



bælz 356

DESCRIPTION

The bælz 356 is a 2-way control valve with a stainless steel housing for industrial applications. Several plug shapes allow utilization for various control tasks under demanding operating conditions.

TECHNICAL SPECIFICATIONS

Connection type: Flange EN 1092-2; EN 1092-1 Shapes D / E / F on request.

Plug type: parabolic plug / conical

Control characteristic: equal percentage, linear, OPEN / CLOSED

Working media: liquids, gases, water, steam, thermal oil

Leakage class (EN 1349)

metal-to-metal seal: 0.004% Kvs (better than class IV)

with Teflon plug: 0.001% Kvs (better than class VI)

Stroke

DN15 - DN25

16 mm

DN32 - DN65

22mm

Spindle diameter

10mm

Options		Designation
Plug	Parabolic plug (standard)	bælz 356-1 (forged steel) bælz 356-1-VA (stainless steel) bælz 356-AI (cast steel)
	Cage plug	bælz 356-1-LK
	Reduced Kvs	bælz 356-1-Skr
	With V-rings in PFTE (max. temperature 240°C)	bælz 356-1-TK
Stem seal	V-rings in PFTE standard	bælz 356-1
	Cooling tube	bælz 356-1-K
	Cooling tube + bellows seal	bælz 356-1-K-SS
Additional options	V-shaped seal heating (for media at temperatures of - 10 to - 40°C) Pmax. 20 W; 12-24 V / 110-230 V AC/DC	bælz 85950...
	Construction without silicone	bælz 356- ... -Silf
	Version for drinking water	bælz 356- ... -twg

Variant	T max. (°C) / P max. (bar)				
Housing material	Stainless steel 1.4571		Forged steel 1.0460		Cast steel 1.0619
Nominal pressure	PN40		PN40	PN16	PN40
Nominal diameter	DN15-25	DN32-65	DN32-50	DN65	DN65
bælz 356-1	-	-	240/35...50/40	240/12.3...50/16	-
bælz 356-1-K	-	-	350/25.7...350/ 40	350/10.2...50/16	-
bælz 356-1-VA	240/40...100/40	240/35.7...100/40	-	-	-
bælz 356-1-VA-K	350/40...100/40	350/32.1...100/40	-	-	-
bælz 356-AI	-	-	-	-	240/30.9...50/40
bælz 356-AI-K	-	-	-	-	350/25.7...350/ 40
bælz 356-1-K-SS	-	-	-	350/10.2...50/16	-
bælz 356-1-VA-K-SS	350/25...100/25		-	-	-
bælz 356-AI-K-SS	-	-	-	-	350/25...350/25

Kvs value (m³/h)											
Housing	1.4571						1.0460				
DN	15	20	25	32	40	50	65	32	40	50	65
Standard	3.8	7.3	9.3	15	25	40	63	14	23	42	63
With soft seal (TK)							-				-
Reduced (Skr)	2	4	6.5	10	14	23	38	10	14	23	38
Cage plug LK	1	2	4	7	10	15	23	7	10	15	23
	2.2	4	6.3	11	20	32	50	11	20	32	50
	2	3.2	5	10	16	25	40	10	16	25	40
	1.6	2.5	4	6.3	10	16	25	6.3	10	16	25

Weight of the bælz 356 valves (kg)							
DN	15	20	25	32	40	50	65
bælz 356	5.5	6.1	6.6	10	11.8	15.6	19
bælz 356-K	5.7	6.4	7.2	10.5	12.3	16.1	19.5

Dimensions of the bælz 356 valves (mm)				
DN	BL	h1	h2	
			356	356-K/K-SS
15	130	40	106	331
20	150	45	106	331
25	160	55	106	331
32	180	62	111	358
40	200	73	132	372
50	230	90	142	382
65	290	101	182	425

