

Regulation & measurement device

IRIS
IRIS-S



Uses

IRIS is used for regulating the air flows in circular ventilation ducts. IRIS is recommended for installation in ductings that have to be cleaned, since the damper can be opened completely (up until size 630 mm).

Design

The damper is provided with a collar, where the regulation device is fitted. The air flow is evenly and centrally diminished, which enables a low sound level. IRIS is made of hot-galvanized steel sheet. The damper is easy to install. For corrosive environments, use **IRIS-S** (dim. 100-800), which is made of stainless steel (AISI316).

Regulation and measurement of air flow

Each damper is individually calibrated. Maximum deviation $\pm 7\%$ even if the damper is installed close to a bend or another duct dimension (see alternative installation).

To determine the air flow, measure the pressure difference at the manometer connections and check the corresponding air flow from the regulation chart.

The air flow is regulated by the regulating nut or handle.

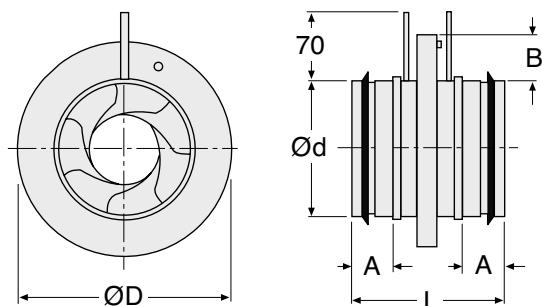
When ordering, please state:

Regulation and measurement device IRIS - 125

Product _____

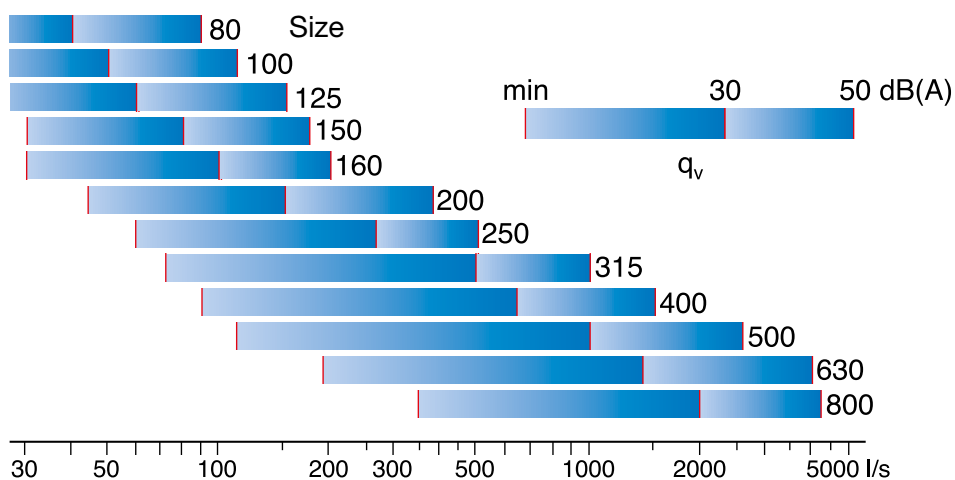
Dimension _____

Measurement and weight



Size	Ød (mm)	ØD (mm)	L (mm)	A (mm)	B (mm)	Weight (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
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
500	498	655	170	50	77	9,6
630	628	815	170	50	92	15,6
800	798	1015	270	100	107	25

Quick selection table



Sound attenuation

The sound power level L_w in octave band is obtained by adding the correction factor K_{oct} to the total sound pressure level L_{p10A} as follows:

$$L_{w_{okt}} = L_{p10A} + K_{oct}$$

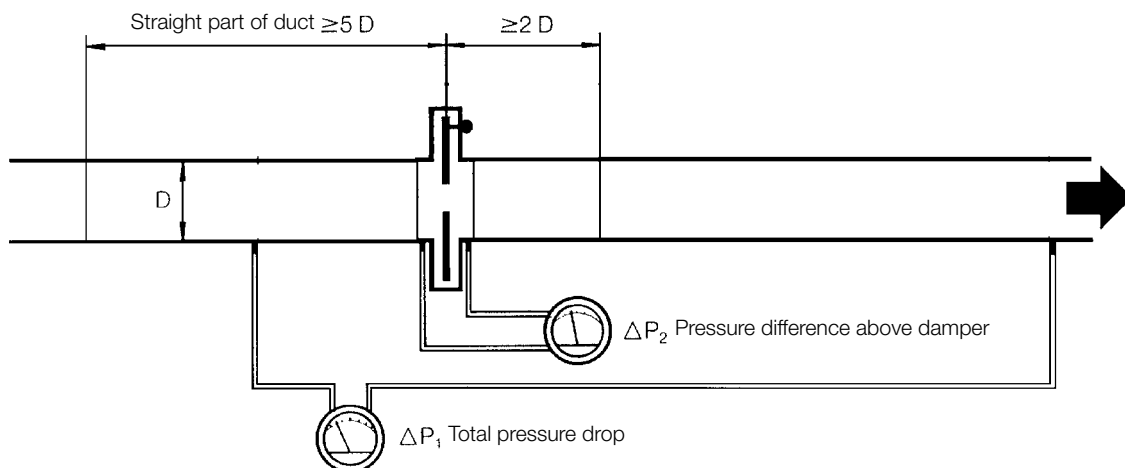
The correction factor K_{oct} is the average in the range of use of the IRIS regulation and measuring device.

Correction factor in octave band K_{oct} (dB)

Size	Medium frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
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
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

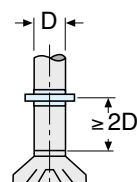
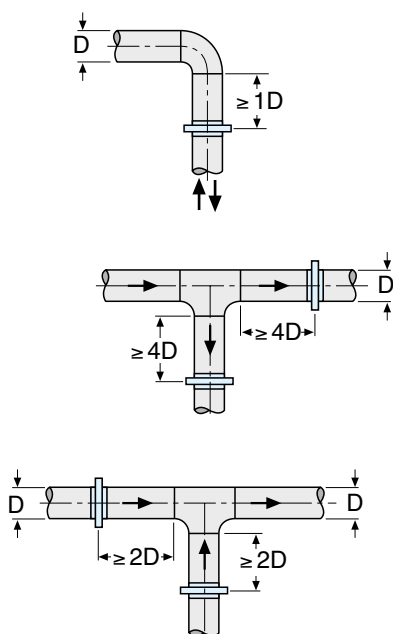
Example of installation

1) Recommended first choice installation



2) Alternative installations

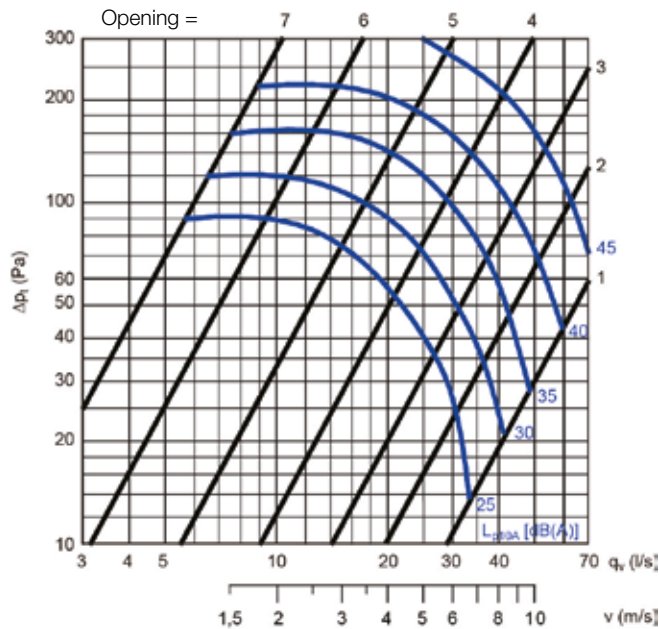
If the installation requires shorter disturbance distance than recommended above, the examples below show different installations where the divergence from the chart is $\pm 7\%$.



