

COMMERCIAL DAMPERS

Large dimensions - PL Range

PLO - PLG - PLS

NEW

The new commercial dampers range type P is designed to control or isolate duct networks of large dimensions (up to 2000 x 1950 mm).

Codification :

	Volume control damper	Anti-frost damper	Isolating damper
Air tightness (EN1751)	Class 0	Class 1	Class 3
Code	PLO	PLG	PLS

Frame

Galvanized steel Z275
Options: Stainless steel, painted steel or aluminium

Design ensuring a good squaring

Drilling Ø10 in the angles or standard drilling to a pitch of 150 mm
Special drilling on request

Width: 160 mm

Flanges: 40 mm (standard frame METU)
Option: 30 mm

Blades

Galvanized steel Z275
Options: Stainless or painted steel

Pitch: 150 mm

Nylon bearings
Options: PTFE, bronze or ball bearings

Shaft in zinc steel
Option: Stainless steel

Linkage

Linkage in zinc steel
Opposite blades movement
Options: stainless steel, parallel blades movement

Control

Manual control: shaft Ø16 - 80 mm long - lever with locking device.

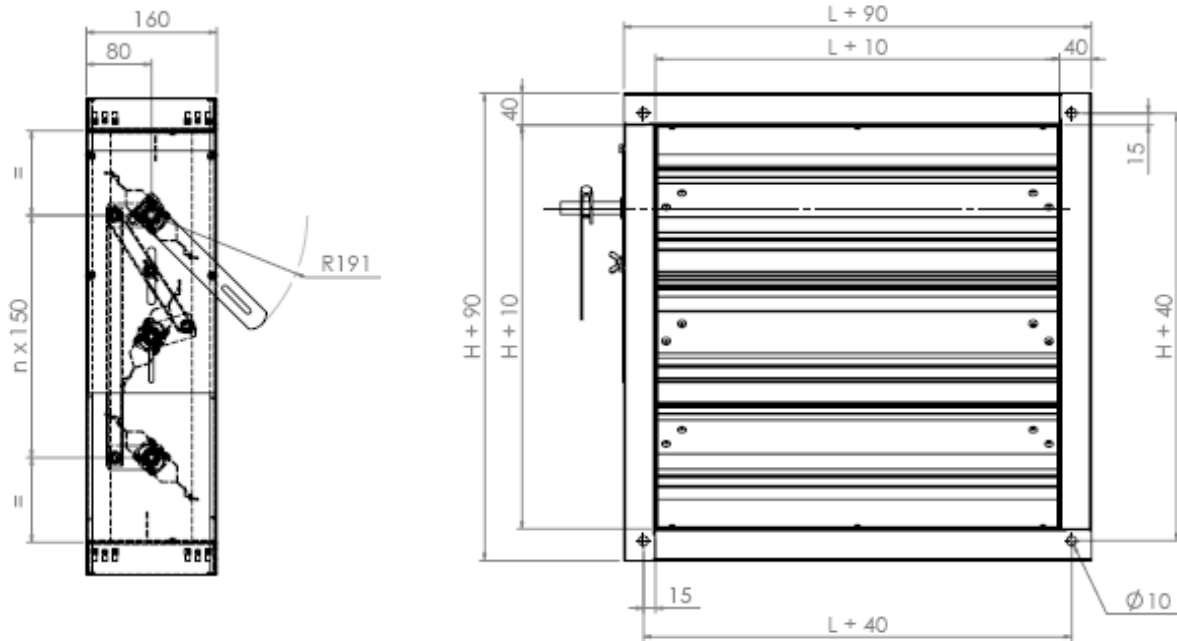
Motorised: smooth shaft Ø16 - 130 mm long
Actuator supplied on request

