



baelz 342-2

DESCRIPTION

The baelz 342-2 is a universal 3-way valve for industrial applications.

TECHNICAL SPECIFICATIONS

Connection type: Flange EN 1092-2; EN 1092-1 Shapes D / E / F on request.
 Plug type: parabolic plug / conical
 Control characteristic: linear
 Working fluids: liquids, water, thermal oil, gases

Leakage class (EN 1349)
Straight way (A-AB): 0.004 % Kvs (better than class IV)
Angle way (B-AB): 2 % Kvs (class I)

Stroke (mm)		Spindle diameter (mm)
DN 15-25	12	10
DN 32-125	22	

Options		Designation
Plug	Parabolic plug (standard)	baelz 342-2-B...
	Cage plug	MP342-LK...
Spindle seal	V-rings in PTFE standard	baelz 342-2-B...
	Cooling tube	baelz 342-2-BK...
	Cooling tube + bellows seal	baelz 342-2-BK-SS...
Flanges	Flange facing: groove all sides	MP342-ALL-N...
Additional options	V-shaped seal heating (for fluids at temperatures of - 10 to - 40°C) Pmax. 20 W; 12-24 V / 110-230 V AC/DC	baelz 85950...
	Silicone-free	MP342-Silf...
	Spindle wiper set	MP340-AF

Valve body material	T max. (°C) / P max. (bar)			
	Spheroidal ductile iron GJS-400-18-LT - 5.3103		Cast steel GP240GH - 1.0619	
Nominal pressure	PN 6	PN 16	PN 16/25	PN 40
baelz 342-2-B	240/5.2 ... 50/6		240/22 ... 50/25	-
baelz 342-2-BK	-		350/17.5 ... 50/25	350/25.7 ... 50/40
baelz 342-2-BK-SS	-	350/11.2 ... 50/16	350/17.5 ... 50/25	350/25 ... 50/25 *

* For nominal diameters DN 15-25 values for PN 16/25 apply

DN	Kvs value (m³/h)									
	15	20	25	32	40	50	65	80	100	125
Standard	5.9	7.8	9.6	16	25	36	63	105	130	200
Reduced Kvs (Skr)	2	2.5	5	10	14	23	38	50	80	130
	1	1.6	3.2	4	-	10	16	25	40	63
Cage plug (LK)	2.5	4	6.3	12.5	20	25	40	80	100	130
	2	3.2	5	6.3	16	16	25	63	80	100
	1.6	2.5	4	4	10	12.5	18.5	40	63	-

Note: As we are constantly improving our products, there is more than one series of this article. When ordering spares or parts for an existing system, please state the old serial numbers and, if in doubt, contact Baelz. We'll be pleased to help.

baelz 342-2 plug variants				
Valve function	Actuator type	Pressure difference at the plug (bar)	Nominal diameter	Plug type
Flow separation	Electric actuator	≤0.6	DN15 - 125	without restrictions
		>0.6	DN15 - 32	without restrictions
		>0.6	DN40 - 125	balanced (EMF) see baelz 347-2*
	Pneumatic actuator	≤0.6	DN15 - 125	without restrictions
		>0.6	DN15 - 32	on request
Flow mix	without restrictions			

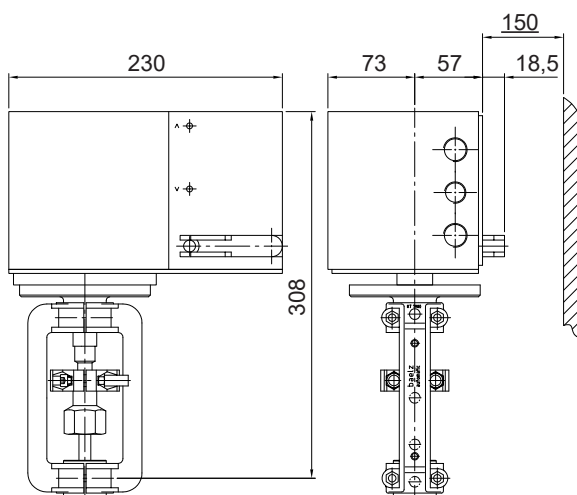
* Baelz will be pleased to inform you about possible applications with other plug variants

Approximate weights of baelz 342-2 valves without actuator (kg)											
DN		15	20	25	32	40	50	65	80	100	125
Standard (B)	PN16	5.5	6.1	6.6	9.6	11.8	15.6	24	28.7	39	57
	PN25	-	-	-	-	-	-	-	-	-	-
With cooling tube (BK)	PN16	6.5	7.1	7.6	10.6	12.8	16.6	-	29.7	-	-
	PN25	-	-	-	-	-	-	25	40	58	-
	PN40	7	7.6	8.1	11.6	14.3	18.6	28	33.7	45	65
With cooling tube and bellows seal	PN16	6.8	7.4	7.9	10.9	13.1	16.9	25.3	30	40.3	58.3
	Pn40	7.3	7.9	8.4	11.9	14.6	18.9	28.3	34	45.3	65.3

