DLR

Linear slot diffuser with adjustable aluminium deflectors

Product	DLR
Application	Wall or ceiling supply with deflectors or return without deflectors
Construction	Frame and deflectors in extruded anodised aluminium Other paint finishes on request

SPECIFICATION

Linear slot diffuser with adjustable aluminium deflectors with a high induction ratio (mixing capacity) between supply air and room air. Made of coupled aluminium profiles to obtain multiple slots housing adjustable aluminium deflectors. The supply airflow can be directed right, left or alternating, by varying the deflector position.

MOUNTING

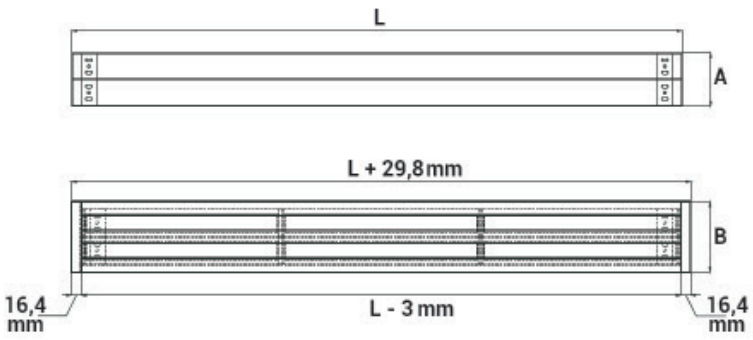
With side screws or centre screw on the plenum mounting bridge. Installation height from 2.5 to 4

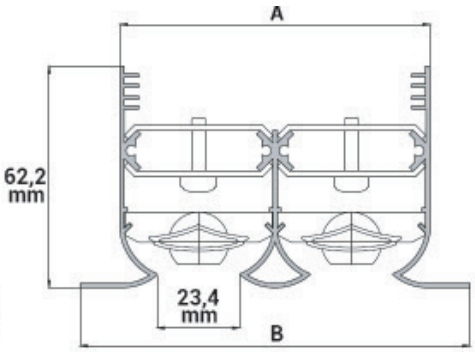
ACCESSORIES

Galvanised plenum, insulated plenum, 90° connection angle and continuity kit.

VERSIONS

DLR-10 return diffusers (without deflectors).
DLR-20 supply diffusers with ALUMINIUM deflectors.
DLRB-20 supply diffusers painted white RAL9010 with white ALUMINIUM deflectors.
DLR-40 supply diffusers with ALUMINIUM deflectors and sliding damper.
DLRB-40 white RAL9010 painted supply diffusers with white ALUMINIUM deflectors and sliding damper.
DLR-50 supply diffusers with ALUMINIUM deflectors, equaliser and sliding damper.
DLRB-50 white RAL9010 painted supply diffusers with white ALUMINIUM deflectors, equalizer and damper sliding.





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OPERATING DATA

LINEAR DIFFUSER DLR				
No. of SLOTS	L	A	B	NUMBER OF BRIDGES
1 SLOT	800	44,4	67	2
2 SLOTS		87,6	110,2	2
3 SLOTS		130,8	153,4	2
4 SLOTS		174	196,6	2
1 SLOT	1000	44,4	67	2
2 SLOTS		87,6	110,2	2
3 SLOTS		130,8	153,4	2
4 SLOTS		174	196,6	2
1 SLOT	1500	44,4	67	3
2 SLOTS		87,6	110,2	3
3 SLOTS		130,8	153,4	3
4 SLOTS		174	196,6	3
1 SLOT	2000	44,4	67	4
2 SLOTS		87,6	110,2	4
3 SLOTS		130,8	153,4	4
4 SLOTS		174	196,6	4

All dimensions are in mm

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Linear slot diffuser with adjustable aluminium deflectors