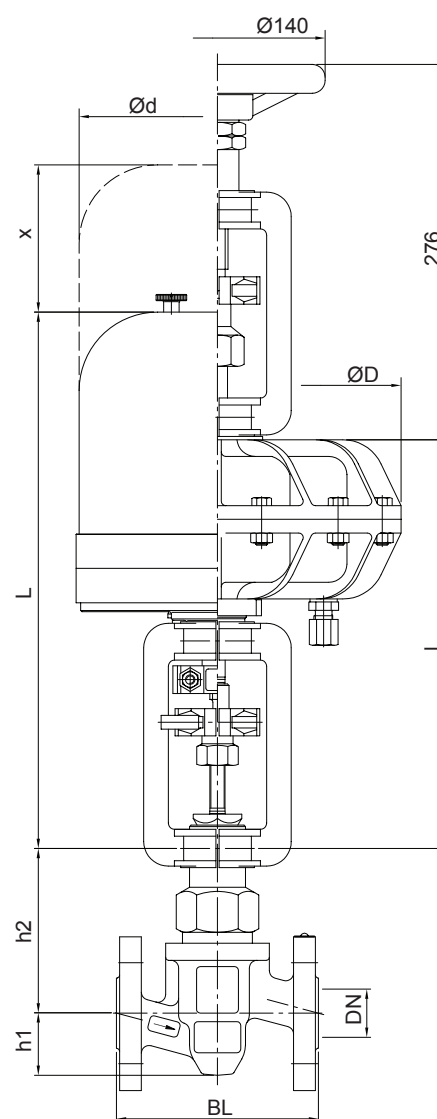
Dimensions of the bælz 373 actuators (mm)					
Designation	L	x	Ød	I	ØD
E 07	320	145	129		
E 45	560	150	175		
P 21				268	242
P 21-V6				304	242
P 22				322	242

Electric actuators: bælz 373-E

Pneumatic actuators: bælz 373-P



bælz 356 cage plug



bælz 356 DN15-65 dimensions

Maximum differential pressure ΔP_{max} (bar) at which the actuator closes the valve completely

The differential pressures specified here are limited by the nominal pressure of the housings, if this is lower.

Electric actuators. Plug closes against the flow.

Actuator bælz 373-	Power (N)	DN (mm) / maximum differential pressure ΔP_{max} (bar)													
		15	20	25	32	40	50	65	80	100	125	150	200	250	300
E07- 20-	2000	40	40	32	20	12	8	4.8	3	2	1.2				
E65- 11-	1100	25	25	21	11	6.3	3.5	1.7	0.9	0.3					
E65- 20-	2000	40	40	32	20	12	8	4.8	3	2	1.2				
E45- 40-	4000	40	40	40	40	25	16	10	6.9	4.4	2.8	1.7			
E66- 80-	8000											3.1	1.6	0.9	
E66- 150-	15000											7.1	3.8	2.3	1.5
E88-ALS-25-	2500											0.5			
E88-ALS-75-	7500											3.1	1.6	0.9	
E88- 100-	10000							28	18	11	7.4	5	2.7	1.7	1.1
E88- 100-	13000							37	24	15	9.8	6.7	3.7	2.3	1.5
E88- 100-	16000							40	30	19	12	8.4	4.6	2.9	2
E88- 300-	30000											15.3	9	5.8	3.9
E88- 300-	35000											18.9	10.5	6.7	4.6
E88- 300-	40000											21.7	12.1	7.7	5.3

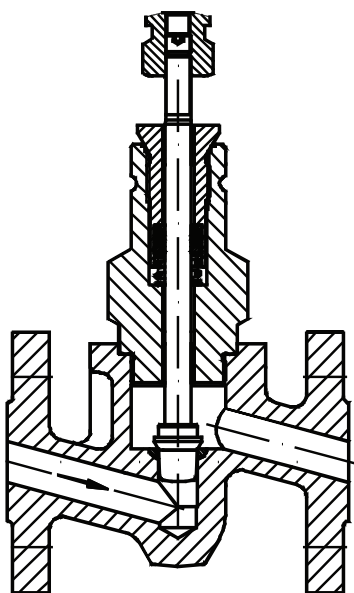
Pneumatic actuators (OPG) closed without compressed air. Plug closes against the flow.

Actuator bælz 373-	Power (N)	required feed pressure (bar)	DN (mm) / maximum differential pressure ΔP_{max} (bar)													
			15	20	25	32	40	50	65	80	100	125	150	200	250	300
P11- 1	950	1.2	40	18.3	13.7	8.2	4.3	2.4	1.1							
P21- 1	950	1.2	40	18.3	13.7	8.2	4.3	2.4	1.1							
P21- 3	1020	1.2	29	29	16	9.9	6.3	4.6	2.7	1.8	1	0.6				
P21- 6	2040	3.0	40	40	35	21	13.5	8.9	5.2	3.4	2.2	1.4				
P21- 12	3390	6.0	40	40	40	36	23	14	8	5	3.5	2.1				
P21- 18	4030	6.0	40	40	40	40	27	18	10	7	4.5	2.8				
P21- V6	7590	6.0	40	40	40	40	40	34	20	13	8	5				
P22- 3	1846	3.0	40	40	34.5	18.8	11	6.5	3.4	2	1.1	0.5				
P22- 6	3692	6.0	40	40	40	40	25.2	15.3	8.5	5.3	3.2	1.9				
P31- 3	2480	1.2											1.1			
P31- 6	4960	3.0											2.4			
P31- 18	10560	6.0											5.3			
P32- 6	4402	3.0												0.8		
P32- 18	8115	6.0												1.8		
P41- 3	3765	1.2											2.4	1	0.6	0.4
P41- 6	7530	3.0											5	2	1.3	0.9
P41- V6	31920	6.0											21	10.5	6.5	4.5

