DRIS
IRIS DAMPER
AIR MANAGEMENT SYSTEMS

PRODUCT PROPERTIES
IRIS REGULATION AND MEASURING DEVICE

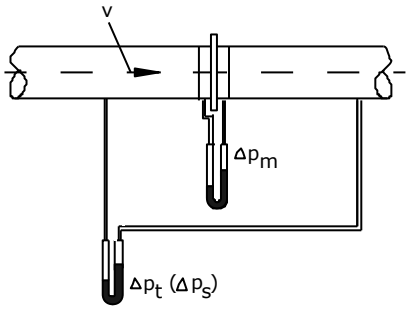
The ideal solution for the exact and quick air flow measuring and regulation.

- Low noise level
- Operation independent of flow direction
- Fully openable for cleaning of duct tight construction
- Solid construction

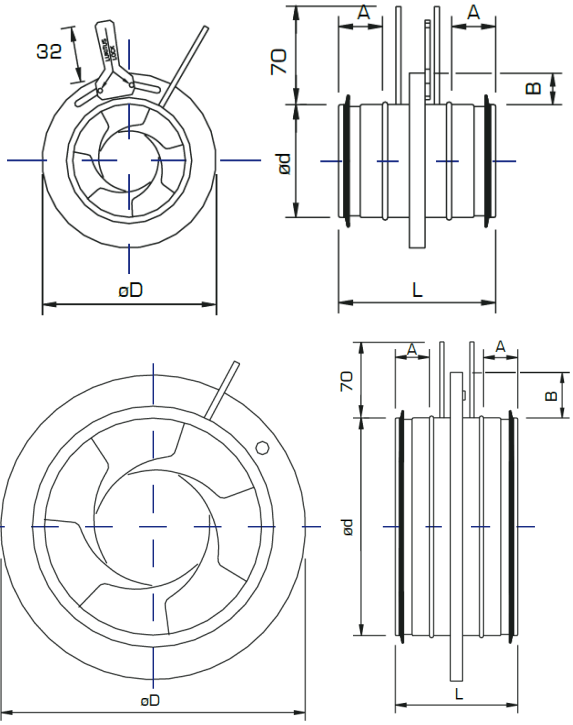
CONSTRUCTION
The IRIS DAMPER **DRIS** is composed of regulation plates, regulating nut or handle (size 80) and regulation scale plus manometer connections and casing.
The casing and regulation plates are made of hot-galvanized steel or acid-proof steel AISI 316 L (**DRIS-S**), other components of plastic.
The joining collars are supplied with rubber sealing gasket.

INSTALLATION
The IRIS DAMPER is secured to the ducting with rivets. For vertical mounting, ensure the weight of the interconnecting ductwork is fully supported. Refer to the table for recommended safety distances.

REGULATION AND MEASUREMENT OF AIR FLOW
The regulation plates form a virtually ideal measuring orifice which enables an easy and reliable measurement of the air flow. To determine the airflow, measure the pressure difference Δp_m at the manometer connections and check the corresponding airflow from the regulation chart.
The chart is shown on the damper casing and in the separate information for air flow regulation and measurement (the selection diagrams do not serve the air flow measurement).
The adjustment of the Iris is simple, all that is needed is a standard 13mm spanner and the damper locks in the right position automatically



DIMENSIONS in mm



Size	Ød	ØD	L	A	B	W kg
80	79	125	120	35	22	0.5
100	99	165	110	30	32	0.5
125	124	188	110	30	32	0.7
150	149	230	110	30	40	0.9
160	159	230	110	30	35	0.9
200	199	285	110	30	42	1.4
250	249	335	132	40	42	2.1
315	314	410	132	40	47	3.5
400	398	525	155	50	62	6.4

SPECIAL SIZES

Size	Ød	ØD	L	A	B	W kg
180	179	285	255	37	53	1.9
300	299	410	135	37	54	3.5
355	353	525	410	60	85	9.8
500	498	655	155	50	77	9.6
630	628	815	155	50	92	15.6
800	798	1015	270	100	107	25.0

