

KSO-F EXHAUST AIR VALVE

AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES

Powder coated fire damper valve

KSO-F is developed for use as a fire damper in exhaust ventilation systems. KSO-F has a low sound level and good natural sound attenuation.

Product Facts

- Manufactured of sheet steel
- Standard CleanVent® coating
- Horizontal ducting
- **CE marked according to EN 15650:2010**
- **Fire class according to EN 13501-3**
 - installation into gypsum board wall:
 - E60(v_e i <->o)
 - installation into rock wall:
 - E60(v_e i <->o)S / E120(v_e i <->o)S

APPLICATION

CE marked fire damper valve KSO-F is an exhaust valve, used to prevent spreading of fire and smoke to duct systems. The valve is approved in fire class E60/E120. A springloaded fuse will close the valve when temperature (in the immediate vicinity) reaches the fusible link rating, 70 °C.

SOUND POWER LEVEL L_w

KSO-F	CORRECTION K _{oct} (dB)						
	Middle frequency by octave band (Hz)						
	125	250	500	1k	2k	4k	8k
100	2	-1	-1	1	-4	-8	-22
125	-3	-3	-3	-2	0	-7	-24
150/160	0	-3	-1	-2	-7	-11	-25
200	1	-3	-4	3	-8	-12	-29
Tol.±	3	2	2	2	2	2	3

Sound power levels by octave bands are obtained by adding to total sound pressure level L_{p10A}, dB(A) the corrections K_{oct} presented in the table according to the following formula:

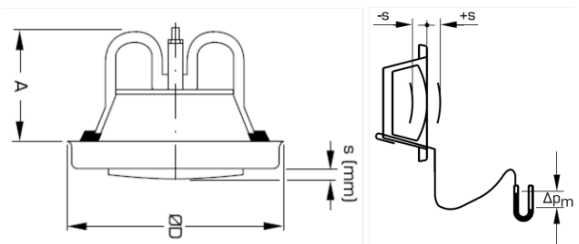
$$L_{Woct} = L_{p10A} + K_{oct}$$

Correction K_{oct} is average value in range of use of KSO-F unit.

KSO-F	SOUND ATTENUATION ΔL							
	Middle frequency by octave band (Hz)							
	63	125	250	500	1k	2k	4k	8k
100	-10	22	19	16	16	16	18	9
	0	22	18	13	12	12	13	6
	+10	22	17	12	9	8	11	4
125	-10	21	18	15	14	15	14	10
	0	19	17	12	11	11	10	6
	+10	20	16	10	9	9	8	5
150/160	-10	19	16	14	14	14	16	8
	0	18	14	11	11	11	13	5
	+10	18	14	10	9	9	11	4
200	-10	15	15	14	14	16	15	10
	0	14	12	11	10	12	12	7
	+10	13	11	8	8	9	10	6
Tol.±	±6	±3	±2	±2	±2	±2	±2	±3

DIMENSIONS in mm

KSO-F	ØD	A	W (kg)
Ø 100	134	74	0.30
Ø 125	160	85	0.39
Ø 150/160	191	89	0.57
Ø200	241	107	0.76



REGULATION AND MEASUREMENTS

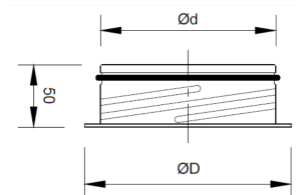
Measurement of air flow is achieved by measuring the pressure difference with a separate test probe. Regulation of air flow is achieved by turning the control disc to change adjustment dimension s (mm). Measuring data sheets are supplied in the folder "Measurement and regulation of air flow".

Material and surface finish

The valve is manufactured from hot galvanized steel sheet. KSO-F is powder coated for a high surface finish and good impact and scratch resistance. Standard colour White RAL-9003. Other colors on demand. KSO-F can be delivered with CleanVent coating on demand. The valve body is supplied with a cellular plastic gasket to form an airtight seal against the mounting frame. The separate mounting ring is manufactured from galvanized steel sheet. Each valve is delivered with mounting ring **DKT**.

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

DKT	Ød	ØD	W (gr)
100	99	122	75
125	124	148	102
150/160	159	184	131
200	199	225	165



LIABILITY:

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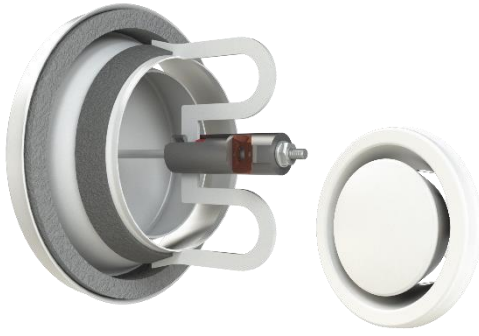
PLEASE NOTICE:

The consultant is responsible for the actual installation and mounting of the product. The mentioned values with respect to temperatures are not appropriate to be used to determine the physical properties. These properties are also dependent on humidity and the temperature of the air inside and outside of the H.V.A.C. system.