	Volume control PLO	Anti-frost PLG	Isolating PLS
Seals	Without	Lateral stainless steel seal Top and bottom L shape profile	Lateral stainless steel seal Top and bottom L shape profile EPDM seal on the blades
Air tightness	Class 0 according to EN1751	Class 1 according to EN1751	Class 3 according to EN1751
Max pressure	2000 Pa for a 1 m long blade damper		
Max face velocity	15 m/s maxi		
Operating temperature	from -20°C to +80°C <i>Option: up to 200°C</i>		
Dimensions	Height H from 150 to 1950 mm with a pitch of 50 mm Length L from 200 to 2000 mm with a pitch of 100 mm <u>Note : real dimensions H+10 x L+10</u> <i>Damper in 2 parts according to pressure constraints</i>		
Options	Circular(s) flange(s) up to Ø 1250 Support frame Air intake or discharge louvres Dampers coupling Frame airtightness class C according to EN 1751		

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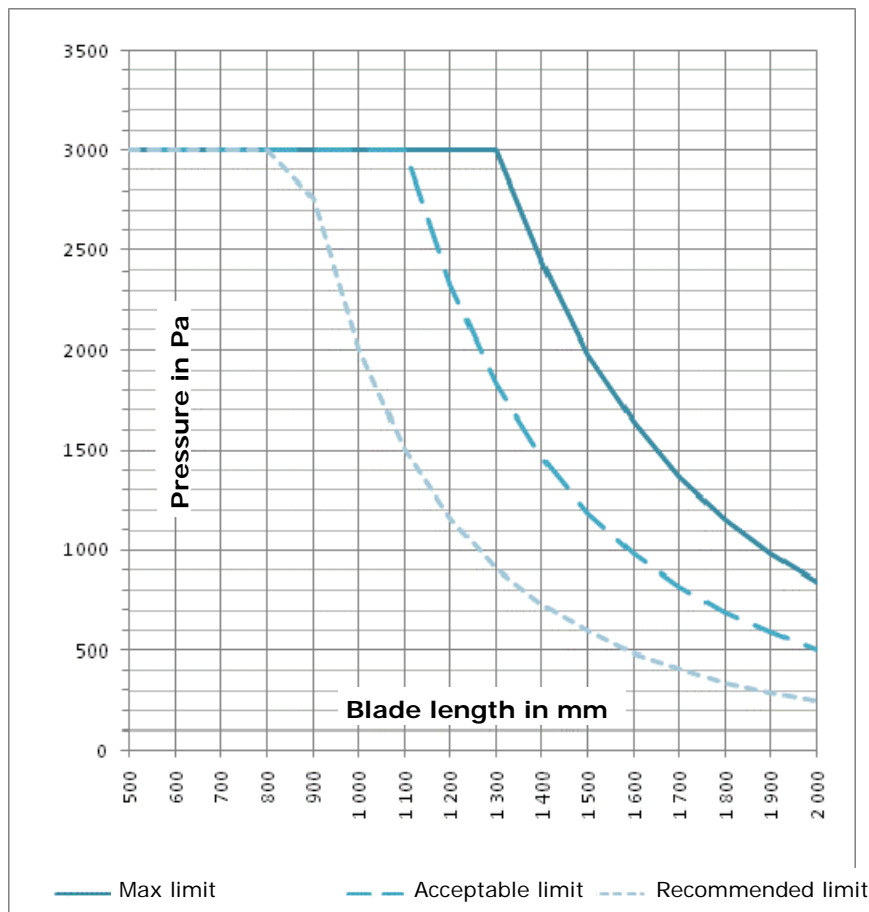
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Dimensions



Use limits

It is the difference between the upstream and downstream pressure that dampers of the P range can withstand.



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Motor torque

Following motor torque are given in Nm for a volume control damper type PLO under different pressures. A coefficient of 1,3 must be applied to the mentioned data for an anti-frost damper PLG or an isolation damper PLS.