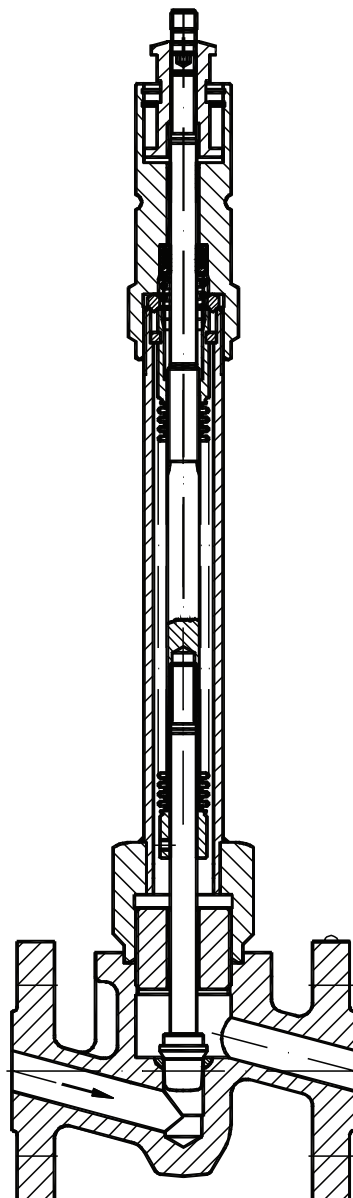
Pneumatic actuators (OPO) open without compressed air. Plug closes against the flow.

Actuator bælz 373-	Power (N)	required feed pressure (bar)	DN (mm) / maximum differential pressure ΔP_{max} (bar)													
			15	20	25	32	40	50	65	80	100	125	150	200	250	300
P21- 3	1020	1.2	7	7	4.5	2.8	1.8	1.1	0.6	0.4	-	-				
		3.0	40	40	40	40	31	19	12	8	5	3				
		6.0	40	40	40	40	40	40	30	20	12	8				
P21- 6	2040	3.0	40	40	35	21	14	8	5.3	3.5	2.2	1.4				
		6.0	40	40	40	40	40	39	24	16	10	6				
		1.2											0.6			
P31- 3	2480	3.0											6			
		6.0											14.8			
		3.0											3			
P31- 6	4960	6.0											12			
		1.2											1.2	0.7	0.4	0.3
		3.0											12	6.8	4.3	3
P41- 3	3765	6.0											30	17	11	7.5
		3.0												5	3	2
		6.0												15	10	6

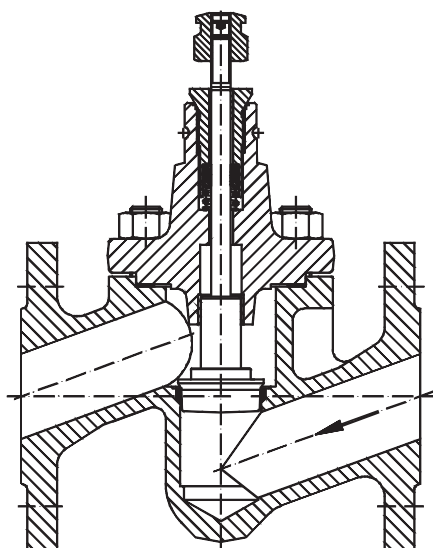
Sectional drawings of the baelz 356 plug



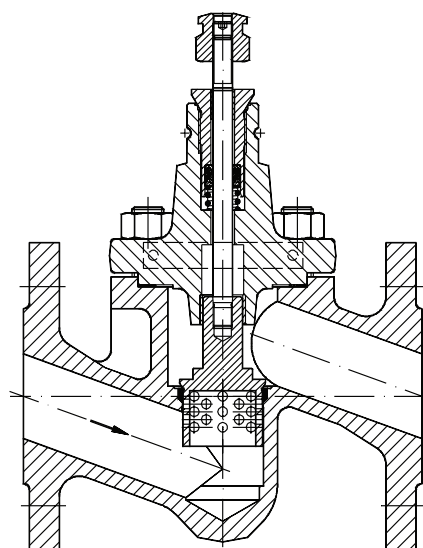
Parabolic plug
baelz 356-1-VA



Parabolic plug
baelz 356-1-VA-K-SS



Parabolic plug
baelz 356-1



Cage plug
baelz 356-1-LK