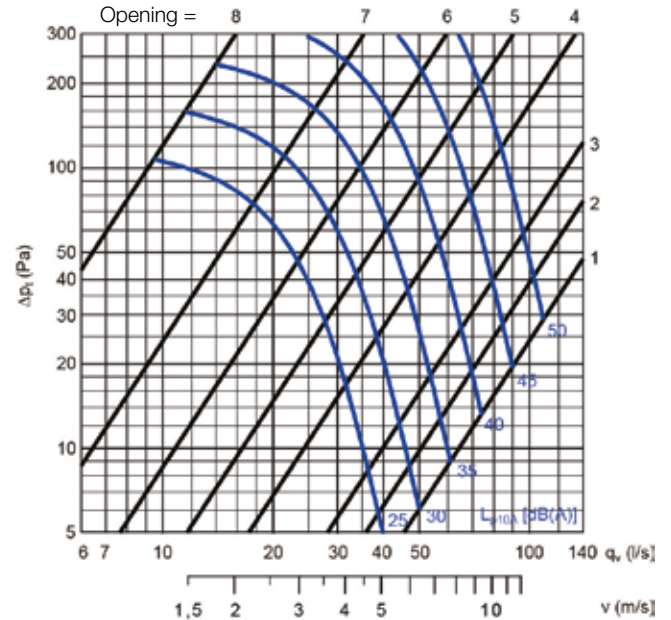
Accuracy of calibration
durin disturbancefree
airflow: $\pm 5\%$.