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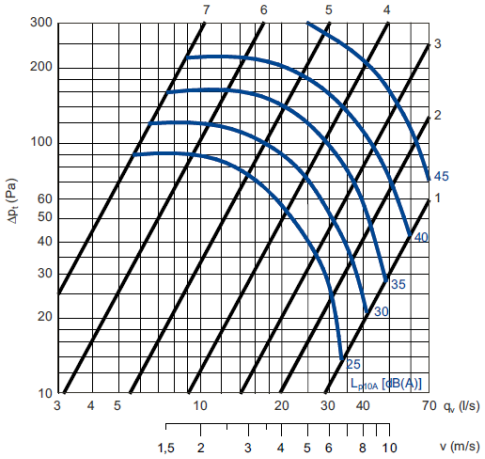
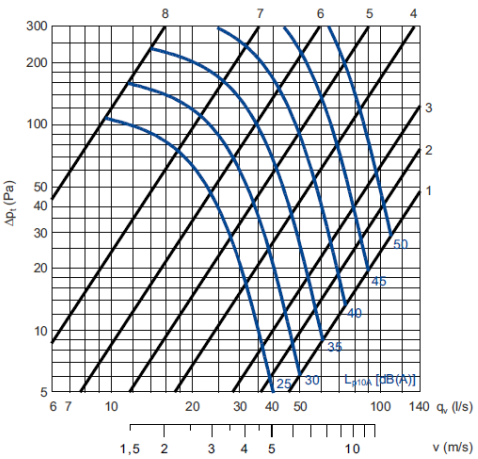
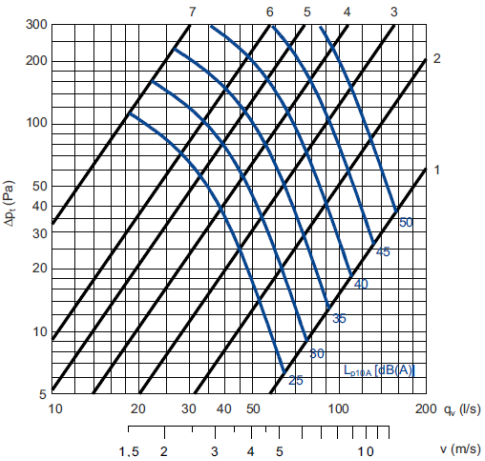
DRIS080



DRIS100



DRIS125



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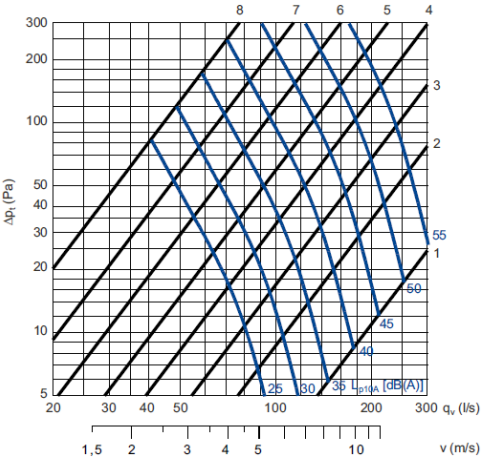

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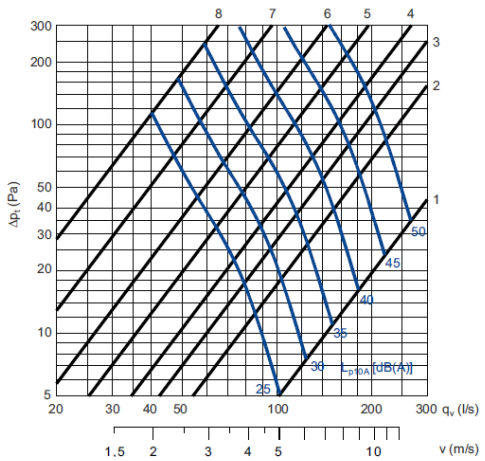

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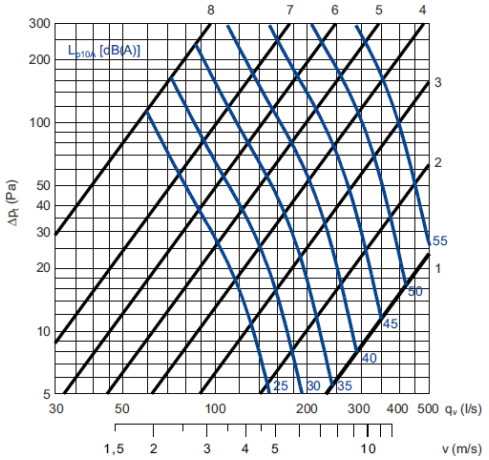

