

ETZ100 Galvanised steel air regulation dampers pitch 100 mm



Description

Patented rectangular galvanised steel regulation dampers with a 100 mm pitch, with nylon rotating pins. They can be used for the regulation and balancing of air flow rates and pressures in air conditioning and ventilation systems and in air handling units. This innovative damper, thanks to the special shaping of its frame and the blade stops, guarantees significant advantages: 1) completely free air passage; 2) strong reduction in pressure drop; 3) strong reduction in self-generated noise. These features, combined with the special plastic elements inserted at the ends of the blades, also guarantee limited air leakage when the damper is closed. An innovative universal metal plate allows for the application of all manual or motorised controls. The opening and closing of the blades takes place by means of a manual control located on one side of the damper, connected to an external lever system. The same movement can be achieved by means of a wide range of servomotors that allow for a more accurate regulation of the passage of air in the duct.

Constructive features

Material: galvanised steel frame and blades, galvanised steel control pin $\varnothing 12$ mm, PA6 nylon movement transmission pins.

Installation: by means of bolts on slotted holes (detail 2) located in the corners of the frame and on additional intermediate holes (detail 3). Operating temperature: -20°C $+70^{\circ}\text{C}$.

Construction details

- 1) Flanged frame;
- 2) Slotted holes for fastening;
- 3) Additional holes for fastening;
- 4) Regulation blades;
- 5) PA6 nylon levers and pins;
- 6) Control pin;
- 7) Universal plate for manual control or servomotor.

Available models

- ETZC100P damper with blades with opposing movement with pin diam. 12 mm.
- ETZC100C damper with blades with opposing movement with manual control.

Models on request

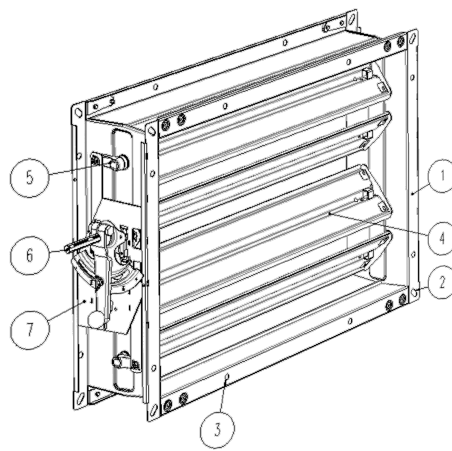
- ETZP100P damper with blades with parallel movement with pin diam. 12 mm.
- ETZP100C damper with blades with parallel movement with manual control.

Accessories

- EARG175K - Manual control;
- BELIMO SERVOMOTOR: Electronic servomotor.

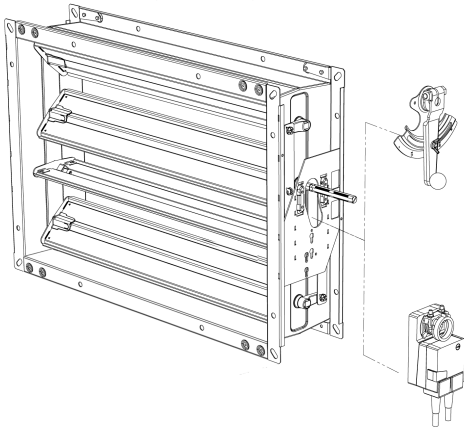
Nominal size

For dampers with a width (L) $> 1250 \text{ mm} \leq 2500 \text{ mm}$, a 30 mm thick breaker will be placed in a central position. For dampers with a width (L) $> 2500 \text{ mm} \leq 3000 \text{ mm}$, two 30 mm thick breakers will be placed at the same distance. The dampers can have the following maximum dimensions: $L \leq 3000 \times H \leq 1500$ $L \leq 2000 \times H \leq 2000$ $L \leq 1500 \times H \leq 3000$

