Baelz Catalogue

Energie sparen? Baelz bietet weltweit Lösungen.

想节能吗？贝尔茨在全球范围能提供解决方案。

¿Ahorro de energía? Baelz ofrece soluciones en todo el mundo.

Économiser de l‘énergie ? Baelz offre des solutions à l’international.

Want to save energy? Baelz offers solutions worldwide.




baelz
automatic

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Key to Symbols

– for steam

– for thermal oil

– for water / liquids, including corrosives

– for gases, including corrosive ones

Baelz is a family-owned enterprise with a long tradition. Based in Heilbronn in south-west Germany, its products, made in Germany, are known for their quality. For over 100 years Baelz' inventiveness has produced new patents and new developments. Baelz technologies are inspired by the laws of nature and harness the power of innovation to achieve economical use of energy and resources.

Due to Baelz's policy of ongoing development, the company's components and products for control, heat and cold engineering continue to be installed all over the world.



Control Valves for Industry and Building Services

Baelz-electrodyn®

Electrically and pneumatically operated **control valves from DN15 to DN300** for water, steam, thermal oil, hot water, condensate, oxygen, nitrogen and many other media.

Baelz control valves have a far superior design and long service life because they are built on the basis of decades of Baelz experience as a developer of heat exchange systems. Baelz is therefore a competent consultant when it comes to selecting and designing valve housings and drives for specific applications.



Controlled Ejectors for Liquids

Baelz-hydrodynamic®
Jetomat®

Baelz ejectors, also known as three-way injector valves, are **durable, economical and low-maintenance.**

They are **reliable, energy-saving and cost-effective** to run.

Controlled Ejectors for Steam

Baelz-vapordynamic®

Fields of application for our thermocompressors and desuperheaters include **recirculation, compression and pressure reduction** in rotary drum dryers or waste steam compression.



Heat Exchangers

Baelz-thermodynamic®

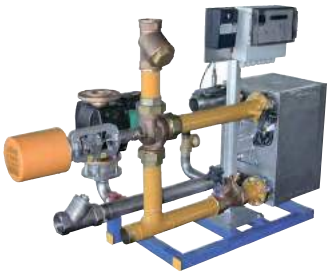
Baelz offers a wide range of heat exchangers for all types of plants in HVAC, district heating and industry. They are suitable for steam, hot water and thermal oil.

Thanks to our in-house production in Germany, we are capable of manufacturing **custom solutions** due to the use of **unique modular systems**. We supply heat exchangers and steam generators with **straight, U-shaped and spiral tubing** or fixed tube bundles, either vertical or horizontal.

System Solutions Water

Baelz-hydrodynamic®

System solutions can be single components or **compact stations** in which single components are fitted and ready-wired according to individual requirements. They are delivered to the customer ready to operate. This eliminates time-consuming installation work on site and saves money for the customer.



System Solutions Steam

Baelz-thermodynamic®
Steam Terminal®

Wherever **steam** is used, there are **potential energy savings** which can be achieved with our versatile system solutions.
They are completely piped and wired, heat insulated and, if required, fully mounted on a skid.



System Solutions Absorption Chillers

Baelz-absorpdynamic®

These are **compact, energy efficient**, **heat operated refrigeration systems** with mid-range capacity.The use of temperartures as low as 55°C enables the use of excess heat for cooling.

The units are **environmentally friendly** since they use water as a coolant and lithium bromide as an absorbent. Due to their **compact size**, the absorbtion chillers can be transported through doorways and are space-saving. Available **up to 500 kW** output.



Closed Loop Systems

Baelz-electrodyn®
Pilot®

Baelz closed-loop controllers with in-house developed hardware and software ensures intelligent control and automation in industry and building services and offers **optimized efficiency in the generation, consumption and conversion of energy**.

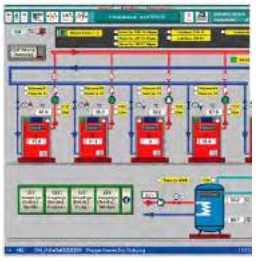
Baelz Touchpilot controllers are touch screen operated.

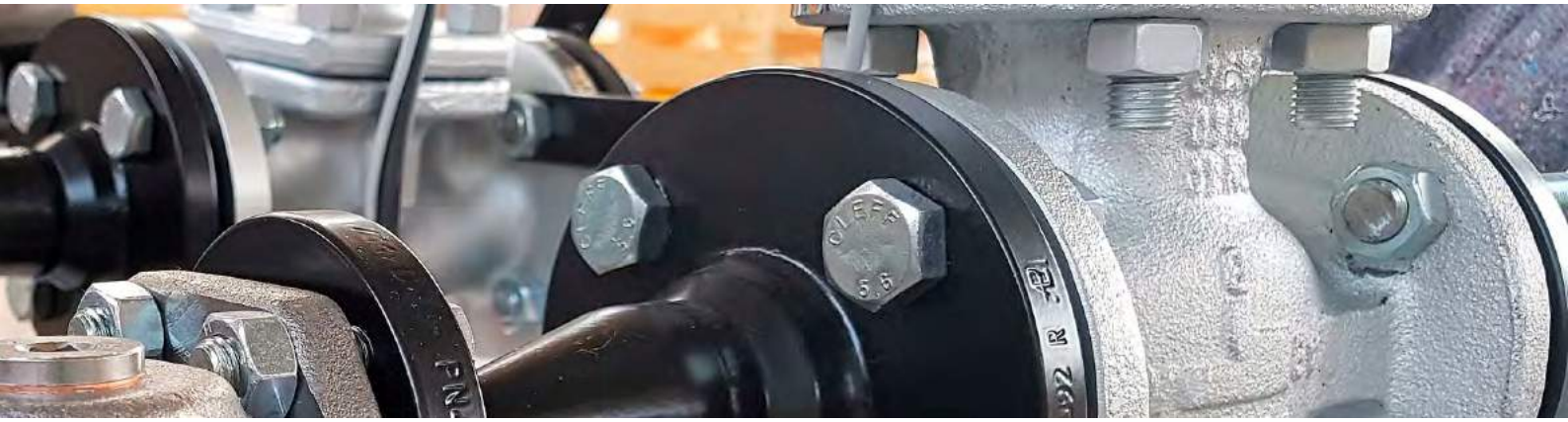


Central Contol Systems

Baelz-electrodyn®

The **WinBAS** universal software packet for Baelz central control is extremely **flexible, adaptable and modular**. It offers all the options required for comprehensive automation concepts in industry and building automation.





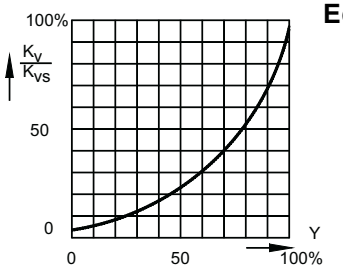
1.1 Valve Product Designations

Example of identification for ordering: Baelz 340-B-TK-DN50-PN16-Kvs10-Skr-spheroid ductile iron

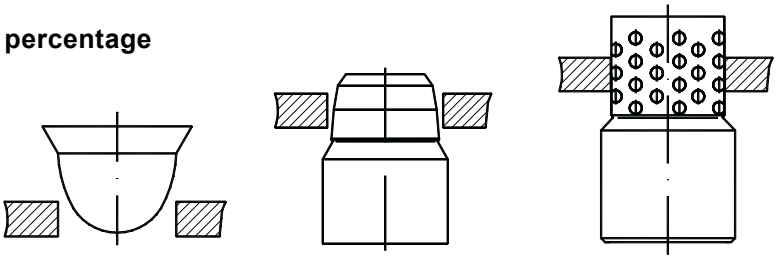
Baelz -	340	-	B	-	TK	-	DN50	-	PN16	-	Kvs10	-	Skr	-	spheroid iron

Series															
	185														
	192														
	334														
	340														
	344														
	356														
	358 / 359														
	360														
	365														
	335														
	342														
	347														
	353 / 354														
	367														
Valve options															
Universal valve. max. 240°C			**B** / BB												
Valve with cooling tube, max. 350°C			K / BK / BBK												
Valve made of stainless steel			ES / VA												
Plug options and spindle sealing															
Balanced plug					EMF										
Soft seal					**TK**										
High-temperature type					EMF-K										
With bellows					SS										
Balanced, piston plug in a fixed cage / with perforated cage					C / CC										
Nominal diameter															
							DN								
Nominal pressure															
									PN						
Metric flow factor (Kvs)															
											Kvs				
Additional plug options															
Cage plug													LK		
Reduced Kvs value													Skr		
Housing material															
															Spheroid ductile iron
															Steel
															Cast steel
															Stainless steel
															Heat-resistant steel
															Cast brass
															Red brass

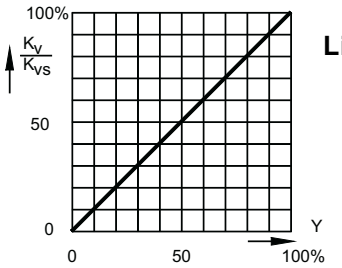
Examples of plug designs and control characteristics



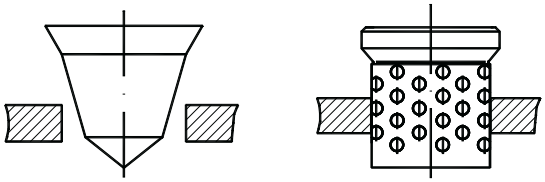
Equal percentage



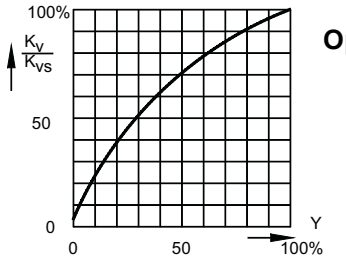
baelz 356 baelz 340 baelz 340-LK



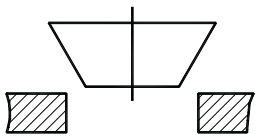
Linear



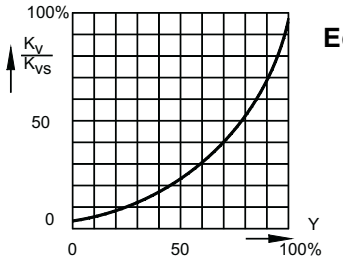
baelz 356 baelz 356-LK



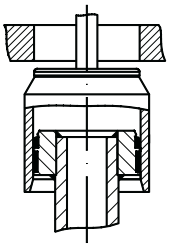
Open/close



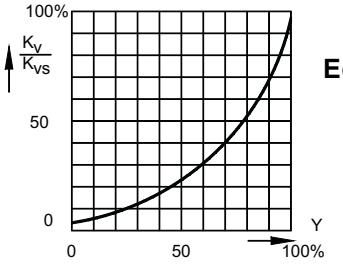
baelz 340, baelz 356



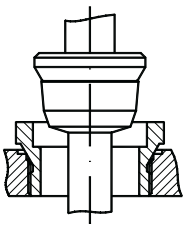
Equal percentage



baelz 340-B-EM



Equal percentage

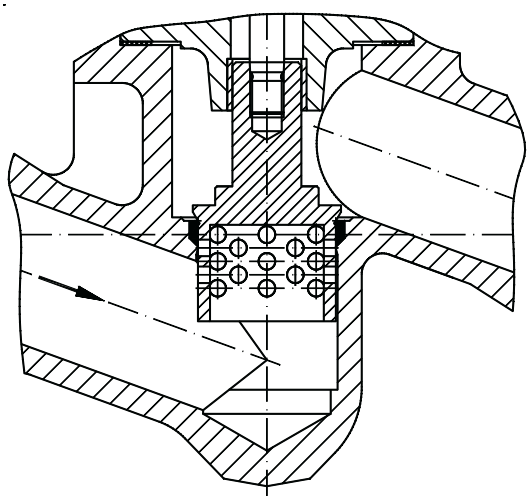


baelz 346-EMB
(on request)

Examples of solutions for noise reduction:

1. Cage plug LK

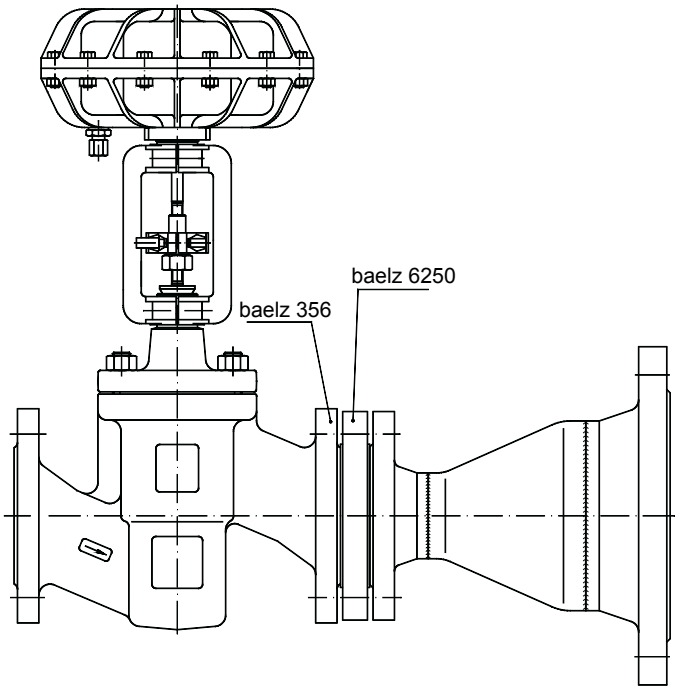
The LK cage plug is available for all valve series and is effective against noise and cavitation.
The parabolic plug is replaced by the cage plug, which changes the direction of flow and divides it into several currents through smaller openings.



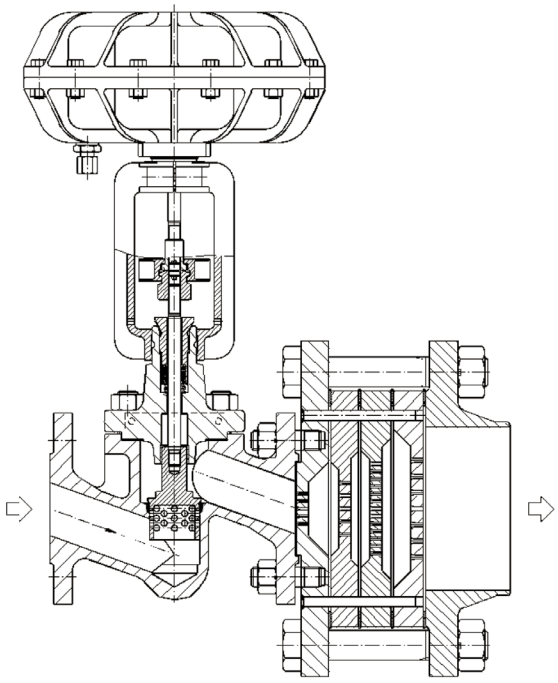
Cage plug

2. Valve with baelz 6250 orifice plate for noise reduction

The baelz 6250 orifice plate protects the valve against damage caused by excessive pressure drop and has a noise-damping effect. The orifice plate is connected downstream from the valve and absorbs most of the pressure drop. Thus, the cheap orifice plate is "sacrificed" to prevent damage to the expensive valve.



Example of mounting a baelz 6250 noise-damping disk in the pipeline

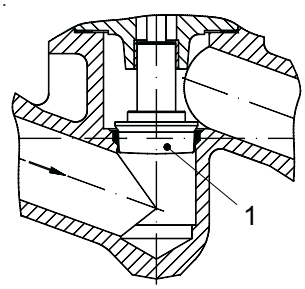


Example of mounting several baelz 6250 noise-damping disks in the pipeline

3. Noise damping and prevention of cavitation with balanced and unbalanced plugs

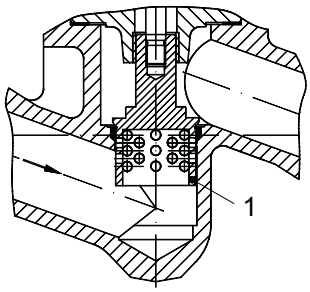
Unbalanced plug

A



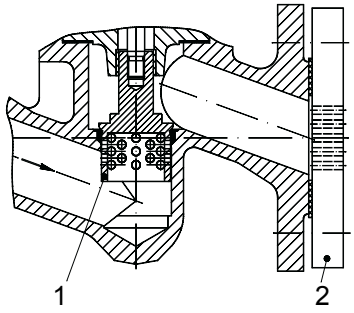
1. Parabolic plug

B



1. Cage plug

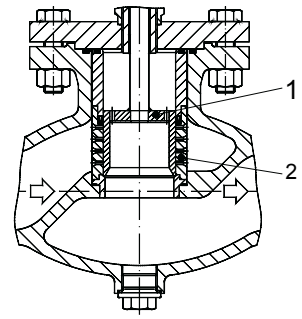
C



1. Cage plug
2. Noise damper (perforated disk)

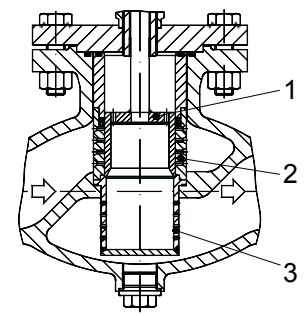
Balanced pressure plug

D



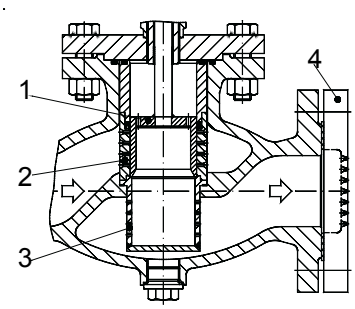
1. Plug
2. Seat

E



1. Plug
2. Seat
3. Cage

F



1. Plug
2. Seat
3. Cage
4. Noise damper

Determination of the noise level and cavitation for control valves
Application for hot water (and condensate)

Temperature Tv = 120°C Inlet pressure P1 = 6 bar absolute outlet pressure P2 = 3 bar absolute saturation pressure Pv = 2 bar absolute vapor pressure at temperature Tv				150 °C 16 bar abs. 5 bar abs. 4.8 bar abs.				
Fig.	A	B	D	A	B	C	D	E
Cavitation	Yes	No	No	Yes	Yes	No	Yes	No
Noise reduction dB	0	30	30	0	6	31	20	31
Compared to c XF*	<0.2	0.2<X_F<0.5	0.5<X_F<0.75	<0.2	0.2<X_F<0.5	0.2<X_F<0.5	0.2<X_F<0.5	0.75<X_F

* XF = ratio of the differential pressure for liquids XF = P1 - P2 / P1 - Pv

Application for steam

Inlet pressure Outlet pressure						
Fig.	A	B	C	D	E	F
Noise reduction dB (A) compared to Fig. A. parabolic plug	0	7	11-21*	8	12	16-23*

*1-5 perforated disks

Seite 10

baelz 185



- DN 15
- PN 40
- Flanged connection
- Housing 1.4021
- max. 350°C
- For low flow volumes
- Built-in filter
- V-rings in PFTE
- Cooling tube
- Bellows seal
- Liquids, water, thermal oil, steam

Seite 13

baelz 192



- DN 15-125
- PN 16 / 40
- Flanged connection
- Housing 5.3103 / 1.0619
- max. 240°C
- Cage plug
- Pilot valve
- Solenoid valve

Seite 16

baelz 334



- 1/2"– 1 1/2"
- PN 16 / 25
- External thread/for welding
- Housing CC491K - CuSn5Zn5Pb5-C
- max. 140°C
- V-rings in PFTE
- Water, hot water

Seite 19

baelz 340-B
baelz 340-BB
baelz 340-B-EMF
baelz 340-BB-EMF



- DN 15-350
- PN 16 / 25 / 40
- Flanged connection
- Housing 5.3103 / 1.0619 / 1.4313
- max. 240°C
- Balanced valve
- Cage plug
- Reduced Kvs
- V-rings in PFTE
- Liquids, water, steam, gases

Seite 19

baelz 340-BK-SS
baelz 340-BBK-SS



- DN15-125 / 150-300
- PN 16 / 25 / 40
- Flanged connection
- Housing 5.3103 / 1.0619 / 1.4313
- max. 350°C
- Cage plug
- Reduced Kvs
- V-rings in PFTE
- Cooling tube
- Bellows seal
- Liquids, water, thermal oil, steam, gases

Seite 25

baelz 344



- DN50-150
- PN 16 / 25 / 40
- Flanged connection
- Housing 1.4408
- max. 350°C
- Balanced valve
- Cage plug
- V-rings in PFTE
- Cooling tube
- Bellows seal
- Liquids, water, thermal oil, steam, gases

Seite 28

baelz 356



- DN 15-65
- PN 16
- Flanged connection
- Housing 1.0460 / 1.4571 / 1.0619
- max. 240°C
- Cage plug
- Reduced Kvs
- V-rings in PFTE
- Liquids, water, steam, gases

Seite 28

baelz 356-K-SS



- DN 15-65
- PN 16
- Flanged connection
- Housing 1.0460 / 1.4571 / 1.0619
- max. >350°C
- Cage plug
- Reduced Kvs
- V-rings in PFTE
- Cooling tube
- Bellows seal
- Liquids, water, thermal oil, steam, gases

Seite 32

baelz 358-K / 359-K



- DN 15-125
- PN 63 / 100 / 160
- Flanged connection
- Housing 358-K 1.7335 / 1.7357
- Housing 359-K 1.0460 / 1.0619+N
- max. >350°C
- Cage plug
- Reduced Kvs
- V-rings in PFTE
- Cooling tube
- Bellows seal
- Liquids, water, steam, gases

Seite 36

baelz 360-EM-C
baelz 360-EM-CC



- DN 32-150
- PN 40
- Flanged connection
- Housing 1.0619
- max. 315°C
- Balanced valve
- Additional perforated cage
- V-rings in PFTE
- Cooling tube
- Liquids, water, steam, gases

Seite 39

baelz 365-A3

- 1/2“ - 10“ / DN 15-250
- ANSI 300
- Flanged connection
- Housing SA216WCB - 1.0619
- max. 230°C
- Liquids, water, steam, gases

Seite 39

baelz 365-K-SS-A3

- 1/2“ - 10“ / DN 15-250
- ANSI 300
- Flanged connection
- Housing SA216WCB - 1.0619
- max. 400°C
- Cooling tube
- Bellows seal
- Liquids, water, thermal oil, steam, gases



baelz 185

DESCRIPTION

The baelz 185 is a versatile DN 15 microflow control valve for low flow rates with integrated strainer and stainless steel housing.

Provided with 6 holes (VA/VU) with G1/2" thread, for connecting accessories:
- Pneumatic or electric actuator
- Solenoid valve
- Manual isolating valve
- Direct-acting pilot valve
- Security valve
- Pressure sensor or temperature sensor
- Drain valve or ball valve

TECHNICAL SPECIFICATIONS

Housing material - stainless steel 1.4021

Connection type: flange EN 1092-2; EN 1092-1 Shapes D / E / F on request.
Plug type: Tapered plug, Teflon soft seal plug

Additional options:
- baelz 260st single or double manual valves for filter cleaning
- Plug soft seal

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	16 mm	10 mm

Options	Special features	T max. (°C) / P max. (bar)	Designation example
Plug	Stainless steel 1.4571 (standard)	240 / 40 ... 50 / 40	baelz 185
	Stainless steel 1.4571 + Teflon (PTFE)	240 / 40 ... 50 / 40	baelz 185-TK
Stem seal	V-rings in PFTE (standard)	240 / 40 ... 50 / 40	baelz 185
	Cooling tube	350 / 34 ... 50 / 40	baelz 185-K
	Cooling tube + bellows seal	350 / 16 ... 50 / 16	baelz 185-K-SS
Housing	Locking screws made of stainless steel 1.4401 (Standard: galvanized steel)	240 / 40 ... 50 / 40	baelz 185-VA
Flange	EN 1092-1 Shapes D / E / F on request	240 / 40 ... 50 / 40	baelz 185-VR

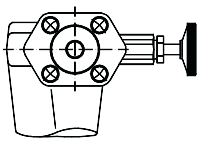
Actuators	Identification
Pneumatic diaphragm actuator	baelz 373-P
Electric linear actuator	baelz 373-E
Solenoid valve	baelz 266st, baelz 265st*
Direct acting controller	baelz 206r**

* When used with the solenoid valve, the temperature is limited, see Chapter «Electric actuators»
** see Chapter «baelz 192 pilot-operated reducing valve ».

Kvs value (m³/h)										
DN	15									
Standard	0.025	0.04	0.10	0.12	0.16	0.30	0.60	1.00	1.20	1.40
With soft seal (TK)	-									

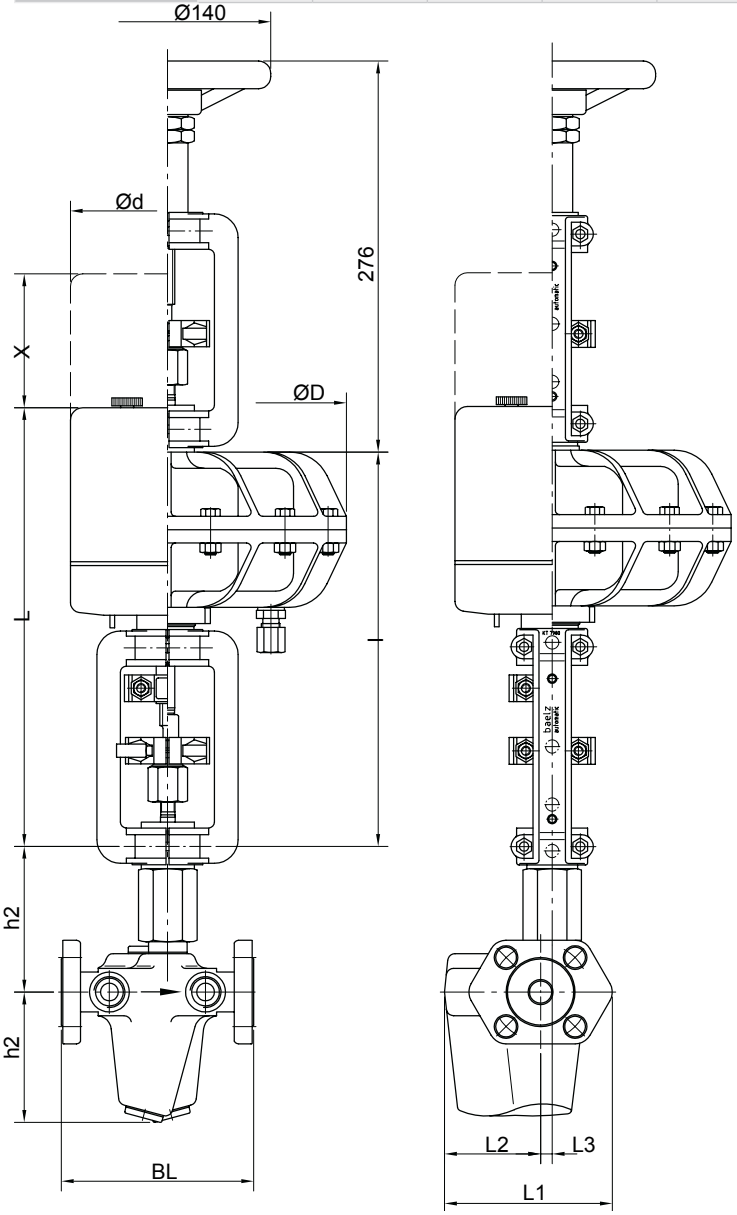
baelz 185 DN15 dimensions and weight							
Variant	BL	h1	h2	L1	L2	L3	Weight
	(mm)						(kg)
baelz 185	130	90	98.5	113.5	65	4	5.2
baelz 185-K	130	90	251	113.5	65	4	6.2
Additionally with a baelz 260st manual valve							+ 0.4
Additionally with two baelz 260st manual valves							+ 0.8

baelz 373 dimensions (mm)					
Designation	L	x	Ød	l	ØD
E 07	320	145	129		
P 21				268	242

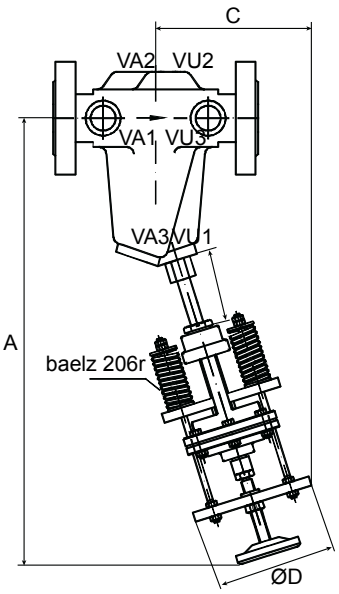


baelz 185 - 260st

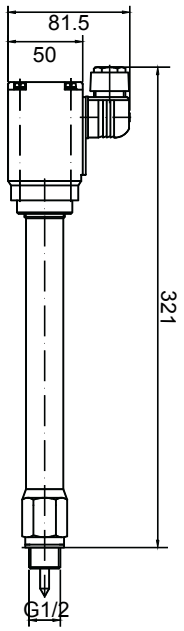
baelz 185 + 206r dimensions (mm)				
L	A	C	T max	ØD max
100	450	135	110	130
200	550	165	200	130
300	650	195	300	130



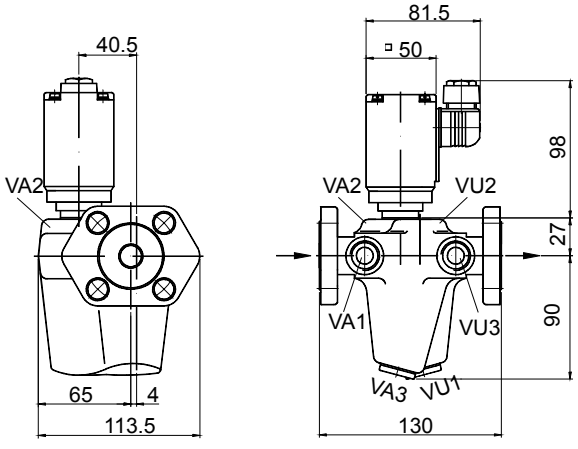
baelz 185 with pneumatic and electric actuator



baelz 185 - 206r



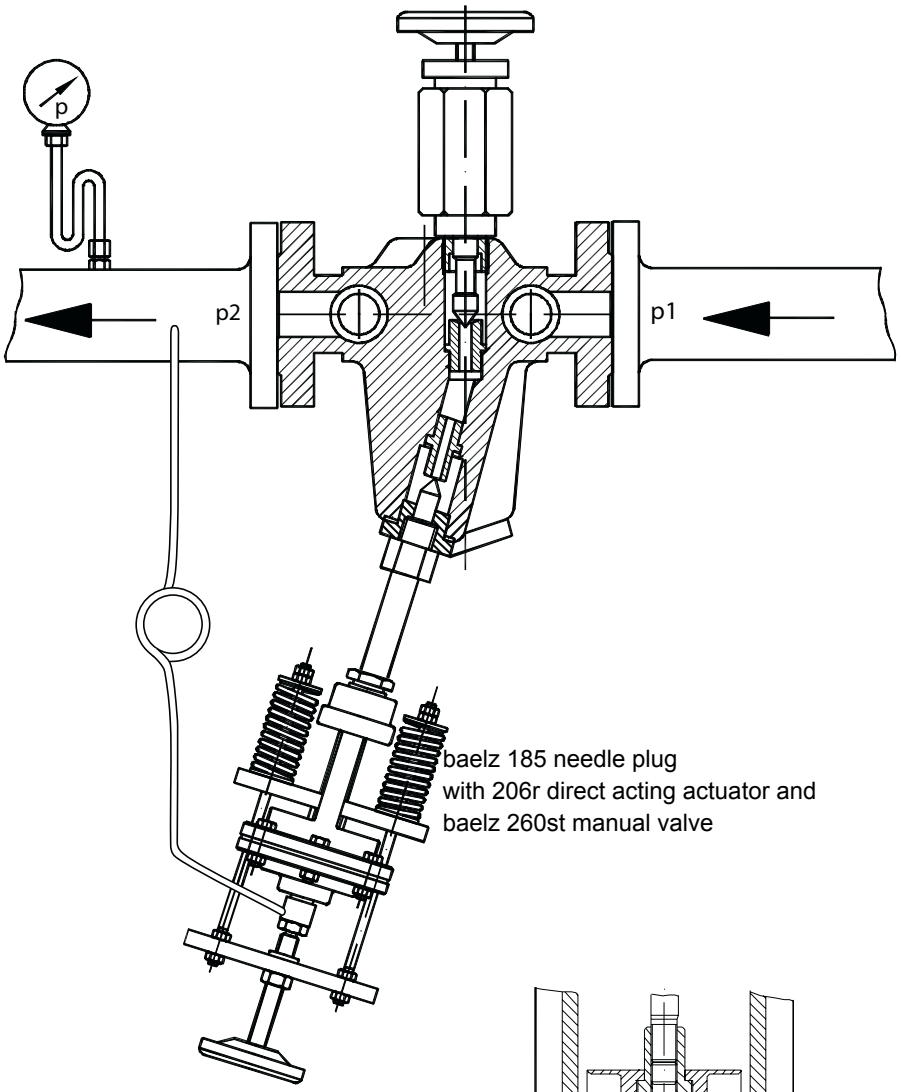
baelz 265st solenoid valve



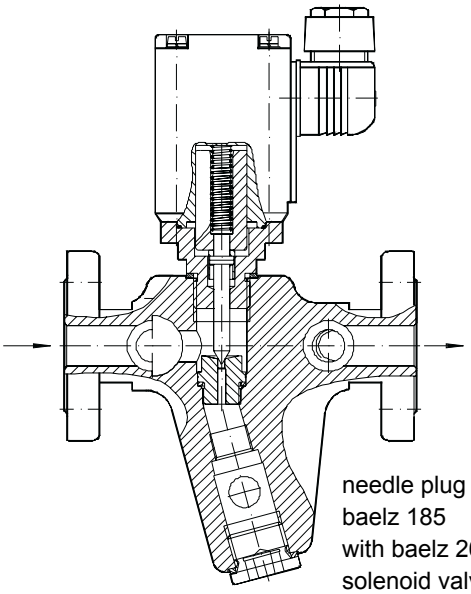
baelz 185 with baelz 266st solenoid valve

Baelz-Katalog_00_EN_MJ_1118

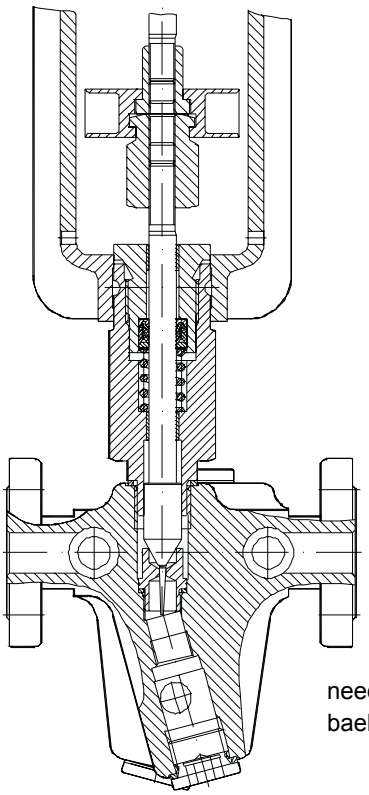
Sectional drawings of the baelz 185 plug



baelz 185 needle plug
with 206r direct acting actuator and
baelz 260st manual valve



needle plug
baelz 185
with baelz 266st
solenoid valve



needle plug / parabolic plug
baelz 185



baelz 192

DESCRIPTION

The baelz 192 is a direct-acting reducing valve with pilot control for steam.
The pilot valve allows accurate maintenance of the vapor pressure level in the utility appliance.
The valve opening requires a minimum pressure difference of 1 bar.
It is equipped with the 206r pilot pressure controller .