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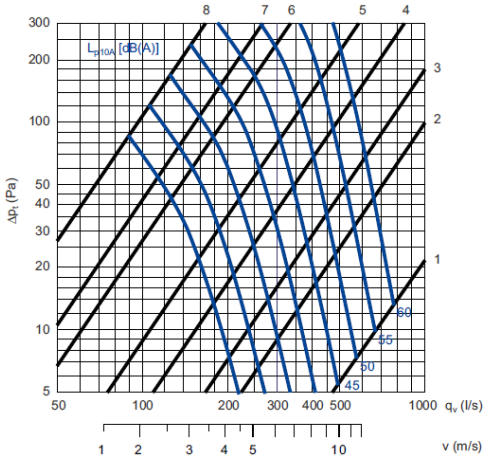
DRIS250



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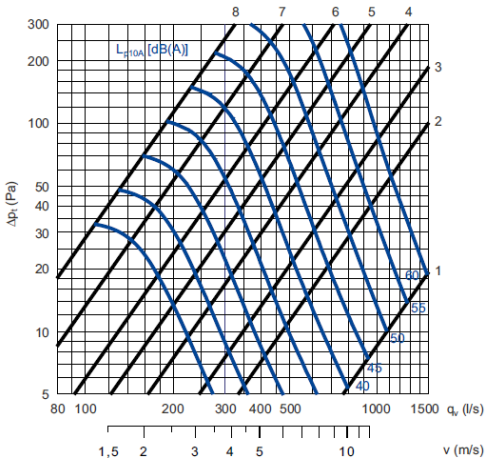

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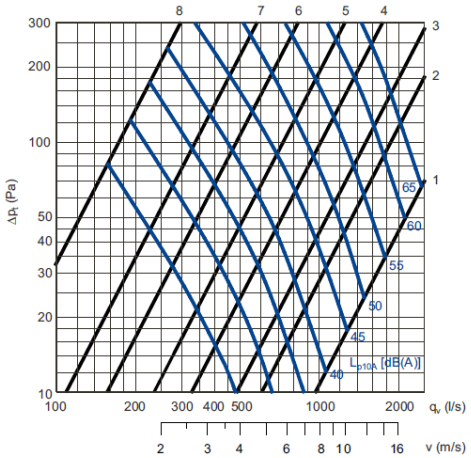

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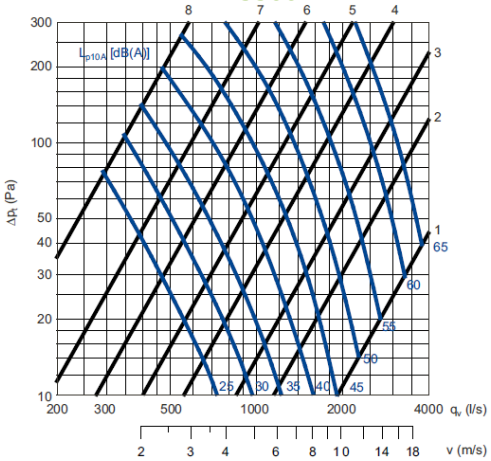

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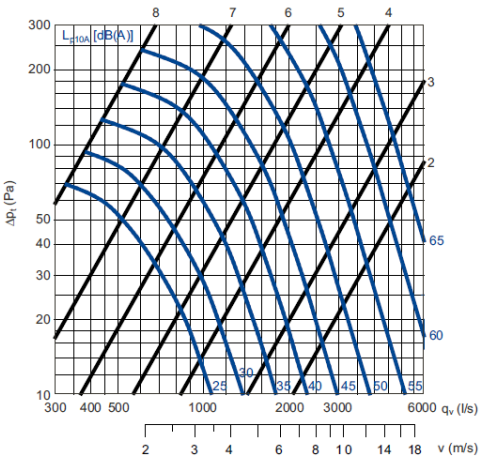