TRADEMARKS:

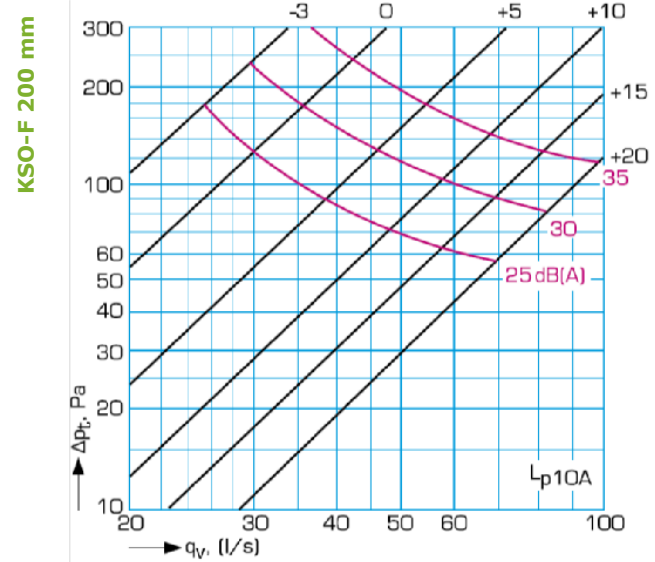
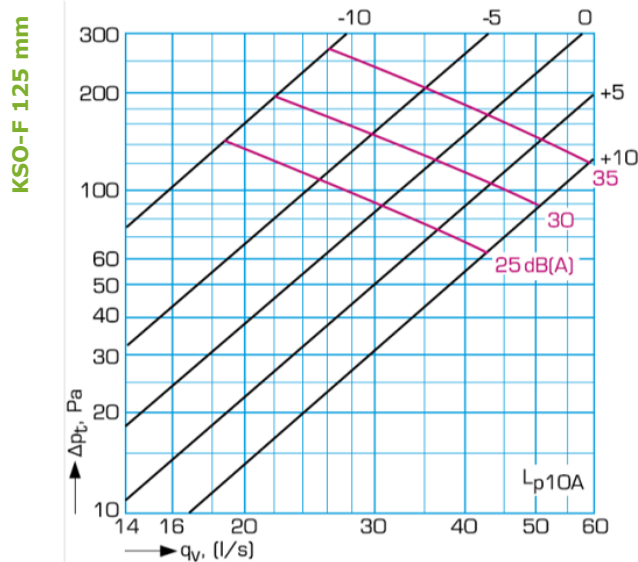
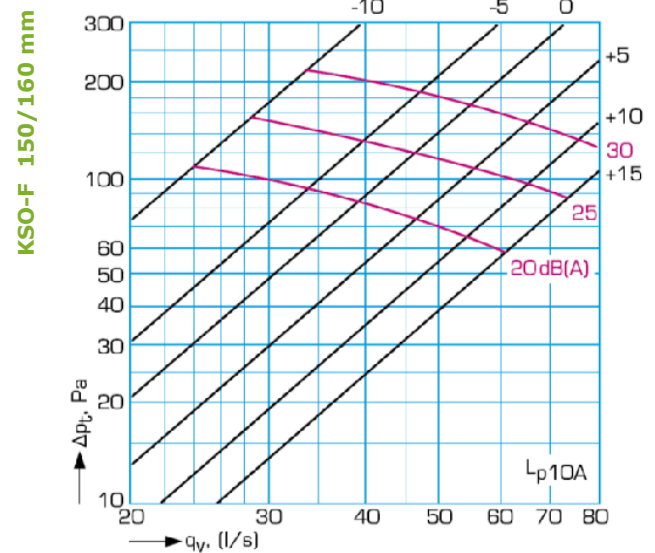
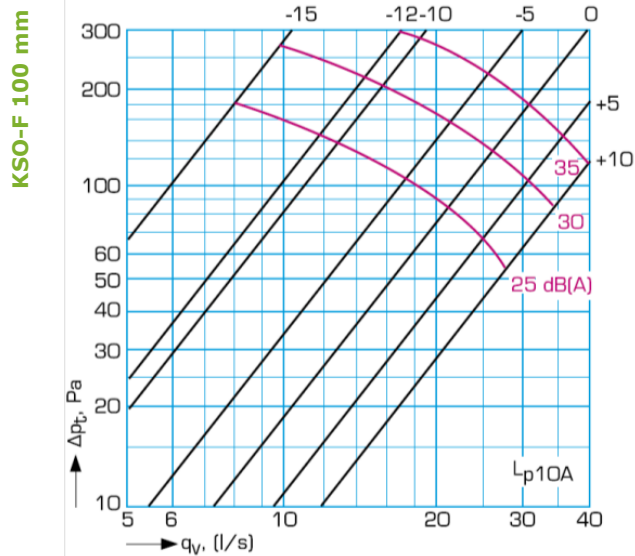
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AIR MANAGEMENT SYSTEMS



DEFINITIONS

q_v	air volume	(l/s)
Δp_t	total pressure drop	(Pa)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m ² sab)	[dB(A)]
L_{Woct}	sound power level by octave bands	(dB)
ΔL	sound attenuation	(dB)
K_{oct}	correction	(dB)

The fuse in the KSO-F valve is produced with a soldering with two different materials. Due to this soldering, the fuse will break during the high temperature environment eg during fire situation. The fuse will break at 72 degrees. This soldering is between two blade parts and it is not visual if the soldering is made perfectly. There is three phases where the soldering in the fuse is tested mechanically: at fuse blade manufacturer, at fuse manufacturer and at our plant during assembly of the valve. During these production phases and if there occurs less mechanical tolerance in the soldering, the fuse is rejected.

Unfortunately some cases have occurred where the fuse has passed all the production phases without failing and it has broken only during the transport or in the summertime if the fuse has been in the direct sunlight. We apologize for the non-conform valve and replace with new valve naturally

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