	H	L	200	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
500 Pa	150		2	2	2	2	2	2	2	2	2	2	2	3	3
	300		2	2	2	2	3	3	3	3	4	4	4	5	5
	450		3	3	3	3	4	4	4	5	5	6	7	7	8
	600		3	4	4	4	5	5	6	6	7	8	9	9	10
	750		4	4	5	5	6	6	7	8	9	10	11	12	13
	900		5	5	6	6	7	8	8	9	11	12	13	14	15
	1050		5	6	7	7	8	9	9	11	12	14	15	16	18
	1200		6	7	8	8	9	10	11	12	14	16	17	19	20
	1350		7	8	9	9	10	11	12	14	16	17	19	21	23
	1500		7	8	9	10	11	12	13	15	17	19	21	23	25
	1650		8	9	10	11	12	14	15	17	19	21	23	26	28
	1800		9	10	11	12	14	15	16	18	21	23	25	28	30
	1950		10	11	12	13	15	16	17	20	22	25	28	30	33
1000 Pa	150		2	2	2	2	2	2	2	3	3	3	4		
	300		2	3	3	3	4	4	4	5	6	7	8		
	450		3	4	4	5	5	6	7	8	9	10	11		
	600		4	5	6	6	7	8	9	10	12	13	15		
	750		5	6	7	8	9	10	11	13	15	17	19		
	900		6	7	8	9	11	12	13	15	18	20	22		
	1050		7	8	9	11	12	14	15	18	21	23	26		
	1200		8	9	11	12	14	16	17	20	23	27	30		
	1350		9	10	12	14	16	17	19	23	26	30	33		
	1500		9	11	13	15	17	19	21	25	29	33	37		
	1650		10	12	15	17	19	21	23	28	32	36	41		
	1800		11	14	16	18	21	23	25	30	35	40	45		
	1950		12	15	17	20	22	25	28	33	38	43	48		
1500 Pa	150		2	2	2	2	3	3	3	4	4	5			
	300		3	3	4	4	5	5	6	7	8	9			
	450		4	5	5	6	7	8	9	11	12	14			
	600		5	6	7	8	9	11	12	14	16	19			
	750		6	7	9	10	12	13	15	18	21	24			
	900		7	9	11	12	14	16	18	21	25	28			
	1050		8	10	12	14	16	18	21	25	29	33			
	1200		9	12	14	16	19	21	23	28	33	38			
	1350		10	13	16	18	21	24	26	32	37	42			
	1500		11	14	17	20	23	26	29	35	41	47			
	1650		12	16	19	22	26	29	32	39	45	52			
	1800		14	17	21	24	28	31	35	42	49	56			
	1950		15	19	22	26	30	34	38	46	53	61			
2000 Pa	150		2	2	2	3	3	3	4	5	5				
	300		3	4	4	5	6	7	8	9	11				
	450		4	5	7	8	9	10	11	14	16				
	600		6	7	9	10	12	13	15	18	21				
	750		7	9	11	13	15	17	19	23	26				
	900		8	11	13	15	18	20	22	27	32				
	1050		9	12	15	18	21	23	26	32	37				
	1200		11	14	17	20	23	27	30	36	42				
	1350		12	16	19	23	26	30	33	41	48				
	1500		13	17	21	25	29	33	37	45	53				
	1650		15	19	23	28	32	36	41	50	58				
	1800		16	21	25	30	35	40	45	54	64				
	1950		17	22	28	33	38	43	48	59	69				

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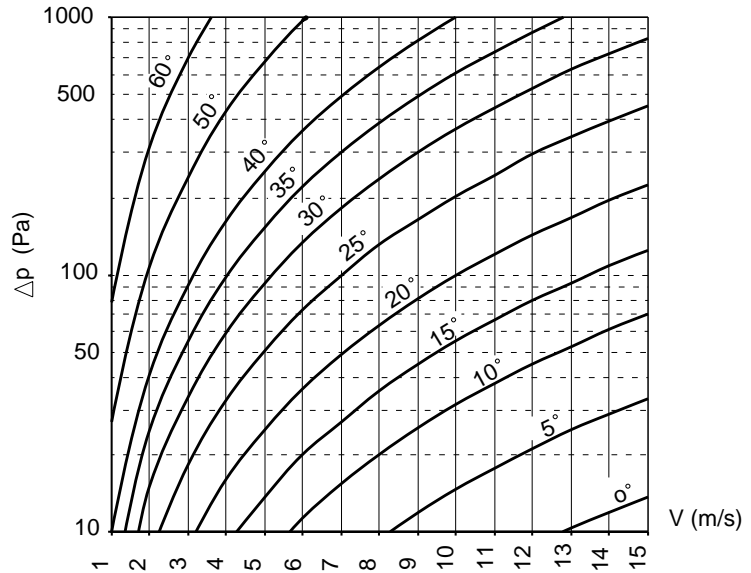
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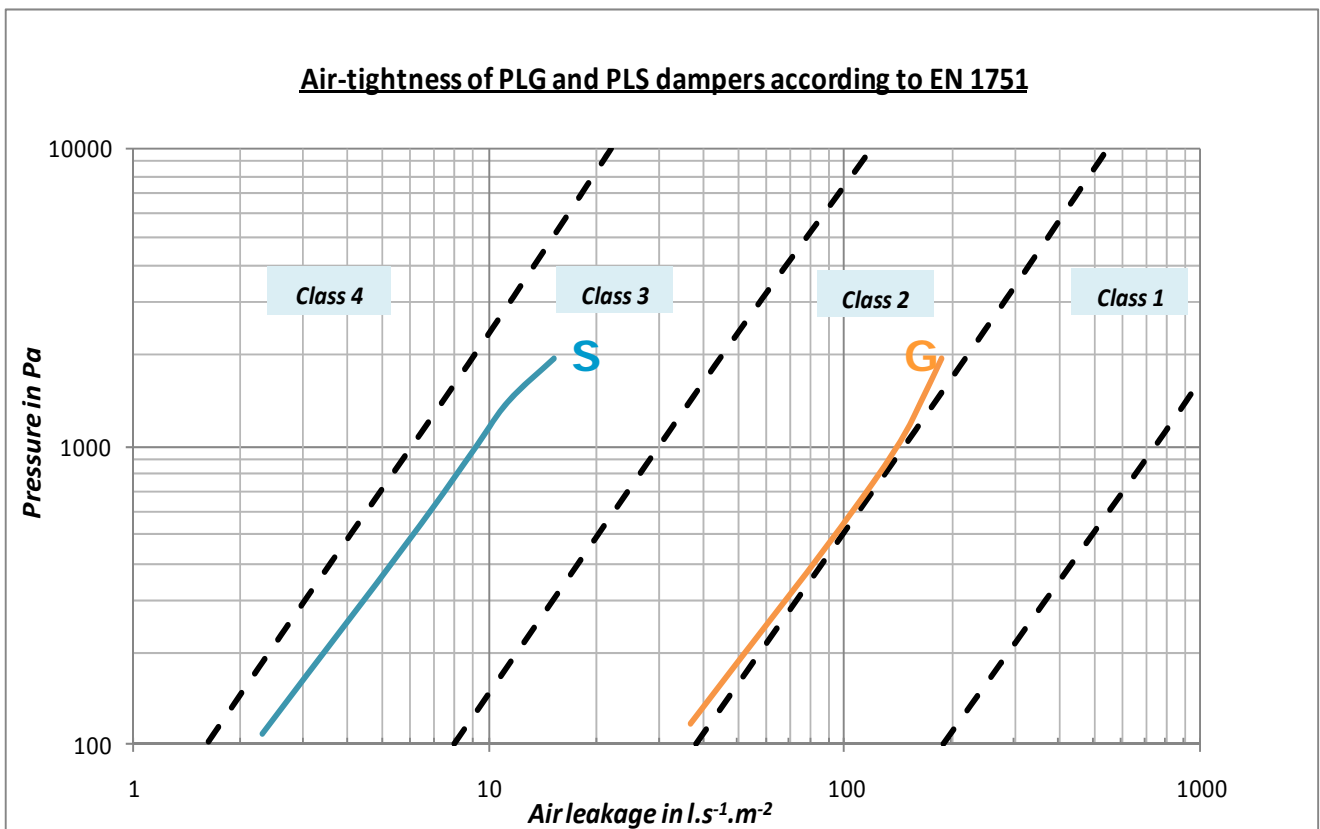
Pressure drop

Following pressure drop are given for a damper ducted upstream and downstream. 0°: damper fully open.



Air-tightness classe

P range: PLO, PLG and PLS have been tested according to EN 1751 standard by the CETIAT laboratory . The following graph represents the results of the tests made in the preferential air flow direction of a damper 1000 X 1000 mm.



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