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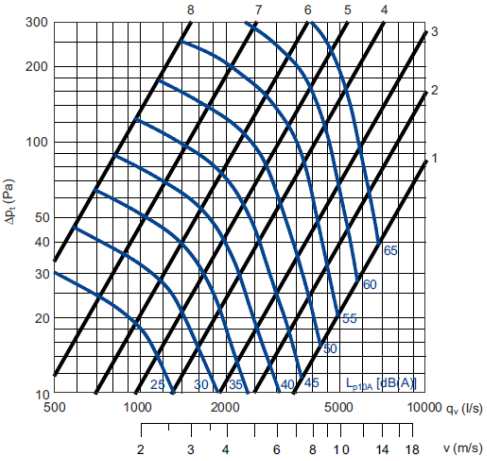

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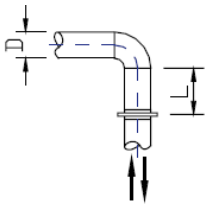
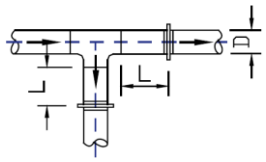
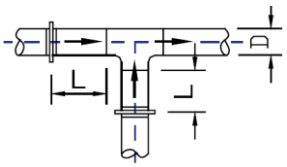
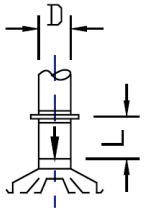
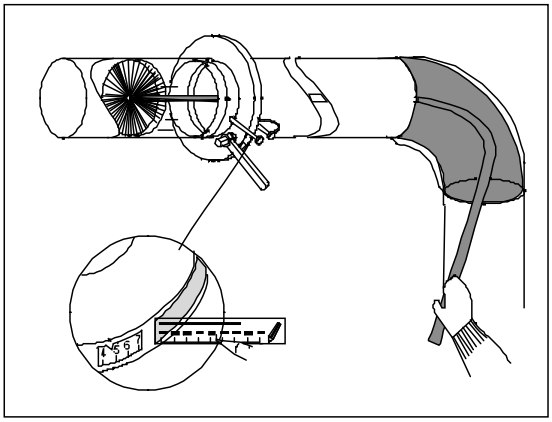
SAFETY DISTANCES

Type of flow disturbance	The required safety distance L	
	m^2= ± 7%	m^2= ± 10%
	≥ 1 D	≥ 1 D
	≥ 4 D	≥ 2 D
	≥ 2 D	≥ 2 D
	≥ 2 D	≥ 2 D

Accuracy of calibration during disturbance free air flow ± 5%

CLEANING



To ensure the functioning of the inlet air diffuser

SYMBOLS

q_v	air volume	(m^3/h)
L_{p10A}	sound pressure level with 4 dB room attenuation (10 m2sab room)	[dB(A)]
L_{woct}	sound power level in the duct	(dB)
K_{oct}	correction	(dB)
Δp_t	total pressure drop	(Pa)
Δp_s	static pressure drop	(Pa)
Δp_m	pressure difference	(Pa)
m_2	method-specific measurement tolerance	%
v	average velocity	(m/s)

SOUND CHARACTERISTICS

IRIS	CORRECTION K_{OCT} (dB) Medium frequency by octave band (Hz)							
	63	125	250	500	1k	2k	4k	8k
80	10	16	12	9	5	-1	-6	-23
100	25	21	16	9	4	-6	-12	-25
125	17	17	13	7	1	-4	-6	-17
150	21	20	14	8	0	-6	-16	-29
160	19	18	14	6	-1	-6	-13	-25
200	20	17	12	5	-2	-5	-14	-26
250	16	12	8	3	1	-4	-17	-32
315	24	12	5	0	1	-2	-13	-27
400	15	9	6	2	-1	-4	-9	-13
500	14	7	4	1	-1	-4	-8	-11
630	15	7	3	2	-1	-5	-9	-11
800	9	5	3	3	-1	-6	-10	-13
Tol.±	6	3	2	2	2	2	2	3

The sound power levels of the duct for every octave band are obtained by adding the corrections K_{oct} of octave bands (see table) to the total sound pressure level L_{p10A} dB(A) according to the following formula:

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

Correction K_{oct} is the average in the range of use of the IRIS.