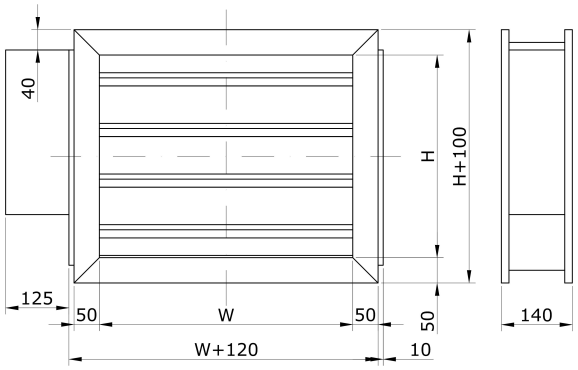
TECHNIKA

Multi-blade smoke dampers DS(P)

Description

Rectangular multi-blade smoke dampers are used to install a ventilation system in buildings along with rectangular smoke ducts in automatic smoke extraction systems. These smoke dampers can be combined for single zone protection - “single” or for “multi” - separation between two rooms. The smoke damper stops the spread of fire and smoke to other areas through the duct system or allows the smoke to be drawn out of the required area. The blade of the damper is made of filled heat-resistant material. Casing tightness class is C according to LST EN 1751. The dampers are tested and classified according the standards LST EN 1366-10 and LST EN 13501-4 with allowable negative pressures up to 1000 Pa. Dampers are CE marked according LST EN 12101-8. This type of damper can be installed in solid walls of concrete or porous silicate blocks. The dampers DS (P) have a springless electric actuator. The actuator must always be connected to the mains using non-flammable cables. In its normal position, the blade of a damper is closed. Fire resistance is EI120 (v_{ew} i <-> o) 1000C_{10000}AAmulti when we designate multiple fire zones and when installing a damper in one area E_{600}120 (v_e i <-> o) 1000C_{10000}AAsingle. The dampers are equipped with integrated end position contacts. The dampers are made of galvanized sheet steel with a zinc content of 275 g/m2 - corrosion class C2/C3 (L) according to LST EN ISO 12944 standard. Can also be manufactured from other materials, such as stainless steel sheet AISI 304 (1.4301) or, AISI 316L (1.4404) - corrosion class C5. The damper is sealed in the duct system by sealing with seals such as the smoke duct system. The damper can be used at temperatures from -20 °C to + 50 °C. The maximum permissible absolute humidity inside and outside the air stream is 18 g/kg. The smoke damper must not be used in a system that carries solids.

Dimensions



	W [mm]	H [mm]
Minimum dimension	120	160
Maximum dimension	1000	1000
Standard step, mm	50	
Longest side of smoke damper, mm	1000	
Maximum cross section area of damper, m^2	1,0	
Weight formula: m[kg]=34*W[m]*H[m]+12*(W[m]+H[m])	From 120 to 1000	From 160 to 1000

Ordering code

..... DS400200P230

- Galvanized steel - AISI 304 – NP
- AISI 316L – 316NP
- Product
- Size
- Actuator 24V – P24, 230V - P230

Sample: DS400200P230 – made of galvanized steel smoke damper, dimensions WxH - 400x200 mm, with actuator 230V, without return spring.

We reserve the right to make changes without prior notice

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Technical data

Fire resistance classification according LST EN 13501-4

			EI 120 1000 [Pa]	E_{600}120 1000 [Pa]
Solid wall	**EI 120 – installation in solid masonry wall**	Wet installation	120x160 - 1000x1000*	120x160 - 1000x1000*
	Minimum thickness of the wall – 110 mm			
	Minimum density of the wall – 650 kg/m^3			
	Concrete or cement lime masonry mortar			
	ve i<-> o, distance between dampers 200 mm , to wall corner 75 mm			
Solid wall	**EI 120 – installation in solid brick wall**	Wet installation	120x160 - 1000x1000*	120x160 - 1000x1000*
	Minimum thickness of the wall – 115 mm			
	Minimum density of the wall – 550 kg/m^3			
	Concrete or cement lime masonry mortar			
	ve i<-> o, distance between dampers 200 mm , to wall corner 75 mm			

* Maximum allowable cross section area of smoke damper - 1,0 m^2.

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WxH – air duct dimensions [mm], v – speed [m/s], S_{ort} – duct cross section area [m^2], S_{ps} – damper cross section area [m^2], Q – air flow [m^3/h], dp – pressure drop [Pa], L_{wa} – sound power [dB].

EI 120, E_{600}120

WxH [mm]	S_{ort} [m^2]	S_{ps} [m^2]	v [m/s]	Q [m^3/h]	dp [Pa]	L_{wa} [dB]
200 x 200	0,040	0,034	4	490	6	26
			6	734	13	36
			8	979	24	44
			10	1224	37	49
400 x 200	0,080	0,068	4	979	6	28
			6	1469	13	39
			8	1958	22	46
			10	2448	35	52
800 x 200	0,160	0,136	4	1958	5	30
			6	2938	12	41
			8	3917	21	48
			10	4896	33	54
1000 x 200	0,20	0,170	4	2448	5	31
			6	3672	12	41
			8	4896	21	49
			10	6120	32	54
400 x 400	0,160	0,136	4	1958	5	30
			6	2938	12	41
			8	3917	21	48
			10	4896	33	54
800 x 400	0,32	0,272	4	3917	5	33
			6	5875	11	43
			8	7834	20	50
			10	9792	31	56
1000 x 400	0,40	0,340	4	4896	5	33
			6	7344	11	43
			8	9792	19	51
			10	12240	30	57
600 x 600	0,360	0,306	4	4406	5	32
			6	6610	11	43
			8	8813	19	50
			10	11016	30	56
800 x 600	0,480	0,408	4	5875	5	33
			6	8813	10	44
			8	11750	19	51
			10	14688	29	57
1000 x 600	0,600	0,510	4	7344	4	34
			6	11016	10	44
			8	14688	18	52
			10	18360	28	57

Technical data

EI 120, E_{600}120

WxH [mm]	S_{ort} [m^2]	S_{ps} [m^2]	v [m/s]	Q [m^3/h]	dp [Pa]	L_{wa} [dB]
800 x 800	0,640	0,544	4	7834	4	34
			6	11750	10	44
			8	15667	18	52
			10	19584	28	58
1000 x 800	0,800	0,680	4	9792	4	34
			6	14688	9	44
			8	19584	17	52
			10	24480	26	58
1000 x 1000	1,000	0,850	4	12240	4	34
			6	18360	9	44
			8	24480	15	52
			10	30600	24	58

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