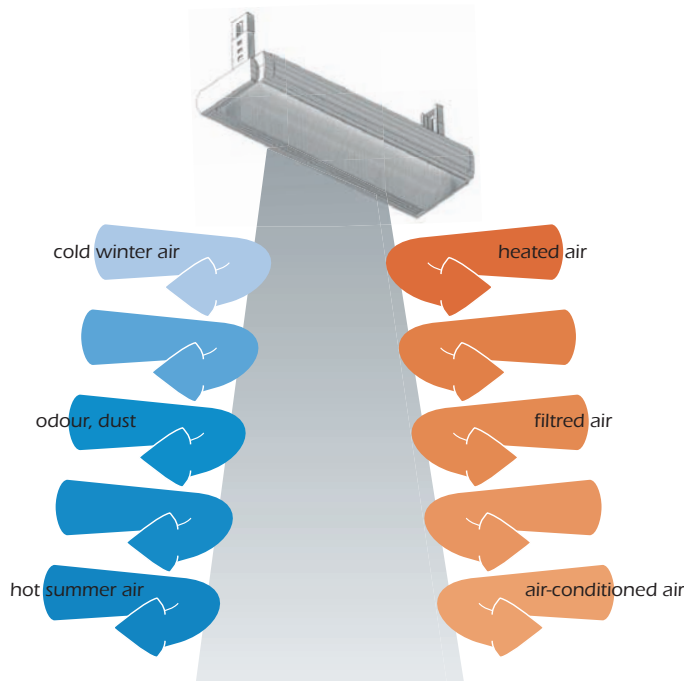


Order code:



Accessories:

- ✓ thermostatic valve
- ✓ wall suspensions
- ✓ ceiling suspensions
- ✓ door contact
- ✓ controllers



Official distributor: