



## baelz 356

### DESCRIPTION

The baelz 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		Spindle diameter
DN15 - DN25	16 mm	10mm
DN32 - DN65	22mm	

Options		Designation example
<b>Plug</b>	Parabolic plug (standard)	baelz 356-1 (forged steel) baelz 356-1-VA (stainless steel) baelz 356-AI (cast steel)
	Cage plug	baelz 356-1-LK
	Reduced Kvs	baelz 356-1-Skr
	With V-rings in PFTE (max. temperature 240°C)	baelz 356-1-TK
<b>Stem seal</b>	V-rings in PFTE standard	baelz 356-1
	Cooling tube	baelz 356-1-K
	Cooling tube + bellows seal	baelz 356-1-K-SS
<b>Additional options</b>	V-shaped seal heating (for media with temperatures of -10.. - 40°C) Power feed: 8-26 W - 230 V AC/DC	baelz 356- ... -Hz
	Construction without silicone	baelz 356- ... -Silf
	Version for drinking water	baelz 356- ... -twg

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

Housing	Kvs value (m³/h)										
	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 baelz 356 valves (kg)							
DN	15	20	25	32	40	50	65
baelz 356	5.5	6.1	6.6	10	11.8	15.6	19
baelz 356-K	5.7	6.4	7.2	10.5	12.3	16.1	19.5

Dimensions of the baelz 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

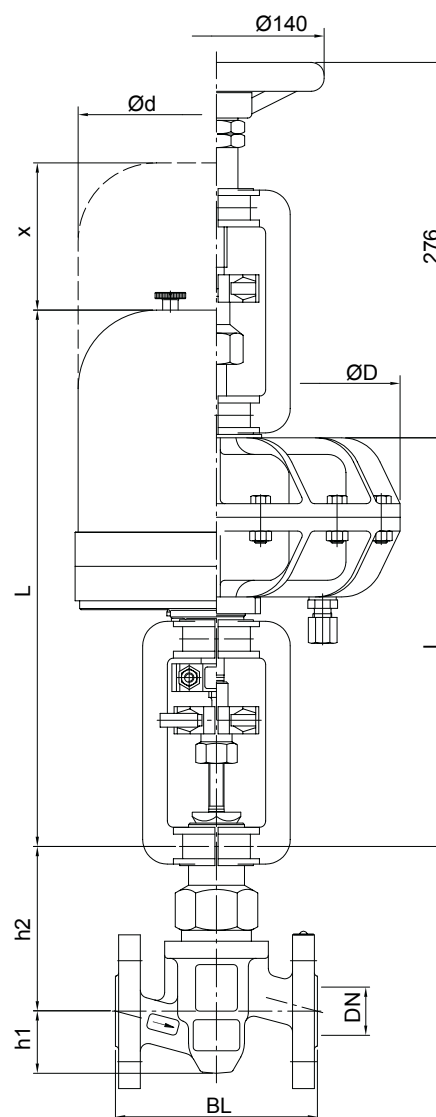
Dimensions of the baelz 373 actuators (mm)					
Designation	L	x	Ød	l	ØD
E 07	320	145	129		
E 45	560	150	175		
P 21				268	242
P 21-V6				304	242
P 22				322	242

Electric actuators: baelz 373-E

Pneumatic actuators: baelz 373-P



baelz 356 cage plug



baelz 356 DN15-65 dimensions



**Maximum differential pressure  $\Delta P_{max}$  (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 baelz 373-	Power (N)	DN (mm) / maximum differential pressure $\Delta P_{max}$ (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

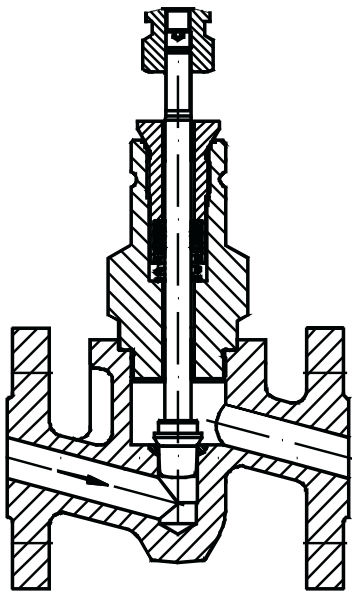
**Pneumatic actuators (OPG) closed without compressed air. Plug closes against the flow.**