TECHNICAL SPECIFICATIONS

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

SPECIAL FEATURES

The 265st built-in solenoid valve guarantees completely vapor-tight closing of the main valve in the event of operation interruptions. Delivery without solenoid at a reduced price is possible. In this case, vapor-tight closing of the valve is not guaranteed. Relevant for systems in permanent function, as well as systems with a isolating valve upstream from the reducing valve.

Please notethat actuators utilized as safety devices as defined by the Pressure Equipment Directive (PED 2014/68) are subject to certification.
Certification costs on request.

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		Designation
DN15-25	6 mm	192/4
DN32-40	12 mm	
DN50	14 mm	
DN65	18 mm	
DN80	20 mm	192/5
DN100	25 mm	
DN125	30 mm	

Options		Designation example
Plug	Parabolic plug (standard)	baelz 192
	Cage plug	baelz 192-LK
Flange	EN 1092-1 Shapes D / E / F on request	baelz 192-VR

T max. (°C) / P max. (bar)		
Housing material	**Spheroid ductile iron GJS-400-18-LT - 5.3103**	**Cast steel GP240GH - 1.0619**
Nominal pressure	**PN16**	**PN40**
baelz 192	240 / 10 … 120 / 13	240 / 32 … 120 / 32
Min. ambient temperature (°C)	20	

Kvs value (m³/h)											
DN	15	20	25	32	40	50	65	80	100	125	150
Standard	5	6	8	15	24	35	70	105	135	200	320
Cage plug LK	2.5	3.2	4	10	16	25	40	63	100	160	200
	2	2.5	2.5	6.3	10	16	32	50	80	130	160
	1.3	1.6		4	8		25	40	40	100	
							16				

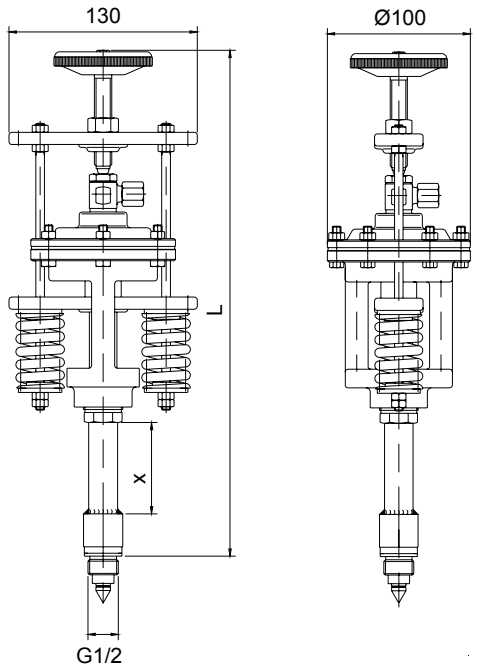
Weight (kg)											
DN	15	20	25	32	40	50	65	80	100	125	150
baelz 192	30	31	32	38	44	53	59	145	155	185	220
baelz 192 + 206r / 206r2 pressure measuring and control element + 265st solenoid element	35	36	37	43	49	58	64	150	160	190	225

baelz 192 dimensions (mm)								
DN	BL	H	h	B1	B2		B3	ØM
		PN 16/40			PN16	PN40		
15	130	560	110	80	185		180	270
20	150	560	110	85	185		185	270
25	160	570	110	90	185		190	270
32	180	565	145	125	185		225	270
40	200	565	145	125	185		225	270
50	230	580	160	125	185		225	270
65	290	595	180	140	185	215	240	270
80	310	930	210	175	290		270	420
100	350	950	235	190	290		285	420
125	400	930	255	210	290		305	420
150	480	945	265	225	290		320	420

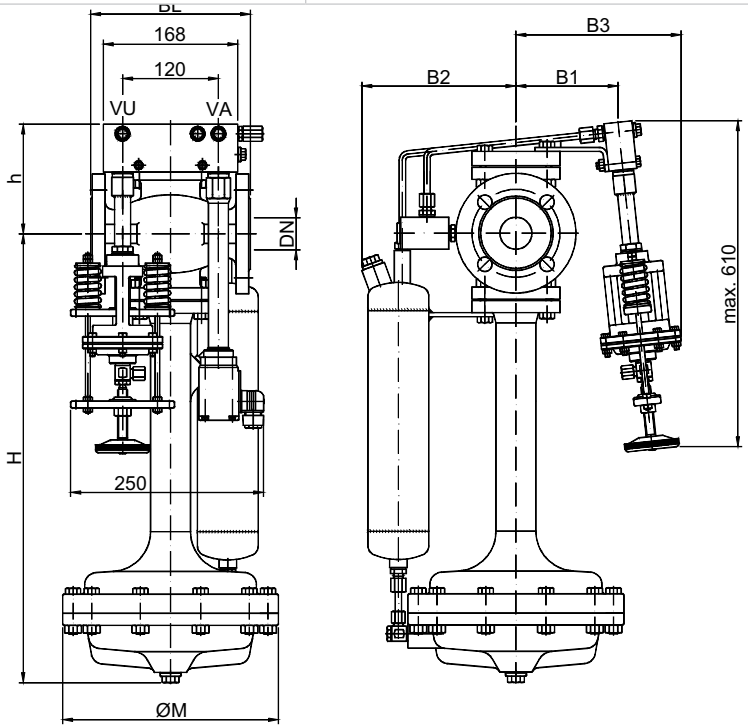
Technical specifications for the 206r and 206r2 pilot valve - pressure controller

Dimensions		Application area	
x (mm)	L (mm)	T max. (ºC)	P max. (bar)
100	353	110	18
200	453	200	18
300	553	240	13

Controller type	Pressure range (bar)	Housing and bellows material	Connection
206r	0.05 ... 0.45 0.08 ... 0.65 0.14 ... 1	Stainless steel 1 4571	G 1/2
206r2	0.3 ... 2.5 0.5 ... 3.4 0.9 ... 6.4 2 ... 8.8 3.4 ... 18	Stainless steel 1.4571	G 1/2

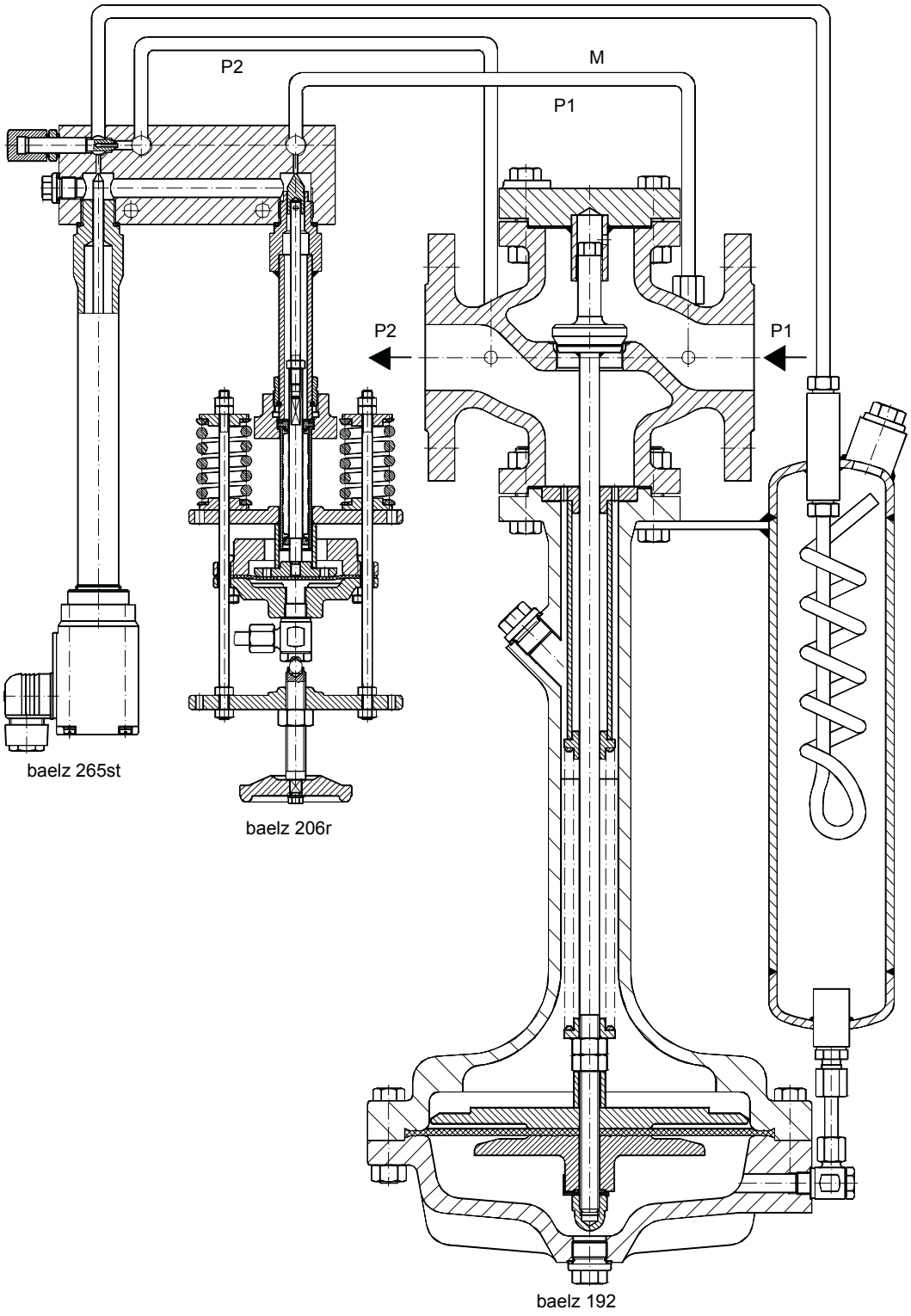


baelz 206r and 206r2 pressure maintenance valve



baelz 192 universal steam valve DN 15 - 65 PN 16 - 40 with baelz 206r and baelz 265st pressure control element

Sectional drawing of baelz 192 valve



baelz 192 direct acting reducing valve
with baelz 206r pilot controller and baelz 265st isolating valve



baelz 334

DESCRIPTION

The baelz 334 is a 2-way control valve with a red brass housing for heating, ventilation and air conditioning systems.

TECHNICAL SPECIFICATIONS

Connection type: external thread with union nut and weld-on steel sockets

Plug type: standard control plug

Control characteristic: linear

Stroke - 12 mm

Additional options:
Weld-on stainless steel sockets (ASE) or threaded brass sockets (GT)

Working media: liquids, water

Leakage class (EN 1349)
metal-to-metal seal: 0.004% Kvs (better than class IV)

	Options	Designation example
Plug	Parabolic plug, slot guides (standard) stainless steel 1. 4571	baelz 334-1
Stem seal	V-rings in PFTE (standard)	baelz 334-1
Connection	Brass union nut + steel nozzle for welding	baelz 334-1
	Brass union nut + weld-on stainless steel sockets	baelz 334-ASE
	Brass union nut + threaded brass sockets	baelz 334-GT

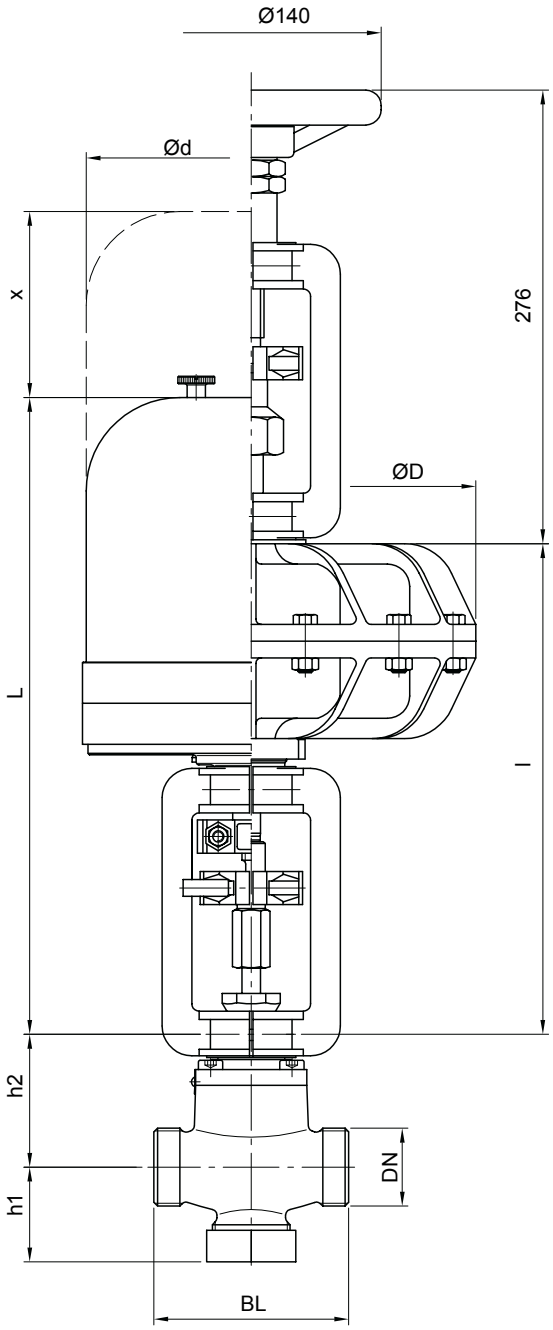
T max. (°C) / P max. (bar)	
Housing material	Red brass CC491K - CuSn5Zn5Pb5
Nominal pressure	PN 16 / 25
baelz 334-1	140 / 25… -10 / 22
baelz 334-GT	
baelz 334-ASE	

Kvs value (m³/h)					
DN	1/2"	3/4"	1"	1 1/4"	1 1/2"
Standard	3.5	5	9	16	22

baelz 334 dimensions and weight					
DN		BL	h1	h2	Weight
		(mm)			(kg)
1/2"	15	92	38	72	1.5
3/4"	20	95	45	72	1.7
1"	25	105	50	72	1.8
1 ¼"	32	105	58	72	2
1 1/2"	40	114	62	72	2.5

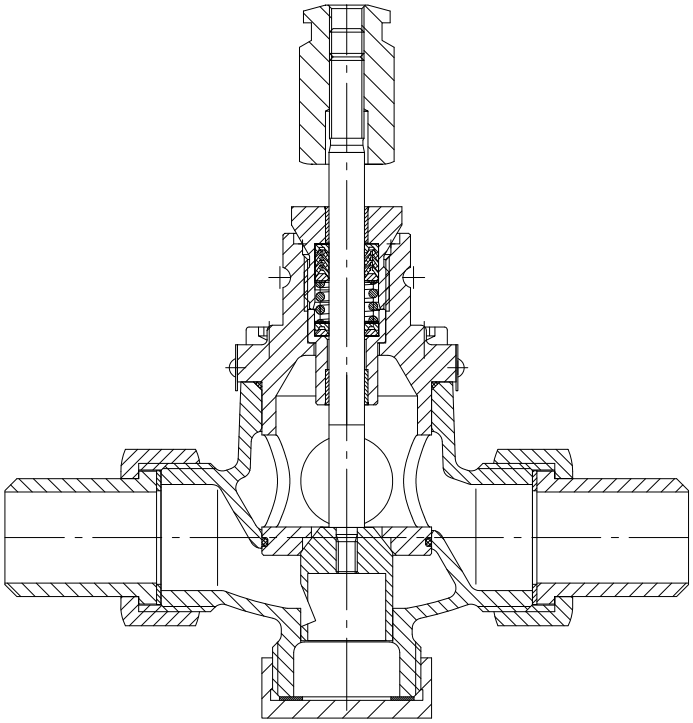
Dimensions of the baelz 373 actuators (mm)					
Designation	L	x	Ød	l	ØD
E 07	320	145	129		
P 21				268	242

Electric actuators: baelz 373-E
Pneumatic actuators: baelz 373-P



baelz 334 dimensions

Sectional drawing of the baelz 334 plug



standard control plug
baelz 334

Baelz-Katalog_00_EN_MJ_1118

Maximum differential pressure ΔPmax (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 ΔPmax (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 ΔPmax (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 ΔPmax (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



baelz 340

DESCRIPTION

The baelz 340 is a 2-way control valve in a 3-way housing for industrial applications. Several plug variants allow utilization for different control tasks.

TECHNICAL SPECIFICATIONS

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

Plug type: parabolic plug, special plug, cage plug

Control characteristic: equal percentage, linear

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

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 (mm)		Spindle diameter (mm)
DN 15 - DN 25	12	10 (12*)
DN 32 - DN 125	22	10 (16**)
DN 150	44	22
DN 200 - DN 300	66	

* for baelz 340-ES
** for baelz 340-B-EMF DN 100, DN 125

Options		Designation example***
Plug	Parabolic plug (standard)	baelz 340-B
	Balanced	baelz 340-B-EMF
	Cage plug	baelz 340-B-LK
	Reduced Kvs	baelz 340-B-SKr
	With Teflon soft seal plug (max. 200°C)	baelz 340-B-TK
Stem seal	V-rings in PFTE standard	baelz 340-B
	Cooling tube	baelz 340-BK
	Cooling tube + bellows seal	baelz 340-BK-SS
Additional options	V-shaped seal heating (for media with temperatures of - 10 to - 40°C) Pmax. 20 W; 12-24 V / 110-230 V AC/DC	baelz 340-B...-Hz
	Construction without silicone	baelz 340-B...-Silf

*** Designation: 347-B up to DN 125 and for spindle Ø up to 16 mm; 347-BB from DN 150 and for spindle Ø 22 mm

T max. (°C) / P max. (bar)					
Housing material	Spheroid ductile iron GJS-400-18-LT - 5.3103		Cast steel GP240GH - 1.0619		Stainless steel 1.4313
Nominal pressure	PN 16	PN 25	PN 25	PN 40	PN 40
baelz 340-B	240/12.3 … 50/16	240/19.3 … 50/25	-	-	-
baelz 340-B-EMF			240/19.3 … 50/25	240/30.9 … 50/40	
baelz 340-BK	350/10.2 … 50/16	350/16 … 50/25	350/16 … 50/25	350/25.7 … 50/40	
baelz 340-BK-SS		-		350/25 … 50/25	
baelz 340-BK-EMF	315/10.7...260/ 11.8 … 50/16	315/16.8 ...260/ 18.6 … 50/25	315/16.8 ...260/ 18.6 … 50/25	315/27...260/ 29.8 … 50/40	
baelz 340-ES (DN 25 and DN 50)	-				240/30.9 … 50/40

Kvs value (m³/h)														
DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
Standard plug (B/BB) **Balanced plug (EMF)**	5.6 3 2	6.3	9	16	25	36	63	105	130	200	360	580	960	1340
Balancing cage plug (EMF-LK)	-	-	-	-	20	32	50	80	100	130	250	320	-	-
Reduced Kvs (Skr)	2	2.5	5	8	12.5	20	32	50	80	130	-	-	-	-
	1	1.6	3.2	4	6.3	10	16	25	40	63	-	-	-	-
Cage plug (LK)	2.5	4	6.3	12.5	20	32	50	80	100	130	250	320	580	-
	(LK)	3.2	5	10	16	25	40	63	80	100	200	-	-	-
	1.6	2.5	4	6.3	10	16	25	40	63	-	130	-	-	-

Weight of the baelz 340 valves														
		340-B										340-BB		
DN		**15**	**20**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**200**	**250**	**300**
Standard	**PN16**	6.2	7.1	7.8	11.5	13.9	18.5	27.8	32.9	44.5	65.6	101	200	240	425
	PN25														
	PN40												270	310	
Cooling tube (K)	**PN16**	7.2	8.1	8.8	12.5	14.9	19.5	28.8	33.9	45.5	66.6	107	250	300	470
	PN25														
	PN40	7.7	8.6	9.3	13.5	16.4	21.5	31.8	37.9	50.5	73.6	117	270	345	540
Cooling tube and bellows (K-SS)	**PN16**	7.5	8.4	9.1	12.8	15.2	19.8	29.1	34.2	45.8	66.9	107.7	250	300	470
	PN40	8	8.9	9.6	13.8	16.7	21.8	32.1	38.2	50.8	73.9	118	270	-	-
Made of stainless steel ES PN40	**PN40**	-	-	7.8	-	-	18.5	-	-	-	-	-	-	-	-
Balanced plug (EMF)	**PN16**	-	-	-	-	14.4	19	28.4	32.9	46.3	71	101	200	240	425
	PN25														
	PN25 steel													277	440
	PN40	-	-	-	-	15.9	21	31.4	36.9	51.3	78	111	252	310	518
Cooling tube and balanced plug (K-EMF)	**PN16**	-	-	-	-	15.4	20	29.4	33.9	47.3	72	107	250	300	470
	PN25														
	PN25 steel													320	450
	PN40	-	-	-	-	16.9	22	32.4	37.9	52.3	79	122	302	370	558



baelz 340-B-EMF balancing guide



Sectional view of baelz 340-B-EMF plug

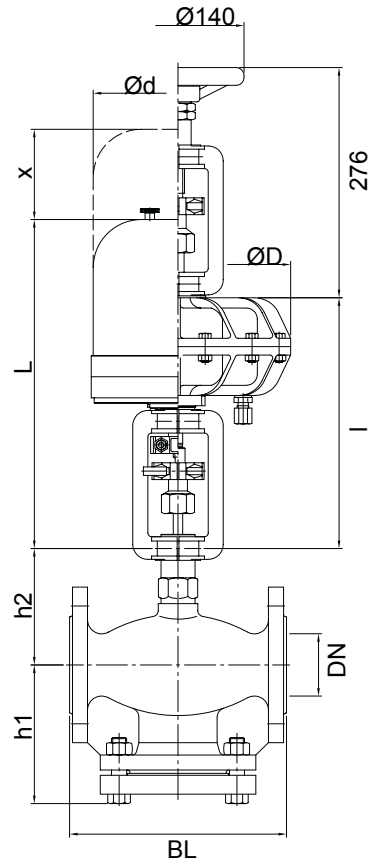


baelz 340-B cage plug

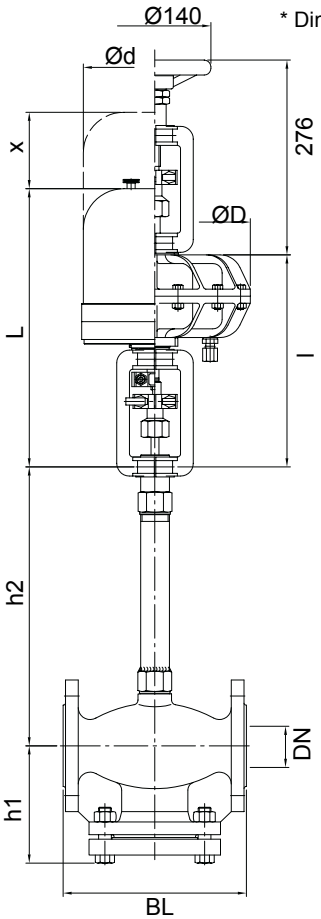
Dimensions of the baelz 340 valves (mm)						
DN	BL	h1			h2	
					340-B / 340-ES	340-BK / 340-BK-SS
15	130	101			105	231
20	150	103			105	231
25	160	113			105	231
32	180	130			104	283
40	200	135			114	281
50	230	147			124	277
65	290	159			144	269
80	310	166			154	269
100	350	189			169	262
125	400	243			189	252
		PN16	PN25	PN40	340-BB	340-BBK / 340-BBK-SS
150	480	269	277	277	244	234
200	600	272	280	288	268	258
250	730	314	322	332	317	307
300	850	327	335	345	361	351

Dimensions of the actuators							
Designation	L		x	Ød	l		ØD
E 07	320		145	129			
E 45	560		150	175			
P 21					268		242
P 21V6					304		242
P 22					322		242
	340-BB/ 340-BB-EMF	340-BBK/ 340-BBK-SSF			340-BB/ 340-BB-EM	340-BBK/ 340-BBK-SS	
E 45	577	1057	150	175			
E 66	614	1094	200	188 (258*)			
P 31					509	989	384
P 32					525	1005	384
P 41					562	1042	506
P 41-V6					687	1167	506

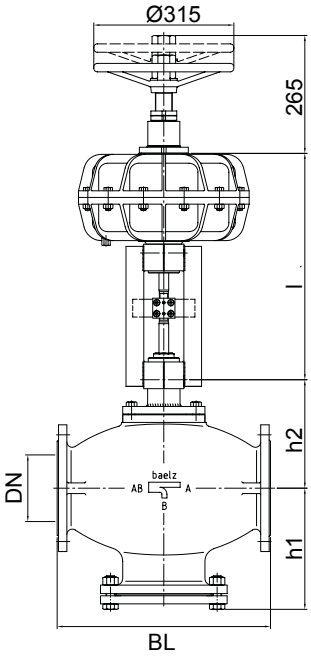
* Dimensions with manual operation



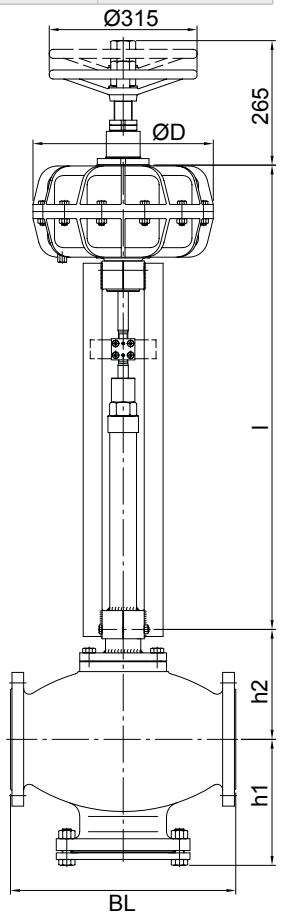
baelz 340-B DN15-125
baelz 340-ES DN25, DN50
baelz 340-B-EMF DN40-125



baelz 340-BK DN15-125
baelz 340-BK-SS DN15-125



baelz 340-BB DN150-300
baelz 340-BB-EMF DN150-300



baelz 340-BBK DN150-300
baelz 340-BBK-SS DN150-300

Baelz-Katalog_00_EN_MJ_1118

Maximum differential pressure ΔPmax (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. baelz 340-B/BB, 340-BK/BBK, 340-BK-SS/BBK-SS, 340-B-ES. Plug closes against the flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (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

Balanced 2-way valves for liquids and steam baelz 340-B-EMF, 340-BB-EMF. Plug closes against the flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (bar)													
		15	20	25	32	40	50	65	80	100	125	150	200	250	300
E07- 20-	2000					40	40	40	40	40	40				
E65- 11-	1100					40	40	40	40						
E65- 20-	2000					40	40	40	40	40	40				
E45- 40-	4000					40	40	40	40	40	40	8.2			
E66- 80-	8000											24.8	15	9.7	6.3
E66- 150-	15000											40	40	29.1	22.1
E63- 440-	4448											10.3			
E63- 660-	6672											20.9			
E88-ALS-25-	2500											1.1			
E88-ALS-75-	7500											24.8	15	9.7	6.3
E88- 100-	10000											36.7	23.4	16.1	11.5
E88- 130-	13000											40	33.5	23.9	17.9
E88- 160-	16000											40	40	31.7	24.2
E88- 300-	30000											40	40	40	40
E88- 350-	35000											40	40	40	40
E88- 400-	40000											40	40	40	40

3-way valves as changeover valves baelz 340-B-EMF, 340-BB-EMF. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (bar)													
		15	20	25	32	40	50	65	80	100	125	150	200	250	300
E07- 20-	2000	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				
E65- 11-	1100	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5				
E65- 20-	2000	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				
E45- 40-	4000	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				
E66- 150-	15000											1	0.6	0.6	0.6
E88- 100-	10000											1	0.6	0.6	0.6
E88- 300-	30000											1	0.6	0.6	0.6

Maximum differential pressure ΔPmax (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.

2-way valves: baelz 340-B/BB, 340-BK/BBK, 340-BK/BBK-SS, 340-ES
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 ΔPmax (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

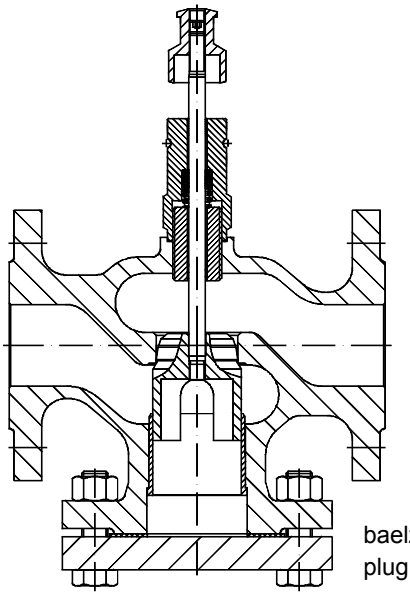
2-way valves: baelz 340-B/BB, 340-BK/BBK, 340-BK/BBK-SS, 340-ES
Pneumatic actuators (OPO) open without compressed air. Plug closes against the flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (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

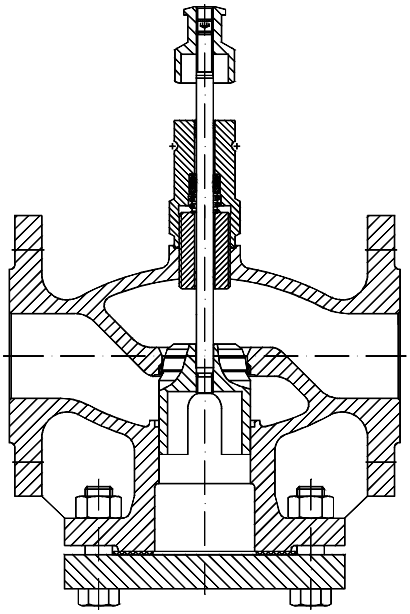
Balanced 2-way valves for liquids and steam: baelz 340-B-EMF, 340-BB-EMF
Pneumatic actuators (OPG) closed without compressed air. Plug closes against the flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (bar)													
			15	20	25	32	40	50	65	80	100	125	150	200	250	300
P21- 3	1020	1.2					40	40	40	40						
P21- 6	2040	3.0					40	40	40	40	40	40				
P22- 3	1846	3.0					40	40	40	40	40	40				
P22- 6	3692	6.0					40	40	40	40	40	40				
P31- 3	2480	3.0											1			
P31- 6	4960	3.0											12.8			
P31- 18	10560	6.0											39.4			
P32- 6	4402	3.0												4.6	1.6	
P32- 18	8115	6.0												17.1	11.2	7.5
P41- 3	3765	1.2											7.1	2.5		
P41- 6	7530	3.0											24.9	15.1	9.7	6.3
P41- V6	31920	6.0											40	40	40	40

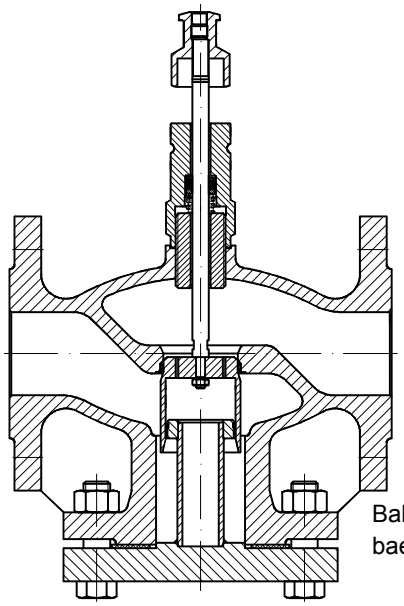
Sectional drawings of the baelz 340 plug



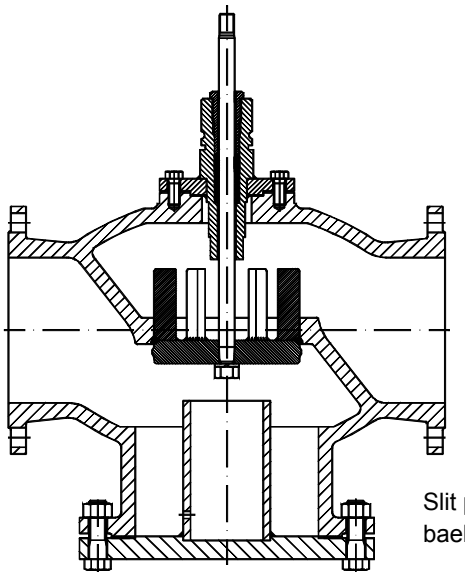
baelz 340-ES parabolic plug with slot guides



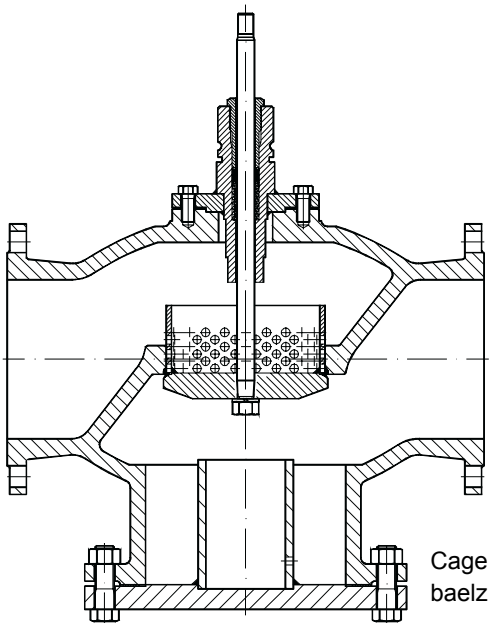
baelz 340-B parabolic plug with slot guides



