VF/KSOF

Fire Rated Air Valve

Quick Facts

- Circular format air valve
- CE marked based on product standard EN 15650:2010
- Tested according to test standard EN 1366-2
- Low sound level and good natural sound attenuation
- Supplied with mounting collar for ease of installation
- Ideal for low airflow applications
- Typically mounted directly into circular ductwork

WATERLOO by Swegon

Contents

Technical Description

Design

The VF/KSOF is designed to give compact and subtle means of supplying and extracting air from the space. Circular air valve CE marked is used to prevent fire and smoke from entering the duct system. Upon reaching 70°C a spring-loaded fuse will shut off the valve preventing air, fire and smoke from passing. Once closed the valve must be replaced. Valve is supplied with mounting collar enabling it to fix directly into ductwork.

Material and Surface Treatment

The air valve is manufactured from galvanised sheet steel. The air valve is powder coated as standard to RAL 9010 (70%). The valve has a plastic gasket that forms an airtight seal to the mounting collar. The mounting collar is manufactured from galvanized sheet steel.

Model Types

The VF/KSOF air valve is designed to suit typical duct sizes. Sizes available are Ø100mm, Ø125mm, Ø150 and Ø200mm.

Accessories

Air valve is supplied with mounting collar for ease of installation directly into ductwork.

Installation

Refer to 'Installation instructions' document.

Maintenance

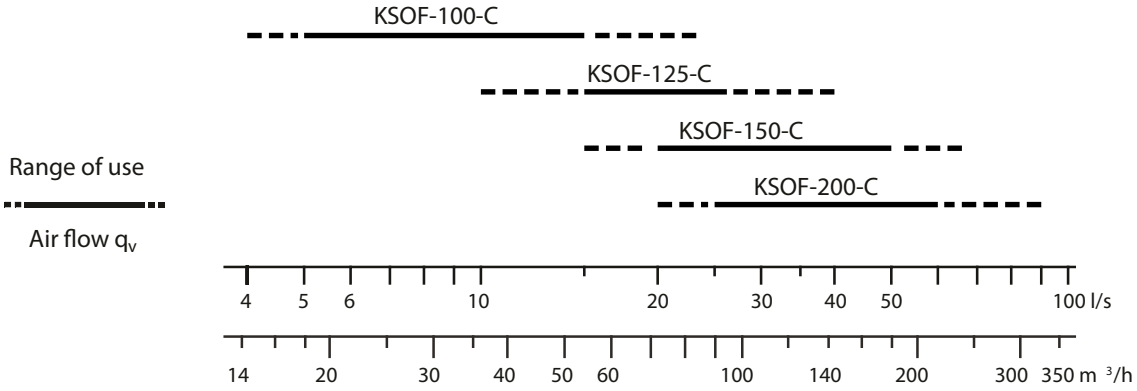
Refer to 'Installations instructions' document.

Environment

KSOF valves are suitable for a C2 internal environment classification. Design life >25 years.

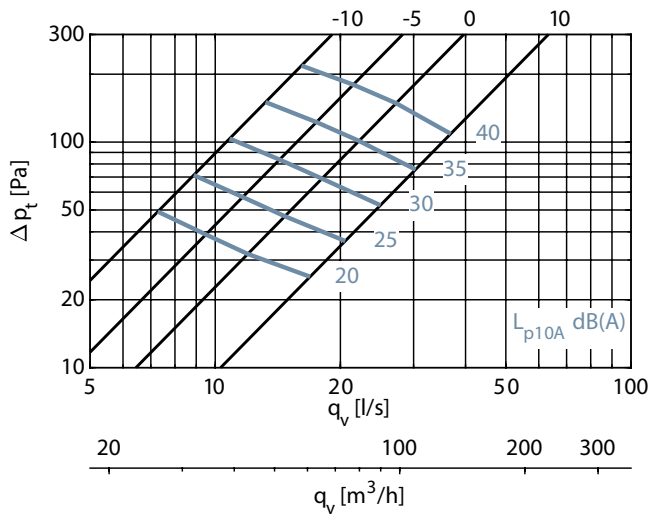
Sizing

Quick Selection

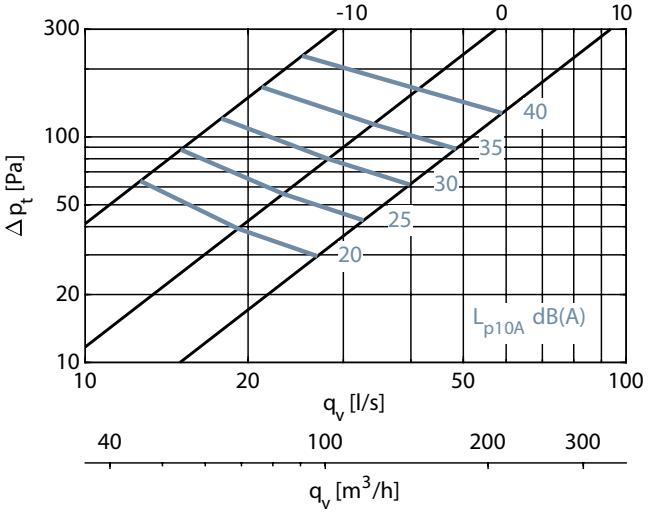


Nomograms

KSOF-100-C



KSOF-125-C



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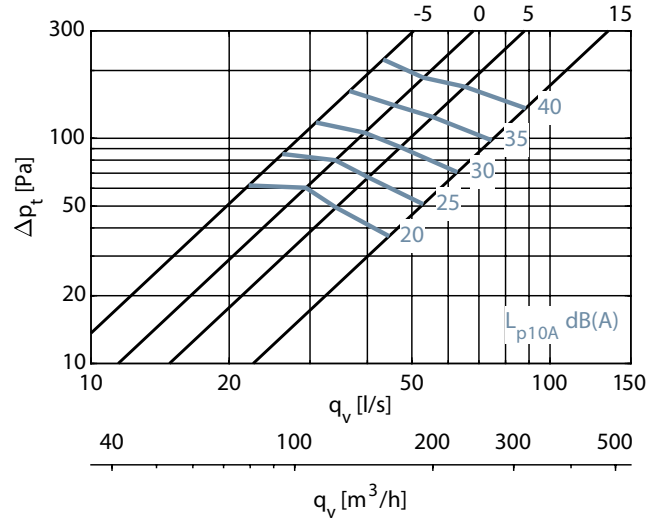
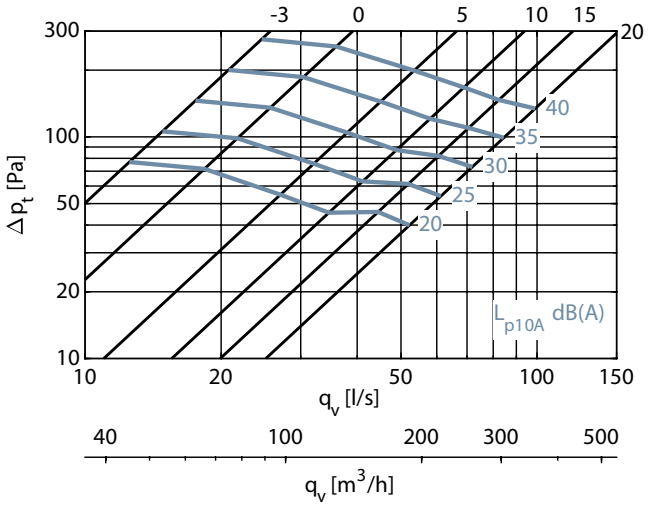


KSOF-200-C



Acoustic Data

Sound Power Level L_w

	Corection of sound level Koct (dB) at octave bands, middle frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
100	8	-4	-2	0	-2	-2	-5	-9
125	8	-4	-2	-2	-3	0	-6	-11
150	9	-2	-3	-2	1	-5	-5	-13
200	7	-3	-5	-4	0	-3	-5	-13
Tolerance +/-	6	3	2	2	2	2	2	3

Sound power levels by octave bands are obtained by adding to total sound pressure level Lp10A, dB(A) the corrections Koct presented in the table according to the following formula:

$L_{Woct} = L_{p10A} + K_{oct}$

Correction K_{oct} is an average value in the range of use of KSOF unit.