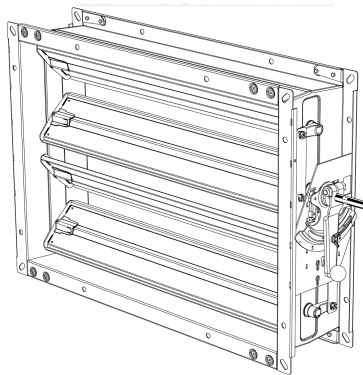


Dimensional Characteristics

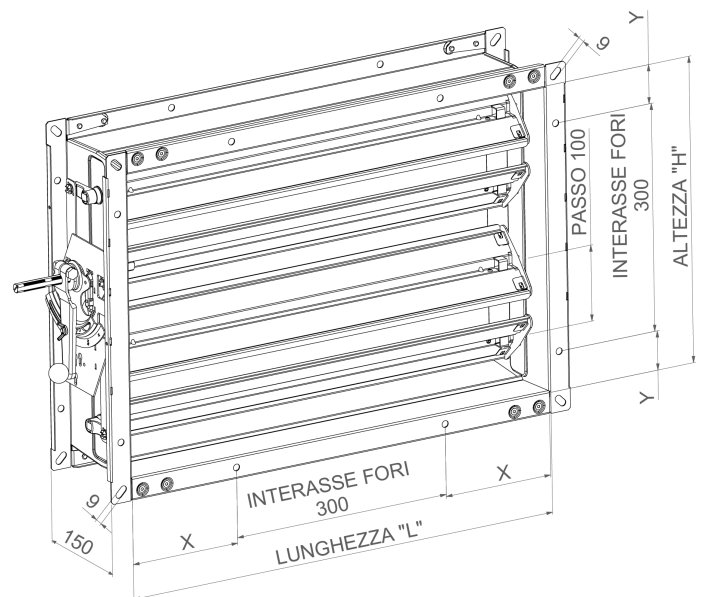
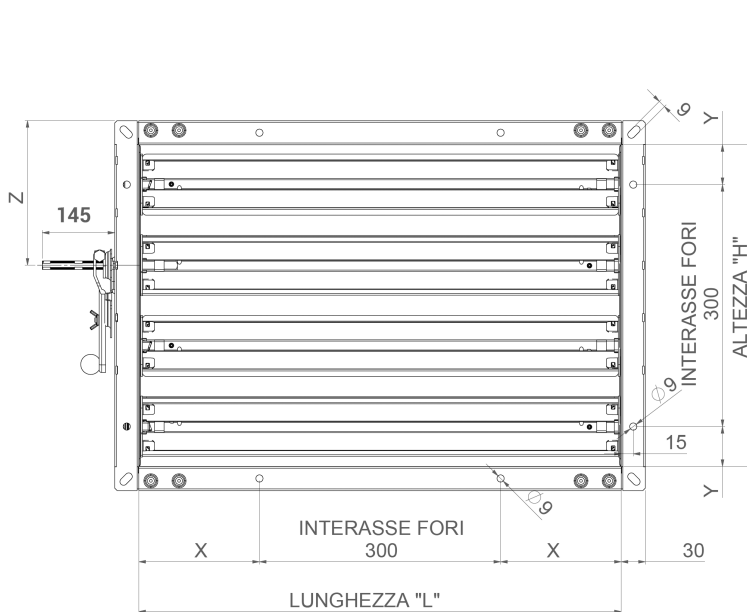
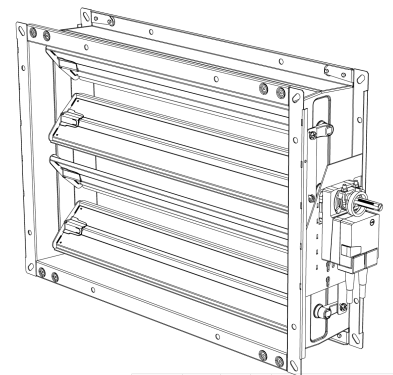
**Perno e piastra universale
(standard)**



Comando manuale



Servomotore



L	x	L	x	L	x
mm	mm	mm	mm	mm	mm
-	-	1100	100	2100	150
200	-	1200	150	2200	200
300	-	1300	200	2300	100
400	200	1400	100	2400	150
500	100	1500	150	2500	200
600	150	1600	200	2600	100
700	200	1700	100	2700	150
800	100	1800	150	2800	200
900	150	1900	200	2900	100
1000	200	2000	100	3000	150

H	y	z	H	y	z	H	y	z
mm	mm	mm	mm	mm	mm	mm	mm	mm
-	-	-	1100	100	550	2100	150	1050
200	-	50	1200	150	550	2200	200	1050
300	-	150	1300	200	650	2300	100	1150
400	200	150	1400	100	650	2400	150	1150
500	100	250	1500	150	750	2500	200	1250
600	150	250	1600	200	750	2600	100	1250
700	200	350	1700	100	850	2700	150	1350
800	100	350	1800	150	850	2800	200	1350
900	150	450	1900	200	950	2900	100	1450
1000	200	450	2000	100	950	3000	150	1450

Technical Specifications of Servomotors

		Servomotor Without Spring Return				
		CM	LM..A	NM..A	SM..A	
Couple		2 Nm	5 Nm	10 Nm	20 Nm	
Universal pin size (mm)		6-12,7	6-20	8-26	10-20	
For damper up to		0,4 m ²	1 m ²	2 m ²	4 m ²	
ON/OFF 3-Point	AC/DC 24 V	CM24-L	LM24A	NM24A	SM24A	
	AC/DC 24 V With auxiliary contact		LM24A-S	NM24A-S	SM24A-S	
	AC 230 V	CM230-L	LM230A	NM230A	SM230A	
	AC 230 V With auxiliary contact		LM230A-S	NM230A-S	SM230A-S	
Modulant - Comand 0...10V	AC/DC 24 V	CM24-SR-L	LM24A-SR	NM24A-SR	SM24A-SR	
	AC/DC 24 V With auxiliary contact					
	AC 230 V		LM230ASR	NM230ASR	SM230ASR	

		Servomotor With Spring Return				
		TF	LF	NF	SF	EF
Couple		2,5 Nm	4 Nm	10 Nm	20 Nm	30 Nm
Universal pin size (mm)		6-12,7	8-16	10-22	10-22	12-26,7
For damper up to		0,5 m ²	0,8 m ²	2 m ²	4 m ²	6 m ²
ON/OFF 3-Point	AC/DC 24 V	TF24	LF24	NF24A	SF24A	EF24A
	AC/DC 24 V With auxiliary contact	TF24-S	LF24-S	NF24A-S2	SF24A-S2	EF24A-S2
	AC 230 V	TF230	LF230	NFA	SFA	EF230A
	AC 230 V With auxiliary contact	TF230-S	LF230-S	NFA-S2	SFA-S2	EF230A-S2
Modulant - Comand 0...10V	AC/DC 24 V	TF24-SR	LF24-SR	NF24A-SR	SF24A-SR	EF24A-SR
	AC/DC 24 V With auxiliary contact			NF24A-SR-S2	SF24A-SR-S2	EF24A-SR-S2
	AC 230 V	TF230-SR				

Price List
(ETZC100P
damper with
pin)

- L: Length.
- H: Height.

All dimensions are
expressed in mm.

H	L						
	200	300	400	500	600	700	800
	Eur	Eur	Eur	Eur	Eur	Eur	Eur
200	58,52	63,91	69,50	74,11	79,54	85,07	89,69
300	68,53	74,11	80,46	85,87	92,28	98,66	104,26
400	77,70	85,07	91,47	98,66	105,08	112,44	118,85
500	87,71	95,06	102,46	110,66	117,85	125,25	133,43
600	96,87	105,08	114,24	122,47	130,78	139,01	148,18
700	107,03	116,04	125,25	134,41	143,58	152,79	162,77
800	116,04	126,20	136,20	146,21	156,38	166,40	176,55
900	125,25	136,20	147,19	158,20	169,17	180,15	191,12
1000	135,40	147,19	158,20	169,97	181,94	193,77	205,70
1100	144,38	157,19	169,97	181,94	194,71	207,50	220,30
1200	154,58	167,38	180,97	194,71	207,50	221,26	234,92
1300	163,58	177,39	191,93	206,68	220,30	234,92	249,68
1400	172,79	187,90	202,94	218,50	233,10	248,67	263,28
1500	182,92	198,32	213,94	230,47	245,88	262,41	278,03

H	L						
	900	1000	1100	1200	1300	1400	1500
	Eur	Eur	Eur	Eur	Eur	Eur	Eur
200	95,06	100,66	105,08	110,66	125,87	130,50	136,08
300	110,66	116,04	122,47	128,01	149,17	155,55	160,99
400	125,25	132,63	139,01	146,21	172,43	179,65	186,06
500	140,81	148,99	156,38	163,58	196,54	203,74	211,12
600	156,38	164,57	172,79	181,94	219,66	227,84	236,98
700	171,93	180,97	190,14	199,31	242,94	252,96	262,12
800	186,56	197,11	207,50	217,69	267,03	277,01	287,21
900	202,13	213,11	224,08	234,92	290,13	301,10	312,10
1000	217,69	229,51	241,32	253,04	313,41	325,19	337,18
1100	233,10	245,09	257,87	270,61	337,51	350,30	362,23
1200	247,85	261,44	275,20	288,01	360,80	374,41	387,19
1300	263,28	278,03	291,63	306,39	383,92	398,50	413,24
1400	278,80	293,42	308,99	323,73	408,00	422,77	438,16
1500	294,39	309,97	325,54	341,94	431,24	447,67	463,22

Price List
(ETZC100C
Damper with
pin and
manual
control)

- L: Length.
- H: Height.

All dimensions are
expressed in mm.