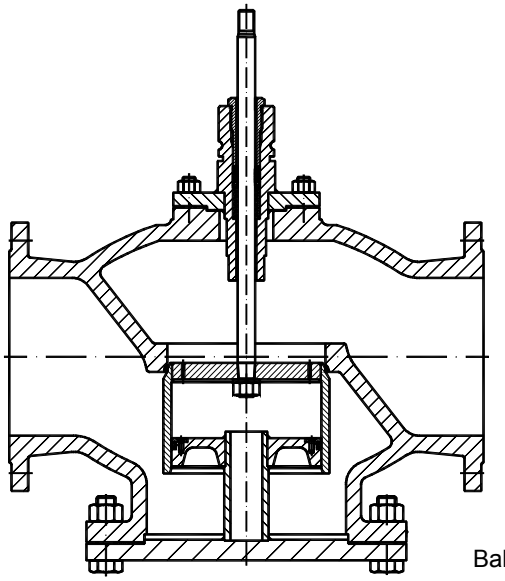
Balanced plug baelz 340-B-EMF



Slit plug baelz 340-BB



Cage plug baelz 340-BB-LK



Balanced plug baelz 340-BB-EMF



baelz 344

DESCRIPTION

The baelz 344 is an industrial 2-way control valve. The stainless steel housing allows utilization 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, water, thermal oil, steam, gases

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 (mm)		Spindle Ø (mm)
DN 80	22	10
DN 100, DN 125	22	16
DN 150	44	22

Options		Designation example
Plug	Parabolic plug (standard)	baelz 344
	Balanced	baelz 344-EMF
	Cage plug	baelz 344-LK
	With V-rings in PFTE (max. temperature 240°C)	baelz 344-TK
Stem seal	V-rings in PFTE standard	baelz 344
	Cooling tube	baelz 344-K
	Cooling tube + bellows seal	baelz 344-K-SS
Additional options	V-shaped seal heating (for media with temperatures of -10.. - 40°C)	baelz 344-Hz
	Construction without silicone	baelz 344-Silf
	Version for drinking water	baelz 344-twg

T max. (°C) / P max. (bar)		
Housing material	**Stainless steel 1.4408**	
Nominal pressure	**PN 16**	**PN 40**
baelz 344	240/12.8 … 100/16	240/32.1 … 100/40
baelz 344-EMF		
baelz 344-K	350/11.4 … 100/16	350/28.5 … 100/40
baelz 344-K-SS	350/11.4 … 100/16	350/25 … 100/40

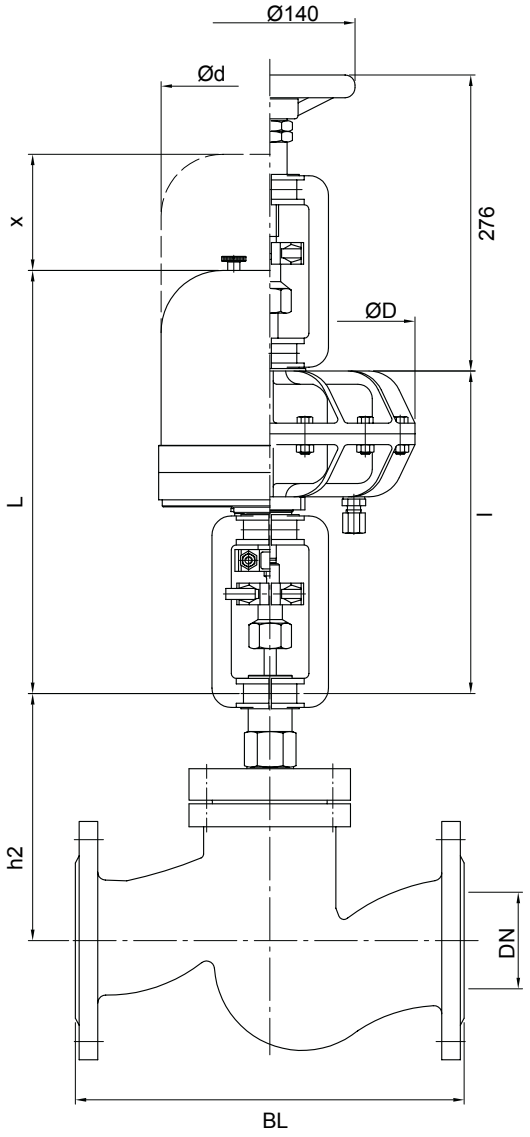
Kvs value (m³/h)				
DN	**80**	**100**	**125**	**150**
Standard	105	130	200	360
Balanced (EMF)				
Cage plug (LK)	on request			

Weight of the baelz 344 valves (kg)				
DN	**80**	**100**	**125**	**150**
PN16	28.7	39	57	90
PN40	29.7	41	60	93

Dimensions of the baelz 344 valves (mm)			
DN	**BL**	**h1**	**h2**
80	310	154	189
100	350	169	208
125	400	189	227
150	480	194	261

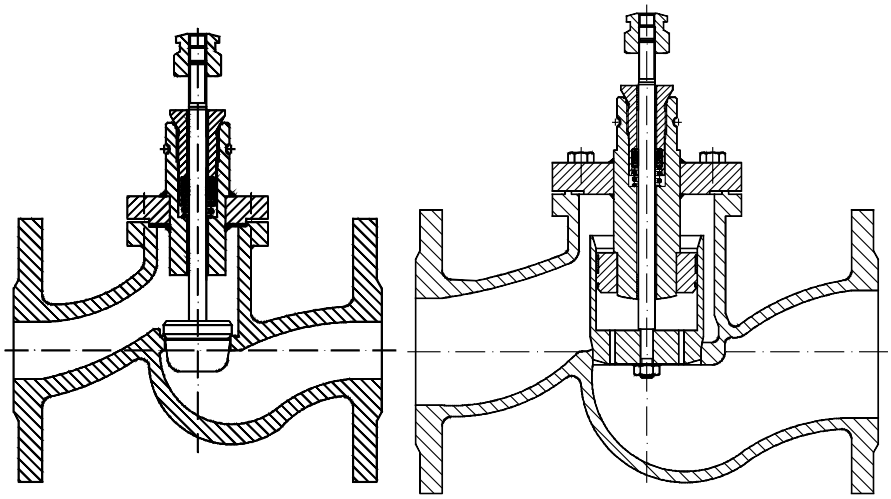
Dimensions of the baelz 373 actuators (mm)					
Designation	**L**	**x**	**Ød**	**l**	**ØD**
E 07	320	145	129		
E 45	560	150	175		
P 21				268	242
P 21-V6				304	242
P 22				322	242

Electric actuators: baelz 373-E
Pneumatic actuators: baelz 373-P



baelz 344 dimensions

Sectional drawings of the baelz 344 plug



Parabolic plug
baelz 344

Balanced plug
baelz 344-EMF

Maximum differential pressure ΔPmax (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 ΔPmax (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 ΔPmax (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 ΔPmax (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





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
Plug	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
Stem seal	V-rings in PFTE standard	baelz 356-1
	Cooling tube	baelz 356-1-K
	Cooling tube + bellows seal	baelz 356-1-K-SS
Additional options	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)				
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**
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

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
	1	2	4	7	10	15	23	7	10	15	23
Cage plug LK	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

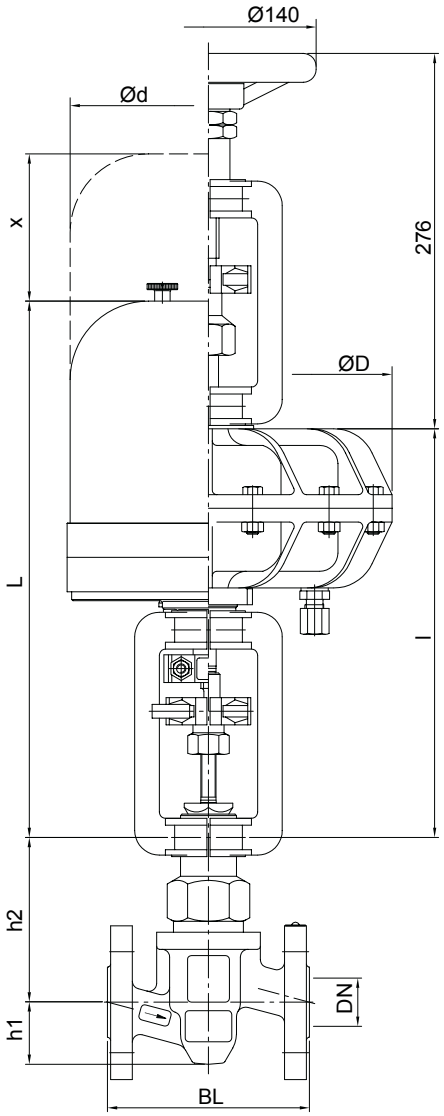
Dimensions of the baelz 356 valves (mm)				
DN	**BL**	**h1**	**h2**	
			356	**356-K/K-SS**
15	130	40	106	331
20	150	45	106	331
25	160	55	106	331
32	180	62	111	358
40	200	73	132	372
50	230	90	142	382
65	290	101	182	425

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

Baelz-Katalog_00_EN_MJ_1118

Maximum differential pressure ΔPmax (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 ΔPmax (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

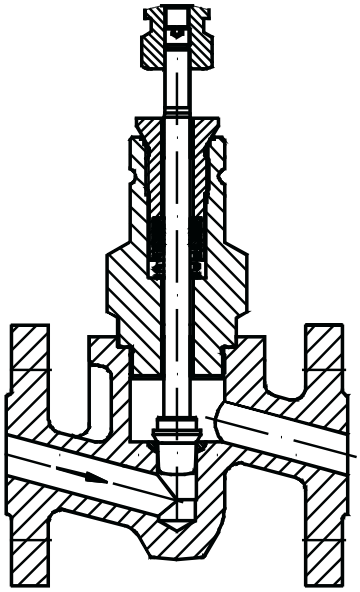
Pneumatic actuators (OPG) closed without compressed air. Plug closes against the flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (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

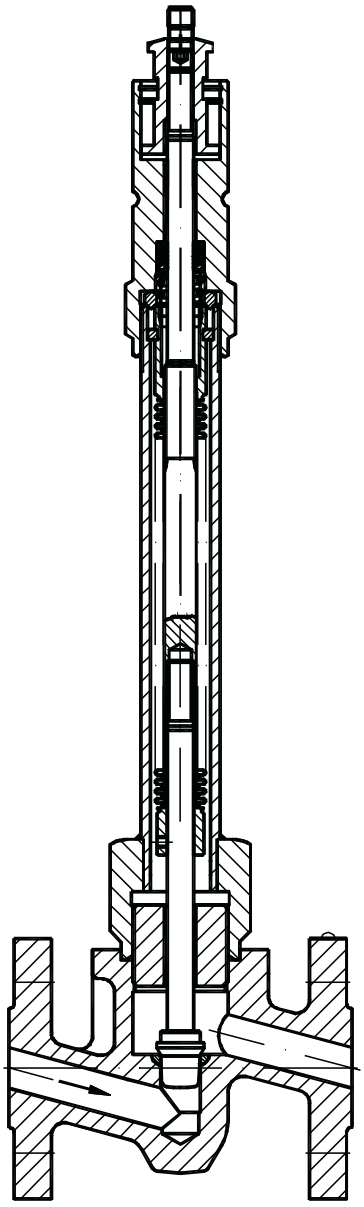
Pneumatic actuators (OPO) open without compressed air. Plug closes against the flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (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

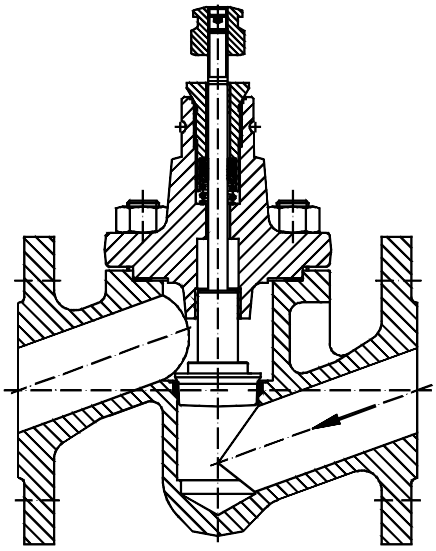
Sectional drawings of the baelz 356 plug



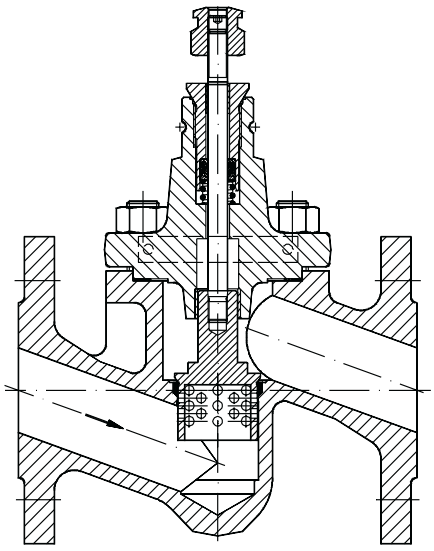
Parabolic plug
baelz 356-1-VA



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



Parabolic plug
baelz 356-1



Cage plug
baelz 356-1-LK





baelz 358-K / 359-K

DESCRIPTION

The baelz 358-K and 359-K control valves are 2-way valves with cooling tube for systems with high temperatures and pressures.

TECHNICAL SPECIFICATIONS

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

Plug type: parabolic plug / conical, cage plug

Control characteristic: equal percentage, linear, OPEN / CLOSED

Stroke - 16 mm / 22 mm

Working media: liquids, gases, water, steam

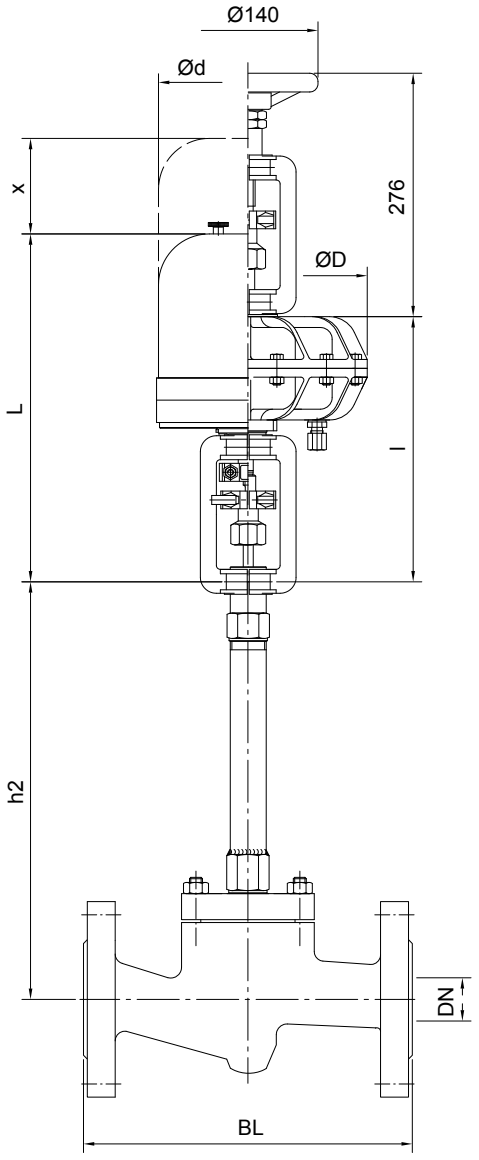
Leakage class (EN 1349)
metal-to-metal seal: 0.004% Kvs (better than class IV)

Housing material baelz 358-K, baelz 359-K		
Nominal width	**DN 15...DN 25**	**from DN 32**
Housing material 358-K	Steel 13CrMo4-5 - 1.7335	Cast steel G17CrMo5-5 - 1.7357
Housing material 359-K	Steel P250GH - 1.0460	GP240GH+N - 1.0619+N

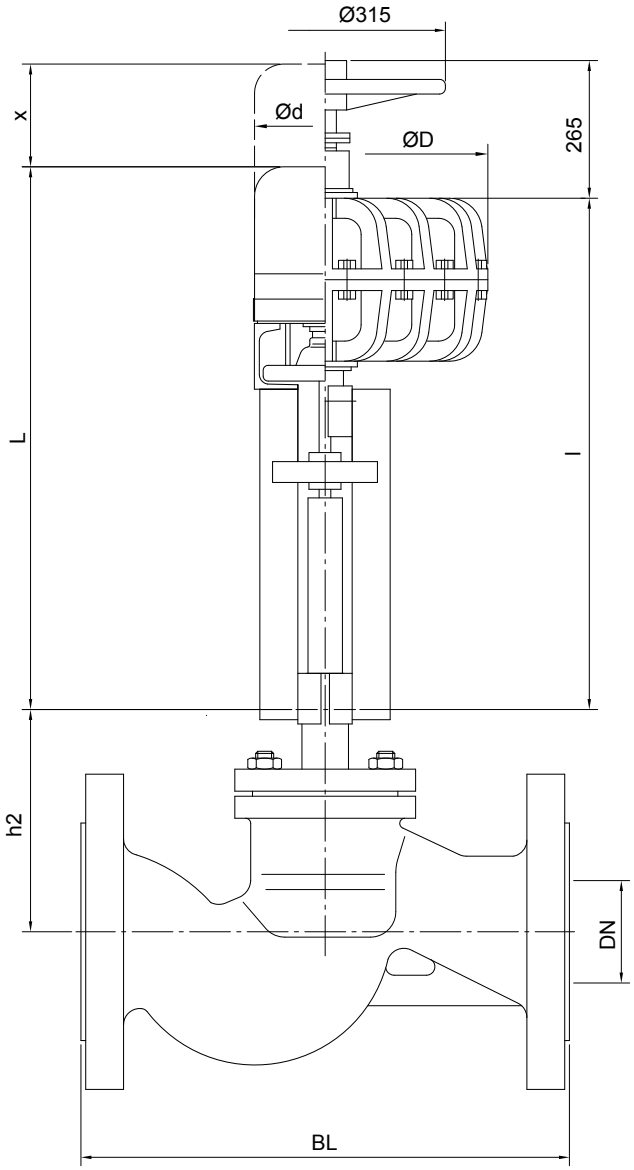
T max. (°C) / P max. (bar)			
Nominal pressure	**PN 63**	**PN 100**	**PN 160**
baelz 358-K	350 / 60	350 / 95.2	350 / 152.3
	300 / 63	300 / 100	300 / 160
baelz 359-K	350 / 40.5	350 / 64.2	350 / 102.8
	240 / 48.9	240 / 77.5	240 / 124.1
	50 / 63	50 / 100	50 / 160

Dimensions and weight baelz 358-K and baelz 359-K, DN 20 - DN 125						
DN	BL	h2	Weight			Metric flow factor (Kvs)
			PN 63	PN 100	PN 160	
	(mm)			(kg)		(m³/h)
15	210	370			8.5	3.8
20	230	370			10	6.5
25	230	380			11.5	9.3
32	260	384			15.5	14
40	260	389			20.5	23
50	300	409	29 / 31*	29 / 31*	29 / 31*	40
65	340	220	38 / 40*	43 / 45*	43 / 45*	63
80	380	230	52*	58*	58*	105
100	430	255	62*	75*	75*	130
125	500	305	100*	104*	110*	200

* with Ø 22 mm spindle (358-K-22 and 359-K-22). Otherwise with Ø 10 mm spindle.



Dimensions baelz 358-K / 359-K, DN 20 - DN 50

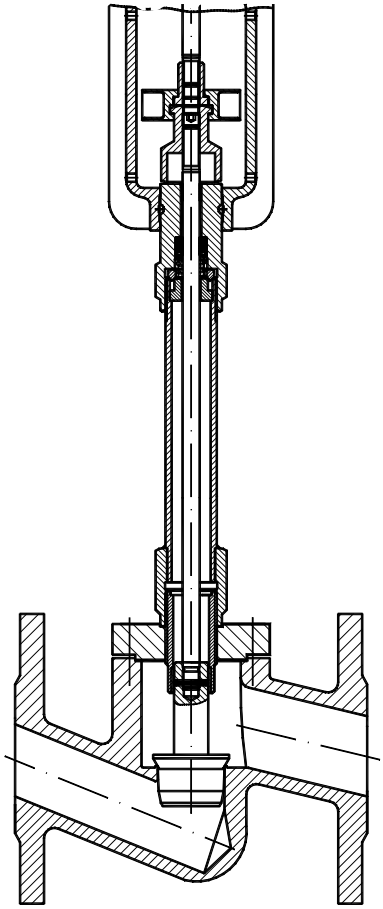


Dimensions baelz 358-K / 359-K, DN 65 - DN 125

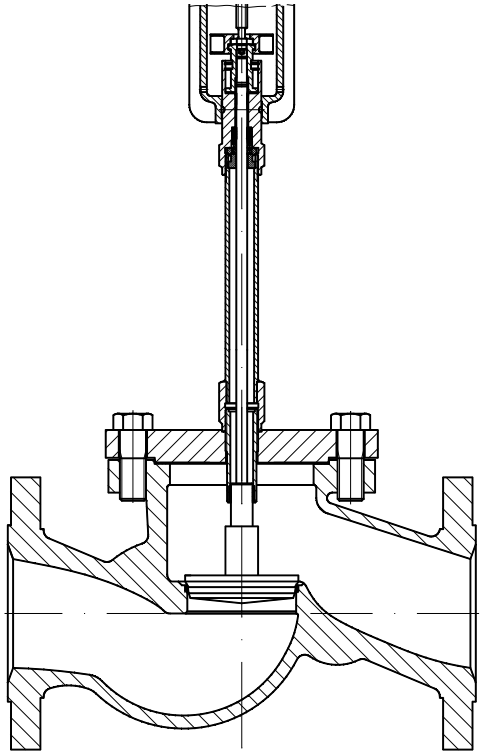
Baelz-Katalog_00_EN_MJ_1118

Dimensions of the baelz 373 actuators (mm)					
Designation	**L**	**x**	**Ød**	**l**	**ØD**
E07	317	145	129		
E11	499	180	183		
P21				268	242
P21-V6				304	242
P22				322	242
P31				989	384
P32				1005	384
P41				1042	506
P41-V6				1167	506

Electric actuators: baelz 373-E
Pneumatic actuators: baelz 373-P



Parabolic plug
baelz 358-K / 359-K, DN 20 - DN 50



Parabolic plug
baelz 358-K / 359-K, DN 65 - DN 125

Sectional drawings of the baelz 358-K, baelz 359-K plugs

Maximum differential pressure ΔPmax (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. 2-way valves for high pressures. Plug closes against the flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (bar)													
		15	20	25	32	40	50	65	80	100	125	150	200	250	300
E07- 20-	2000	92	41	32	20	11.4									
E65- 20-	2000	92	41	32	20	11.4									
E45- 40-	4000	160	89	68	44	25.7	16.1								
E66- 80-	8000	160	160	132	85	51	32	18.7							
E66- 150-	15000	160	160	160	160	104	66	40							
E88-ALS-75-	7500	160	160	132	85	51	32	18.7							
E88- 100-	10000	160	160	160	115	68	43	25.4							
E88- 130-	13000	160	160	160	151	90	57	33.6							
E88- 160-	16000	160	160	160	160	111	71	41.7							

Pneumatic actuators (OPG) closed without compressed air. 2-way valves for high pressures.
Plug closes against the flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (bar)												
			15	20	25	32	40	50	65	80	100	125	150	200	250	300
P21- 6	2040	3.0	95	43	32.6	20.4	11.7									
P21- 12	3390	6.0	160	75	57	36.5	21.4	13.3								
P21- 18	4030	6.0	160	90	69	44	25.9	16.2								
P21- V6	7590	6.0	160	160	134	86	51	32.5	18.9							
P22- 6	3692	6.0	160	82	63	40	23.5	14.7								
P31- 6	4960	3.0	160	112	86	55	32.6	20.5	11.8							
P31- 18	10560	6.0	160	160	160	122	73	46	27							



baelz 360

DESCRIPTION

The baelz 360 is a 2-way control valve with steel housing and cage plug. For demanding working conditions.

TECHNICAL SPECIFICATIONS

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

Plug type: balanced piston plug with perforated cage

Control characteristic: equal percentage, linear, OPEN / CLOSED

Working media: liquids, gases, water, steam

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)*

* on request

Stroke (mm)		Spindle Ø (mm)
DN 40 - DN 50	22	10
DN 65 - DN 125	22 – 40	16
DN 150	44	22

Options		Designation example
Plug	Balanced piston plug with perforated cage	baelz 360-EM-C
	Balanced piston plug with double perforated cage	baelz 360-EM-CC
Stem seal	V-rings in PFTE standard	baelz 360-EM-C baelz 360-EM-CC
	Cooling tube	baelz 360-K-EM-C baelz 360-K-EM-CC

T max. (°C) / P max. (bar)	
Housing material	Cast steel GP240GH - 1.0619
Nominal pressure	**PN 40**
baelz 360-EM-C baelz 360-EM-CC	250 / 30.4 … 50 / 40
baelz 360-K-EM-C baelz 360-K-EM-CC	315 / 27 … 50 / 40

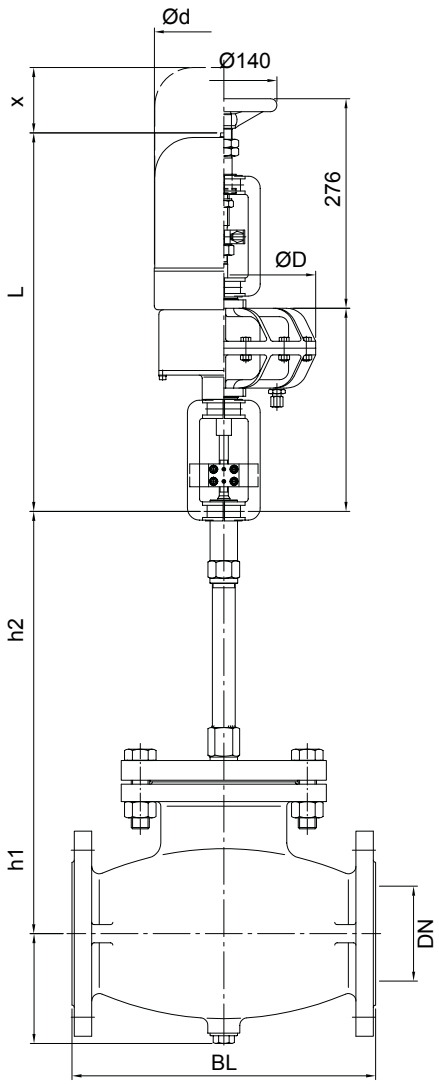
Kvs value (m³/h)									
DN	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**Stroke**	**Control characteristic**
baelz EM-C baelz EM-CC	25	36	62	71	100	135		22	OPEN / CLOSED
			68	91	135	187		40	
							304	44	
	11	18	24	30	38	51		22	Equal percentage
			45	52	69	80		40	
							110	44	
	22	32	55	71	86	100		22	Linear
			63	80	112	138		40	
							196	44	

Weight of the baelz 360 valves (kg)							
DN	40	50	65	80	100	125	150
baelz 360 EM-C	15.3	19.6	31	36.7	51	71	
baelz 360 EM-CC			31	36.7	51	71	
							120

Dimensions of the baelz 360 valves			
DN	BL / PN40	h1	h2 / PN40
360-EM-C/CC			
40	200	100	177
50	230	80	230
65	290	100	242
80	310	110	249
100	350	125	269
125	400	145	321
150	480	194	330
360-K-EM-C/CC			
40	200	100	467
50	230	80	520
65	290	100	532
80	310	110	539
100	350	125	559
125	400	145	611
150	480	194	620

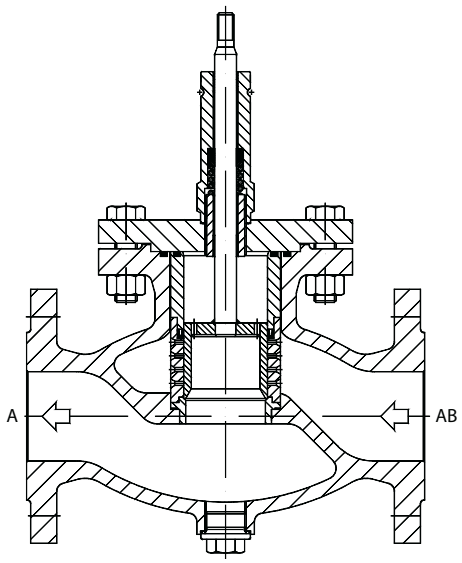
Dimensions of the baelz 373 actuators (mm)					
Designation	L	x	Ød	l	ØD
E 07	320	145	129		
E 45	560	150	175		
P 21				268	242
P 21-V6				304	242
P 22				322	242

Electric actuators: baelz 373-E
Pneumatic actuators: baelz 373-P

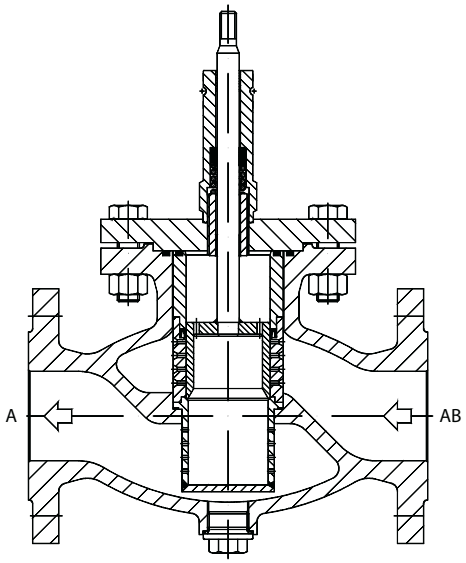


Dimensions 360-EM-C-K 40-125

Sectional drawings of the baelz 360 plug



Piston plug and cage
baelz 360-EM-C



baelz 360-EM-CC with additional perforated cage

Maximum differential pressure ΔPmax (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. Balanced 2-way valves for liquids and steam Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (bar)													
		15	20	25	32	40	50	65	80	100	125	150	200	250	300
E07- 20-	2000					146	55	67	61	52	42				
E65- 11-	1100					53	18	17	11	2.6					
E65- 20-	2000					146	55	67	61	52	42				
E45- 40-	4000					160	129	160	160	151	142	68	58		
E66- 80-	8000											160	150		
E66- 150-	15000											160	160		
E63- 660-	6672											138			
E88-ALS-75-	7500											160	150		

Pneumatic actuators (OPG) closed without compressed air. Balanced 2-way valves for liquids and steam Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (bar)												
			15	20	25	32	40	50	65	80	100	125	150	200	250	300
P21- 3	1020	1.2					55	19.3	18.6	12.9	3.6					
P21- 6	2040	3.0					150	57	69	63	54	44				
P22- 3	1846	3.0					132	50	59	54	44	35				
P22- 6	3692	6.0					160	118	151	146	136	127				
P31- 3	2480	3.0											28.4			
P31- 6	4960	3.0											93			
P32- 6	4402	3.0												68		
P41- 3	3765	1.2											62	52		
P41- 6	7530	3.0											160	151		

baelz 365

DESCRIPTION

The baelz 365 ANSI 300 valve is a flanged and pressure rated 2-way control valve in accordance with US ANSI / ASME standards.

TECHNICAL SPECIFICATIONS

Connection type: ASME / ANSI B16.5 flange

Plug type: parabolic plug

Control characteristic: equal percentage

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

Leakage class (EN 1349)
metal-to-metal seal: 0.004% Kvs (better than class IV)

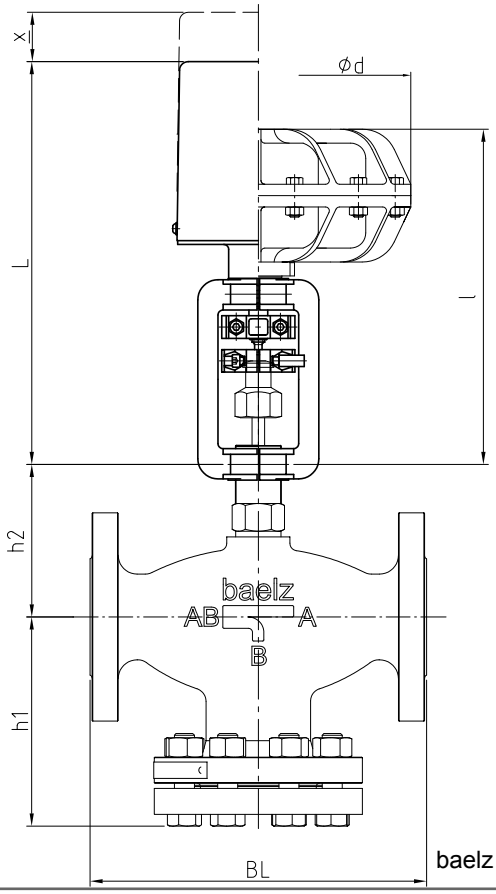
Options		Designation example
Plug	Parabolic plug (standard)	baelz 365
Cooling tube / Stem seal	V-rings in PFTE standard	baelz 365
	Cooling tube	baelz 365-K
	Cooling tube + double-wall stainless steel bellows and safety gland	baelz 365-K-SS
	Double cooling tube (special construction)	baelz 365-KK

T max. / P max. baelz 365 ANSI 300										
Housing material	1.0619 (1.0432) / SA216WCB (SA105)									
Temperature (°F)	**-20...100**	**200**	**300**	**400**	**450**	**500**	**550**	**600**	**650**	**750**
baelz 365 - P max. (psi)	740	680	655	635	620	-	-	-	-	-
baelz 365-K - P max. (psi)	740	680	655	635	620	605	587	570	550	-
baelz 365-KK - P max. (psi)	740	680	655	635	620	605	587	570	550	505
baelz 365-K-SS - P max. (psi)	362	362	362	362	362	362	362	362	362	-
baelz 365-KK-SS - P max. (psi)	362	362	362	362	362	362	362	362	362	362
Temperature (°C)	**-29...38**	**93**	**149**	**204**	**232**	**260**	**288**	**316**	**343**	**400**
baelz 365 - P max. (bar)	51.1	46.9	45.1	43.8	42.7	-	-	-	-	-
baelz 365-K - P max. (bar)	51.1	46.9	45.1	43.8	42.7	41.7	40.5	39.3	37.9	-
baelz 365-KK - P max. (bar)	51.1	46.9	45.1	43.8	42.7	41.7	40.5	39.3	37.9	34.7
baelz 365-K-SS - P max. (bar)	25	25	25	25	25	25	25	25	25	-
baelz 365-KK-SS - P max. (bar)	25	25	25	25	25	25	25	25	25	25

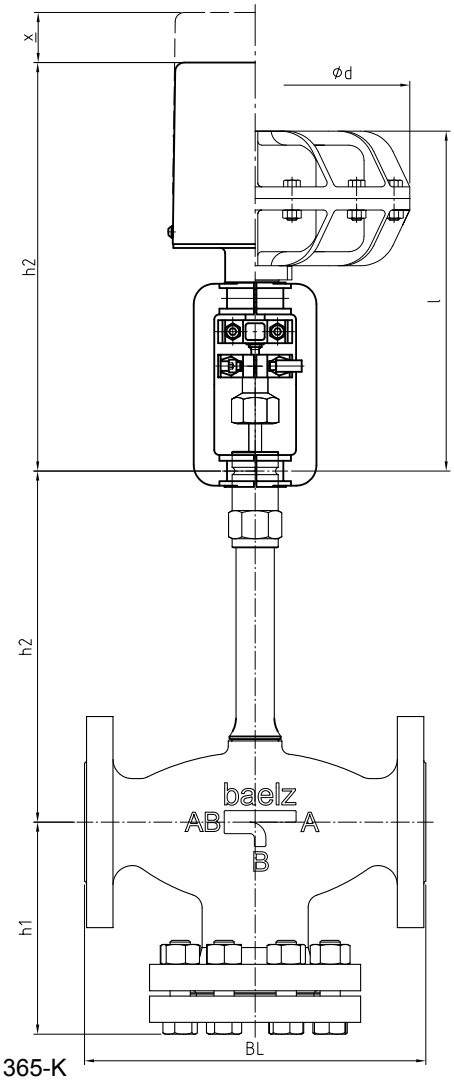
baelz 365 ANSI 300 valve stroke, seat diameter and Kvs values											
Nominal width	**½"**	**¾"**	**1"**	**1½"**	**2"**	**2½"**	**3"**	**4"**	**6"**	**8"**	**10"**
Stroke (")	0.47	0.47	0.47	0.87	0.87	0.87	0.87	0.87	1.73	2.6	2.6
Seat Ø (")	0.87	0.87	0.98	1.57	1.97	2.55	3.15	3.93	5.9	7.87	9.84
Cv (US GPM)	6.5	7.3	10.5	29.0	41.8	73.1	121.8	150.8	417.6	672.8	1113.6
Nominal width (mm)	**15**	**20**	**25**	**40**	**50**	**65**	**80**	**100**	**150**	**200**	**250**
Stroke (mm)	12	12	12	22	22	22	22	22	44	66	66
Seat Ø (mm)	22	22	25	40	50	65	80	100	150	200	250
Kvs value (m³/h)	5.6	6.3	9	25	36	63	105	130	360	580	960

Dimensions of the baelz actuators														
Actuator	L		L 365-K		x		Ød		l		l 365-K		ØD	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
E 45	20.6	522	39.5	1002	5.9	150	6.81	173						
E 66	24.8	630	43.7	1109	7.9	200	7.4	188						
P 31									20	509	38.9	989	15.1	384
P 32									20.7	525	39.6	1005	15.1	384
P 41									22.1	562	41	1042	19.9	506
P 41-V6									27.1	687	45.9	1167	19.9	506

baelz 365 dimensions and weights														
DN		BL		h1		h2		h2 365-K		365		365-K		365-K-SS	
in.	mm	inches	mm	inches	mm	inches	mm	inches	mm	lbs	kg	lbs	kg	lbs	kg
½"	15	7.48	190	3.75	95	4.2	105	9.1	231	11.8	5.4	14.7	6.8	15.4	7.0
¾"	20	7.63	194	3.81	97	4.2	105	9.1	231	13.9	6.3	16.9	7.6	17.5	7.9
1"	25	7.75	197	3.875	98.5	4.2	105	9.1	231	19	8.6	21.8	9.9	22.5	10.2
1½"	40	9.25	235	4.625	117.5	4.49	114	11.06	281	21	9.5	25.6	11.6	26.1	11.8
2"	50	10.51	267	5.25	133.5	4.8	121	10.83	275	32.8	14.9	39.7	18.0	40.1	18.2
2½"	65	11.5	292	5.75	146	2.67	144	10.6	269	50.6	23	53.3	24.2	54.7	24.8
3"	80	12.52	318	6.25	159	6.06	154	10.6	269	64	29	67.1	30.4	69.7	31.6
4"	100	14.5	368	7.25	184	6.65	169	10.32	262	108	49.2	112	50.7	115	51.9
6"	150	17.62	473	9.31	236.5	9.8	250	9.8	250	207	94	231	105	241	110
8"	200	22.36	568	11.19	284	10.6	270	10.6	270	425	193	535	243	544	247
10"	250	27.87	708	13.94	354	12.6	320	12.6	320	649	295	760	345	771	350



baelz 365



baelz 365-K

Maximum differential pressure ΔPmax (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 ΔPmax (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 ΔPmax (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

Seite 44

baelz 335



- 1/2"– 1 1/2"
- PN 16 / 25
- External thread/for welding
- Housing CC491K - CuSn5Zn5Pb5-C
- max. 140°C
- Silicone seal
- Water, hot water

Seite 47

baelz 342-B



- DN 15-125
- PN16 / 25
- Flanged connection
- Housing 5.3103 / 1.4313
- max. 240°C
- Cage plug
- Liquids, water, hot water, steam, gases

Seite 47

baelz 342-BK-SS



- DN 15-125
- PN 16 / 25 / 40
- Flanged connection
- Housing 5.3103 / 1.0619 / 4.4313
- max. 350°C
- Cage plug
- Cooling tube
- Bellows seal
- Liquids, water, thermal oil, steam, gases

Seite 51

baelz 347-B
baelz 347-BB
baelz 347-B-EMF
baelz 347-BB-EMF



- DN 15-350
- PN 16 / 25 / 40
- Flanged connection
- Housing 5.3103 / 1.0619 / 1.4313
- max. 240°C
- Cage plug
- Balanced plug
- Reduced Kvs
- Liquids, water, hot water, steam, gases

Seite 51

baelz 347-BK-SS
baelz 347-BBK-SS



- DN 15-350
- PN 16 / 25 / 40
- Flanged connection
- Housing 5.3103 / 1.0619 / 1.4313
- max. 350°C
- Cage plug
- Balanced plug
- Reduced Kvs
- Cooling tube
- Bellows seal
- Liquids, water, thermal oil, steam, gases

Seite 58

baelz 353 / 354



- DN 15-25 / DN 32-150
- PN 16 / 25 / 40
- Flanged connection
- Housing 1.4571 / 1.4408 / 1.4313
- max. 350°C
- Cage plug
- Balanced plug
- Reduced Kvs
- Cooling tube
- Liquids, water, thermal oil, steam, gases

Seite 61

baelz 367-A3

- 1/2“ - 10“ / DN 15-250
- ANSI 300
- Flanged connection
- Housing SA216WCB - 1.0619
- max. 230°C
- Liquids, water, steam, gases

Seite 61

baelz 367-K-SS-A3



- 1/2“ - 10“ / DN 15-250
- ANSI 300
- Flanged connection
- Housing SA216WCB - 1.0619
- max. 400°C
- Cooling tube
- Bellows seal
- Liquids, water, thermal oil, steam, gases



baelz 335

DESCRIPTION

The baelz 335 is a 3-way control valve with red brass housing for heating, ventilation and air conditioning systems.

TECHNICAL SPECIFICATIONS

Connection type: external thread / for welding
Plug type: standard control plug with slot (lantern shape)
Control characteristic: linear
Stroke: 12 mm

Additional options: union nut, silicone seal
Working media: liquids, water

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

	Options	Designation example
Plug	Stainless steel 1. 4571 Standard	baelz 335-1
Stem seal	V-rings in PFTE standard	baelz 335-1
Connection	Brass union nut + steel nozzle for welding	baelz 335-1
	Brass union nut + weld-on stainless steel sockets	baelz 335-ASE
	Brass union nut + threaded brass sockets	baelz 335-GT

T max. (°C) / P max. (bar)	
Housing material	Red brass CC491K - CuSn5Zn5Pb5
Nominal pressure	**PN 16 / 25**
baelz 335-1	140 / 25… -10 / 22
baelz 335-GT	
baelz 335-ASE	

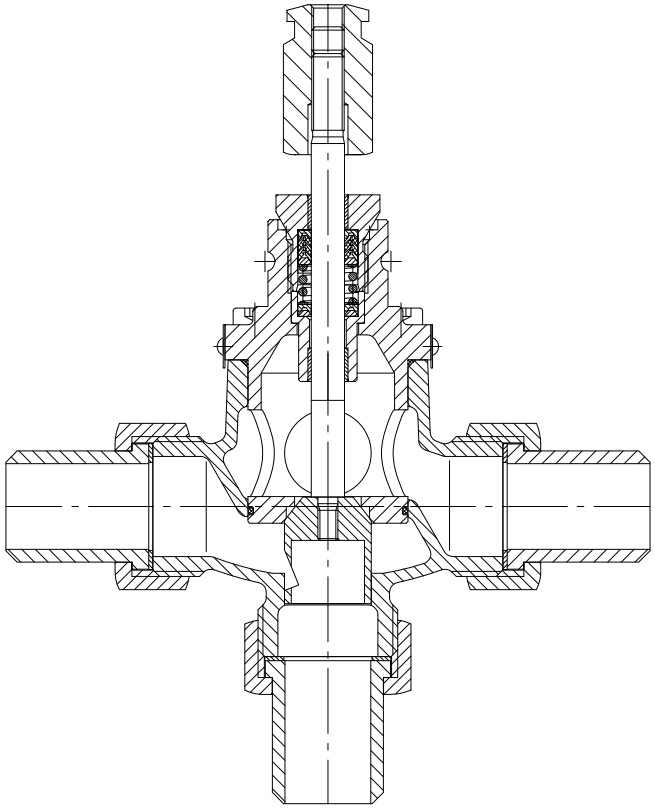
Actuators	Identification
Electric linear actuator	baelz 373-E
Pneumatic diaphragm actuator	baelz 373-P

Kvs value (m³/h)					
DN	**1/2"**	**3/4"**	**1"**	**1 1/4"**	**1 1/2"**
Kvs	3.5	5	9	16	22

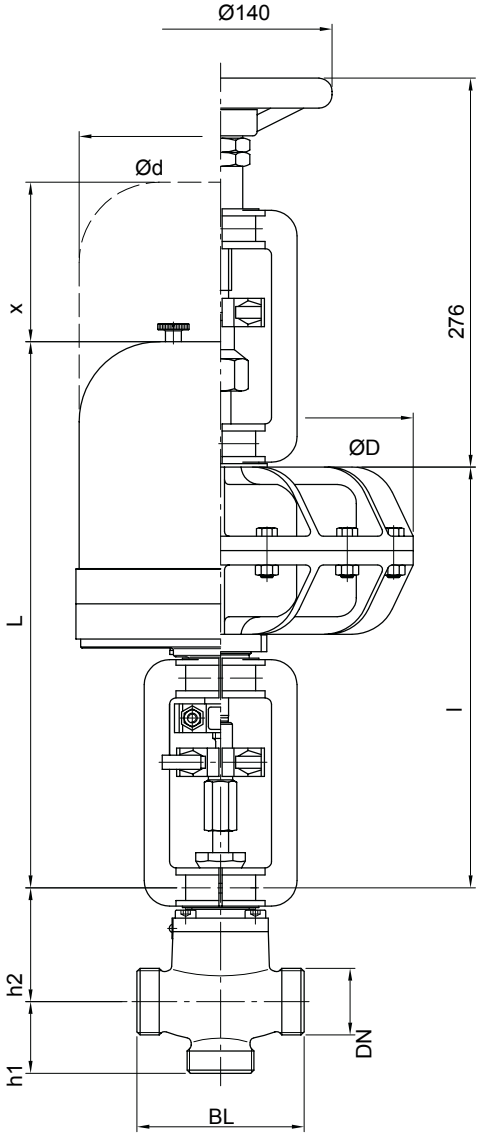
baelz 335 dimensions and weight without actuator (mm)					
DN		**BL**	**h1**	**h2**	**Weight**
		(mm)			**(kg)**
1/2"	**15**	92	33	72	1.5
3/4"	**20**	95	40	72	1.7
1"	**25**	105	45	72	1.8
1 ¼"	**32**	105	53	72	2
1 1/2"	**40**	114	57	72	2.5

Dimensions of the baelz actuators (mm)					
Designation	**L**	**x**	**Ød**	**I**	**ØD**
E 07	320	145	129		
E 45	560	150	175		
P 21				268	242

Sectional drawing of the baelz 335 plug



Standard control plug with slot
(lantern shape)
baelz 335



baelz 335 dimensions

Baelz-Katalog_00_EN_MJ_1118

Maximum differential pressure ΔPmax (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. 3-way valves as mixing valves. Plug closes against the flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (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. 3-way valves as mixing valves. Plug closes against the flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (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	1.7	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 changeover valves. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (bar)												
			15	20	25	32	40	50	65	80	100	125	150	200	250	300
all		1.2 - 6.0	Deploy all changeover valves only up to 0.6 bar differential pressure. If a changeover valve with > 0.6 bar is required,valve with > 0.6 bar is required, a damping device must be provided on the actuator.													



baelz 342

DESCRIPTION

The baelz 342 is a universal 3-way valve in a ball housing.
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 media: liquids, water, thermal oil, steam, 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
DN32-125	22	

Options		Designation example*
Plug	Parabolic plug (standard)	baelz 342-B
	Cage plug	baelz 342-B-LK
Stem seal	V-rings in PFTE (standard)	baelz 342-B
	Cooling tube	baelz 342-BK
	Stainless steel bellows + safety gland	baelz 342-BK-SS
Additional options	V-shaped seal heating (for media with temperatures of -10.. - 40°C) Power feed: 8-26 W - 230 V AC/DC	baelz 342-B...-Hz
	Construction without silicone	baelz 342-B...-Silf

T max. (°C) / P max. (bar)							
Housing material	**Spheroid ductile iron GJS-400-18-LT - 5.3103**		**Cast steel GP240GH - 1.0619**				**Stainless steel 1.4313**
Nominal pressure	**PN16**	**PN25**	**PN40**				**PN40**
baelz 342-B	240/14 … 50/16	240/22 … 50/25	-	-	-	-	-
baelz 342-BK	350/10.2 … 50/16	350/17.5 … 50/25	-	-	350/25.7 … 50/40		-
baelz 342-BK-SS	350/11.2 … 50/16	-			350/25 … 50/25		-
baelz 342-ES (nur DN25)	-						240/30.9 … 50/40

Kvs value (m³/h)										
DN	**15**	**20**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**
Standard	5.6 3 2	6.3	9	16	25	36	63	105	130	200
Cage plug (LK)	2.5	4	6.3	12.5	20	32	50	80	100	
	2	3.2	5	10	16	25	40	63	80	130
	1.6	2.5	4	6.3	10	16	25	40	63	100

baelz 342 plug variants				
Valve function	**Actuator type**	**Pressure difference at the plug (bar)**	**Nominal diameter**	**Plug type**
Flow separation	Electric actuator	≤0.6	DN15 - 350	without restrictions
		>0.6	DN15 - 32	without restrictions
		>0.6	DN40 - 350	balanced (EMF) see baelz 347*
	Pneumatic actuator	≤0.6	DN15 - 350	without restrictions
		>0.6	DN15 - 32	on request
		>0.6	DN40 - 350	balanced (EFM) see baelz 347*
Flow mix	without restrictions			

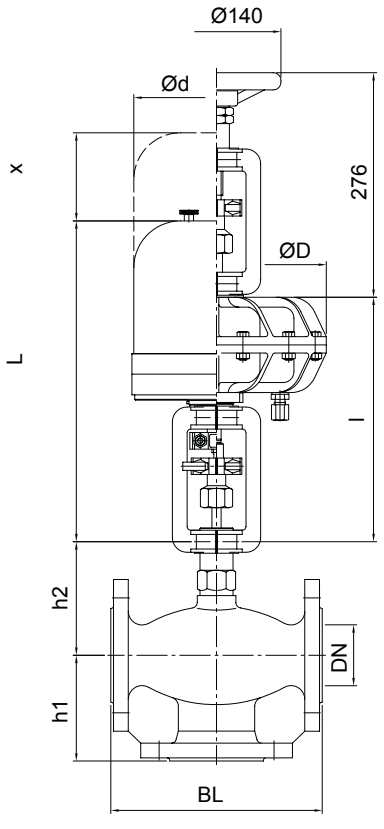
* Baelz will gladly inform you about possible applications with other plug variants

Actuators	**Identification**
Electric linear actuator	baelz 373-E
Pneumatic diaphragm actuator	baelz 373-P

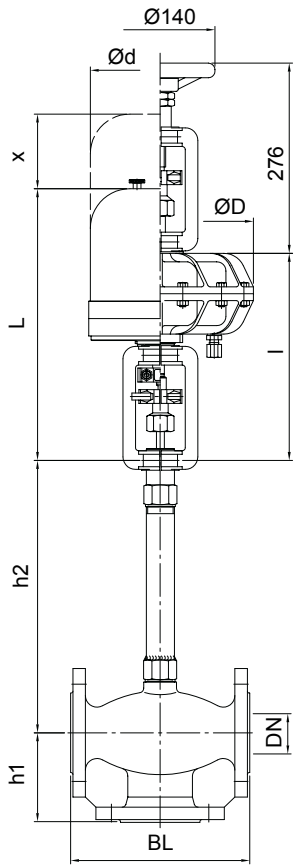
Weight of the baelz 342 valves without actuator (kg)											
DN		**15**	**20**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**
Standard (B)	**PN16**	5.5	6.1	6.6	9.6	11.8	15.6	24	28.7	39	57
	PN25							-		-	-
With cooling tube (BK)	**PN16**	6.5	7.1	7.6	10.6	12.8	16.6	-	29.7	-	-
	PN25							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	**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
Made of stainless steel (ES)	**PN40**			6.6			15.6				

baelz 342 dimensions (mm)				
DN	**BL**	**h1**	**h2**	
			342-B. 342-ES	**342-BK. 342-BK-SS**
15	130	75	105	231
20	150	75	105	231
25	160	85	105	231
32	180	100	104	283
40	200	105	114	281
50	230	115	124	277
65	290	125	144	269
80	310	130	154	269
100	350	150	169	262
125	400	200	189	252
150	480	240	244	324

baelz actuators dimensions (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



baelz 342-B DN15-125
baelz 342-ES DN15-125



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

Maximum differential pressure ΔPmax (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. 3-way valves as mixing valves baelz 342-B, 342-BK, 342-BK-SS, 342-B-ES. Plug closes against the flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (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

Electric actuators. 3-way valves as changeover valves baelz 342-B, 342-BK, 342-BK-SS. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (bar)													
		15	20	25	32	40	50	65	80	100	125	150	200	250	300
E07- 20-	2000	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				
E65- 11-	1100	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5				
E65- 20-	2000	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				
E45- 40-	4000	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				
E66- 150-	15000											1	0.6	0.6	0.6
E88- 100-	10000											1	0.6	0.6	0.6
E88- 300-	30000											1	0.6	0.6	0.6

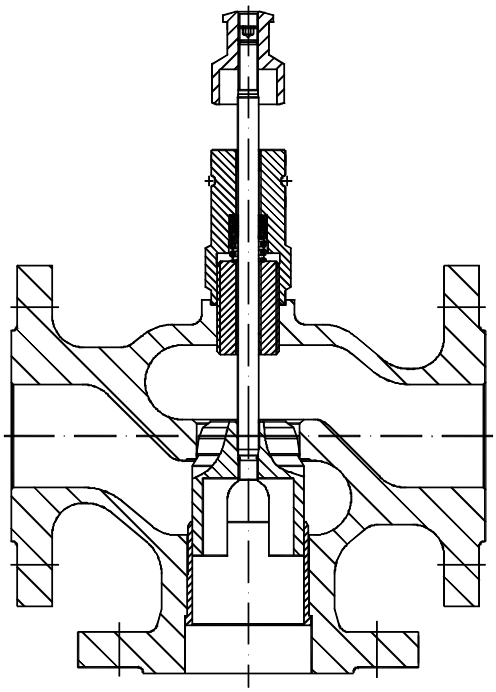
Pneumatic actuators. 3-way valves as mixing valves baelz 342-B, 342-BK, 342-BK-SS, 342-ES. Plug closes against the flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (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	1.7	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

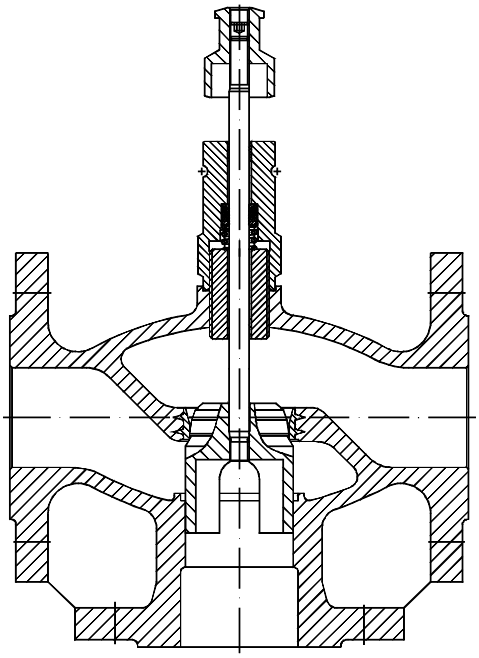
Pneumatic actuators. 3-way valves as changeover valves baelz 342-B, 342-BK, 342-BK-SS. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (bar)												
			15	20	25	32	40	50	65	80	100	125	150	200	250	300
all		1.2 - 6.0	Deploy all changeover valves only up to 0.6 bar differential pressure. If a changeover valve with > 0.6 bar is required,valve with > 0.6 bar is required, a damping device must be provided on the actuator.													

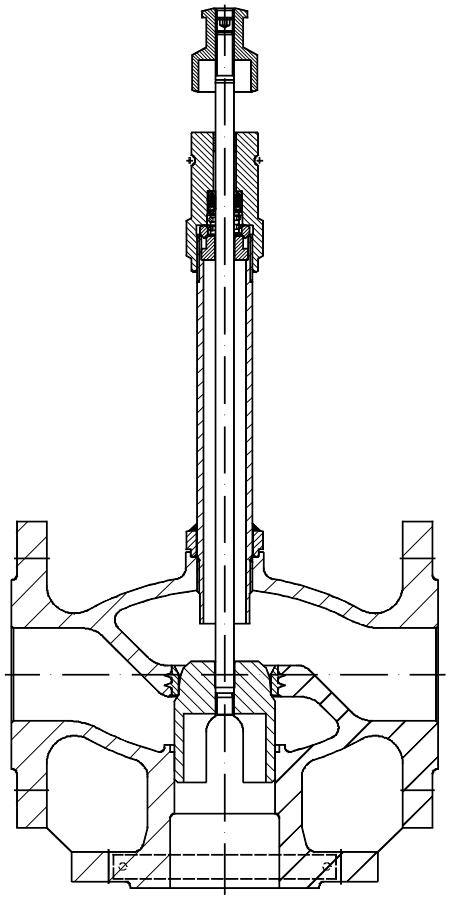
Sectional drawings of the baelz 342 plug



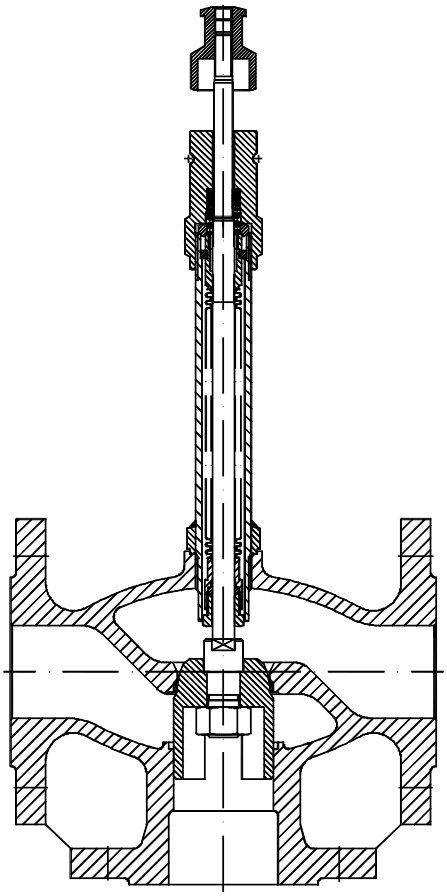
Mixing plug with slot guides
baelz 342-ES



Mixing plug with slot guides
baelz 342-B



Mixing plug with slot guides
baelz 342-BK



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



baelz 347

DESCRIPTION

The baelz 347-B is a universal 3-way valve in a globe housing. Industrial use: The variety of plug variants and the highly precise tightness tolerances allow utilization of the valve for the solution of complicated control tasks.

TECHNICAL SPECIFICATIONS

Connection type: Flange EN 1092-2; EN 1092-1 Shapes D / E / F on request.
Plug type: parabolic plug with slit
Control characteristic: linear
Working media: steam, gas, liquids, 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 (mm)		Spindle diameter (mm)
DN 15-25	12	10
DN 32-125	22	
DN 150	44	22
DN 200-250 (DN 300 and 350 on request)	66	

Options		Designation example*
Plug	Parabolic plug (standard)	baelz 347-B
	Cage plug	baelz 347-B-LK
	Balanced	baelz 347-B-EMF
	Reduced Kvs	baelz 347-B-Skr
Stem seal	V-rings in PFTE (standard)	baelz 347-B
	Cooling tube	baelz 347-BK
	Stainless steel bellows + safety gland	baelz 347-BK-SS
Additional options	V-shaped seal heating (for media with temperature -10... - 40°C) Power feed: 8-26 W - 230 V AC/DC	baelz 347-B...-Hz
	Construction without silicone	baelz 347-B...-Silf

* Designation: 347-B up to DN 125 and spindle Ø 10 mm; 347-BB from DN 150 and spindle Ø 22 mm

T max. (°C) / P max. (bar)					
Housing material	**Spheroid ductile iron GJS-400-18-LT - 5.3103**		**Cast steel GP240GH - 1.0619**		**Stainless steel 1.4313**
Nominal pressure	**PN 16**	**PN 25**	**PN 25**	**PN 40**	**PN 40**
baelz 347-B	240/14 … 50/16	240/22 … 50/25	240/22 … 50/25	-	-
baelz 347-BK	350/11.2 … 50/16	350/17.5 … 50/25	350/17.5 … 50/25	350/25.7 … 50/40	-
baelz 347-BK-SS	350/11.2 … 50/16	-		350/25 … 50/25	-
baelz 347-BK-EMF	260/13.6 … 50/16	260/21.4 … 50/25	260/21.4 … 50/25	260/29.8 … 50/40	-
baelz 347-BK-EMF-HG	315/12.3 … 50/16	315/19.2 … 50/25	315/19.2 … 50/25	315/27 … 50/40	
baelz 347-ES	-				240/30.9 … 50/40

Baelz-Katalog_00_EN_MJ_1118

Kvs value (m³/h)														
DN	**15**	**20**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**200**	**250**	**300**
Standard (B/BB)	5.6	6.3	9	16	25	36	63	105	130	200	360	580	960	1340
Balanced (EMF)	-				25	36	63	105 / 75	130 / 105	200 / 150	360	580	-	
Cage plug (LK)	2.5	4	6.3	12.5	20	32	50	80	100	130	250	320	580	960
Reduced (Skr)	2	2.5	5	8	12.5	20	32	50	80	130	-			
	1	1.6	3.2	4	6.3	10	16	25	40	63	-			

Utilization conditions for plugs in baelz 347 valves				
Valve function	**Actuator type**	**Pressure difference at the plug (bar)**	**Nominal diameter**	**Plug type**
Flow separation	Electric actuator	≤0.6	DN 15 - 350	without restrictions
		>0.6	DN 15 - 32	without restrictions
		>0.6	DN 40 - 350	Balanced (EMF)*
	Pneumatic actuator	≤0.6	DN 15 - 350	without restrictions
		>0.6	DN 15 - 32	on request
		>0.6	DN 40 - 350	Balanced (EMF)
Flow mix	**without restrictions**			

* Baelz will gladly inform you about possible applications with other plug variants

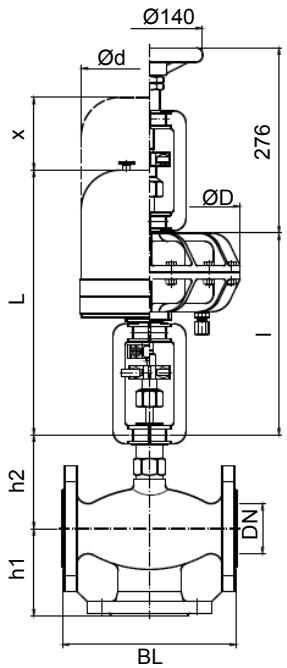
Weight of the baelz 347 valves without actuator (kg)																
DN		**15**	**20**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**200**	**250**	**300**	**350**
347-B/BB Spheroid ductile iron	**PN 16**	5.5	6.1	6.6	9.6	11.8	15.6	24	28.7	39	57	90	200	240	on request	on request
	PN 25							-		-	-			-		
347-BB Cast steel	**PN 40**	-	-	-	-	-	-	-	-	-	-	108	250	338	-	-
347-BK/BBK Spheroid ductile iron	**PN 16**	6.5	7.1	7.6	10.6	12.8	16.6	-	29.7	-	-	96	250	300	on request	on request
	PN 25							25		40	58			-		
347-BK/BBK Cast steel	**PN 25**	-	-	-	-	-	-	-	-	-	-	-	-	335	-	-
	PN 40	7	7.6	8.1	11.6	14.3	18.6	28	33.7	45	65	114	265	353		
347-BK/BBK-SS	**PN 16**	6.8	7.4	7.9	10.9	13.1	16.9	25.3	30	40.3	58.3	96.7	250	300	-	-
	PN 40	7.3	7.9	8.4	11.9	14.6	18.9	28.3	34	45.3	65.3	115	266	-	-	-
347-ES	**PN 40**	-	-	6.6	-	-	15.6	-	-	-	-	-	-	-	-	-

Actuators	Identification
Electric linear actuator	baelz 373-E
Pneumatic diaphragm actuator	baelz 373-P

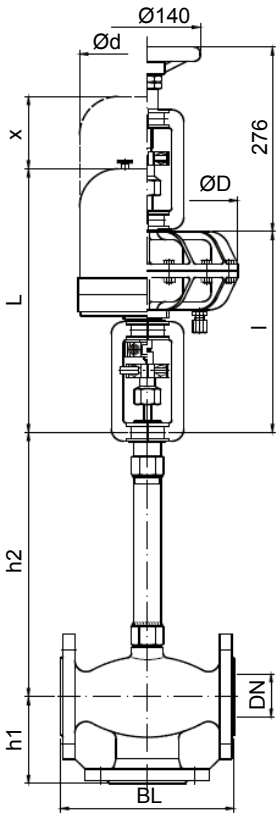
baelz 347 dimensions (mm)				
DN	BL	h1	h2	
			347-B(BB). 347-B(BB)-EMF, 347-ES	347-BK (BBK). 347-BK(BBK)-SS
15	130	75	105	231
20	150	75	105	231
25	160	85	105	231
32	180	100	104	283
40	200	105	114	281
50	230	115	124	277
65	290	125	144	269
80	310	130	154	269
100	350	150	169	262
125	400	200	189	252
150	480	240	244 (324)	234
200	600	381	268 (348)	258
250	730	427	317 (397)	307
300	850	288	361 (441)	351

Dimensions of the baelz 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
	347-BB/ BB-EMF	347-BBK/ BBK-SS			347-BB/ BB-EMF	347-BBK/ BBK-SS	
E 45	577	1057	150	175			
E 66	614	1094	200	188 (258*)			
P 31					509	989	384
P 32					525	1005	384
P 41					562	1042	506
P 41-V6					687	1167	506

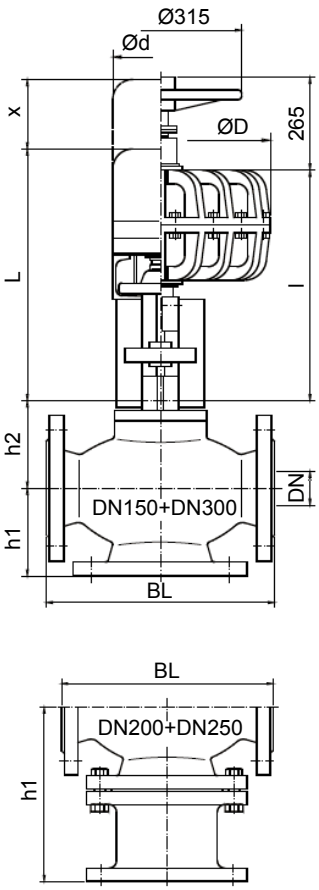
* with manual operation



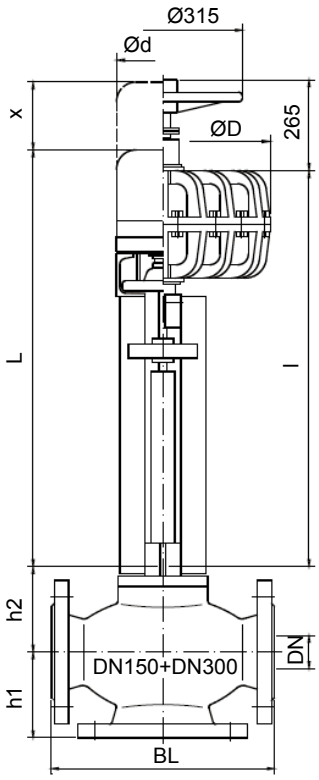
baelz 347-B DN15-125
baelz 347-B-EM DN50-125



baelz 347-BK DN15-125
baelz 347-BK-SS DN15-125



baelz 347-BB DN150-300
baelz 347-BB-EM DN150-300



baelz 347-BBK DN150-300
baelz 347-BBK-SS DN150-300

Maximum differential pressure ΔPmax (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. 3-way valves as changeover valves baelz 347-B/BB, 347-BK/BBK, 347-BK-SS/BBK-SS, 347-B-ES. Plug closes against the flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (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

Electric actuators. 3-way valves as changeover valves baelz 347-B/BB, 347-BK/BBK, 347-BK-SS/BBK-SS. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (bar)													
		15	20	25	32	40	50	65	80	100	125	150	200	250	300
E07- 20-	2000	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				
E65- 11-	1100	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5				
E65- 20-	2000	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				
E45- 40-	4000	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6				
E66- 150-	15000											1	0.6	0.6	0.6
E88- 100-	10000											1	0.6	0.6	0.6
E88- 300-	30000											1	0.6	0.6	0.6

Electric actuators. Balanced 3-way valves as mixing valves and changeover valves for liquids and steam baelz 347-B-EMF, 347-BB-EMF.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (bar)													
		15	20	25	32	40	50	65	80	100	125	150	200	250	300
E07- 20-	2000					40	40	29.2	21.4	12.1	4.2				
E65- 11-	1100					20.3	14	7.8	3.9						
E65- 20-	2000					40	40	29.2	21.4	12.1	4.2				
E45- 40-	4000					40	40	40	40	40	26.7	6.5			
E66- 80-	8000											19.7	13.2	8.7	5.7
E66- 150-	15000											40	35.2	26.2	20.3
E63- 440-	4448											8.2			
E63- 660-	6672											16.5			
E88-ALS-25-	2500											0.9			
E88-ALS-75-	7500											19.7	13.2	8.7	5.7
E88- 100-	10000											29	20.5	14.6	10.6
E88- 130-	13000											40	29.3	21.6	16.4
E88- 160-	16000											40	38.1	28.6	22.3
E88- 300-	30000											40	40	40	40
E88- 350-	35000											40	40	40	40
E88- 400-	40000											40	40	40	40

Maximum differential pressure ΔPmax (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.

Pneumatic actuators. 3-way valves as changeover valves baelz 347-B/BB, 347-BK/BBK, 347-BK-SS/BBK-SS, 347-ES. Plug closes against the flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (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	1.7	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

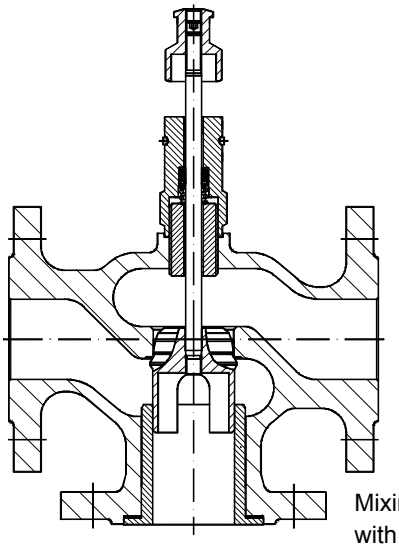
Pneumatic actuators. Balanced 3-way valves as mixing valves and changeover valves for liquids and steam baelz 347-B-EMF, 347-BB-EMF.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (bar)													
			15	20	25	32	40	50	65	80	100	125	150	200	250	300
P21- 3	1020	1.2					21	14.6	8.2	4.2						
P21- 6	2040	3.0					40	40	30	22	12.7	4.6				
P22- 3	1846	3.0					40	37.4	25.9	18.7	10	2.4				
P22- 6	3692	6.0					40	40	40	40	35.8	23.3				
P31- 3	2480	3.0											0.8			
P31- 6	4960	3.0											10.1			
P31- 18	10560	6.0											31.1			
P32- 6	4402	3.0												4.1	1.5	
P32- 18	8115	6.0												15	10.1	6.9
P41- 3	3765	1.2											5.6	2.2		
P41- 6	7530	3.0											19.8	13.2	8.8	5.8
P41- V6	31920	6.0											40	40	40	40

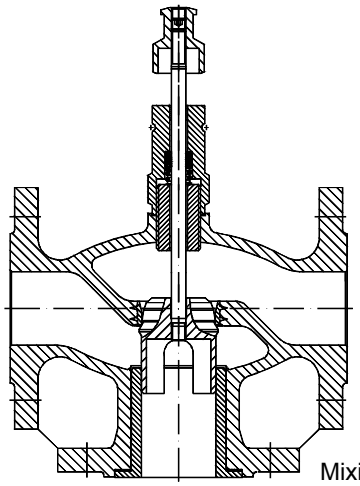
Pneumatic actuators. 3-way valves as changeover valves baelz 347-B/BB, 347-BK/BBK, 347-BK-SS/BBK-SS. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (bar)													
			15	20	25	32	40	50	65	80	100	125	150	200	250	300
all		1.2 - 6.0	Deploy all changeover valves only up to 0.6 bar differential pressure. If a changeover valve with > 0.6 bar is required,valve with > 0.6 bar is required, a damping device must be provided on the actuator.													

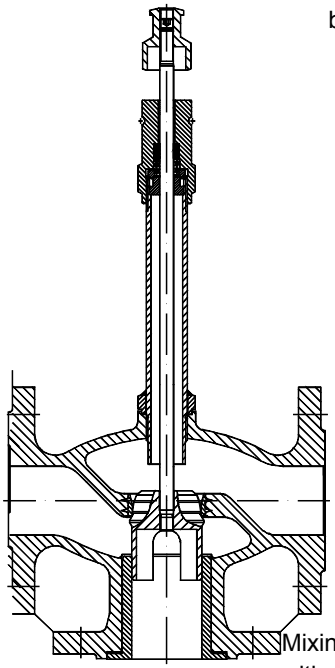
Sectional drawings of the baelz plug 347



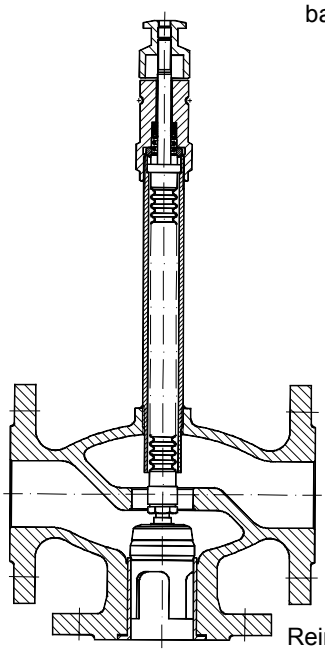
Mixing plug
with slot guides
baelz 347-ES



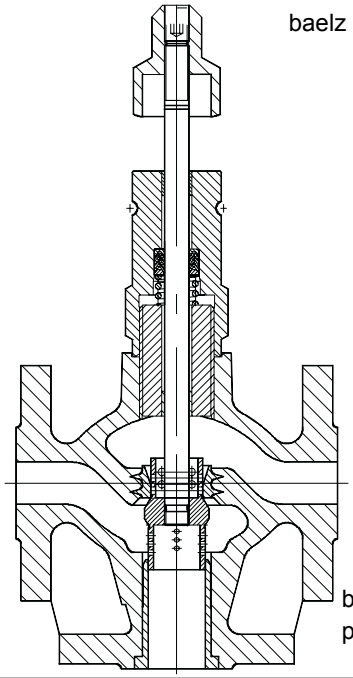
Mixing plug
with slot guides
baelz 347-B



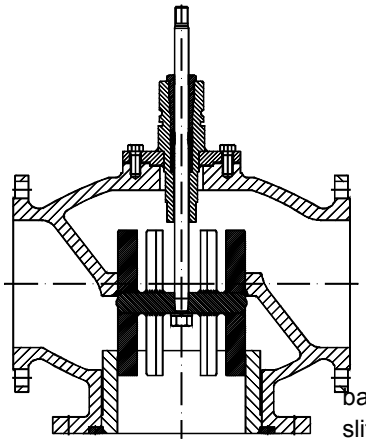
Mixing plug
with slot guides
baelz 347-BK



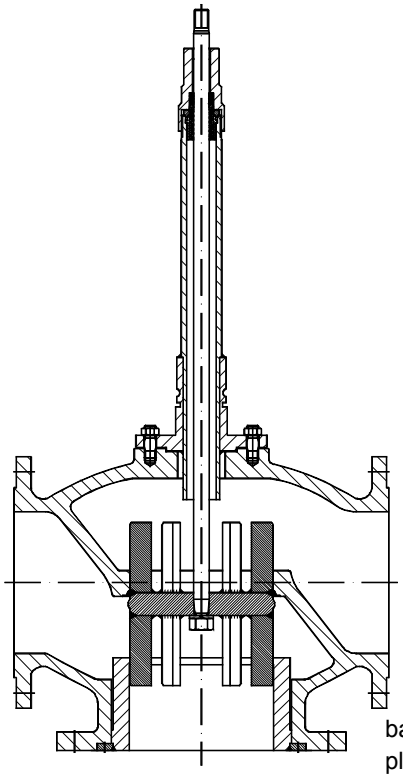
Reinforced plug
with slot guides
baelz 347-BK-SS



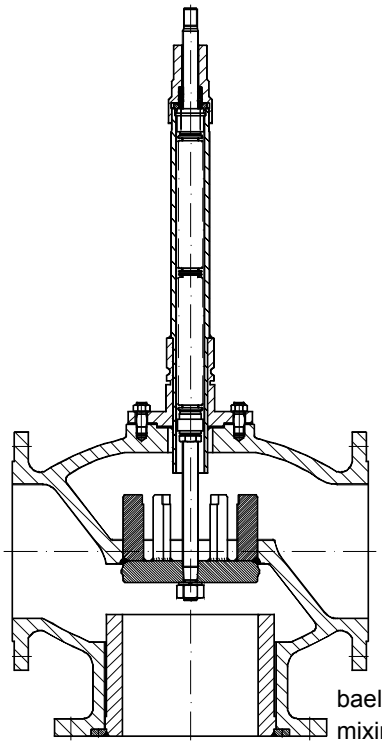
baelz 347 mixing cage
plug



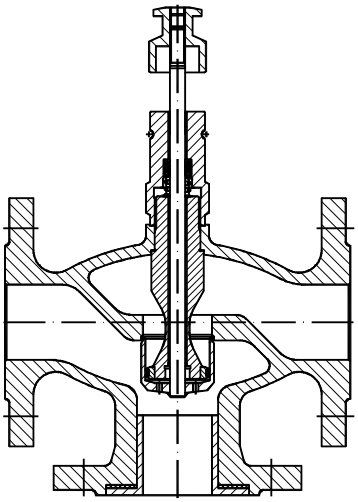
baelz 347-BB mixing
slit plug



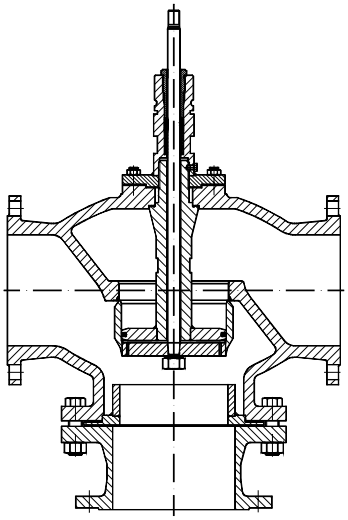
baelz 347-BBK mixing slit plug



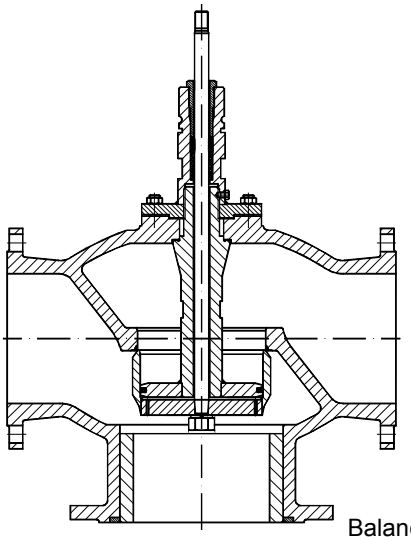
baelz 347-BBK-SS mixing slit plug



baelz 347-B-EMF balanced universal plug



Balanced universal plug
baelz 347-BB-EMF
DN200+250



Balanced universal plug
baelz 347-BB-EMF
DN150+300



baelz 353 / 354

DESCRIPTION

baelz 353 and baelz 354 are industrial 3-way control valves.
The stainless steel housing allows utilization under demanding operating conditions.

TECHNICAL SPECIFICATIONS

Connection type: Flange EN 1092-2; EN 1092-1 Shapes D / E / F on request.
Type of plug: parabolic plug with slot
Control characteristic: linear
Working media: liquids, water, thermal oil, steam, gases

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

Stroke (mm)			Spindle Ø (mm)
baelz 353	DN 15-25	12	10
baelz 354	DN 32-125*	22	

* DN 150 on request

Options		Designation example
Plug	Parabolic plug with slot	baelz 353 / baelz 354
Stem seal	V-rings in PFTE (standard)	baelz 353 / baelz 354
Additional options	Cooling tube	baelz 353-K / baelz 354-K
	Version suitable for drinking water	baelz 353-twg / baelz 354-twg
	Stainless steel housing 1.4313 (DN 25 and DN 50)	baelz 353 / baelz 354

T max. (°C) / P max. (bar)			
Baelz Type	**baelz 353**	**baelz 354**	
Housing material	**X6CrNiMoTi17-12-2 - 1.4571**	**GX5CrNiMo19-11 - 1.4408**	
Nominal pressure	**PN 16 / 25 / 40**	**PN 16**	**PN 25 / PN 40**
Standard model	240 / 35.7 … 100 / 40	240 / 12.8 … 100 / 16	240 / 32.1 … 100 / 40
with cooling tube	350 / 32.1 … 100 / 40	350 / 11.4 … 100 / 16	350 / 28.5 … 100 / 40

baelz 353/354 Kvs value and weight

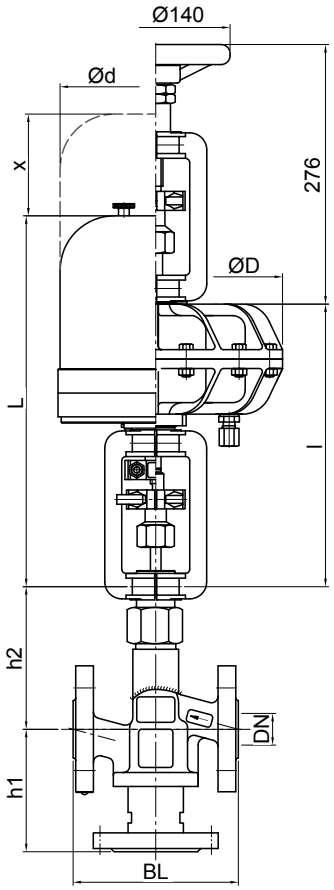
Baelz Type	baelz 353			baelz 354												
DN	**15**	**20**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**65**	**80**	**100**	**125**	**150***
PN	**PN 16 / 25 / 40**						**PN 16**					**PN 25 / PN 40**				
Kvs (m³/h)	5.6 3 2	6.3	9	16	25	36	63	105	130	200	360	63	105	130	200	360
Weight (kg)	5.5	6.1	6.6	12.4	15.3	19.8	29.6	35.8	48.8	70.6	108	29.6	36.8	50.8	73.6	111

* DN 150 on request

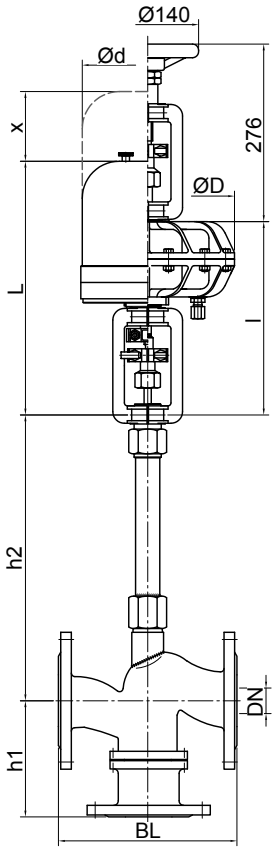
baelz 353 / 354 dimensions (mm)					
Baelz Type	DN	BL	h1	h2	
				353 354	353-K 354-K
baelz 353	15	130	89	105	268
	20	150	89	105	268
	25	160	89	105	268
baelz 354	32	180	160	145	381
	40	200	160	145	381
	50	230	170	150	386
	65	290	180	154	390
	80	310	190	157	393
	100	350	200	165	401
	125	400	220	175	411

baelz actuators dimensions (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

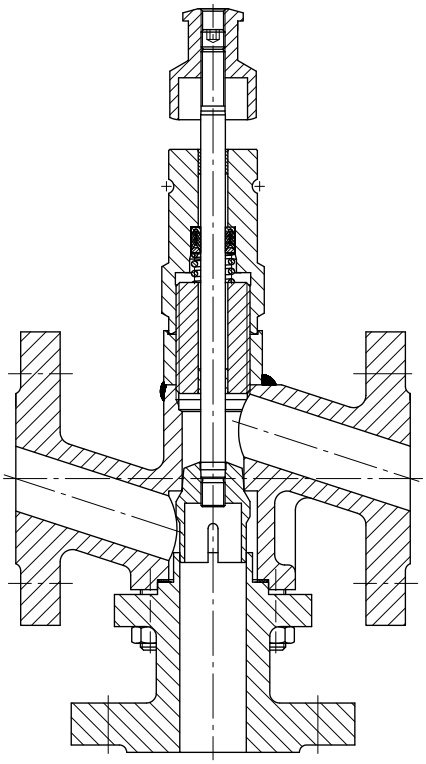


baelz 353 DN 15-25
baelz 354 DN 32-125

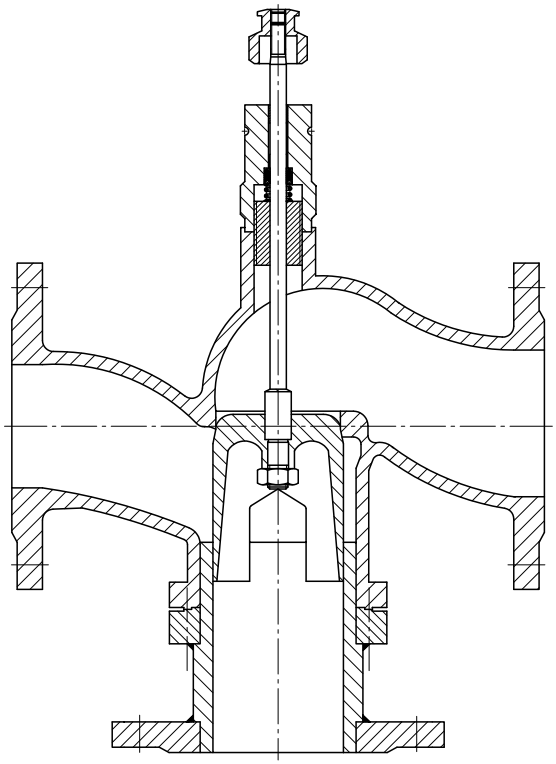


baelz 353-K DN 15-25
baelz 354-K DN 32-125

Sectional drawings of the baelz plug 353 / 354



Parabolic plug with slot
baelz 353 DN 15-25



Parabolic plug with slot
baelz 354 DN 32-125

Maximum differential pressure ΔPmax (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. 3-way valves as mixing valves. Plug closes against the flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (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. 3-way valves as mixing valves. Plug closes against the flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (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	1.7	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



baelz 367

DESCRIPTION

The baelz 367 ANSI 300 valve is a flanged and pressure rated 3-way control valve in accordance with US ANSI / ASME standards.

TECHNICAL SPECIFICATIONS

Connection type: ASME / ANSI B16.5 flange

Plug type: parabolic plug

Control characteristic: equal percentage

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

Leakage class (EN 1349)
metal-to-metal seal: 0.004% Kvs (better than class IV)

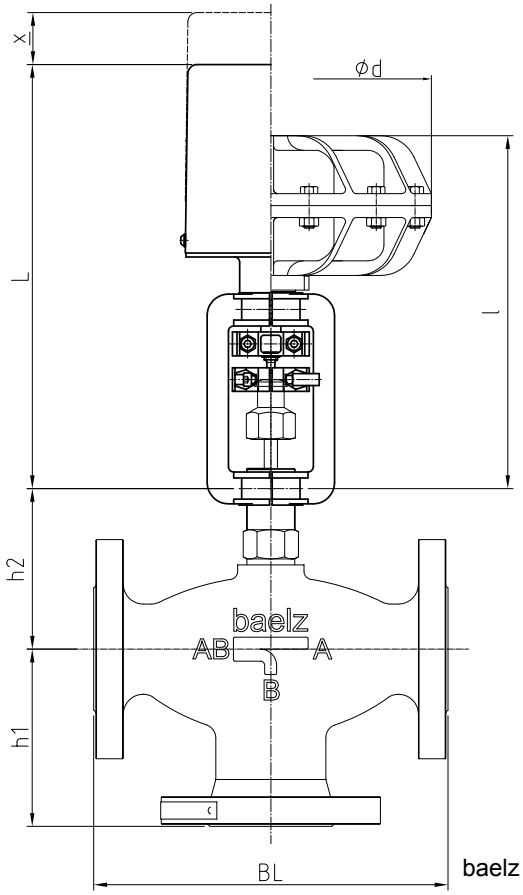
Options		Designation example
Plug	Parabolic plug (standard)	baelz 367
Cooling tube / Stem seal	V-rings in PFTE standard	baelz 367
	Cooling tube	baelz 367-K
	Cooling tube + double-wall stainless steel bellows and safety gland	baelz 367-K-SS
	Double cooling tube (special construction)	baelz 367-KK

T max. / P max. baelz 367 ANSI 300										
Housing material	1.0619 (1.0432) / SA216WCB (SA105)									
Temperature (°F)	**-20...100**	**200**	**300**	**400**	**450**	**500**	**550**	**600**	**650**	**750**
baelz 367 - P max. (psi)	740	680	655	635	620	-	-	-	-	-
baelz 367-K - P max. (psi)	740	680	655	635	620	605	587	570	550	-
baelz 367-KK - P max. (psi)	740	680	655	635	620	605	587	570	550	505
baelz 367-K-SS - P max. (psi)	362	362	362	362	362	362	362	362	362	-
baelz 367-KK-SS - P max. (psi)	362	362	362	362	362	362	362	362	362	362
Temperature (°C)	**-29...38**	**93**	**149**	**204**	**232**	**260**	**288**	**316**	**343**	**400**
baelz 367 - P max. (bar)	51.1	46.9	45.1	43.8	42.7	-	-	-	-	-
baelz 367-K - P max. (bar)	51.1	46.9	45.1	43.8	42.7	41.7	40.5	39.3	37.9	-
baelz 367-KK - P max. (bar)	51.1	46.9	45.1	43.8	42.7	41.7	40.5	39.3	37.9	34.7
baelz 367-K-SS - P max. (bar)	25	25	25	25	25	25	25	25	25	-
baelz 367-KK-SS - P max. (bar)	25	25	25	25	25	25	25	25	25	25

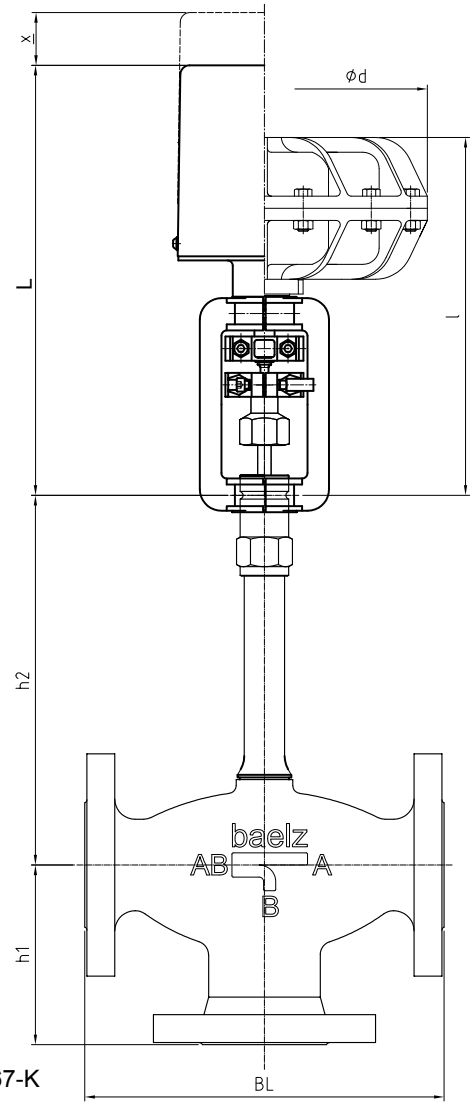
baelz 367 ANSI 300 valve stroke, seat diameter and Kvs values			
Nominal width	**2"**	**3"**	**4"**
Stroke (")	0.87	0.87	0.87
Seat Ø (")	1.97	3.15	3.93
Cv (US GPM)	41.8	121.8	150.8
Nominal width (mm)	**50**	**80**	**100**
Stroke (mm)	22	22	22
Seat Ø (mm)	50	80	100
Kvs value (m³/h)	36	105	130

Dimensions of the baelz actuators														
Actuator	L		L 367-K		x		Ød		l		l 367-K		ØD	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
E 45	20.6	522	39.5	1002	5.9	150	6.81	173						
E 66	24.8	630	43.7	1109	7.9	200	7.4	188						
P 31									20	509	38.9	989	15.1	384
P 32									20.7	525	39.6	1005	15.1	384
P 41									22.1	562	41	1042	19.9	506
P 41-V6									27.1	687	45.9	1167	19.9	506

baelz 367 dimensions and weights														
DN		BL		h1		h2		h2 367-K		367		367-K		367-K-SS	
in.	mm	inches	mm	inches	mm	inches	mm	inches	mm	lbs	kg	lbs	kg	lbs	kg
2"	50	10.51	267	5.25	133.5	4.8	121	10.83	275	32.8	14.9	39.7	18.0	40.1	18.2
3"	80	12.52	318	6.25	159	6.06	154	10.6	269	64	29	67.1	30.4	69.7	31.6
4"	100	14.5	368	7.25	184	6.65	169	10.32	262	108	49.2	112	50.7	115	51.9



baelz 367



baelz 367-K

Maximum differential pressure ΔPmax (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. 3-way valves as mixing valves. Plug closes against the flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (bar)		
		50	80	100
E07- 20-	2000	8	3	2
E65- 11-	1100	3.5	0.9	0.3
E65- 20-	2000	8	3	2
E45- 40-	4000	16	6.9	4.4
E88- 100-	10000		18	11
E88- 100-	13000		24	15
E88- 100-	16000		30	19

Electric actuators. 3-way valves as changeover valves. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	DN (mm) / maximum differential pressure ΔPmax (bar)		
		50	80	100
E07- 20-	2000	0.6	0.6	0.6
E65- 11-	1100	0.6	0.6	0.6
E65- 20-	2000	0.6	0.6	0.6
E45- 40-	4000	0.6	0.6	0.6

Pneumatic actuators. 3-way valves as mixing valves. Plug closes against the flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (bar)		
			50	80	100
P21- 3	1020	1.2	1.1	0.4	0.3
P21- 6	2040	3.0	8	3.3	2.1
P21- 12	3390	6.0	14	5.6	3.6
P21- 18	4030	6.0	17	7	4.3
P21- V6	7590	6.0	7	2.8	1.8

Pneumatic actuators. 3-way valves as changeover valves. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	DN (mm) / maximum differential pressure ΔPmax (bar)		
			50	80	100
all		1.2 - 6.0	All changeover valves may only be utilized up to 0.6 bar differential pressure. If a changeover valve with > 0.6 bar is required, a damping device must be provided on the actuator.		



Ejectors make for lucrative savings by sophisticated use of physical principles. The working principle of the ejector is based on the Bernoulli equation established by the Swiss mathematician and physicist Daniel Bernoulli (1700-1782) and on the Venturi effect discovered by the Italian physicist Giovanni Battista Venturi (1746-1822).

Ejectors can be used wherever a sufficient differential pressure is generated by a main pump.

Ejectors are frequently used in the energy sector, in production industries and in heating systems.

Baelz-hydrodynamic®

The controllable water ejector combines the functions of four single components: It generates circulation in the area of the consumer, it adjusts the circulation volume according to the actual heat requirement, it regulates the temperature and compensates for fluctuations in differential pressure.

Saving electrical energy through energy-efficient equipment and installations is becoming increasingly important. Where heating water would usually be distributed to secondary circuits using a control valve and a pump for each circuit, Baelz uses controlled ejector technology.

Many of our heating and ventilation systems have been in operation for over 30 years, saving energy and money.

Advantages at a Glance

- Good controllability over the entire load range
- Only one main pump, meaning lower energy costs
- Simplified system design due to fewer components
- Less data points in the higher-level control system
- Lower return temperatures
- Hydraulic stability

Baelz-vapordynamic®

The functional principle of the regulated ejector is also applicable for steam. Here, smooth-running equipment is of the essence. Factors such as production reliability, energy costs and maintenance expenditure are crucial for success in all industries.

Advantages at a Glance

- Increase in the effective heating surface to 100%
- Reduction of steam loss
- Increase in machine performance
- Applicable to all types of steam systems
- Enables full use of available energy

Seite 67

baelz 471



Controllable water ejector Jetomat

- 1/2"– 1 1/2"
- PN16/25
- External thread
- Housing CC491K - CuSn5Zn5Pb5-C
- max. 140°C
- PTFE seal
- Mixes water with water
- For heating systems

Seite 69

baelz 472



Controllable mini ejector Jetomat

- 2"
- PN16
- External thread
- Housing CC499K - CuSn5Zn5Pb2
- max. 130°C
- PTFE seal
- Mixes water with water
- For heating systems

Seite 70

baelz 474



Four-way radiator ejector Jetomat

- 2 x 3/4". 2 x M22x1.5 mm
- PN25
- External thread
- Housing CW508L - CuZn37
- max. 140°C
- 2 exchangeable O-rings
- Mixes water with water
- For heating systems

Seite 72

baelz 475



Controllable water ejector

- 3/4"
- PN16/25
- External thread
- Housing CC491K - CuSn5Zn5Pb5-C
- max. 140°C
- EPDM seal
- Mixes water with water
- For heating systems

Seite 73

baelz 480



Controllable water ejector

- DN15-250
- PN16/25/40
- Flanged connection
- Housing 5.3103 - EN-GJS-400-18-LT
- max. 240°C
- Cooling tube optional
- Mixes liquids
- Industrial applications

Seite 75

baelz 585



Steam/water mixing ejector

- DN15-125
- PN16/25
- Flanged connection
- Housing 5.3103 - EN-GJS-400-18-LT
- max. 240°C
- Mixes water with steam
- Water heating via direct steam injection
- Industrial applications

Seite 77

baelz 590



Steam ejector

- DN15-250
- PN16/25/40
- Flanged connection
- Housing 5.3103 - EN-GJS-400-18-LT
- max. 350°C
- Cooling tube optional
- Mixes steam
- Industrial applications

Seite 79

baelz 591



Steam cooling and reducing Jetomat

- DN32-300
- PN16/25/40 (max. PN 160 on request)
- Flanged connection
- Housing 5.3101 / 1.0619
- max. 350°C
- Cooling tube optional
- Cools hot steam with water
- Reducing cooling valve
- Industrial applications



baelz 471

DESCRIPTION

The Jetomat baelz 471 is a water/water ejector with red brass housing and threaded connections for heating systems.

Housing / diffusor and nozzle made of CuSn5Zn5Pb5-C red brass

TECHNICAL SPECIFICATIONS

The plug type and the control characteristic are designed and manufactured to order.

Stroke:
12 mm for nozzle diameters < 9 mm
22 mm for nozzle diameters ≥ 9 mm

Additional options:
Weld-on stainless steel sockets (ASE) or threaded brass sockets (GT)
Silicone seal

Working media: water

Designation	Nominal pressure	Housing material	Nominal diameter	Connection	Leakage class (EN 1349)
baelz 471	PN 16 / 25	Red brass CuSn5Zn5Pb5-C	1/2" -1 1/2"	External thread with union nut made of brass and weld-on sockets made of steel	metal-to-metal seal: 0.004% Kvs (better than class IV) with Teflon plug: 0.001 % Kvs (better than class VI)

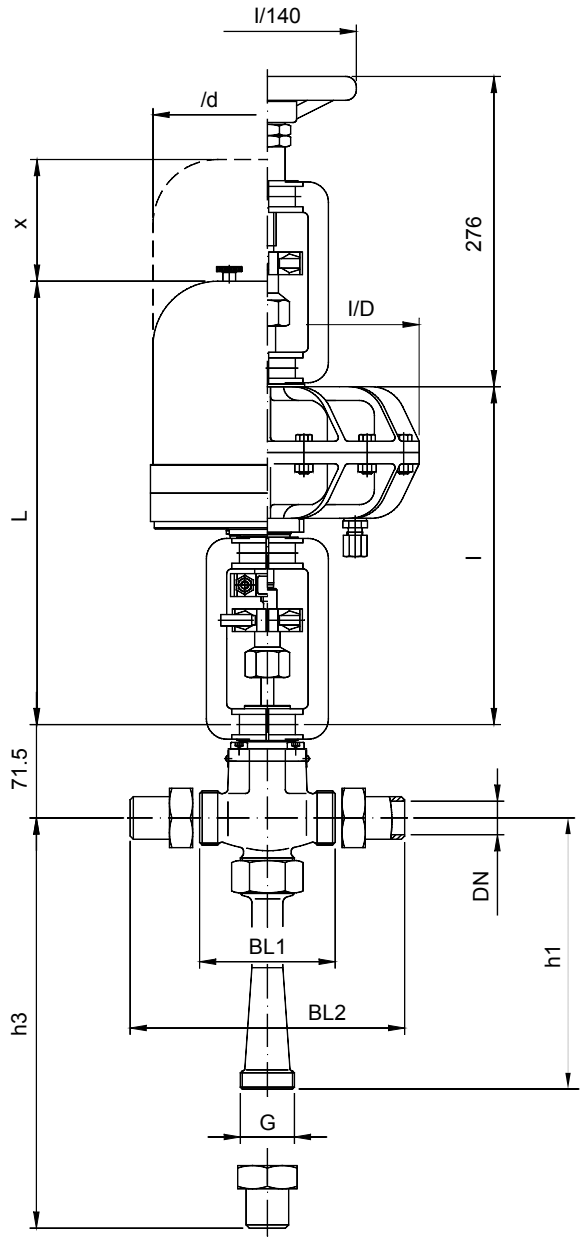
T max. (°C) / P max. (bar)	
Housing material	Red brass CuSn5Zn5Pb5-C
Nominal pressure	**PN 16 / 25**
baelz 471	140 / 25
baelz 471-GT	
baelz 471-ASE	
baelz 471 with silicone seal (optional)	190 / 23.1

Available nozzle diameters (mm)					
DN	**1/2"**	**3/4"**	**1"**	**1 1/4"**	**1 1/2"**
Ø	3	3	6	6	6
	4	4	9	9	9
	5	5	12	12	12
	6	6			16
		9			

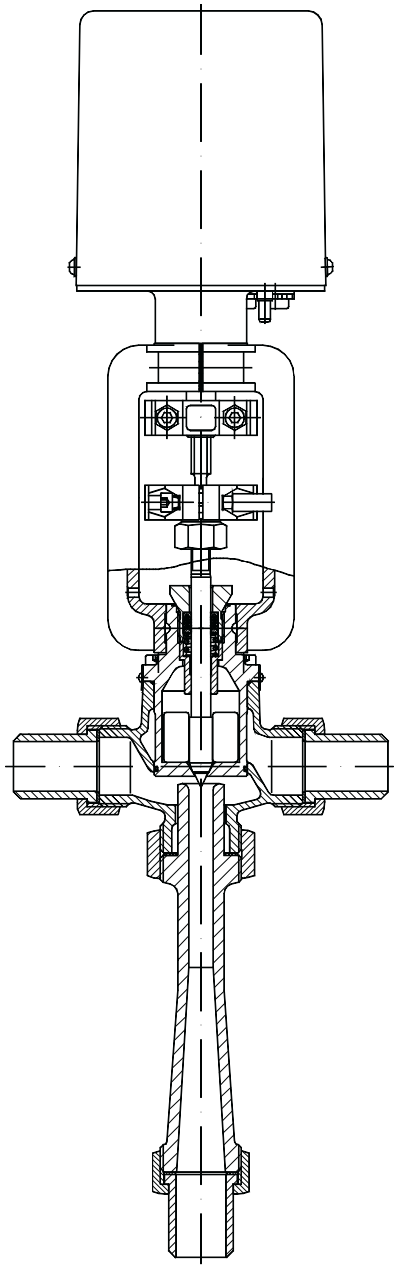
Dimensions of the baelz 373 actuators (mm)					
Designation	**L**	**x**	**Ød**	**l**	**ØD**
E 07	320	145	129		
P 21				268	242

Electric actuators: baelz 373-E
Pneumatic actuators: baelz 373-P

baelz 471 dimensions and weight							
DN		h1	h3	BL1	BL2	G	Weight (kg)
		mm					kg
1/2"	15	126	162	92	164	3/4	2
3/4"	20	153	189	95	167	1	2.6
1"	25	210	251	105	187	1 1/4	3.1
1 ¼"	32	245	286	105	187	1 1/2	4.1
1 1/2"	40	311	357	114	206	2	5.7



baelz 471 DN1/2-1 1/2



baelz 471



baelz 472

DESCRIPTION

The Jetomat baelz 472 is a controllable water/water mini ejector with red brass housing and threaded connections for heating systems.