Installation diagram

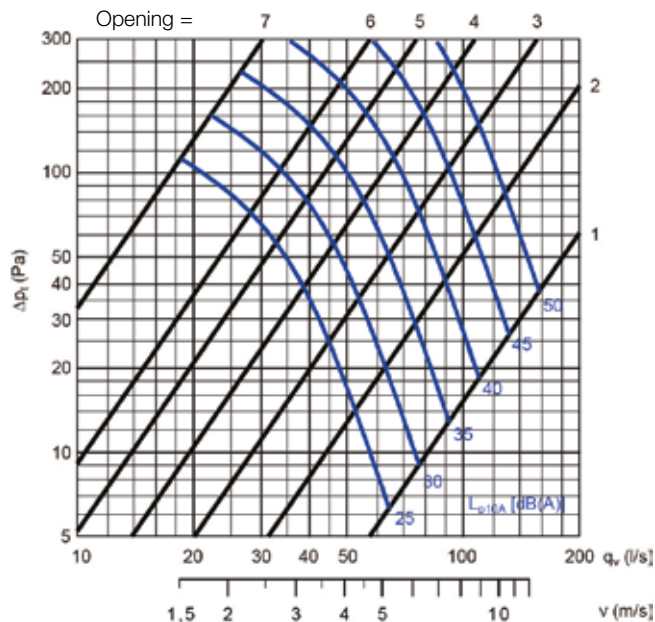
IRIS 80



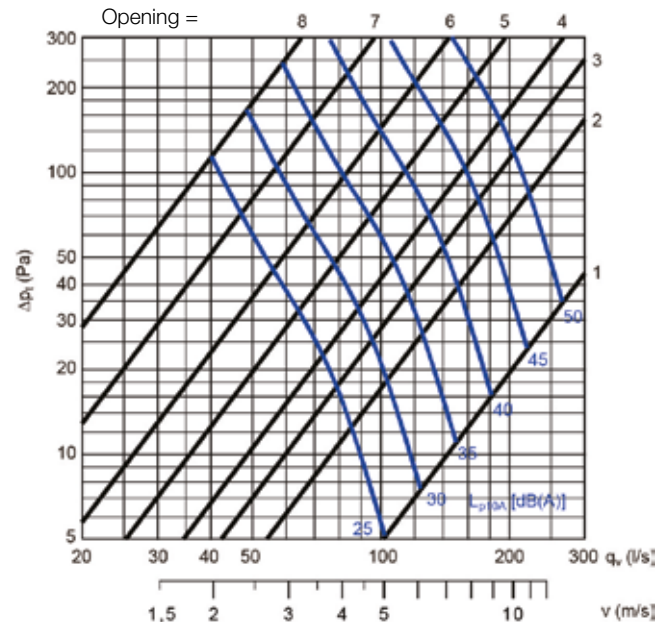
IRIS, -S 100



IRIS, -S 125

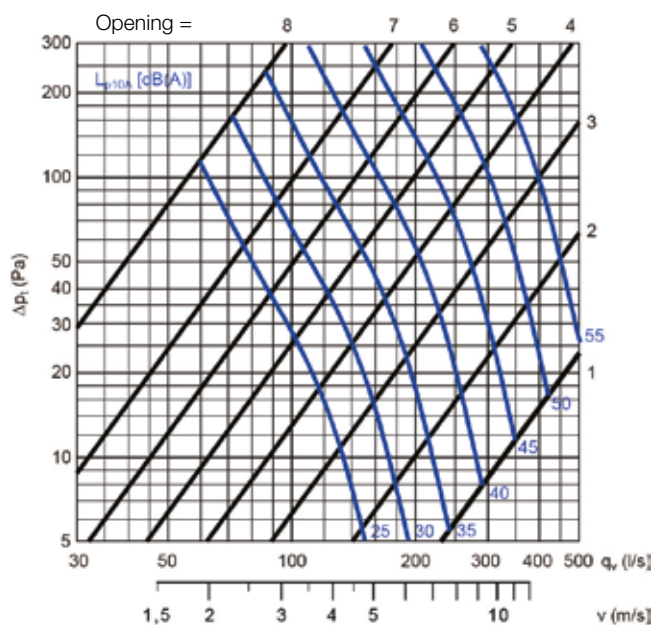


IRIS, -S 160

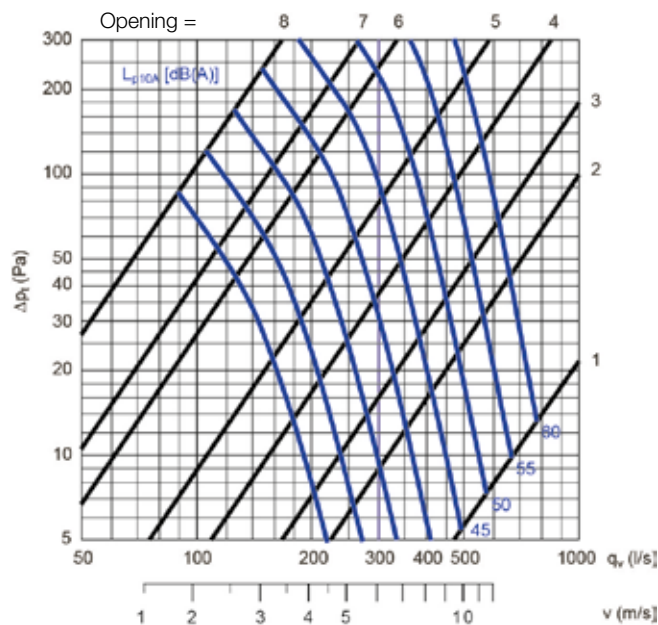


Installation diagram

