Single-blade air dampers

PJB

Intended use

Single-blade air dampers are intended for controlling and shutting off the air flow in circular air ductwork øD. Work temperature: -20°C to +90°C, (+50°C in a version with actuator).

Material and finishing

Dampers: galvanized SO or stainless NR (1.4301) steel sheet

Components of the mechanism: formed from galvanized or stainless steel.

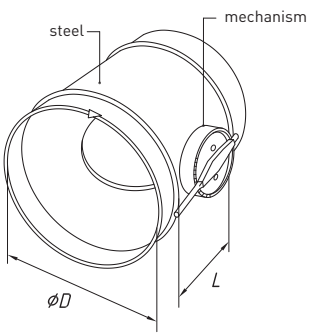
Standard - without flanges, intended for connection to SPIRO ducts.

The following damper types are available on request:

- dampers intended for other types of connections allowing the external insulation
- with rubber gasket on the connectors
- airtight damper (seal on the blade)

The device has the Higienic Certificate no. HK/B/1514/01/2012.

Dimensions



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Principles of product designation

PJB-200-T2-A2

PJB - S - D - T N - P - G - KL

S sealing*
- **-** **blade without seal**
- U blade with seal

D damper diameter [mm]

N type of drive*
- 1 with actuator
- **2** **manual mechanism**
- 3 for use with an actuator

P material
- **SO** **galvanized steel**
- SN stainless steel

G connector sealing*
- **-** **without gasket**
- UP gaskets on the connectors

KL Air leakage class according to EN 1751*
- **AX** **casing: A, blade: none**
- A2 casing: A, blade: 2

* Lack of optional values will result in application of default values

Standard dimensions

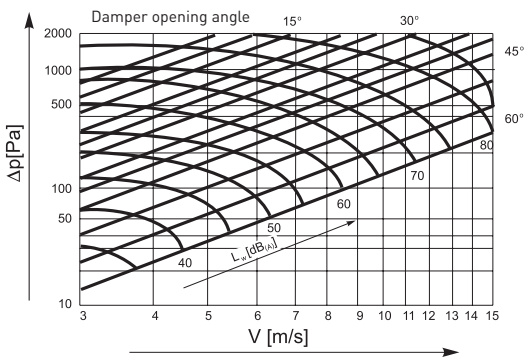
∅DN	D [mm]	L* [mm]	g [mm]	Cross-sect. area [m²]	Weight [kg]
80	78	80	0,6	0,005	0,30
100	98	80	0,6	0,008	0,45
125	123	90	0,6	0,012	0,65
160	157	90	0,6	0,02	1,00
200	197	130	0,6	0,03	1,50
250	247	130	0,6	0,05	2,30
315	312	190	0,75	0,08	3,60
400	397	200	0,75	0,13	5,80
500	495	300	0,75	0,20	9,60

* **NOTE:** L=350 for dampers with actuator

General information

Nomogramme I

Effect of airflow velocity V and the degree of opening of the damper on pressure drop Δp and sound intensity level.



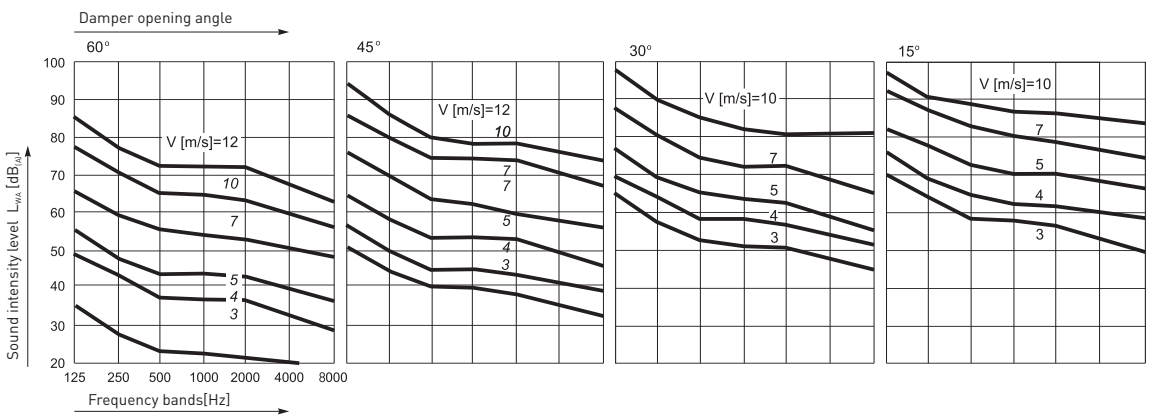
Drive
1 – damper with an actuator
2 – damper with manual control mechanism
3 – damper adapted for use with an actuator

Symbols::

V [m/s]	airflow velocity
Δp [Pa]	total pressure drop
α [°]	blade opening angle
L_{WA} [dB(A)]	sound intensity level for A = 0,1 [m²]
A [m²]	cross-sectional area ot the damper (blade surface area)

Nomogramme II

Characteristics of the sound intensity depending on its frequency and the damper opening degree



On the diagram there is acoustic data for A = 0,1 [m²].
For other cross-sectional area of a damper, for the values read from the diagram, the „X" correction value should be added in accordance with the table:

A [m²]	0,005	0,01	0,02	0,05	0,1	0,2	0,3	0,4
X	-5	-3	-3	-2	-	+4	+7	+10