Housing made of red brass CuSn5Zn5Pb2
Diffuser made of red brass CuZn40Pb2
Nozzle made of stainless steel

TECHNICAL SPECIFICATIONS

The plug type and the control characteristic are designed and manufactured to order.

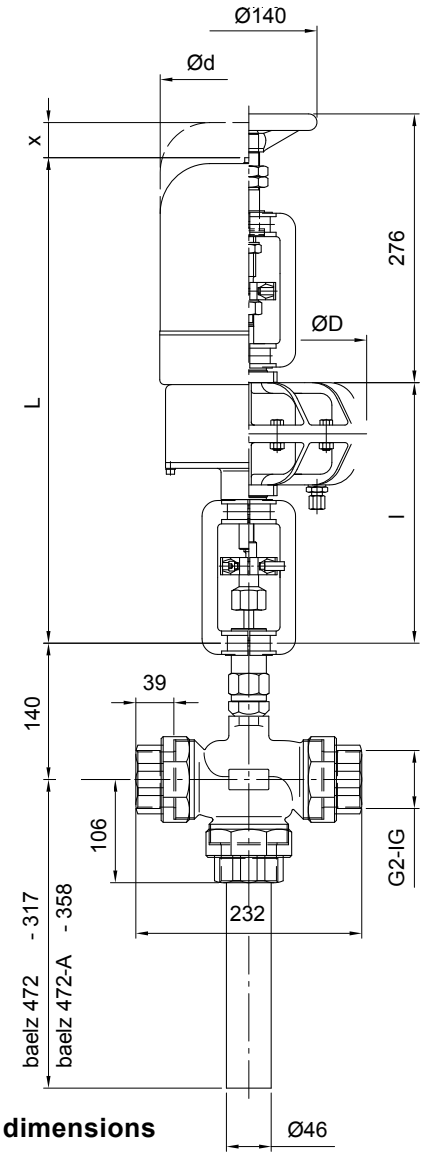
Stroke - 22 mm
Weight without actuator – 7.8 kg

Working media: water

baelz 472	
Housing material	red brass CuSn5Zn5Pb2
Nominal pressure	**PN 16**
T max. (°C) / P max. (bar)	130 / 16
Min. ambient temperature (°C)	-10
Nominal diameter	2“
Connection	External thread with union nut made of brass and weld-on sockets made of steel
Available nozzle Ø (mm)	16, 20, 23, 25, 30
Leakage class (EN 1349)	metal-to-metal seal: 0.004% Kvs (better than class IV)

Dimensions of the baelz 373 actuators (mm)					
Designation	**L**	**x**	**Ød**	**I**	**ØD**
E 02	293	90	129		
E 07	320	145	129		
E 11	499	180	183		
P 21				268	242

Electric actuators: baelz 373-E
Pneumatic actuators: baelz 373-P



baelz 472 dimensions

Baelz-Katalog_00_EN_MJ_1118



baelz 474

DESCRIPTION

The baelz 474 is a four-way radiator water/water ejector with red brass housing and threaded connection for heating systems.

Housing made of cast brass CuZn37
Internal parts made of stainless steel

TECHNICAL SPECIFICATIONS

Stroke - 3 mm
Weight, approx .: 0.65 to 0.9 kg depending on the equipment

With different nozzle inserts according to the design
Several control / actuator options.
Also applicable as minimum quantity injection valve.
Working media: water

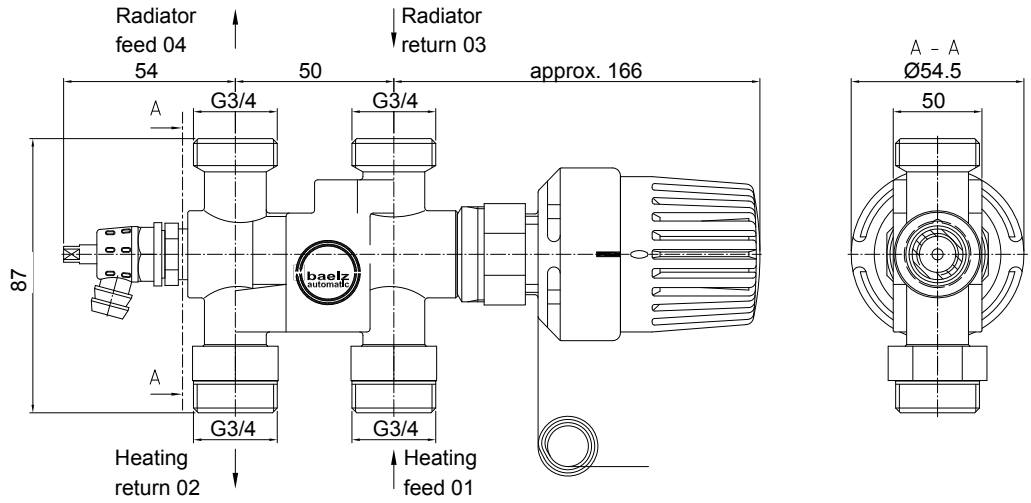
baelz 474-RT...	
Housing material	cast brass CuZn37
Nominal pressure	**PN 25**
T max. (°C) / P max. (bar)	140 / 25
Min. ambient temperature (°C)	1
nozzle diameter (mm)	2 or 3
Connection	External thread
Leakage class (EN 1349)	metal-to-metal seal: 0.004% Kvs (better than class IV)

baelz 474 with thermostat		
	474-RT-T	**474-RT-70521-10-AZ**
Control	with thermostatic head	Control top with remote adjustment Thermostat with liquid sensor
Capillary tube length (m)	-	2
Setpoint range (°C)*	6 to 28	
Frost protection	adjustable at approx. 6°C	
Connecting thread	M 30 x 1.5 mm	
Weight. approx. (kg)	0.65	0.75

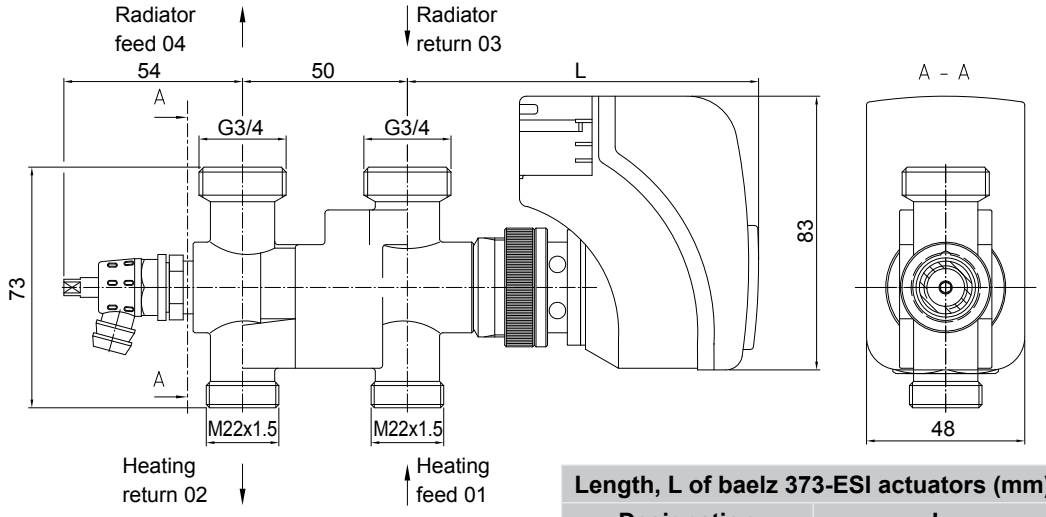
* Limitation and locking of the setpoint range possible

baelz 474 with electromotive actuator with manual operation/override and position indicator					
	474-RT-373-ESI-31...	**474-RT-373-ESI-31.1/L15-230**	**474-RT-373-ESI-61...**	**474-RT-373-ESI-81...**	**474-RT-373-ESI-81.1/L15-24**
Housing	Plastic, maintenance-free				
Thrust (N)	100				
Actuating speed	194 s / 3 mm stroke	194 s / 3 mm stroke	45 s / 3 mm stroke	192 s / 3 mm stroke	192s / 3 mm stroke
Protection type	IP 40				
Activation/control	3-point	3-point	DC 0...10 V	3-point	3-point
Medium temperature (°C)	max. 1...110	max. 1...110	max. 1...100	max. 1...110	max. 1...110
Environmental conditions	1...50°C; 5...85 % rel. hum.				
Connecting thread	M 30 x 1.5				
elec. connection	3-core cable*				
Power supply	230 V AC. ± 15 %. 50/60 Hz				
with auxiliary switch as a changeover switch	No	Yes	No	No	Yes,
Weight. approx. (kg)	0.8	0.9	0.8	0.8	0.9

baelz 474 as a minimum quantity injection valve	
	474-MMJV
Design	as overflow valve with manual operation
Connections	1 x M 22 x 1.5 mm: input 01 1 x G 3/4: output 04, with 1 adapter/transition section G 3/4 to M 22 x 1.5 mm
Weight. approx. (kg)	0.85

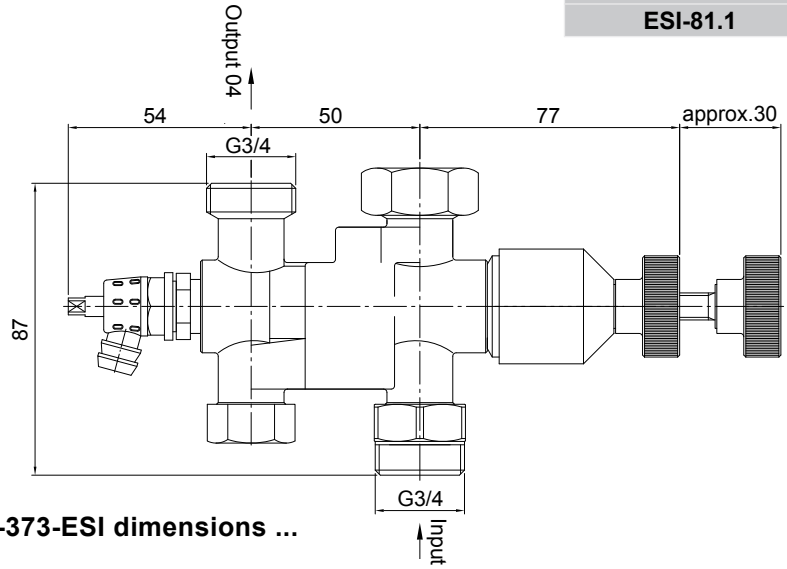


baelz 474-RT dimensions



baelz 474-RT-373-ESI dimensions ...

Length, L of baelz 373-ESI actuators (mm)	
Designation	**L**
ESI-31	107
ESI-31.1	124
ESI-61	107
ESI-81	107
ESI-81.1	124



baelz 474-RT-373-ESI dimensions ...



baelz 475

DESCRIPTION

The Jetomat baelz 475 is an economical water/water ejector with red brass housing and threaded connection for heating systems.

Housing: red brass CuSn5Zn5Pb5-C
Diffuser: brass
Plug stem and nozzle: stainless steel

TECHNICAL SPECIFICATIONS

The plug type and the control characteristic are designed and manufactured to order.

Stroke: 6 mm
Weight without actuator: approx. 1.3 kg
Connection thread for actuator: M 30 x 1.5 mm

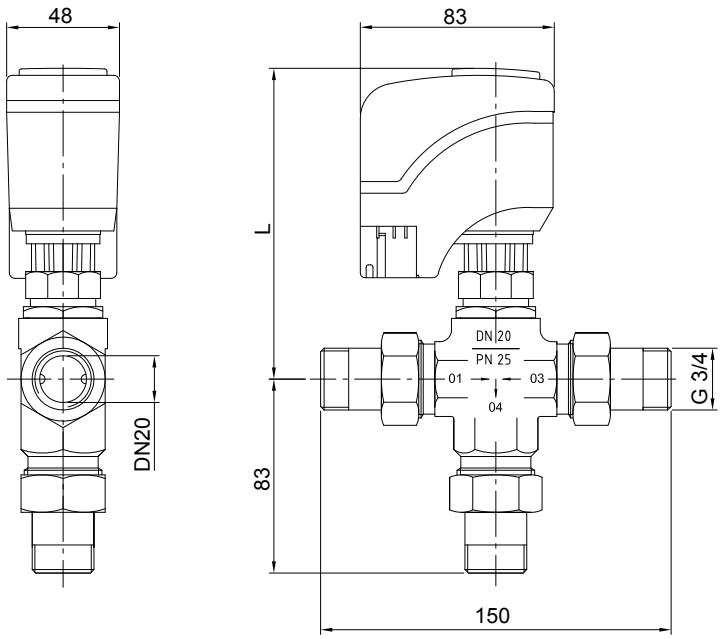
Working media: water

Designation	Nominal pressure	Housing material	Nominal diameter	Connection	Leakage class (EN 1349)
baelz 475	PN 16 / 25	Red brass CuSn5Zn5Pb5-C	3/4"	External thread with union nut made of brass and weld-on sockets made of steel	metal-to-metal seal 0.004% Kvs (better than class IV)

T max. (°C) / P max. (bar)	
Housing material	Red brass CuSn5Zn5Pb5-C
Nominal pressure	**PN 16 / 25**
baelz 475	140 / 16
	140 / 25
baelz 475 with silicone seal	max. 150°C
baelz 475-SM-373-E01-UC8	90 / 10

Kvs and nozzle diameter (mm)					
Kvs	**0.8**	**1.6**	**2.6**	**3.5**	**6.25**
Ø	2.5	2.5	2.5	2.5	2.5
		3.5	3.5	3.5	3.5
			5	5	5
				6.5	6.5
					8

Length, L of baelz 373-ESI actuators (mm)	
Designation	**L**
ESI-31	107
ESI-31.1	124
ESI-61	107
ESI-81	107
ESI-81.1	124



baelz 475 with electric actuator 373-ESI dimensions



baelz 480

DESCRIPTION

The Jetomat baelz 480 is a liquid/liquid ejector with flange connection for mixing and recirculation

Housing: GJS-400-18-LT - 5.3103 / GP240GH - 1.0619 (PN 40)
Diffuser: steel, welded
Plug stem and nozzle: stainless steel

TECHNICAL SPECIFICATIONS

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

The plug type and the control characteristic are designed and manufactured to order.
Spindle seal: V-rings in PFTE
Option: baelz 480-K - with cooling tube

Working media: liquids, water, thermal oil

Leakage class (EN 1349)
metal-to-metal seal: 0.004% Kvs (better than class IV)

Stroke (mm)		Spindle Ø (mm)
DN 15 - DN 25. nozzle ≤ 6.5 mm	12	10
DN 15 - DN 25. nozzle > 8 mm	22	10
DN 32 - DN80	22	10
DN 100 - DN 125*	22 and 40*	10
DN 150	40 and 44	16
DN 200 - DN 250	66	22

**recommended actuators for DN 100 and DN 125:*
Stroke 22. Actuator 373-P21-L...
Stroke 40. Actuator 373-P22-L...

T max. (°C) / P max. (bar)			
Housing material	**GJS-400-18-LT - 5.3103**		**GP240GH - 1.0619**
Nominal pressure	**PN16**	**PN25**	**PN40**
baelz 480 DN15-DN125	240 / 14 … 50 / 16	240 / 22 … 50 / 25	240 / 30.9 … 50 / 40
baelz 480 DN150-DN250	240 / 12.3 … 50 / 16	240 / 19.3 … 50 / 25	
baelz 480-K DN15-DN250	350 / 11.2 … 50 / 16	350 / 17.5 … 50 / 25	350 / 25.7 … 50 / 40

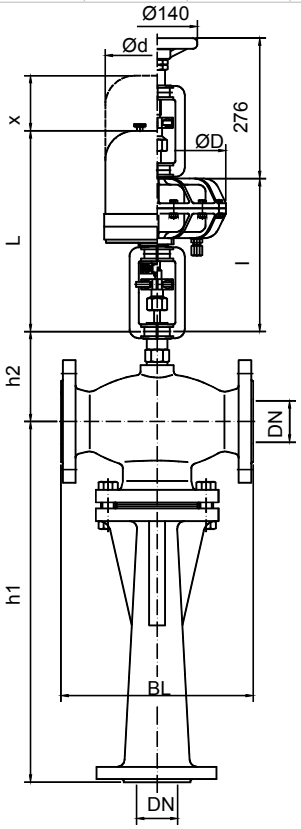
Available nozzle diameters (mm)												
DN	**15**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**200**	**250**
Ø	2.5	6.5	8	10	12.5	16	20	25	32	40	65	80
	3.2	8	10	12.5	16	20	25	32	40	50	80	100
	4	10	12.5	16	20	25	32	40	50	65	100	120
	5				23	30	37	47	60		110	
	6.5											
	8											

Weight of the baelz 480 (kg)												
DN	15	25	32	40	50	65	80	100	125	150	200	250
Spheroid ductile iron	6.3	9.1	14.9	19.3	25.3	40.4	50.6	68	104.3	145	300	450
Steel	7.4	10.2	16	20.4	27	42	52.6	70	106.3	148	310	460

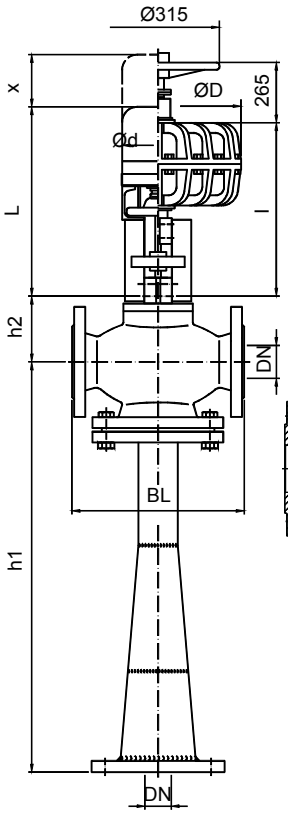
baelz 480 dimensions (mm)					
DN	**BL**	**h1**		**h2**	
		PN16/25	**PN40**	**480**	**480-K**
15	**130**	175	176	109	261
25	**160**	202	229	110	163
32	**180**	302	302	104	339
40	**200**	358	358	114	349
50	**230**	402	429	124	359
65	**290**	539	573	144	379
80	**310**	600	695	154	389
100	**350**	624 (912)	912	169	404
125	**400**	836 (1066)	1066	189	424
150	**480**	1260		244	
200	**600**	1651		268	
250	**730**	2070		317	

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

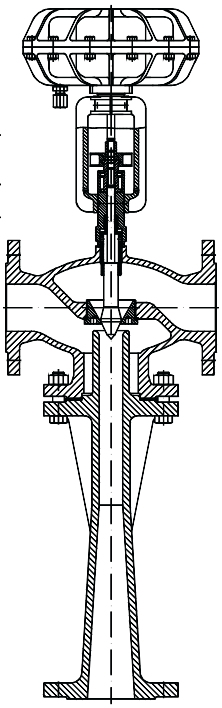
Electric actuators: baelz 373-E
Pneumatic actuators: baelz 373-P



baelz 480 DN15-125



baelz 480 DN150-300


baelz 480

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

Electric actuators. baelz 480. 590. 585. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	Nozzle Ø (mm) / Maximum differential pressure ΔPmax (bar)																
		≤ 12.5	**16**	**20**	**23**	**25**	**30**	**32**	**37**	**40**	**47**	**50**	**60**	**65**	**80**	**90**	**100**	**120**
E07-	**2000**	181	75	47	36	30	21	18	14	13	9.7	8.5	5.9					
E65- 11-	**1100**	86	36	22	17	14	10	9	6.8	6.8	4.6	4.1	2.8					
E65- 20-	**2000**	181	75	47	36	30	21	18	14	14	9.7	8.5	5.9					
E45-	**4000**			97	73	62	43	38	29	29	19	17	12	11				
E66-	**15000**										76	67	46	43	27	21	17	11
E88- 100-	**10000**										50	44	30	28	17	14	11	7.7

Pneumatic actuators. baelz 480. 590. 585. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	Nozzle Ø (mm) / Maximum differential pressure ΔPmax (bar)														
			≤ 20	**23**	**25**	**30**	**32**	**37**	**40**	**47**	**50**	**60**	**65**	**80**	**90**	**100**	**120**
P21- 3-	**1020**	**3.0**	141	106	90	63	56	42	40	29	25	17					
P21- 6-	**2040**	**3.0**	123	93	79	55	49	37	35	25	22	15					
P21- 6-	**2040**	**6.0**	294	223	189	133	117	89	83	60	53	36					
P22- 3-	**1846**	**3.0**							37	26	23	16	15				
P22- 6-	**3692**	**6.0**							73	52	46	32	30				
P31- 3-	**2480**	**3.0**							110	79	69	48	45				
P31- 6-	**4960**	**3.0**							93	67	59	41	38				
P31- 6-	**4960**	**6.0**							220	158	139	96	89				
P32- 6-	**4402**	**3.0**									61	42	39	25	19	15	11
P32- 6-	**4402**	**6.0**									141	98	91	57	45	36	25
P41- 6-	**7530**	**6.0**									281	195	180	114	89	71	49



baelz 585

DESCRIPTION

The baelz 585 is a liquid/steam ejector with a flange connection for direct mixing of steam and water. (Water heating via direct steam injection).

Housing: GJS-400-18-LT - 5.3103
Inner parts: hardened stainless steel

TECHNICAL SPECIFICATIONS

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

The plug type and the control characteristic are designed and manufactured to order.
Spindle seal: V-rings in PFTE
Option: baelz 585-K - with cooling tube

Working media: water

Leakage class (EN 1349)
metal-to-metal seal: 0.004% Kvs (better than class IV)

Stroke (mm)		Spindle Ø (mm)
DN 15 - DN 25	12	10
DN32 - DN50	22	
DN65 - DN125		16

T max. (°C) / P max. (bar)		
Housing material	**Spheroid ductile iron GJS-400-18-LT - 5.3103**	
Nominal pressure	**PN16**	**PN25**
baelz 585 DN15-DN125	240/14 … 50/16	240/22 … 50/25

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

Electric actuators. baelz 585. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	Nozzle Ø (mm) / Maximum differential pressure ΔPmax (bar)																
		≤ 12.5	16	20	23	25	30	32	37	40	47	50	60	65	80	90	100	120
E07-	2000	181	75	47	36	30	21	18	14	13	9.7	8.5	5.9					
E65- 11-	1100	86	36	22	17	14	10	9	6.8	6.8	4.6	4.1	2.8					
E65- 20-	2000	181	75	47	36	30	21	18	14	14	9.7	8.5	5.9					
E45-	4000			97	73	62	43	38	29	29	19	17	12	11				
E88- 100-	10000										50	44	30	28	17	14	11	7.7

Pneumatic actuators. baelz 585. Plug closes in direction of flow.

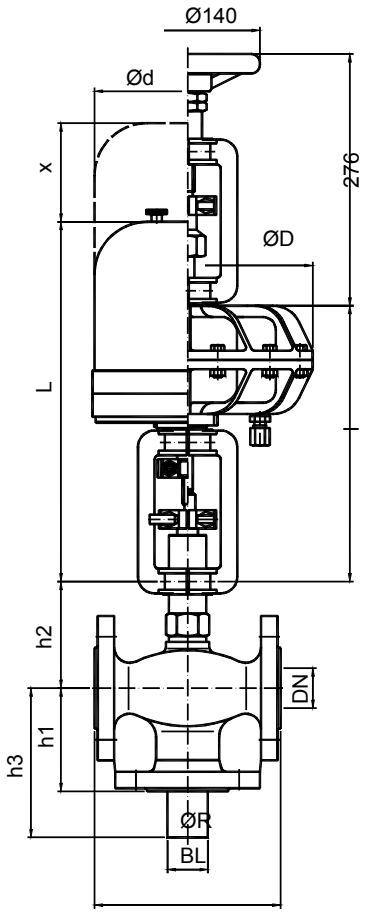
Actuator baelz 373-	Power (N)	req. feed pressure (bar)	Nozzle Ø (mm) / Maximum differential pressure ΔPmax (bar)													
			≤ 20	23	25	30	32	37	40	47	50	60	65	80	90	100	120
P21- 3-	1020	3.0	141	106	90	63	56	42	40	29	25	17					
P21- 6-	2040	3.0	123	93	79	55	49	37	35	25	22	15					
P21- 6-	2040	6.0	294	223	189	133	117	89	83	60	53	36					

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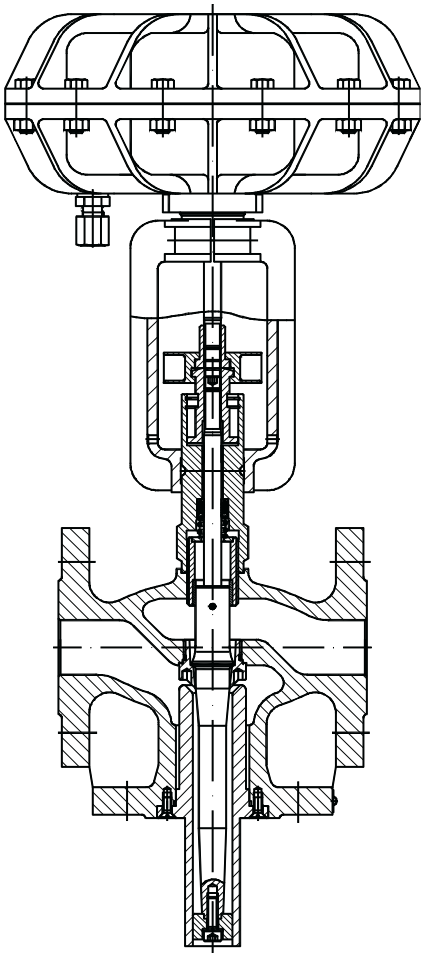
Dimensions and weight of the baelz 585 (mm)							
DN	BL	ØR	h1	h2		h3	Weight (kg)
				585	585-K		
15	130	15	85	109	261	142	6
25	160	26	85	110	262	142	7
32	180	35	100	104	339	157	10.5
40	200	41	105	114	349	162	12.5
50	230	52	115	124	359	172	17
65	290	68	125	144	379	182	25
80	310	80	130	154	389	187	29
100	350	105	150	169	404	207	40
125	400	128	200	189	424	257	60

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 585 DN15-125



baelz 585



baelz 590

DESCRIPTION

The baelz 590 is a steam/steam ejector (thermocompressor) with flange connection for recirculation and compression of exhaust vapor.

Housing: GJS-400-18-LT - 5.3103 / GP240GH - 1.0619 (PN 40)
Plug stem and nozzle: stainless steel

TECHNICAL SPECIFICATIONS

Flange: Special design according to EN 1092-1 possible

The plug type and the control characteristic are designed and manufactured to order.
Spindle seal: V-rings in PFTE
Option: baelz 590-K - with cooling tube
Option: silicone-free execution

Working media: steam

Leakage class (EN 1349)
metal-to-metal seal: 0.004% Kvs (better than class IV)

Spindle Ø (mm)	
DN 15 DN 25 - DN 80	10
DN 100 - DN 125*	16
DN 150 – DN 250	22

Nozzle Ø (mm)	Stroke
≤6	12
8 – 23	22
25 – 55	40 / 44
60 – 120	66

**recommended actuators for DN 100 and DN 125:*
Stroke 22. Actuator 373-P21-L...; Stroke 40. Actuator 373-P22-L...

T max. (°C) / P max. (bar)			
Housing material	GJS-400-18-LT - 5.3103		GP240GH - 1.0619
	PN 16	**PN 25**	**PN 40**
baelz 590 DN 15 - DN 125	240/14 … 50/16	240/22 … 50/25	240/30.9 … 50/40
baelz 590 DN 150 - DN 250	240/12.3 … 50/16	240/19.3 … 50/25	
baelz 590-K DN 15 - DN 250	350/11.2 … 50/16	350/17.5 … 50/25	350/25.7 … 50/40

Material diffusor		
Designation	**Nominal pressure**	**Material**
590 DN 15	PN 16 / 25	X14CrMoS17 - 1.4104
590 DN 25...DN 125	PN 16 / 25	GJS-400-18-LT - 5.3103
590-DG. ab DN 150	PN 16 / 25	Welded steel, diffusor stainless steel
590 DN 15...DN 250	PN 40	Welded steel, diffusor stainless steel

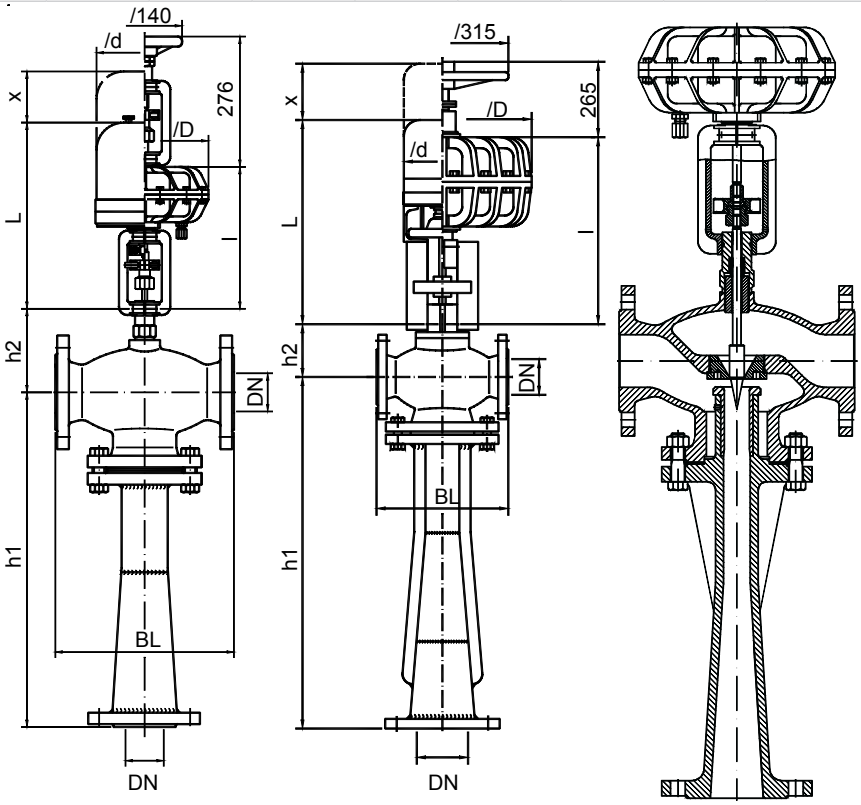
Available nozzle diameters (mm)												
DN	**15**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**200**	**250**
Ø	2.5	2.5	5	6.5	8	10	12.4	16	20	25	65	80
	3.2	3.2	6.5	8	10	12.5	16	20	25	32	80	100
	4	4	8	10	12.5	16	20	25	32	40	92	120
	5	5	10	12.5	16	20	25	32	40	50		
	6.5	6.5	12.5	16	20	25	32	40	50	65		
		8			23	30	37	47	55	76		
		10										

DN 150 - DN 250: The indicated nozzle diameters are our default values.
Any desired intermediate sizes are also possible (without additional cost).

Weight of the baelz 590 (kg)												
DN	15	25	32	40	50	65	80	100	125	150	200	250
Spheroid ductile iron	6.3	9.1	14.9	19.3	25.3	40.4	50.6	68	104.3	145	300	460
Steel	7.4	10.2	16	20.4	27	42	52.6	70	106.3	148	310	470

baelz 590 dimensions (mm)					
DN	BL	h1		h2	
		PN16/25	PN40	590	590-K
15	130	175	176	109	261
25	160	202	229	110	262
32	180	302	302	104	339
40	200	358	358	114	349
50	230	402	429	124	359
65	290	539	573	144	379
80	310	600	695	154	389
100	350	624	912	169	404
125	400	836		1066	189
150	480	1260		244	234
200	600	1651		268	258
250	730	2070		317	307

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



baelz 590 DN15-125 | baelz 590 DN150-300 | baelz 590

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

Electric actuators. baelz 480. 590. 585. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	Nozzle Ø (mm) / Maximum differential pressure ΔPmax (bar)																
		≤ 12.5	16	20	23	25	30	32	37	40	47	50	60	65	80	90	100	120
E07-	2000	181	75	47	36	30	21	18	14	13	9.7	8.5	5.9					
E65- 11-	1100	86	36	22	17	14	10	9	6.8	6.8	4.6	4.1	2.8					
E65- 20-	2000	181	75	47	36	30	21	18	14	14	9.7	8.5	5.9					
E45-	4000			97	73	62	43	38	29	29	19	17	12	11				
E66-	15000										76	67	46	43	27	21	17	11
E88- 100-	10000										50	44	30	28	17	14	11	7.7

Pneumatic actuators. baelz 480. 590. 585. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	Nozzle Ø (mm) / Maximum differential pressure ΔPmax (bar)														
			≤ 20	23	25	30	32	37	40	47	50	60	65	80	90	100	120
P21- 3-	1020	3.0	141	106	90	63	56	42	40	29	25	17					
P21- 6-	2040	3.0	123	93	79	55	49	37	35	25	22	15					
P21- 6-	2040	6.0	294	223	189	133	117	89	83	60	53	36					
P22- 3-	1846	3.0							37	26	23	16	15				
P22- 6-	3692	6.0							73	52	46	32	30				
P31- 3-	2480	3.0							110	79	69	48	45				
P31- 6-	4960	3.0							93	67	59	41	38				
P31- 6-	4960	6.0							220	158	139	96	89				
P32- 6-	4402	3.0									61	42	39	25	19	15	11
P32- 6-	4402	6.0									141	98	91	57	45	36	25
P41- 6-	7530	6.0									281	195	180	114	89	71	49



baelz 591

DESCRIPTION

The baelz 591 is a steam/water ejector (desuperheater) with flange connection for saturated steam generation and superheated steam cooling.

Housing: GJS-400-18-LT - 5.3103 / GP240GH - 1.0619 (PN 40)
Plug stem and nozzle: stainless steel

TECHNICAL SPECIFICATIONS

The plug type and the control characteristic are designed and manufactured to order.

Saturated steam generator with high control quality for load ≈ 2 - 100%
Spindle seal: V-rings in PFTE
Option: baelz 591-K - with cooling tube

Working media: steam / water

Leakage class (EN 1349)
metal-to-metal seal: 0.004% Kvs (better than class IV)

Stroke (mm)		Spindle Ø (mm)
DN 32 - DN 80	22 / 40 mm	10mm
DN 100 - DN 125		16 mm
DN 150 – DN 300	44 / 66 mm	22mm

Designation	Nominal pressure	Housing material	Nominal diameter	Connection
baelz 591	PN 16 PN 25	GJS-400-18-LT - 5.3103	DN 32 - DN 200 (up to DN 400 on request)	Flange (Special model to EN 1092-1 Shapes D / E / F on request)
	PN 40 (to PN 160 on request)	GP240GH - 1.0619		

T max. (°C) / P max. (bar)*			
Housing material	**GJS-400-18-LT - 5.3103**		**GP240GH - 1.0619**
Nominal pressure	**PN 16**	**PN 25**	**PN 40**
baelz 591 DN 32 - DN 200	240/12.3 … 50/16	240/19.3 … 50/25	240/30.9 … 50/40
baelz 591-K DN 32 - DN 200	350/10.2 … 50/16	350/16 … 50/25	350/25.7 … 50/40

* Higher temperatures of the working media to approx. 400ºC on request

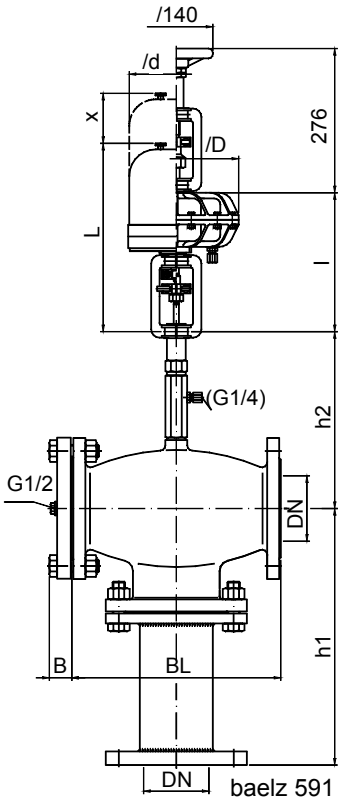
Weight of the baelz 591 ejector (kg)											
DN	**15**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**200**
Spheroid ductile iron	17	21	28	45	56	75	115	160	315	17	21
Steel	19	23	30	47	58	77	117	163	320	19	23

Baelz-Katalog_00_EN_MJ_1118

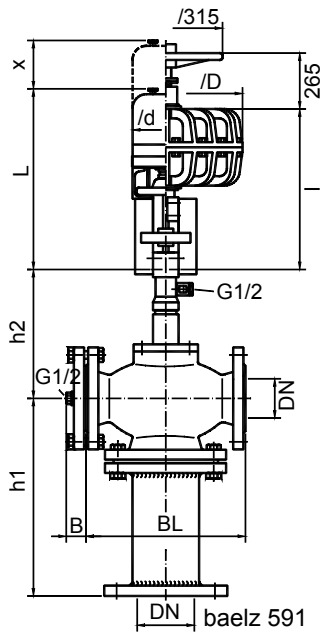
Dimensions of the baelz 591 DN 32-125 (mm)					
DN	BL	h1	h2		B
			590	590-K	
32	180	175	254	488	33
40	200	222	264	498	33
50	230	283	274	508	35
65	290	469	294	528	37
80	310	576	304	538	39
100	350	737	319	553	39
125	400	797	339	573	43

Dimensions of the baelz 591 DN 150-200 (mm)							
DN	BL	B			h1		h2
		PN16	PN25	PN40	591	591-K	
150	480	37	45	45	1116	450	434
200	600	39	47	53	1357	560	458

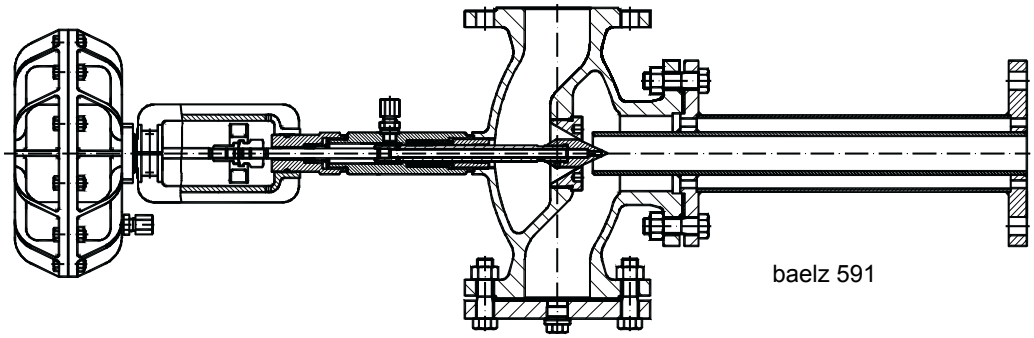
Dimensions of the baelz 373 actuators (mm)					
Designation	L	x	Ød	l	ØD
E 07	320	145	129		
E 45	560	150	175		
P 21				268	242
P 21-V6				304	242
P 22				322	242



baelz 591
DN32-125



baelz 591
DN150-300


baelz 591

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

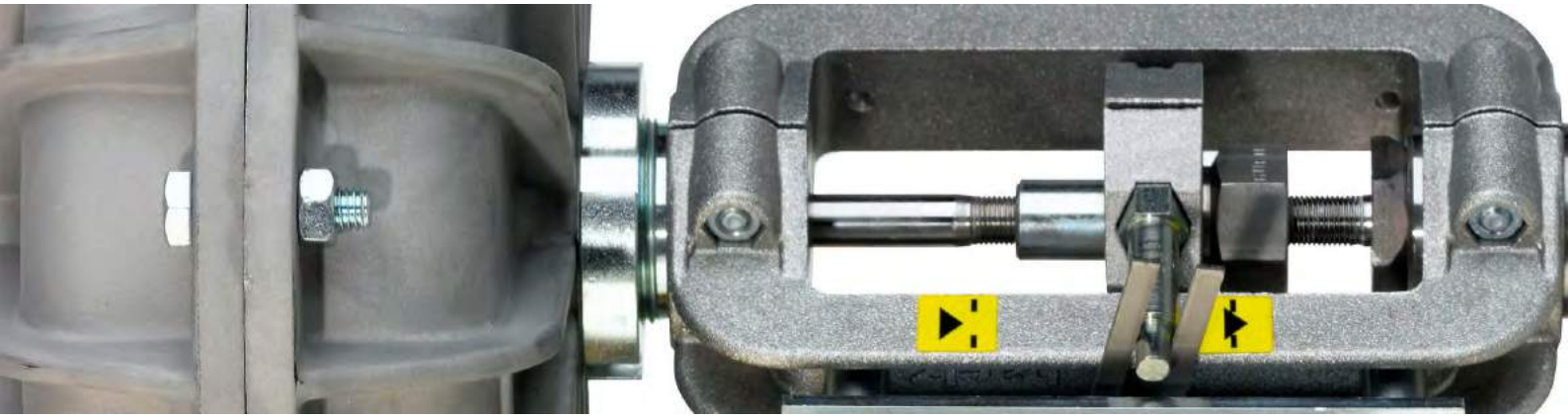
Electric actuators. baelz 585. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	Nozzle Ø (mm) / Maximum differential pressure ΔPmax (bar)																
		≤ 12.5	16	20	23	25	30	32	37	40	47	50	60	65	80	90	100	120
E07-	2000	181	75	47	36	30	21	18	14	13	9.7	8.5	5.9					
E45-	4000			97	73	62	43	38	29	29	19	17	12	11				

Pneumatic actuators. baelz 585. Plug closes in direction of flow.

Actuator baelz 373-	Power (N)	req. feed pressure (bar)	Nozzle Ø (mm) / Maximum differential pressure ΔPmax (bar)														
			≤ 20	23	25	30	32	37	40	47	50	60	65	80	90	100	120
P21- 3-	1020	3.0	141	106	90	63	56	42	40	29	25	17					
P21- 6-	2040	3.0	123	93	79	55	49	37	35	25	22	15					
P21- 6-	2040	6.0	294	223	189	133	117	89	83	60	53	36					

PNEUMATIC ACTUATORS



Advantages of pneumatic actuators:

- fast positioning
- specified position in case of pressure failure
- powerful
- can be operated at high ambient temperatures
- can be operated in potentially explosive atmospheres
- number of springs selectable for adjustment of actuator force
- easy conversion NO / NC without special equipment
- handwheel optional

Table for selecting baelz 373-PXX actuators			
Spring force, manual control (N)	**Diaphragm surface (cm²)**	**Max. Stroke (mm)**	**Type baelz 373**
1020 - 4030	240	22	P21-3 to P21-18
7590	240	22	P21-V6
1846 - 3692	240	40	P22-3 to P22-6
2480 - 10560	620	44	P31-3 to P31-18
2201 - 8115	620	66	P32-3 to P32-18
3765 - 41600	1250	44, 66	P41-3 to P41-V6

Example of identification for ordering: **373-P21L-12-Fu-S21L-H21-22mm**

baelz 373 – P XX – Z – V – S – H – L

Actuator model (XX)						
	P21					
	P22					
	P31					
	P32					
	P41					
Number of springs (Z)						
		3				
		6				
		12				
		18				
		V6 -6 reinforced				
Safety function (V)						
			Fo - spindle extended			
			Fu - spindle retracted			
Yoke type (S)						
				S21 (S21L)		
				S41 (S41C)		
Hand operation (H), if applicable						
					H21	
					H31	
					H41	
Stroke (mm)						
						8. 12. 16. 22. 40. 44. 66

Baelz-Katalog_00_EN_MJ_1118

Seite 83

baelz 373-P21



- For DN 15...125
- Stroke: 8, 12, 16, 22 mm
- Power: 1020...7590 N
- Weight: 5.3-8.8 kg
- Temperature: 0 ... +80°C
- Humidity: 0 ... 90%
- Pressure: 1.2...6 bar
- Housing: Aluminum
- Diaphragm: NBR

Seite 84

baelz 373-P22



- For DN 15...125
- Stroke: 40 mm
- Power: 1846...3692 N
- Weight: 6.3-6.6 kg
- Temperature: 0 ... +80°C
- Humidity: 0 ... 90%
- Pressure: 1.2...6 bar
- Housing: Aluminum
- Diaphragm: NBR

Seite 85

baelz 373-P31



- For DN 150
- Stroke: 44 mm
- Power: 2480...10560 N
- Weight: 27.7-36.5 kg
- Temperature: 0 ... +80°C
- Humidity: 0 ... 90%
- Pressure: 1.2...6 bar
- Housing: Aluminum
- Diaphragm: NBR

Seite 86

baelz 373-P32



- For DN 200
- Stroke: 66 mm
- Power: 4402...8115 N
- Weight: 36-43 kg
- Temperature: 0 ... +80°C
- Humidity: 0 ... 90%
- Pressure: 3...6 bar
- Housing: Aluminum
- Diaphragm: NBR

Seite 87

baelz 373-P41



- For DN 150...300
- Stroke: 44, 66 mm
- Power: 3765...31920 N
- Weight: 55.5-66.5 kg
- Temperature: 0 ... +80°C
- Humidity: 0 ... 90%
- Pressure: 1.2...6 bar
- Housing: Aluminum
- Diaphragm: NBR

Seite 88

Zubehör für pneumatische Antriebe



- Positioner
- Switch
- Pressure controller



baelz 373-P21

DESCRIPTION

Baelz 373-P21 compact linear actuators with aluminum housing GD-AlSi9Cu3 and NBR diaphragm.
For control valves up to DN 125.

TECHNICAL SPECIFICATIONS

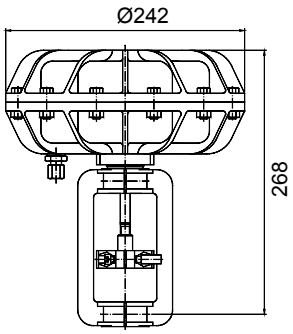
Environmental parameters: temperature: 0 ... +80° C;
relative humidity: 0 ... 90%
Max. Compressed air pressure: 6 bar. Yoke made of aluminum, coupling and fasteners made of stainless steel.
Stroke: 8, 12, 16, 22 mm
Number of springs: 3, 6, 12, 18 or 6 reinforced (V6)

OPTIONS

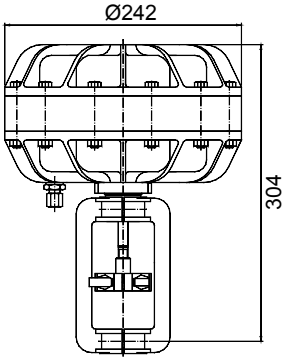
Fo = Spring above: stem/spindle extended is normal position. The springs extend the spindle, compressed air retracts the spindle.
Fu = Spring below: spindle retracted is normal position. The springs retract the spindle, compressed air extends the spindle.
H21- **manual operation**
P21-H21 (for 3, 6, 12, 18 spring) - handwheel Ø120 mm
P21-V6-H21 (for reinforced spring) - handwheel Ø 200 mm
Yoke options:
S21 yoke (standard) - for valves with spindle Ø10 mm
S21L yoke - for valves with spindle Ø16 mm

Options					
Designation	**Valve Spindle Ø (mm)**	**Force (N)**	**Min. compressed air pressure (bar)**	**№ springs**	**Weight (kg)**
P21-3-Fo/Fu	10	1020	1.2	3	5.3
P21L-3-Fo/Fu	16				
P21-6-Fo/Fu	10	2040	3	6	5.6
P21L-6-Fo/Fu	16				
P21-12-Fo/Fu	10	3390	6	12	5.9
P21L-12-Fo/Fu	16				
P21-18-Fo/Fu	10	4030	6	18	6
P21L-18-Fo/Fu	16				
P21-V6-Fo/Fu	10	7590	6	6	8.8
P21L-V6-Fo/Fu	16				
+H21	-				2

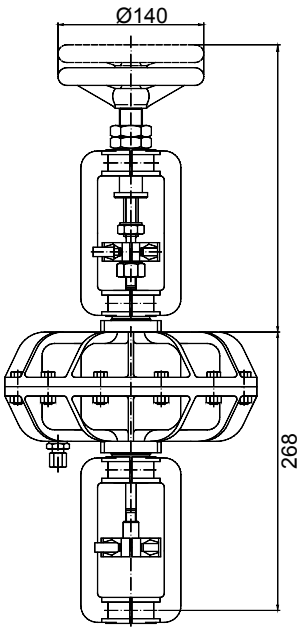
baelz 373-P21 dimensions (mm)



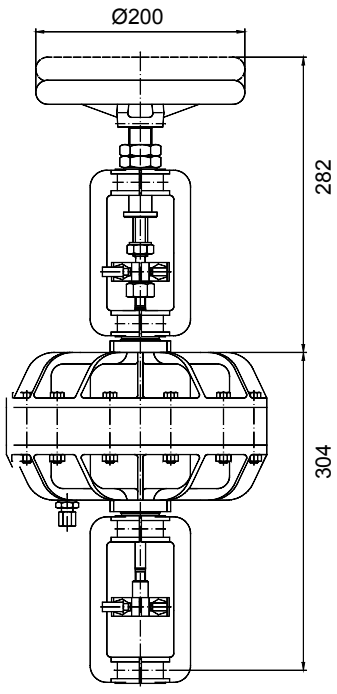
Actuator baelz 373-P21-S21



Actuator baelz 373-P21-V6-S21



baelz 373-P21-S21-H21



baelz 373-P21-V6-S21-H21

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baelz 373-P22

DESCRIPTION

Compact pneumatic linear actuators baelz 373-P22 series with aluminum housing GD-AlSi9Cu3 and NBR diaphragm. For control valves up to DN125.

TECHNICAL SPECIFICATIONS

Environmental parameters: temperature: 0 ... +80°C;
relative humidity: 0 ... 90%
Max. compressed air pressure: 6 bar
Yoke, coupling and fasteners made of aluminum.

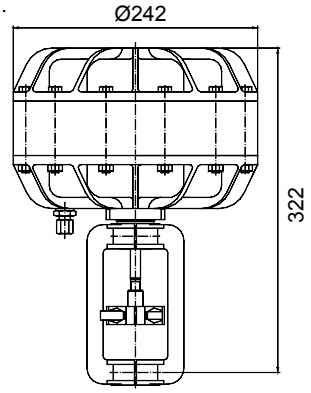
Stroke: 40 mm
Number of springs: 3, 6

OPTIONS

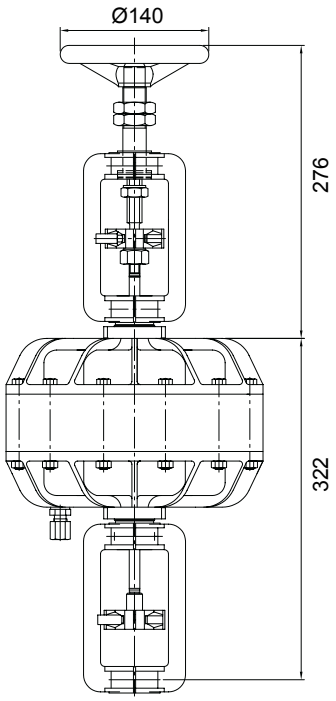
Fo = Spring above: stem/spindle extended is normal position. The springs extend the spindle, compressed air retracts the spindle.
Fu = Spring below: spindle retracted is normal position. The springs retract the spindle, compressed air extends the spindle.
H22 - **manual operation**
P22-H22 - handwheel Ø 120 mm
Yoke options:
S21 yoke (standard) - for valves with spindle Ø10 mm
S21L yoke - for valves with spindle Ø16 mm

Options					
Designation	**Valve Spindle Ø (mm)**	**Force (N)**	**Min. compressed air pressure (bar)**	**Nº. springs**	**Weight (kg)**
P22-3-Fo/Fu	10	1846	6	3	6.3
P22L-3-Fo/Fu	16				
P22-6-Fo/Fu	10	3692		6	6.6
P22L-6-Fo/Fu	16				
+H22	-				2

baelz 373-P22 dimensions (mm)



Actuator baelz 373-P22-S21



Actuator baelz 373-P22-S21-H22 (with handwheel)



baelz 373-P31

DESCRIPTION

Compact pneumatic linear actuators baelz 373-P31 series with aluminum housing GD-AlSi9Cu3 and NBR diaphragm. For control valves DN150.

TECHNICAL SPECIFICATIONS

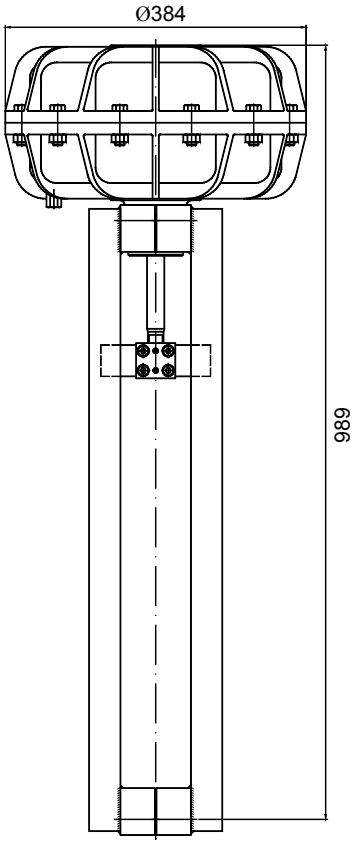
Environmental parameters: temperature: 0 ... +80° C;
relative humidity: 0 ... 90%
Max. compressed air pressure: 6 bar
Yoke, coupling and fasteners made of galvanized steel.
Stroke: 44 mm
Number of springs: 3, 6, 18

OPTIONS

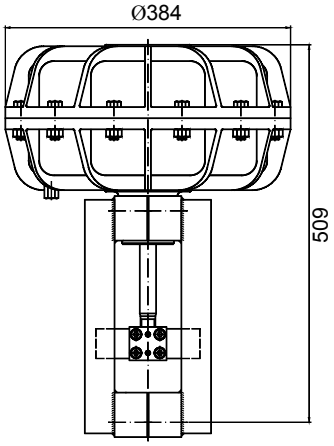
Fo = Spring above: stem/spindle extended is normal position. The springs extend the spindle, compressed air retracts the spindle.
Fu = Spring below: spindle retracted is normal position. The springs retract the spindle, compressed air extends the spindle.
H31 - **manual operation**
P31-H31 - handwheel Ø 315 mm
Yoke options:
S41 - for valve control without cooling tube
S41C - for valve control with cooling tube

Options					
Designation	Valve Spindle Ø (mm)	Force (N)	Min. compressed air pressure (bar)	Nº. springs	Weight (kg)
P31-3-Fo/Fu-S41	Ø 22	2480	1.2	3	27.7
P31-3-Fo/Fu-S41C					31.7
P31-6-Fo/Fu-S41		4960	3	6	29.5
P31-6-Fo/Fu-S41C					33.5
P31-18-Fo/Fu-S41		10560	6	18	32.5
P31-18-Fo/Fu-S41C					36.5
+ H31		-			11

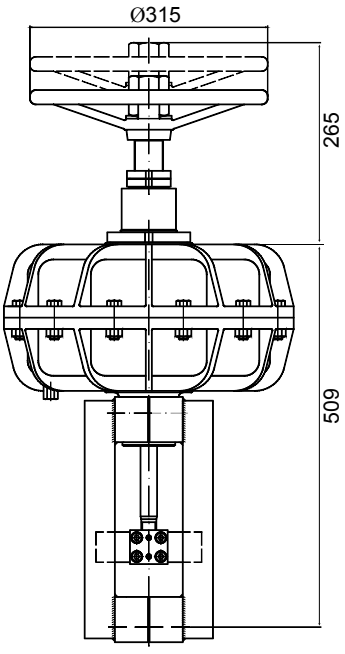
baelz 373-P31 dimensions (mm)



Actuator baelz
373-P31-S41C



Actuator baelz
373-P31-S41



Actuator baelz
373-P31-S41-H31

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baelz 373-P32

DESCRIPTION

Compact pneumatic linear actuators baelz 373-P32 series with aluminum housing GD-AlSi9Cu3 and NBR diaphragm.
For control valves ab DN 200.

TECHNICAL SPECIFICATIONS

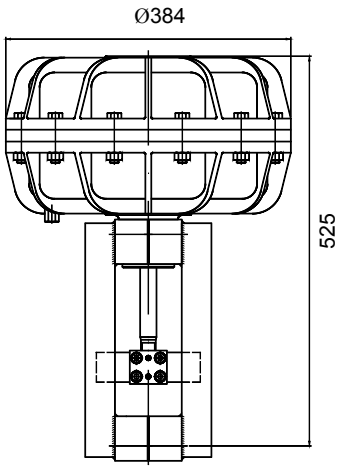
Environmental parameters: temperature: 0 ... +80°C;
relative humidity: 0 ... 90%
Max. compressed air pressure: 6 bar
Yoke, coupling and fasteners made of galvanized steel.
Stroke: 66 mm
Number of springs: 3, 6, 18

OPTIONS

Fo = Spring above: stem/spindle extended is normal position. The springs extend the spindle, compressed air retracts the spindle.
Fu = Spring below: spindle retracted is normal position. The springs retract the spindle, compressed air extends the spindle.
Yoke options:
S41 - for valve control without cooling tube
S41 - for valve control with cooling tube

Options					
Designation	**Valve Spindle Ø (mm)**	**Force (N)**	**Min. compressed air pressure (bar)**	**Nº. springs**	**Weight (kg)**
P32-3-Fo/Fu-S41	Ø 22	2201	3	3	34.2
P32-3-Fo/Fu-S41C					38.2
P32-6-Fo/Fu-S41		4402	3	6	36
P32-6-Fo/Fu-S41C					40
P32-18-Fo/Fu-S41		8115	6	18	39
P32-18-Fo/Fu-S41C					43

baelz 373-P32 dimensions (mm)



Actuator baelz
373-P32-S41



baelz 373-P41

DESCRIPTION

Compact pneumatic linear actuators baelz 373-P41 series with aluminum housing GD-AlSi9Cu3 and NBR diaphragm.
For control valves ab DN 150.

TECHNICAL SPECIFICATIONS

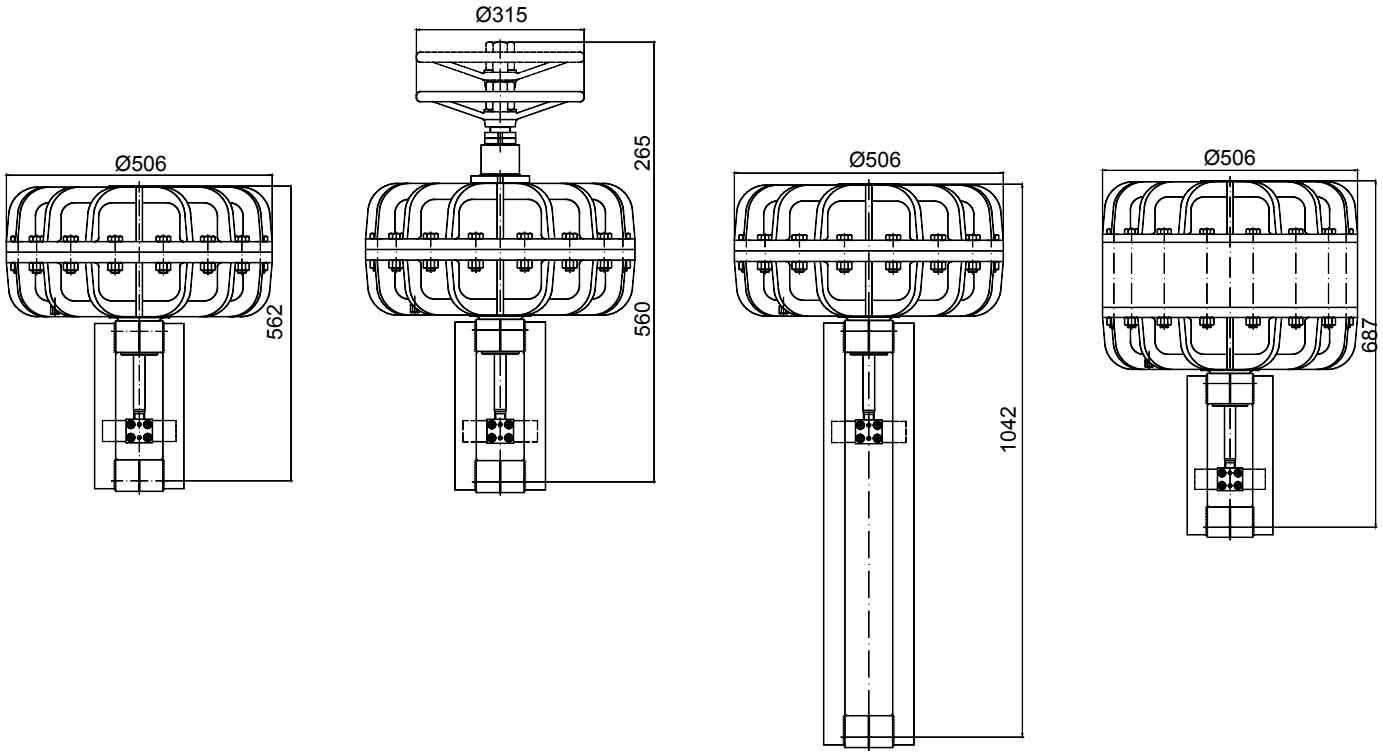
Environmental parameters: Temperature: 0 ... +80° C;
relative humidity: 0 ... 90%
Max. compressed air pressure: 6 bar
Yoke, coupling and fasteners made of galvanized steel.
Stroke: 44, 66 mm
Number of springs: 3, 6, 6 reinforced (V6)

OPTIONS

Fo = Spring above: stem/spindle extended is normal position. The springs extend the spindle, compressed air retracts the spindle.
Fu = Spring below: spindle retracted is normal position. The springs retract the spindle, compressed air extends the spindle.
H41 - **manual operation**
P41-H31 - handwheel Ø 315 mm
Yoke options:
S41 - for valve control without cooling tube
S41 - for valve control with cooling tube

Options					
Designation	**Valve Spindle Ø (mm)**	**Force (N)**	**Min. compressed air pressure (bar)**	**Nº. springs**	**Weight (kg)**
P41-3-Fo/Fu-S41	Ø 22	3765	1.2	3	55.5
P41-3-Fo/Fu-S41C					59.5
P41-6-Fo/Fu-S41		7530	3	6	58.5
P41-6-Fo/Fu-S41C					62.5
P41-V6-Fo/Fu-S41		31920	6	V6	62.5
P41-V6-Fo/Fu-S41C					66.5
+ H41		-			11

baelz 373-P41 dimensions (mm)



Actuator baelz 373-P41-S41

Actuator baelz 373-P41-S41-H31

Actuator baelz 373-P41-S41C

Actuator baelz 373-P41-V6-S41

Baelz-Katalog_00_EN_MJ_1118



baelz 87

DIGITAL I/P POSITIONER

The baelz 87 electro-pneumatic positioner compares an electrical actuating signal with the stroke of the pneumatic valve and thus regulates the required actuating pressure.

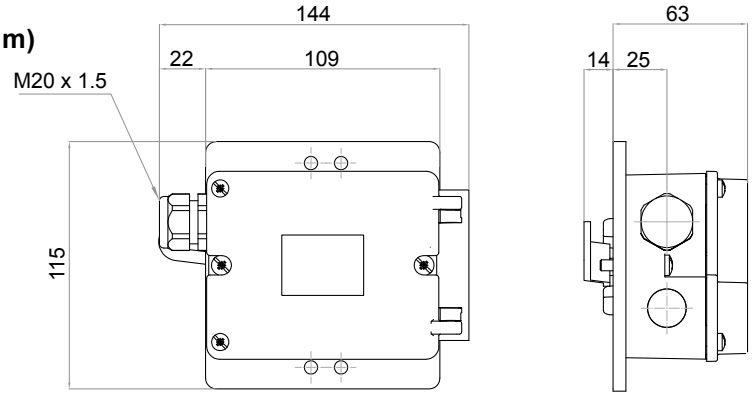
ADVANTAGES AT A GLANCE

- Easy operation with menu navigation via capacitive buttons
- Preset parameters, individually customizable if required
- Power-fail-safe storage of all parameters in the EEPROM
- Optional accessories: assembly kit, manometer attachment kit

Options	
87	without explosion protection
87-Ex	ATEX: II 2 G Ex ia IIC T4 / STCC: 0 Ex ia IIC T4 X
87-Ex-CSA	CSA: Ex ia IIC T4; Class I, Zone 0, AEx ia IIC T4; Class I, Div. 1, Groups A, B, C & D
87- ...	without mounting
87- ... -M	including mounting on baelz 373-P pneumatic actuator ...
Complete adaptation parts	Assembly package as replacement or for retrofitting, weight approx. 0.2 kg
Manometer mounting kit	including 2 manometers Ø 40 mm, display range: 0 ... 10 bar

baelz 87 positioner technical specifications	
Input signal	4 ... 20mA (2-wire)
Medium	Compressed air according to ISO 8573-1 - Particle content: Class 4; Oil content: Class 3
Air pressure	Max. 1.7 ... 7 bar (actuating pressure for linear actuators 6 bar)
Ventilate actuator flow	3.0 m_n^3/h at 1.4 bar; 8.5 m_n^3/h at 6 bar
Dearate actuator flow	4.5 m_n^3/h at 1.4 bar; 14.0 m_n^3/h at 6 bar
Air consumption	< 0.1 m_n^3/h to 6 bar
Housing / cover	Polyphthalamide (PPA) / polycarbonate (PC)
Protection type	IP 66
permissible ambient temp.	- 20 ... + 80°C (see also Ex approval)
Cable gland	Polyamide (PA), black, M20 x 1.5
Connecting thread	G 1/4, internal thread
Stroke	12...66 mm
Weight	approx. 0.7 kg

baelz 87 dimensions (mm)





baelz 88

I/P POSITIONER

The baelz 88 electro-pneumatic positioner compares an electrical actuating signal with the stroke of the pneumatic valve and thus regulates the required actuating pressure.