Sound Attenuation ΔL

		Sound attenuation ΔL (dB) at octave bands, middle frequency (Hz)							
	Adjustment(mm)	63	125	250	500	1000	2000	4000	8000
100	-10	22	19	16	16	16	18	9	9
	0	22	18	13	12	12	13	6	7
	10	22	17	12	9	8	11	4	6
125	-10	21	18	15	14	15	14	10	7
	0	19	17	12	11	11	10	6	5
	10	20	16	10	9	9	8	5	5
150	-10	19	16	14	14	14	16	8	8
	0	18	14	11	11	11	13	5	7
	10	18	14	9	9	9	11	4	6
200	-10	15	15	14	14	16	15	10	9
	0	14	12	11	10	12	12	7	7
	10	13	11	8	8	9	10	6	6
Tolerance +/-		6	3	2	2	2	2	2	3

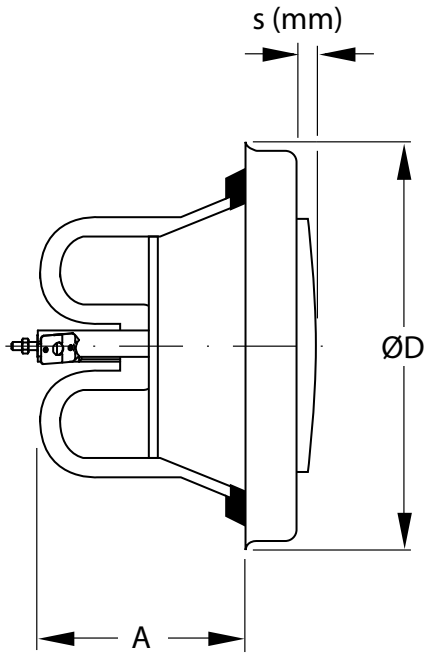
The average sounds attenuation ΔL from duct to room including the end reflection of the connecting duct installation, is obtained in the table above.

Definitions

q_v	Air volume	l/s, m³.h
Δp_t	Total pressure drop	Pa
L_{p10A}	Sound pressure level with 4 dB room attenuation (10m2sab)	dB(A)
L_{WOCT}	Sound power level	dB
ΔL	Sound attenuation	dB
K_{OCT}	Correction	dB

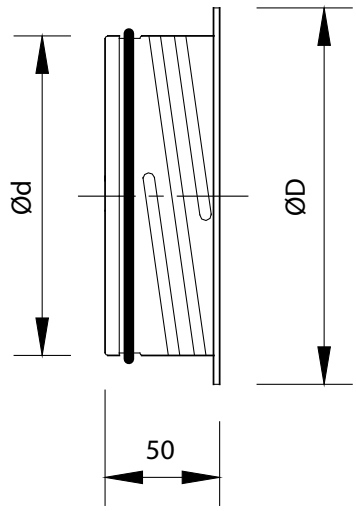
Dimensions & Weights

KSOF



KSOF	øD (mm)	øA (mm)	Weight (kg)
100	135	72	0.3
125	163	85	0.38
150	191	86	0.5
200	241	107	0.72

KKT



KKT	ød (mm)	øD (mm)	Weight (g)
100	99	122	75
125	124	148	102
150	149	175	123
200	199	225	165

Order Key

Composite Reference: VF-KSOF/150/9010

Diffuser Order Key			1	2
Order example:		**VF-KSOF**	150	9010
Size Ø				
100	100			
125	125			
150	150			
200	200			
Finish				
9010	RAL 9010 finish			

Specification Text

- Extract air valve
- Horizontal or vertical installation
- CE marking SP 0402-CPR-SC0768-13
- Fire class according to EN 13501-3 Installation into gypsum board wall: E 45 (ve i <-> o) S or E 60 (ve i <-> o) - Installation into rigid wall and floor: E 60 (ve i <-> o) S or E 120 (ve i <-> o) S or E 120 (ho i <-> o)
- Low sound level
- Natural sound attenuation