50-FR-4-DECO

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Square Diffuser

Product description

The **KOOLAIR 50-FR-4-DECO** is a 4 way square supply diffuser for variable or constant air flow installations. Dimensions: 595x595 mm or 670x670 mm (other dimension upon request), with optional number of slots ranging from 1 to 4, it is specially designed for installation in false ceilings of 600x600, 675x675 mm or continuous ceilings.

Manufactured with extruded aluminium profiles, with removable central core adjustable to the same design and the finish of adjacent false ceiling tile.
Inner profiles and removable central core enable easy access to the plenum for cleaning, to the regulation damper and mounting accessory. The finishing can be RAL painted or anodized aluminium upon demand. It can incorporate a lateral or upper plenum of a galvanized steel sheet with a regulation damper accessible from the false ceiling, with an optional interior insulation. As an option, it can be manufactured in other dimensions to accommodate for other types and dimensions of false ceilings.

Accessories

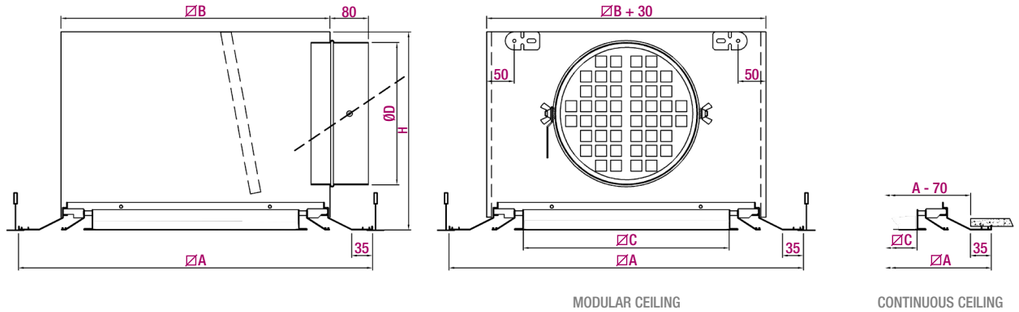
PFL. Fixed plenum with lateral connection.
PFS. Fixed plenum with upper connection.
A. Inner isolation in plenum connection.
RE. Regulation damper embedded in the plenum box connection opening with access from the false ceiling or from inside the plenum box by removing the central core.
O. With opposed blade volume regulation damper; recommended for diffusers without steel sheet plenum box.
PM. Mounting bridge enabling diffuser fixing in continuous false ceiling installations without steel sheet plenum box.
SM. Mounting system enabling fixing of internally embedded diffuser in external profile in continuous false ceiling installations without without steel sheet plenum box.

Models

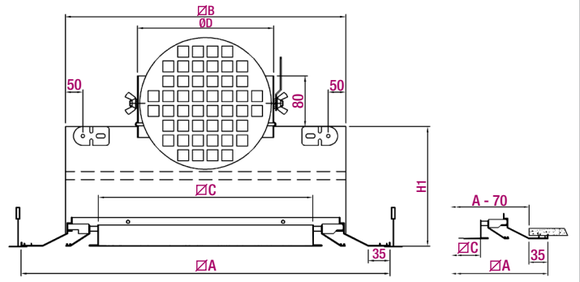
50-FR-4-DECO. 4 directions square supply diffuser with 1 to 4 ways, with steel sheet central core, RAL painted upon request, in matching design, including the same micro-perforation pattern as the adjacent ceiling tile.

50-FR-4-PANEL. 4 directions square supply diffuser with 1 to 4 ways, with empty central core to enable adjustment to ceiling panel (gypsum board, plaster, etc.) in the same installation.

General dimensions



50-FR-4-DECO+PFL-RE



50-FR-4-DECO+PFS-RE

MODEL	A	B	C	ØD	H	H1
1-600	595	452	375	199	300	174
2-600			325	249	350	199
3-600			250	249	350	199
4-600			175	314	415	232
1-675	670	527	450	199	300	174
2-675			400	249	350	199
3-675			325	249	350	199
4-675			250	314	415	232

Units in mm.

Selection table (50-FR-4-DECO-600)

No. of ways	Q (m^3/h)	L_{wA} [dB(A)]	ΔP_t (Pa)	X (m)	V_k (m/s)
1	260	24	8	2,0	3,1
	350	32	14	2,7	4,2
	460	40	25	3,6	5,5
2	370	24	6	2,3	2,8
	500	32	11	3,1	3,8
	650	40	18	4,1	4,9
3	500	24	6	2,5	2,5
	670	32	10	3,4	3,3
	880	40	18	4,5	4,4
4	600	24	5	2,8	2,6
	800	32	10	3,8	3,4
	1100	40	18	5,2	4,7

SYMBOLS

Q (m^3/h): Air flow.
LwA [dB(A)]: Sound power level in dB(A).
ΔP_t (Pa): Pressure drop.
X (m): Throw for an air flow maximum velocity of 0.25 m/s, and thermal jump ΔT=-10 ºC.
Vk (m/s): Effective velocity.