OPERATING DATA

No. of SLOTS	effective section m²	AIR FLOW RATE, THROW AND PRESSURE DROP							
1 SLOT	0,0099	m3/h	72	107	143	179	215	251	287
		Pa	4	9	15	24	35	47	61
		Lo(m)	2,6	4,0	5,3	6,6	7,9	9,2	10,5
		Lv(m)	1,8	2,8	3,7	4,6	5,5	6,5	7,4
2 SLOTS	0,0199	m3/h	143	215	287	358	430	501	573
		Pa	5	10	18	29	41	56	74
		Lo(m)	3,8	5,6	7,5	9,4	11,3	13,2	15,1
		Lv(m)	2,6	4,0	5,3	6,6	7,9	9,2	10,5
3 SLOTS	0,0298	m3/h	215	322	430	537	645	752	860
		Pa	6	14	26	40	58	79	103
		Lo(m)	4,4	6,7	8,9	11,1	13,3	15,6	17,8
		Lv(m)	3,1	4,7	6,2	7,8	9,3	10,9	12,4
4 SLOTS	0,0398	m3/h	287	430	573	716	860	1003	1146
		Pa	10	23	41	64	92	125	163
		Lo(m)	5,0	7,6	10,1	12,6	15,1	17,6	20,2
		Lv(m)	3,5	5,3	7,1	8,8	10,6	12,4	14,1
Vk		m/s	2	3	4	5	6	7	8
NOISE LEVEL INDEX		dB(A)	25-30	30-35	35-40	40-45	42-48	45-50	50-55

Data for 1m length diffusers

Vk: effective velocity (m/s)

m³/h: air flow rate

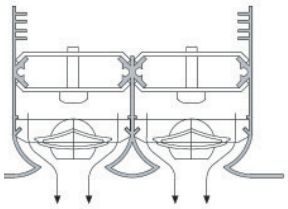
Pa: pressure drop in Pascal

Lo(m): horizontal throw in metres calculated with flush ceiling installation and 0.25 m/s terminal velocity

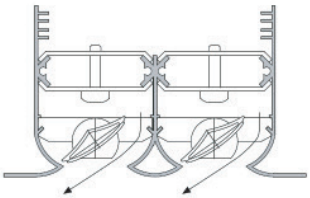
Lv(m): vertical throw in metres calculated with flush ceiling installation and 0.25 m/s terminal velocity

dB(A): noise level index

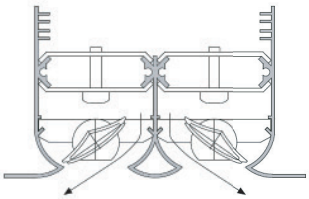
THROW CHARACTERISTICS



VERTICAL THROW



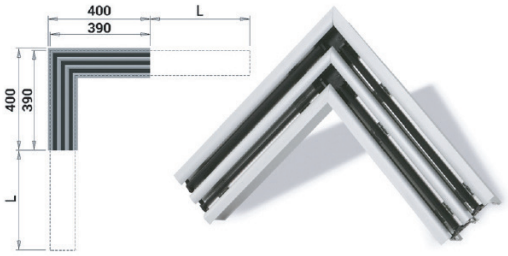
HORIZONTAL THROW 1 WAY



HORIZONTAL THROW 2 WAY

CONNECTION ANGLE

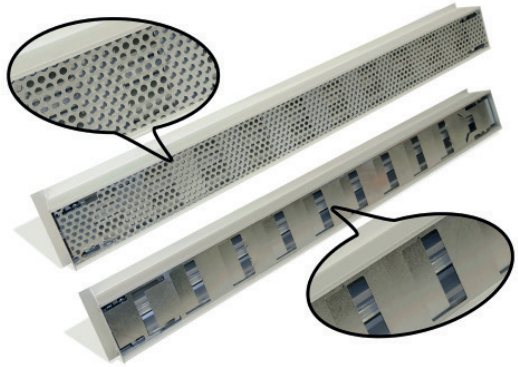
Aesthetic connecting element between the two lines of linear diffusers at 90° angle and 400 length mm per side.
All dimensions are expressed in mm.