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure $\Delta P_{max}$ (bar)													
			15	20	25	32	40	50	65	80	100	125	150	200	250	300
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

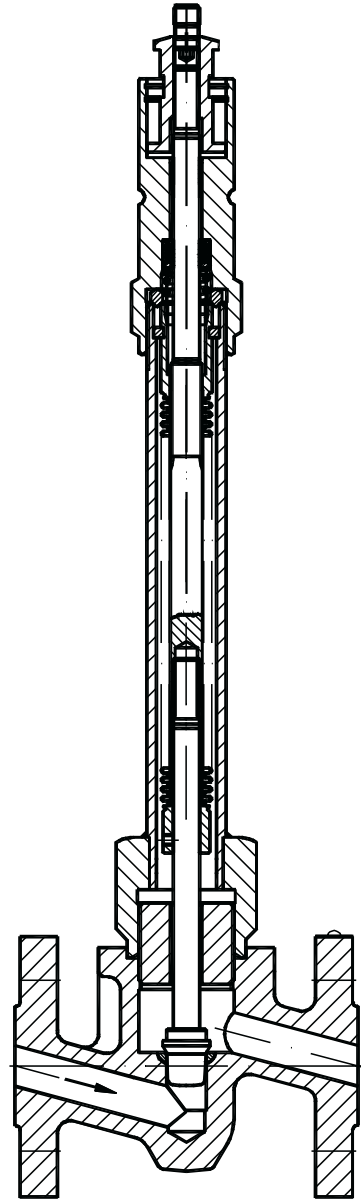
**Pneumatic actuators (OPO) open without compressed air. Plug closes against the flow.**

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure $\Delta P_{max}$ (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				
P31- 3	2480	1.2											0.6			
		3.0											6			
		6.0											14.8			
P31- 6	4960	3.0											3			
		6.0											12			
P41- 3	3765	1.2											1.2	0.7	0.4	0.3
		3.0											12	6.8	4.3	3
		6.0											30	17	11	7.5
P41- 6	7530	3.0												5	3	2
		6.0												15	10	6

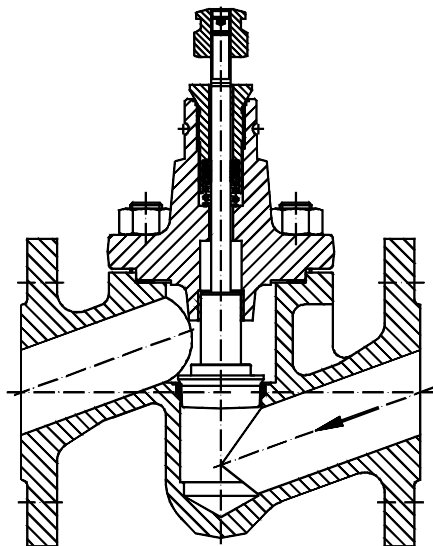
Sectional drawings of the baelz 356 plug



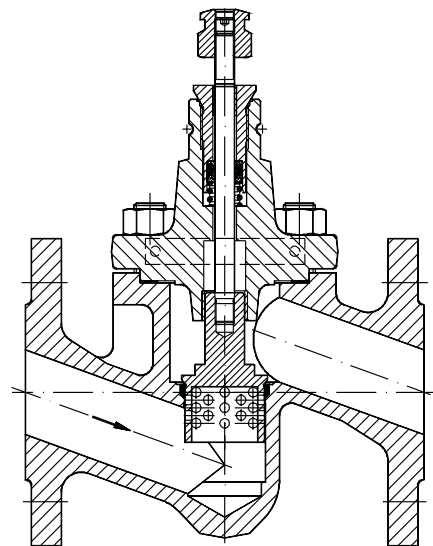
Parabolic plug  
baelz 356-1-VA



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



Parabolic plug  
baelz 356-1



Cage plug  
baelz 356-1-LK