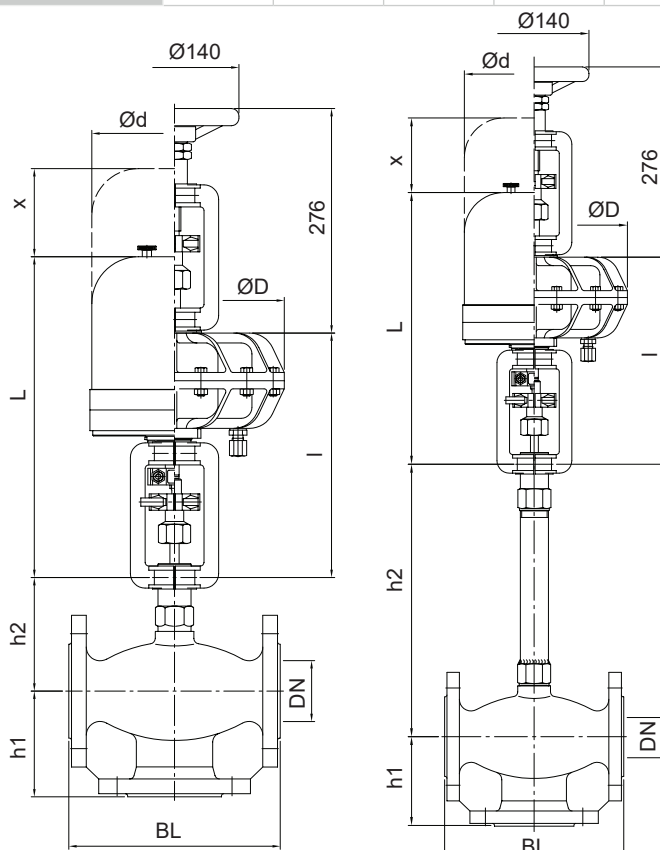
baelz 342-2 dimensions (mm)				
DN	BL	h1	h2	
			342-2-B	342-2-BK, 342-2-BK-SS
15	130	75	110 (105)*	236 (231)*
20	150	75	110 (105)*	236 (231)*
25	160	85	110 (105)*	236 (231)*
32	180	100	104	283 (283)*
40	200	105	114	283 (281)*
50	230	115	124	293 (277)*
65	290	125	144	313 (269)*
80	310	130	154	323 (269)*
100	350	150	169	338 (262)*
125	400	200	189	358 (252)*

* Dimension h2 for previous version of baelz 342

baelz actuators dimensions (mm)					
Designation	L	x	Ød	l	ØD
E07	320	145	129		
E45	560	150	175		
E65	see dimensional drawing below				
P11				244	160
P21				268	242
P21-V6				304	242
P22				322	242



Dimensions of the baelz 373-E65 actuator



baelz 342-2-B DN15-125

baelz 342-2-BK DN15-125
baelz 342-2-BK-SS DN15-125

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 valve body, if this is lower.

Electric actuators. 3-way valves as mixing/diverting valves baelz 342-2-B, 342-2-BK, 342-2-BK-SS.

Plug closes against the flow.

Actuator baelz 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- OSX-	700	14.5	14.5	10	4.8	2.4	1.1	0.3								
E07- 20-	2000	40	40	32	20	12	8	4.8	3	2	1.2					
E65- 11-	1100	26.8	26.8	19	9.9	5.5	3	1.4	0.7	0.2						
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							23.8	15.1	9.3	5.7	3.1	1.6	0.9		
E66- 150-	15000								28.3	17.9	11.3	7.1	3.8	2.3	1.5	
E88- 100-	10000								28	18	11	7.4	5	2.4	1.7	1.1
E88- 100-	13000								37	24	15	9.8	6.7	3.3	2.3	1.5
E88- 100-	16000								40	30	19	12	8.4	4.5	2.9	2
E88- 300-	30000										(36)	(23)	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. 3-way valves as mixing valves baelz 342-2-B, 342-2-BK, 342-BK-SS.

Plug closes against the flow.