H	L						
	200	300	400	500	600	700	800
	Eur	Eur	Eur	Eur	Eur	Eur	Eur
200	71,93	77,33	82,86	87,46	92,89	98,47	103,02
300	81,88	87,46	93,87	99,27	105,66	112,05	117,61
400	92,25	98,47	104,82	112,05	118,39	125,83	132,19
500	101,07	108,43	115,86	123,97	131,20	138,56	146,73
600	110,22	118,39	127,61	135,79	144,14	152,33	161,47
700	120,40	129,40	138,56	147,71	156,92	166,08	176,09
800	129,40	139,58	149,55	159,53	169,69	179,67	189,85
900	138,56	149,55	160,50	171,50	182,48	193,42	204,42
1000	148,74	160,50	171,50	183,29	195,22	207,02	219,01
1100	157,74	170,52	183,29	195,22	208,00	220,79	233,55
1200	167,91	180,65	194,24	208,00	220,79	234,55	248,13
1300	176,90	190,65	205,22	219,98	233,55	248,13	262,89
1400	186,06	201,65	216,18	231,77	246,34	261,90	276,47
1500	196,21	211,62	227,17	243,71	259,13	275,66	291,18

H	L						
	900	1000	1100	1200	1300	1400	1500
	Eur	Eur	Eur	Eur	Eur	Eur	Eur
200	108,43	114,02	118,39	123,97	139,18	143,80	149,38
300	123,97	129,40	135,79	141,37	162,46	168,89	174,26
400	138,56	145,93	152,33	159,53	185,76	192,96	199,37
500	154,16	162,33	169,69	176,90	209,79	217,02	224,41
600	169,69	177,88	186,06	195,22	232,94	241,11	250,26
700	185,24	194,24	203,43	212,60	256,19	266,17	275,32
800	199,84	210,83	220,79	230,93	280,27	290,22	300,38
900	215,37	226,37	237,32	248,13	303,32	314,31	325,26
1000	230,93	242,74	254,53	266,51	326,58	338,37	350,38
1100	246,34	258,29	271,07	283,84	350,66	363,42	375,40
1200	261,10	274,70	288,45	301,23	373,92	387,51	400,29
1300	276,47	291,22	304,80	319,54	397,05	411,56	426,32
1400	292,01	306,59	322,19	336,89	421,08	435,82	451,25
1500	307,57	323,16	338,72	355,09	444,33	460,70	476,30

Servomotor Price List

The prices in the table refer to the servomotor installed on the damper.

Models	Eur	Models	Eur
CM24-L	260,17	TF24	399,46
		TF24-S	473,20
CM230-L	276,57	TF230	430,21
		TF230-S	503,94
CM24-SR-L	379,00	TF24-SR	540,82
		TF230-SR	598,21
Models	Eur	Models	Eur
LM24A	313,42	LF24	487,56
LM24A-S	356,48	LF24-S	561,29
LM230A	313,42	LF230	530,60
LM230A-S	356,48	LF230-S	602,31
LM24A-SR	421,99	LF24-SR	661,68
LM230ASR	501,90		
Models	Eur	Models	Eur
NM24A	381,04	NF24A	620,72
		NF24A-S2	704,72
NM24A-S	460,95	NFA	737,52
NM230A	395,39	NFA-S2	--
NM230A-S	473,20	NF24A-SR	741,60
NM24A-SR	549,04	NF24A-SR-S2	825,59
NM230ASR	633,04		
Models	Eur	Models	Eur
SM24A	440,43	SF24A	760,03
		SF24A-S2	841,99
SM24A-S	549,04	SFA	874,76
SM230A	452,72	SFA-S2	956,68
SM230A-S	561,29	SF24A-SR	878,85
SM24A-SR	620,72	SF24A-SR-S2	940,28
SM230ASR	702,70		
Models	Eur	Models	Eur

		EF24A	1.550,80
		EF230A	1.780,23
		EF230A-S2	1.897,00
		EF24A-SR	1.735,14
		EF24A-SR-S2	1.841,72

Accessories

Models	Description	Eur
S2A	Auxiliary switch for rotary actuators S2A Without Spring Return	152,96
	Two Switches (SPDT)	
	Adjustable Switching Points	
S2A-F	Auxiliary switch for rotary actuators S2A-F With Spring Return	226,13
	Two Switches (SPDT)	
	Adjustable Switching Points	
	Adapter	
SGA24	Positioners suitable for use with the modulating damper actuators LM..A-SR, NM..A-SR, SM..A-SR and GM..A-SR • For surface mounting	O.R.
SGF24	Positioners suitable for use with the modulating damper actuators LM..A-SR, NM..A-SR, SM..A-SR and GM..A-SR • For front-panel mounting	O.R.