CONTINUITY KIT

Aesthetic connecting element between the two lines of linear diffusers at 90° angle and 400 length mm per side.
All dimensions are expressed in mm.

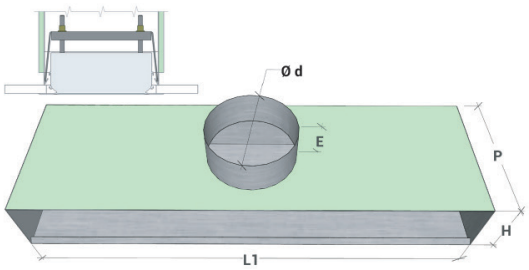
EQUALISING MESH AND SLIDING DAMPER



DLR

Linear slot diffuser with adjustable aluminium deflectors

PLENUM DIMENSIONS AND MOUNTING SYSTEM WITH FIXING BRIDGES



No. of SLOTS	L	PLENUM DIMENSIONS					
		L1	Number of branches	Ø d	P	H	E
1 SLOT	800	815	1	123	200	59	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				
2 SLOTS	800	815	1	123	240	102	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				
3 SLOTS	800	815	1	123	240	145	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				
4 SLOTS	800	815	1	123	285	189	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				

MOUNTING DIAGRAM

Installation, adjustments and maintenance are easy. Fixing to the plenum is carried out by side screws or concealed central bridge.

La **regulatione** of the air flow distribution is done by manually acting on the deflectors which are equipped with snap movement that allows position maintenance during operation.

FIG. 1

FIG. 1
BRIDGE MOUNTING TO PLENUM FIXED TO CEILING

- hang the plenum from the ceiling using appropriate brackets or chains fixed to the plenum whose outer edge can be
perforated;
- insert the flexible duct onto the connection spigot securing it with the appropriate hose clamp;
- rotate the diffuser deflector to vertical position as shown in the figure near the fixing bridge;
- screw the screw to the plenum fixing bridge by inserting it into the appropriate brackets inside the diffuser frame;
- perform preliminary damper adjustment by acting on the pin with Allen key and tightening the hexagonal screw pin mounting;
- rotate the blades to the desired position;

FIG. 2

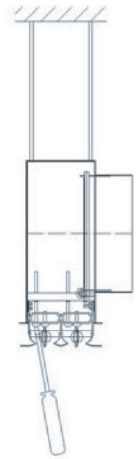
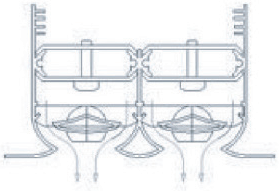


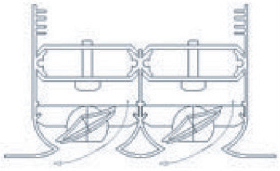
FIG. 2
MOUNTING WITH SIDE SCREWS TO PLENUM FIXED TO CEILING

- hang the plenum from the ceiling using appropriate brackets or chains fixed to the plenum whose outer edge can be
perforated;
- insert the flexible duct onto the connection spigot securing it with the appropriate hose clamp;
- rotate the diffuser deflector to vertical position as shown in the figure near the fixing bridge;
- screw the screw to the plenum fixing bridge by inserting it into the appropriate brackets inside the diffuser frame;
- perform preliminary damper adjustment by acting on the pin with Allen key and tightening the hexagonal screw pin mounting;
- rotate the blades to the desired position;

FIG. 3



Deflector position
for maximum
vertical throw



Deflector position
for maximum
horizontal throw

FIG. 3
ADJUSTMENT OF MOVABLE DEFLECTORS

- The adjustable deflectors can be regulated from 0° angle, maximum vertical throw position (used in
heating) to a maximum angle, maximum horizontal throw position (used in cooling).
The deflectors are equipped with a snap positioning device to guarantee precision and
always correct positioning even at high flow rates and velocities.