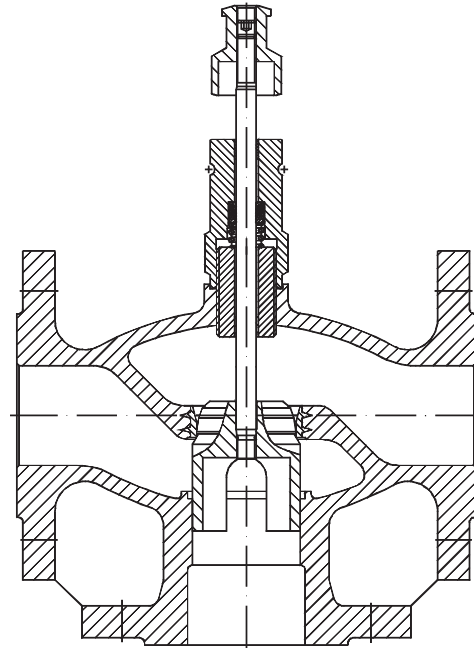
Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔP_{max} (bar)													
			15	20	25	32	40	50	65	80	100	125	150	200	250	300
P11- 1	950	6.0	18.6	18.6	13.9	5.6	3.4	1.9	0.9	0.4						
P21- 3	1020	1.2	7	7	4.5	2.8	1.7	1.1	0.7	0.4	0.3	0.2				
P21- 6	2040	3.0	40	40	33	20	13	8	5	3.3	2.1	1.3				
P21- 12	3390	6.0	40	40	40	35	22	14	8.5	5.6	3.6	2.3				
P21- 18	4030	6.0	40	40	40	40	27	17	10	7	4.3	2.7				
P21- V6	7590	6.0	40	40	29	18	11.5	7	4.3	2.8	1.8	1.2				
P31- 3	2480	1.2											0.6			
P31- 6	4960	3.0											2.3			
P31- 18	10560	6.0											5			
P41- 3	3765	1.2											2.4	1	0.6	0.4
P41- 6	7530	3.0											4.8	2	1.3	0.9
P41- V6	31920	6.0											8.2	3.5	2.3	1.6

Pneumatic actuators. 3-way valves as diverting valves baelz 342-2-B, 342-2-BK, 342-2-BK-SS.

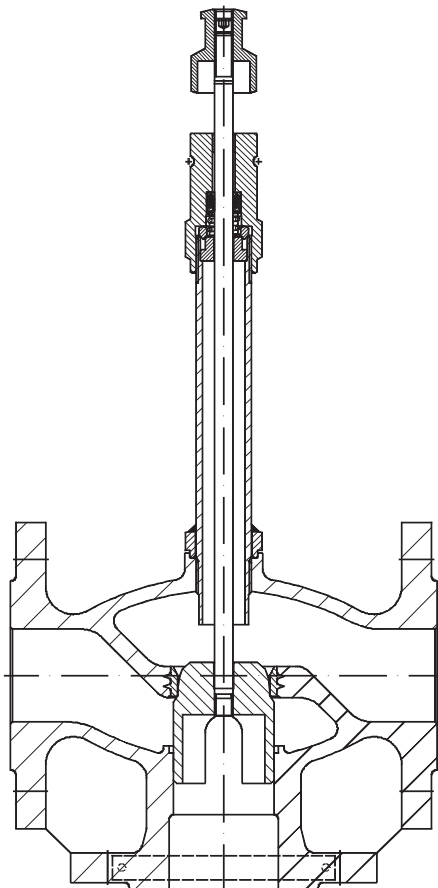
Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	req. 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
all		1.2 - 6.0	Deploy all diverting valves only up to 0.6 bar differential pressure. If a diverting valve with > 0.6 bar is required, valve with > 0.6 bar is required, a damping device must be provided on the actuator.													

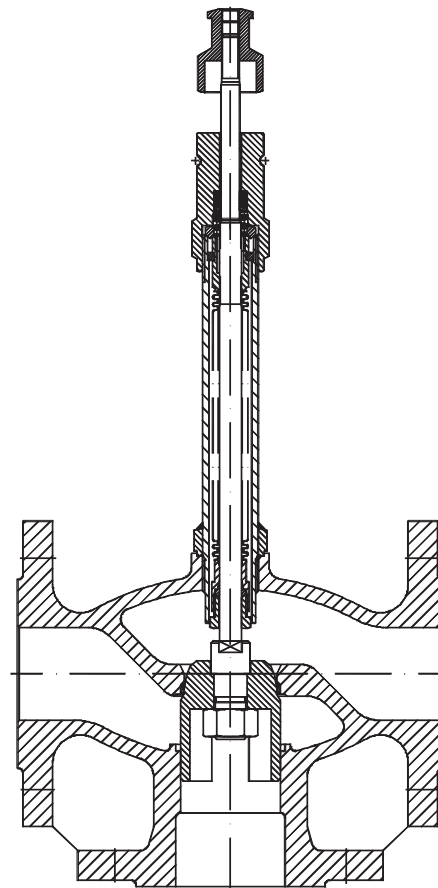
Sectional drawings of the baelz 342-2 plug



Mixing plug with slot guides
baelz 342-2-B



Mixing plug with slot guides
baelz 342-2-BK



baelz 342-2-BK-SS reinforced mixing plug
with slot guides