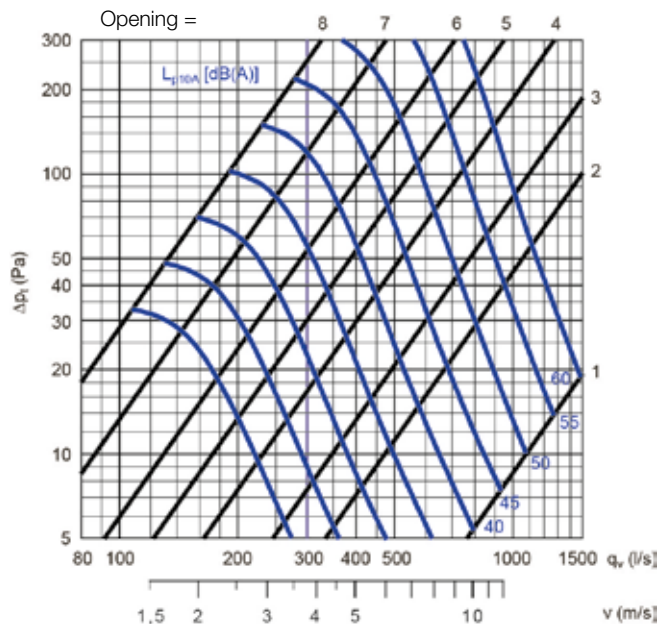
IRIS, -S 200



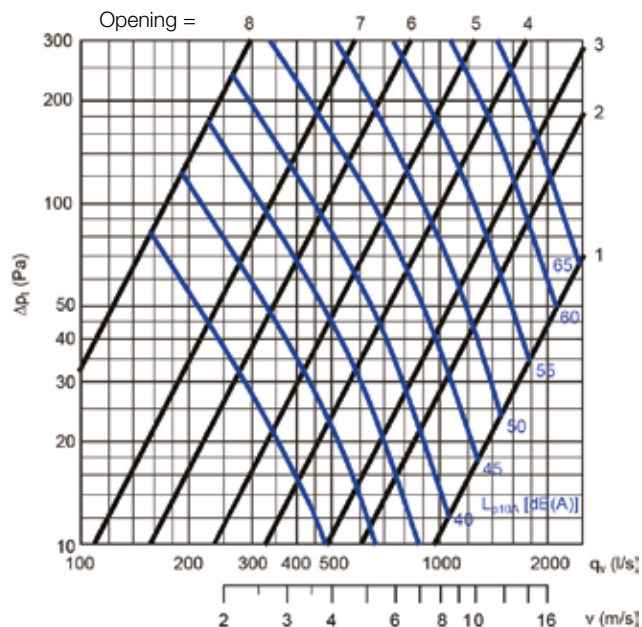
IRIS, -S 250



IRIS, -S 315

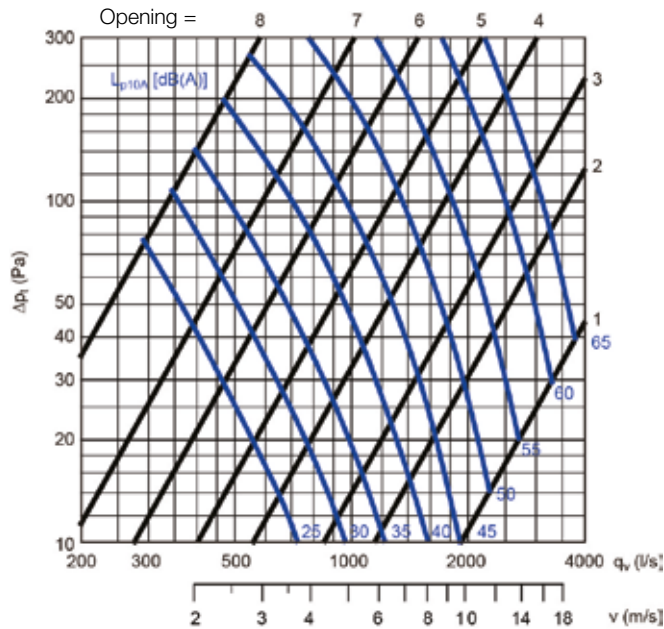


IRIS, -S 400

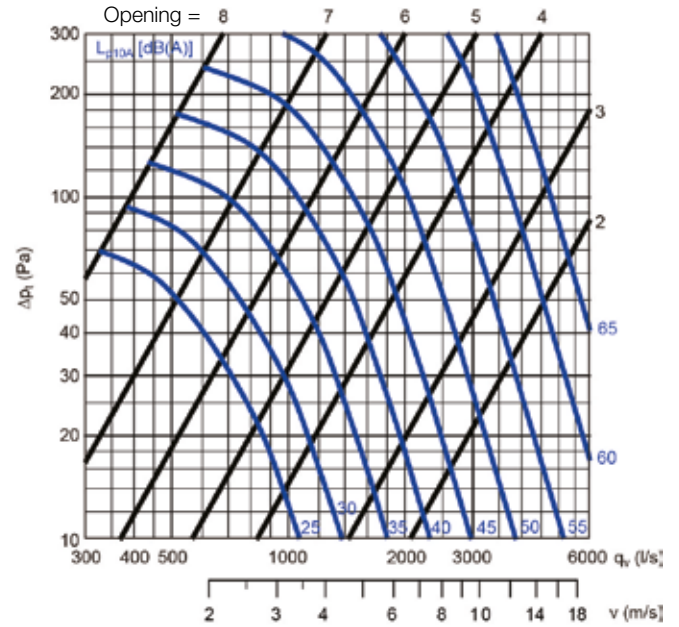


Installation diagram

IRIS, -S 500



IRIS, -S 630



IRIS, -S 800