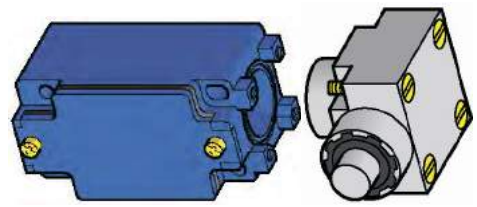
ADVANTAGES AT A GLANCE

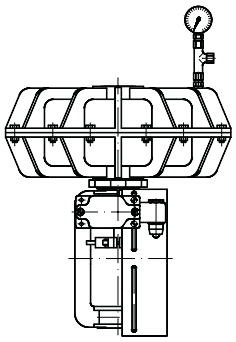
- Easy operation via three keys with two-line display
- Preset parameters, individually customizable if required
- Distance measurement via lever system and internal rotary potentiometer
- Optionally with position feedback 0/4 ... 20 mA or 0 ... 10 V.
- Optionally with mounting parts or assembly

Options	
88-Sp400	without explosion protection, without HART
88-Sp400-H	without explosion protection, with HART
88-Sp400-EEx	CSA: Ex ia IIC T4; Class I, Zone 0, AEx ia IIC T4; Class I, Div. 1, Groups A, B, C & D
88-Sp400-EEx-H	CSA: Ex ia IIC T4; Class I, Zone 0, AEx ia IIC T4; Class I, Div. 1, Groups A, B, C & D, with HART
88-Sp401	without explosion protection, without HART
88-Sp401-H	without explosion protection, with HART
88-Sp401-EEx	CSA: Ex ia IIC T4; Class I, Zone 0, AEx ia IIC T4; Class I, Div. 1, Groups A, B, C & D
88-Sp401-EEx-H	CSA: Ex ia IIC T4; Class I, Zone 0, AEx ia IIC T4; Class I, Div. 1, Groups A, B, C & D, with HART
88-8792	without internal air consumption
Complete adaptation parts	Assembly package as replacement or for retrofitting, weight approx. 0.2 kg
Manometer mounting kit	including 2 manometers Ø 40 mm, display range: 0 ... 10 bar

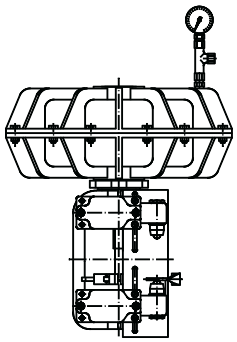
baelz 88 positioner technical specifications	
Input signal	4 ... 20mA (2-wire)
Medium	Compressed air according to ISO 8573-1 - Particle content: Class 4; Oil content: Class 3
Air pressure	Max. 1.7 ... 7 bar (actuating pressure for linear actuators 6 bar)
Ventilate actuator flow	3.0 m_n^3/h at 1.4 bar; 8.5 m_n^3/h at 6 bar
Dearate actuator flow	4.5 m_n^3/h at 1.4 bar; 14.0 m_n^3/h at 6 bar
Air consumption	< 0.1 m_n^3/h to 6 bar
Housing / cover	Polyphthalamide (PPA) / polycarbonate (PC)
Protection type	IP 66
permissible ambient temp.	- 20 ... + 80°C (see also Ex approval)
Cable gland	Polyamide (PA), black, M20 x 1.5
Connecting thread	G 1/4, internal thread
Stroke	12...66 mm
Dimensions WxHxD	182x95x97
Weight	approx. 0.7 kg

Mechanical limit switches

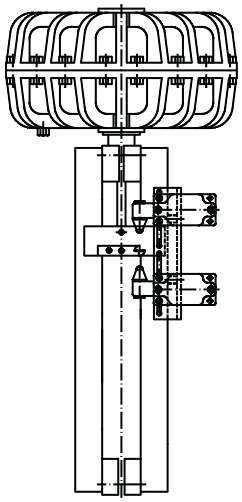




baelz 376-1PEZA
for 373-P21



baelz 376-2PEZAZ
for 373-P21



baelz 376-2PEZAZ
for 373-P31/P41

baelz 376-P...PEZ

TECHNICAL SPECIFICATIONS

Standard model
1PEZA: 1 limit switch position "open" (weight. 0.3 kg)
1PEZZ: 1 limit switch position "closed" (weight. 0.3 kg)
2PEZAZ: 2 limit switch position "open/closed" (weight. 0.6 kg)
Protection class: IP 65
Ambient temperature: -25° C .... + 70° C (operation)

Rated current: AC-15 at 240 / 24V, 3A
Dimensions W x H x D (mm): 44 x 40 x 110
Stroke: P21 (mm): 12, 16, 22, 40; P31 (mm): 44, 66

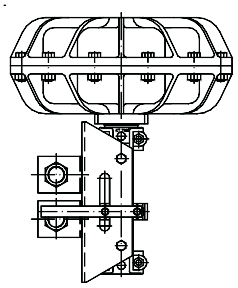
Explosion-proof model
1PEZA-Ex. 1PEZZ-Ex. 2PEZAZ-Ex
Version: II2 G EExd IICT6 / II2 D IP 66 T80° C
Protection class: IP 66
Ambient temperature: -20 ... + 40° C (operation)

Teletransmitter: GFg200 = 200 Ω; GFg1k = 1 kΩ; GFg5k = 5 kΩ
e. g. to order P21 with 5 kΩ teletransmitter, 16 mm stroke: 376 P21 GFg5k 16mm

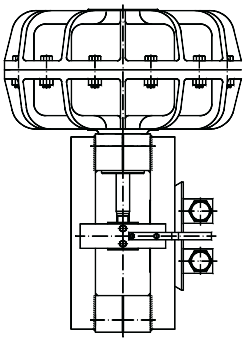
Inductive proximity switches (contactless)







baelz 376-INIAZ-
PF for 373-P21



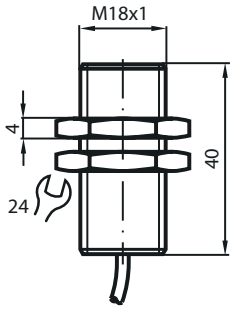
baelz 376-INIAZ-PF
for 373-P31/P41

baelz 376-P...INI

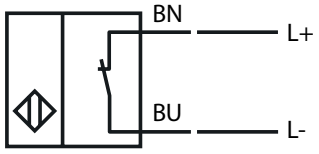
TECHNICAL SPECIFICATIONS

Inductive proximity switches including built-in components and mounting

1PEZA: 1 limit switch position "open" (weight. 0.3 kg)
1PEZZ: 1 limit switch position "closed" (weight. 0.3 kg)
2PEZAZ: 2 limit switch position "open/closed" (weight. 0.6 kg)
Switching distance: 5 mm; Operating voltage 5 ... 25 V; Rated current 1 ... 4 mA
Ambient temperature -25 ... 100° C; Cable polyvinyl chloride (PVC), 2 m
Conductor cross section 0.75 mm²
Housing material: stainless steel. M18 x 1
Two-wire connection according to DIN 19234 (NAMUR)
Protection class IP67
Note: In conjunction with baelz 465-KFAA6 ex-intrinsically safe (EExia) II C.



Mounting dimensions



Cable connections

baelz 54298 diaphragm pressure controller with built-in filter/strainer and manometer

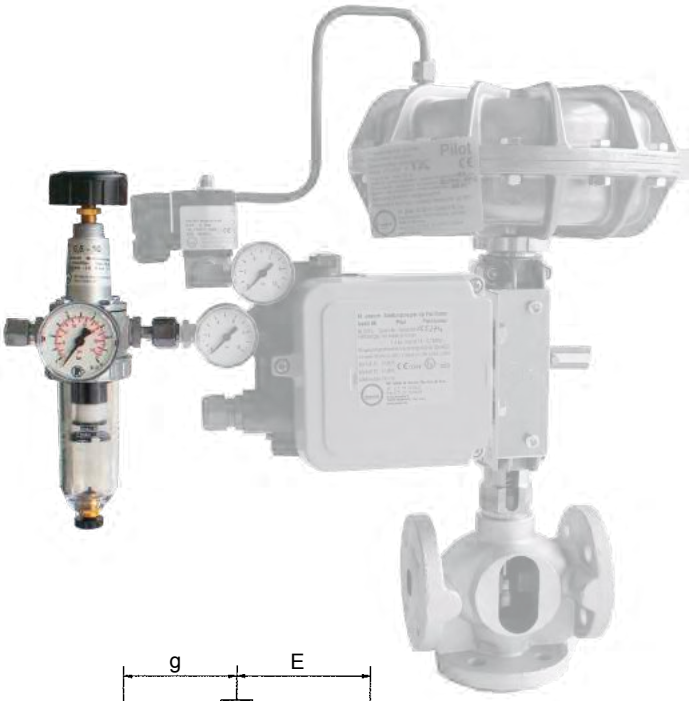


baelz 54298

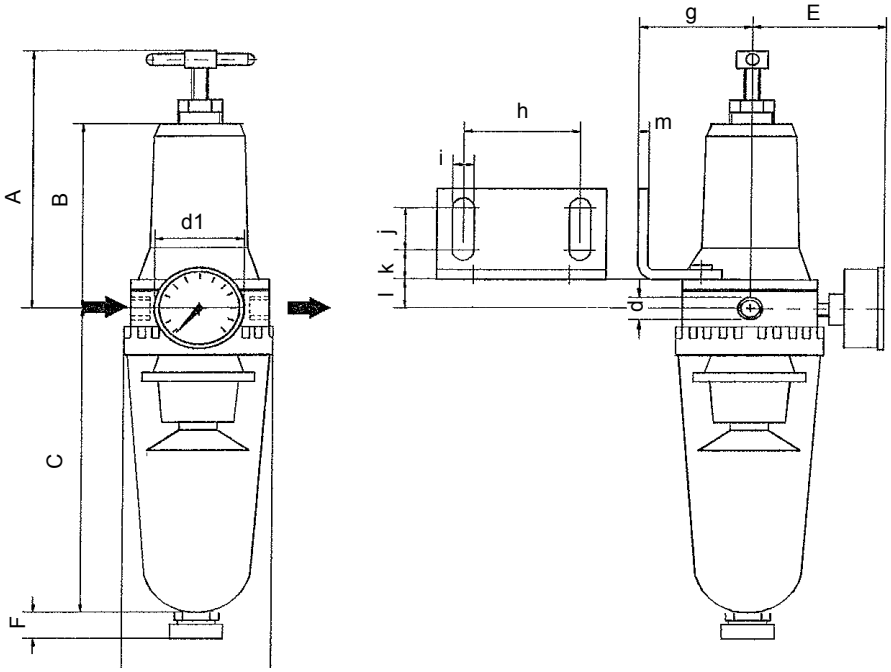
TECHNICAL SPECIFICATIONS

baelz 54298 diaphragm pressure controller with built-in filter

Input air pressure: up to 16 bar Output air pressure: 0.5 ... 10 bar with the manometers:
Model 54298/1: Ø50 mm G1/4"
Housing: cast zinc
Internal parts: brass / stainless steel
Filter/strainer material: polycarbonate
Weight approx.1.8 kg



baelz 54298 filter pressure reducer,
with baelz 340-B valve and P21 pneumatic actuator, a positioner with two manometers and baelz 268 solenoid valve



baelz 54298 dimension table	
	54298 1/4“ (mm)
A	100
B	62
C	119
D	57
E	60
F	20
d	G 1/4“
g	35
h	30
i	6.3
j	18
k	7
l	21
m	2
d1	50

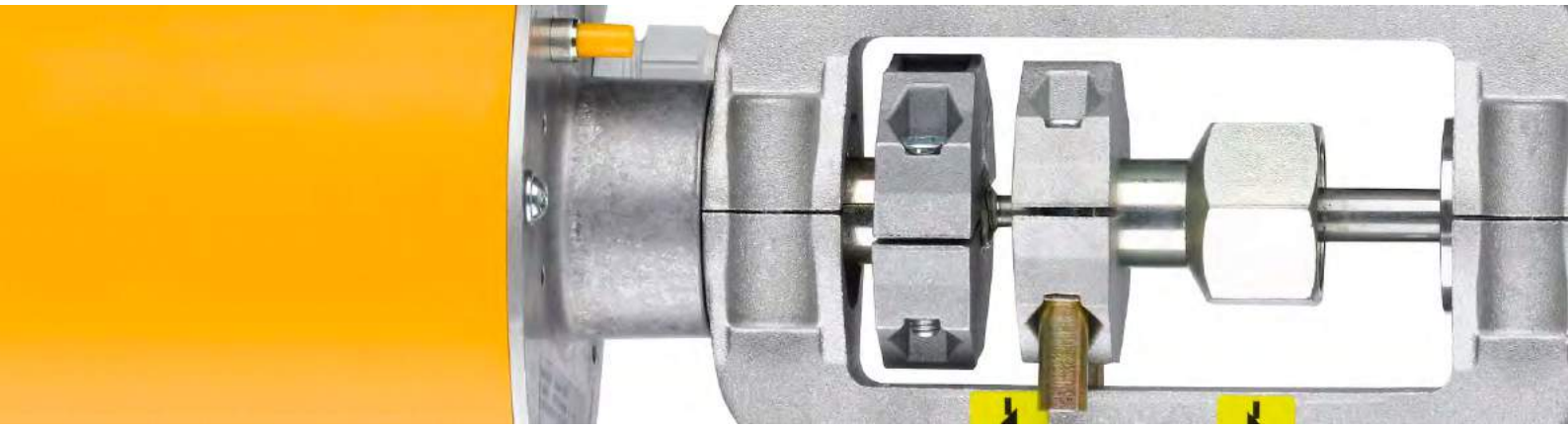


Table for selecting the baelz 373-EXX actuators					
Actuating force (N)	**Actuating speed (mm/min)**	**Max. Stroke (mm)**	**Type baelz 373**		**Valve nominal diameter DN**
100	1 / 3.7	5.5	ESI	Small actuators	for baelz 474. 475. 500...
500	10 / 20	7.5	ESA		for baelz 475
700 / 2000	130 / 6 - 18	22	E07	Standard actuators	15 - 25
1100 / 2000	10, 15, 30	40	E65		to 125
4000	15	44	E45		15 - 150
8000 / 15000	25 / 22	16 - 80	E66		150 - 300
500 - 5000	5 - 30	60	Ex-Run	Special actuators	for spindle Ø 10 / 16
4400	152.4	50	E63		150
7000 - 14000	39 -78	65	E64		150 - 300
10000 - 40000	22 / 96	40 / 66	E88		65 - 125

Example of identification for ordering: **373-E45-40-15-S21-FgA-16mm-230**

baelz 373 – E XX – H – V – S – A – M mm – V

Actuator model (XX)							
for example: (for all models see Product overview or table above)	ESI						
	E07						
	E45						
	E66						
Propelling force (N)							
		20 (2000 N)					
		40 (4000 N)					
		80 (8000 N)					
		150 (150000 N)					
Actuating speed (mm/min)							
for example: (for positioning speeds see Product overview or table above)			6				
			15				
			22				
			96				
Yoke type (S)							
				S21. S21L			
				S23. S23L			
				S41. S41C			
For optional accessories, see the options for the particular actuator							
					A		
Stroke (mm)							
						5.5. 7.5. 12. **16**. 22. etc.	
Supply voltage (V)							
							230V 50.60 Hz AC
							115V 50.60 Hz AC
							240V 50.60 Hz AC
							24V DC

Seite 95

baelz 373-ESI



- For radiator valves and small ejectors
- Stroke: max 5.5 mm
- Actuating force: 100 N
- Power consumption: 1, 2, 6 VA
- Actuating speed 1 / 3.7 mm/min
- Supply voltage: 24 / 230V
- Weight: 0.4 kg
- Temperature: +1 ... +50°C
- Humidity 5 ... 85 %
- Protection class: IP40
- Housing: plastic

Seite 96

baelz 373-ESA



- For small ejectors
- Stroke: max 7.5 mm
- Actuating force: 500 N
- Power consumption: 4/8 VA
- Actuating speed 10 / 20 mm/min
- Supply voltage: 230V
- Weight: 1 kg
- Temperature: 0 ... +50°C
- Protection class: IP54
- Housing: plastic
- Delivery incl. matching adapter

Seite 97

baelz 373-E07



- For DN 15...125
- Stroke: max 22 mm
- Actuating force: 700 / 2000 N
- Power consumption: 4.1 / 12 VA
- Actuating speed 6; 18 mm/min
- Supply voltage: 24 / 115 / 230 V
- Weight: 2.2 kg
- Temperature: 0 ... +50°C
- Humidity 0 ... 75 %
- Protection class: IP42 (IP65)
- Cover: plastic

baelz 373-Ex-Run



- For spindle Ø 10 / 16 mm
- Stroke: max 60 mm
- Actuating force: 50-5000 N
- Power consumption: 11 / 64 VA
- Actuating speed 15; 40 mm/min
- Supply voltage: 24 ... 230 V AC/DC
- Weight: 7 kg
- Temperature: -20 ... +40°C
- Protection class: IP66
- Housing: aluminum, painted
- Further information on request

Seite 100

baelz 373-E45



- For DN 15...150
- Stroke: max 44 mm
- Actuating force: 4000 N
- Power consumption: 11 VA
- Actuating speed 15 mm/min
- Supply voltage: 24 / 115 / 230 V
- Weight: 8 kg
- Temperature: -20 ... 60°C
- Humidity 0 ... +75 %
- Protection class: IP65
- Cover: plastic

baelz 373-E63



- For DN 150
- Stroke: max 50 mm
- Actuating force: 4400 N
- Actuating speed 152.4 mm/min
- Supply voltage: 24/110...230 V
- Weight: 48.5 kg
- Temperature: -30 ... +70°C
- Protection class: IP68
- Housing: aluminum, powder-coated
- Further information on request

baelz 373-E64



- For DN 150 ...300
- Stroke: max 65 mm
- Actuating force: 7000-14000 N
- Power consumption: max. 93 VA
- Actuating speed 39-78 mm/min
- Supply voltage: 230V
- Weight: 12 kg
- Temperature: -20 ... +60°C
- Protection class: IP67
- Haube: Aluminum. beschichtet
- Further information on request

Seite 102

baelz 373-E65



- For DN to 125
- Stroke: max 40 mm
- Actuating force: 1100 / 2000 N
- Power consumption: 18 / 20 VA
- Actuating speed 10/15/30 mm/min
- Supply voltage: 24 / 100 / 230 V
- Weight: 5.6 kg
- Temperature: -10 ... +55°C
- Humidity 0 ... 95 %
- Protection class: IP66
- Housing: plastic

Seite 104

baelz 373-E66



- For DN 150...300
- Stroke: max 80 mm
- Actuating force: 8000 / 15000 N
- Power consumption: 25 / 34 VA
- Actuating speed 25 / 22 mm/min
- Supply voltage: 24 / 115 / 230 V
- Weight: 13 kg
- Temperature: -20 ... +60°C
- Humidity 0 ... 75 %
- Protection class: IP65
- Cover: steel, painted

baelz 373-E88



- For DN 150...300
- Stroke: max 80 mm
- Actuating force: 8000 / 15000 N
- Power consumption: 34 VA
- Actuating speed 22; 25 mm/min
- Supply voltage: 24...230 V
- Weight: 2.2 kg
- Temperature: -10 ... +50°C
- Humidity 0 ... 75 %
- Protection class: IP65
- Cover: steel, painted
- Further information on request

Seite 107

Einbauregler für elektrische Antriebe



- baelz 7164
- baelz 7020





baelz 373-ESI

DESCRIPTION

Electromotive actuator for baelz 474, 475 and baelz 500 ... 507.

TECHNICAL SPECIFICATIONS

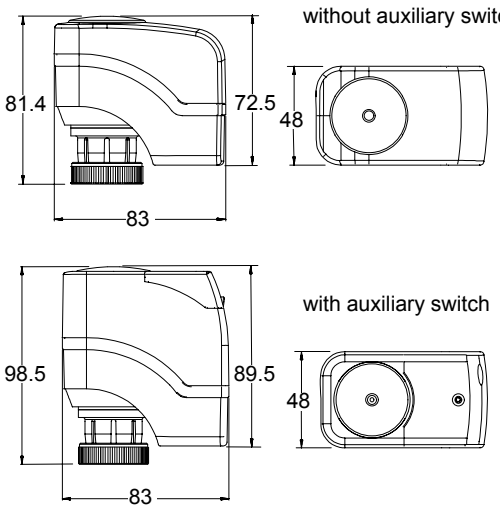
Environmental parameters:
Temperature: +1 ... +50°C
Relative humidity: 0 ... 85%

Stroke: 5.5 mm
Housing: plastic
Protection class: IP 40
Thrust: 100 N
Weight, approx.: 0.4 kg (0.5 kg with auxiliary switch)
Thread connection: union nut M30 x 1.5 mm (or with M30 x 1.0 adapter)
Electrical connection: 3-core connection cable with 1.5 m plug (L15) or optionally: 3-core connection cable 4.5 m, with plug;
3-pole terminal block connector with screw connection (ESI-61, ESI-81)

Options							
Type	**Actuating speed (s / 5.5 mm stroke)**	**Activa-tion/con-trol**	**Media temp. (°C)**	**Supply voltage**	**max. power con-sumption (VA)**	**Parallel operati-on***	**Auxiliary switch****
373-ESI-31	380	3-point	1 ... 110 °C	230 V AC ± 15 %. 50/60 Hz	6	max. 6	optional
373-ESI-61	90	DC 0-10 V	1 ... 100 °C	24 V AC ± 20 %. 50/60 Hz 24 V DC. ± 25 %	2	max. 10	-
373-ESI 81	350	3-point	1 ... 110 °C	230 V AC ± 20 %. 50/60 Hz	0.8	max. 24	optional

* Number of actuators for parallel operation, if the output power of the controller is sufficient

** Designation actuators with optional auxiliary switch: 373-ESI-31.1, 373-ESI-81.1
Switching point adjustable 0 ... 100%, factory setting: 50%
Switching capacity max. 250 V AC, 1 A (0.5 A)
Retrofitting not possible!



Dimensions
baelz 373-ESI (mm)



baelz 373-ESA

DESCRIPTION

Motorized linear actuator with emergency function for baelz 475

TECHNICAL SPECIFICATIONS

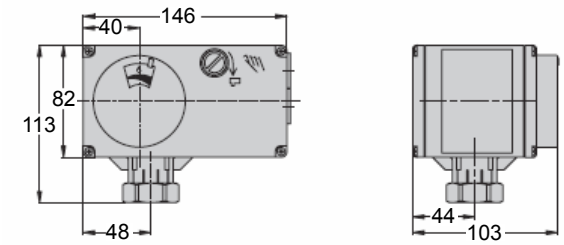
Ambient temperature: 0 ... +50°C

Stroke max.: 7.5 mm
Housing: plastic
Protection class: IP 54 (installation standing)
Thrust: 500 N
Weight approx.: 1 kg
Threaded connection: M32 x 1.5 mm

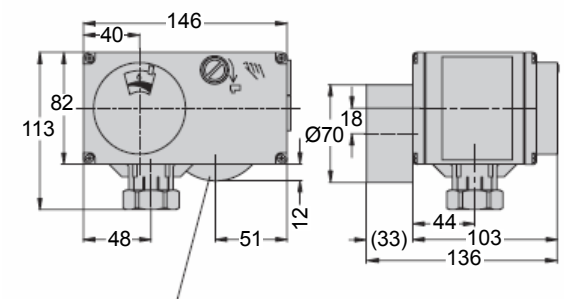
Manual operation (with tool only)
with load-dependent shutdown
in case of power failure: pressing (extending) - closed without power

Options				
Type	**Actuating speed (s / 6 mm Stroke)**	**Activation/control**	**Supply voltage**	**max. power consumption approx. (VA)**
373-ESA-05-35	35	3-point	230 V. 50 Hz	4 / 8
373-ESI-05-18	18	3-point	230 V. 50 Hz	4 / 8

baelz 373-ESA-05-18



baelz 373-ESA-05-35



Dimensions
baelz 373-ESA (mm)



baelz 373-E07

DESCRIPTION

Motorized linear actuator for control operation For control valves up to DN125.

TECHNICAL SPECIFICATIONS

Environmental parameters:
Temperature: 0 ... +50°C
Relative humidity: 0 ... 75%

Stroke:
12, 16, 22 mm

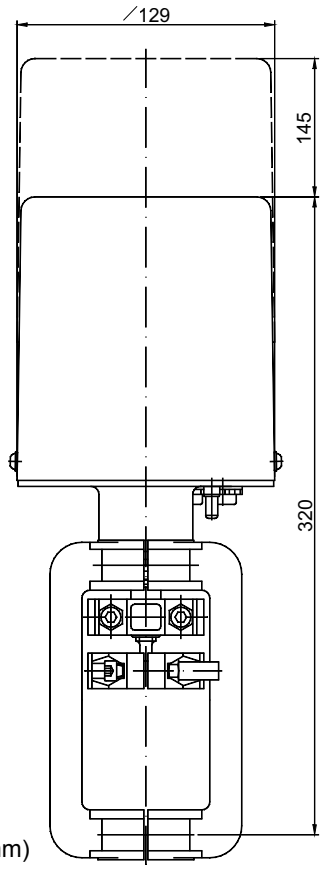
Cover: plastic
1 cable inlet M16x1.5 (plastic)
2 locking screws for cable inlet M16x1.5 (plastic)
Manual operation

Yoke options:
Aluminum stand for valves DN15 ... DN125
S21 - for fittings with Ø 10 mm spindle
S21L - for fittings with Ø 16 mm spindle

Type baelz 373	Weight	Power	Speed	Power	Supply voltage	Protection type
	kg	N	mm/min	BA		
E07-20-06-S21/L	2.2	2000	6	4.1	230V, 115V, 24V 50/60 Hz	IP 42*
E07-20-18-S21/L	2.2	2000	18	11.7		

* - IP 65 can be ordered in the absence of manual operation

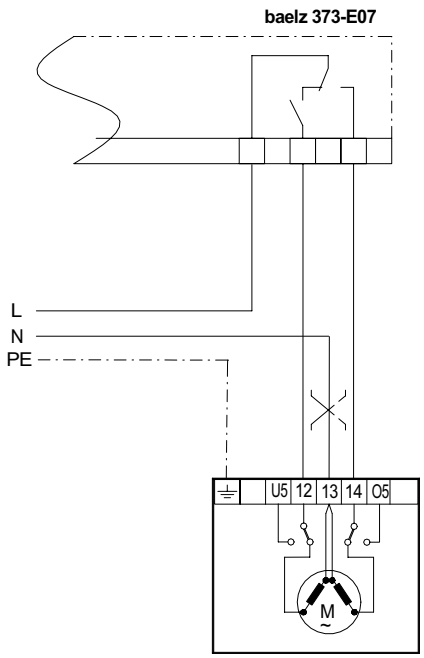
Option	Description	Remarks
2EZ-V2	2 limit switches with position indicator	
Mf-FgA	Potentiometer	A = 200 Ω, 5 kΩ, 1 kΩ specify resistance when ordering
2EZ-V2-FgA	2 limit switches with position indicator and feedback potentiometer	
1020-24	Positioner for the electric actuator 24V 50, 60 Hz	Specify 0-10 or 4-20 mA when ordering The positioner can only be set up on the actuator with a 5 kΩ potentiometer.
1020-230	Positioner with the transformer for the electric actuator 230V, 50, 60Hz	
1020-115	Positioner with the transformer for the electric actuator 115 50, 60Hz	
1020-i	Positioner + feedback according to the spindle position	
1020-i-F	Positioner + feedback according to the spindle position	
1020-i-H	+ antifreeze relay	
1020-F	Positioner + feedback according to the spindle position	
1020-H	+ manual operation	
	Positioner + antifreeze relay	
	Positioner + manual operation	



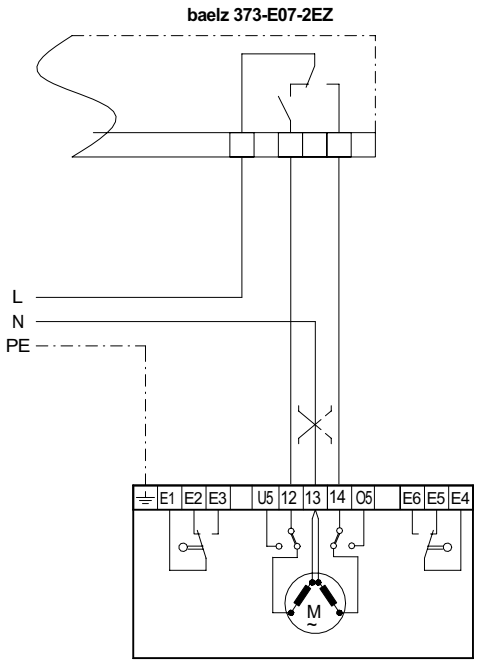
Dimensions
baelz 373-E07 (mm)

Baelz-Katalog_00_EN_MJ_1118

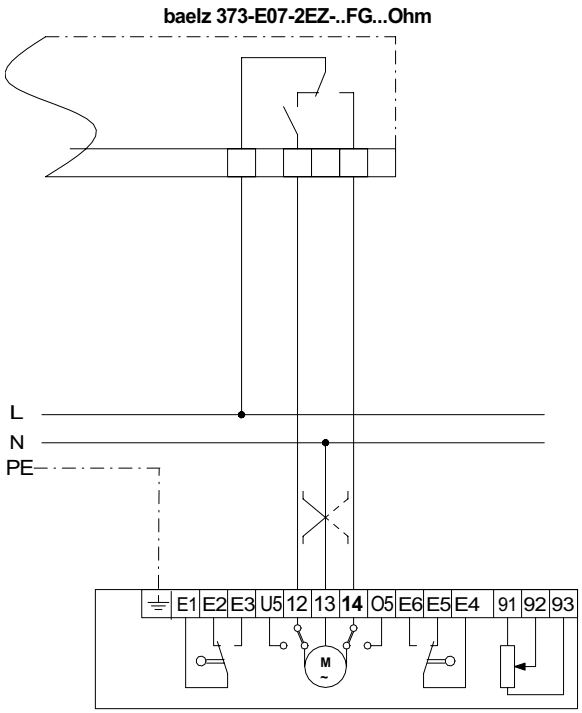
Without options



With additional limit switches

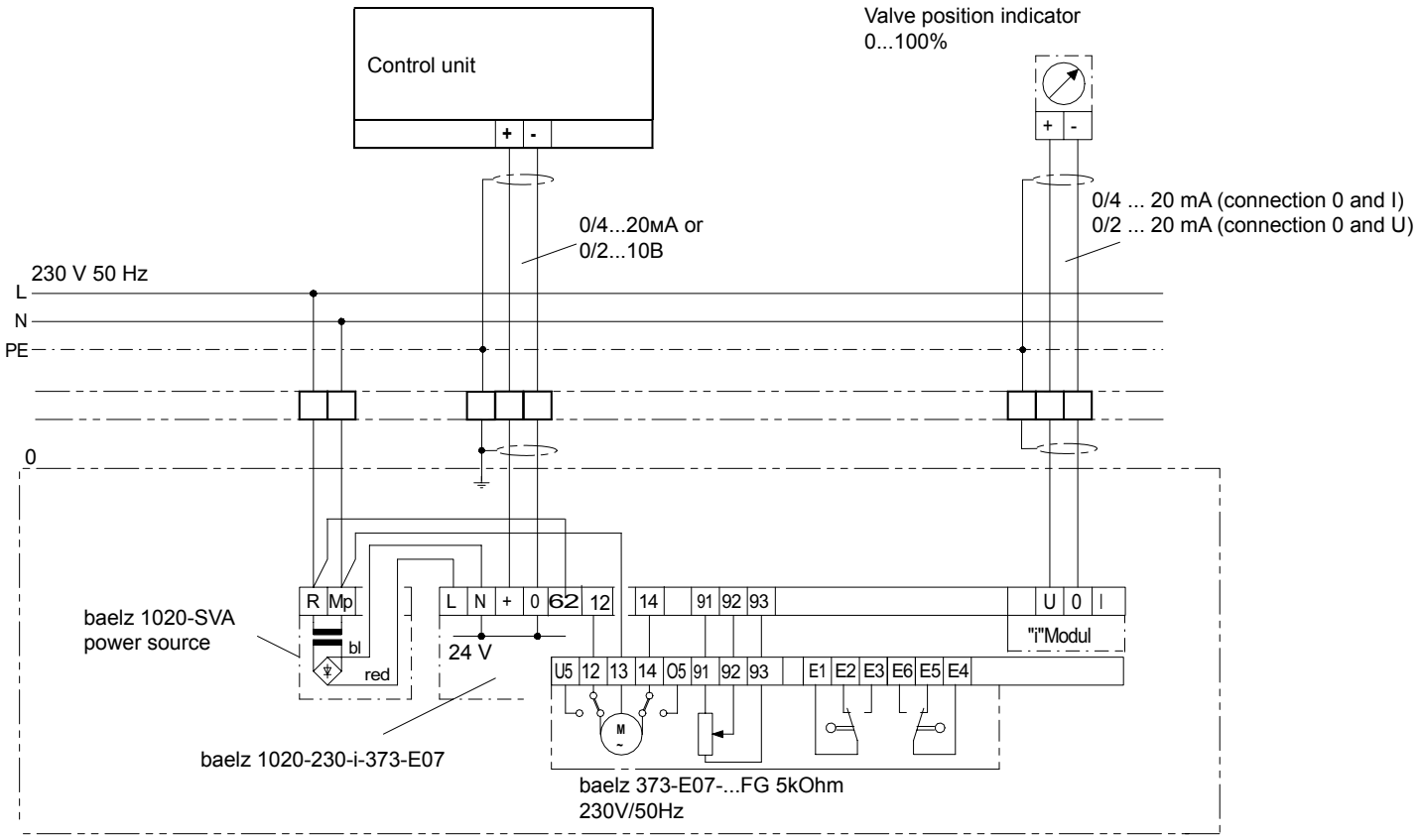


With additional limit switches and feedback potentiometer

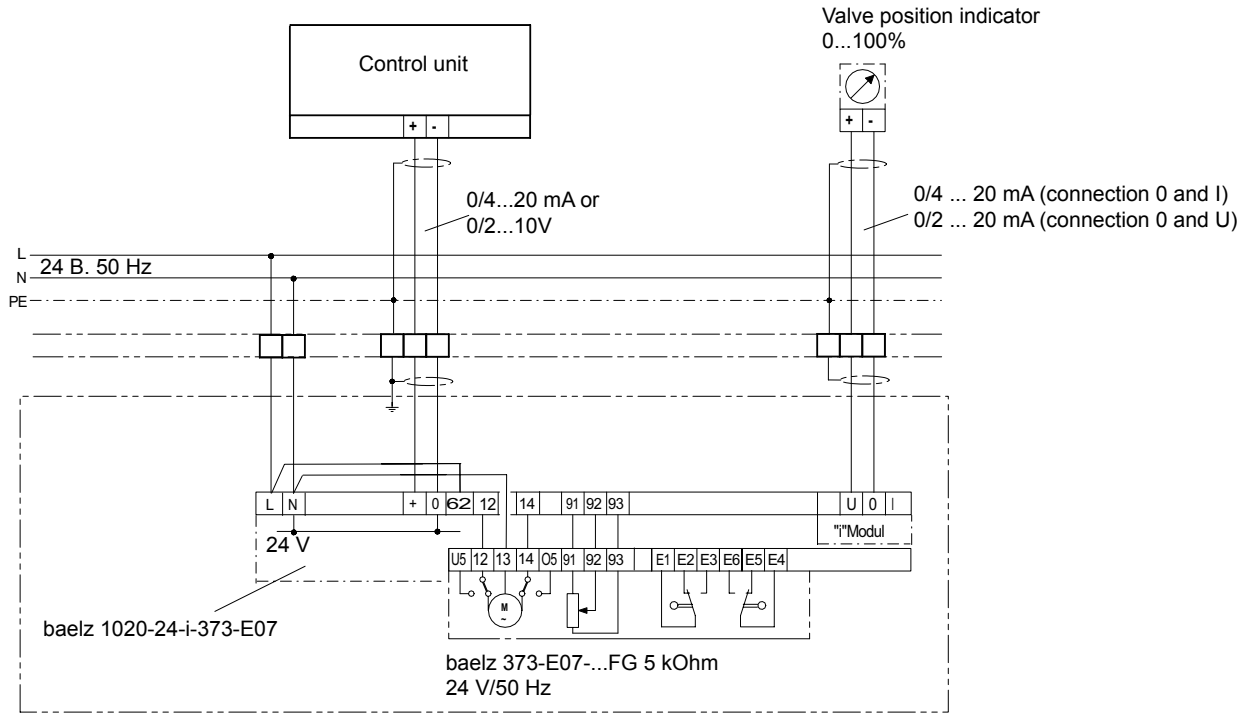


373-E07-20-18-S21-2EZ-V2-Fg

With baelz 1020 230/50 Hz electrical positioner



With baelz 1020 24/50 Hz electric positioner





baelz 373-E45

DESCRIPTION

Electric linear actuator with synchronous motor.

TECHNICAL SPECIFICATIONS

Environmental parameters:
Temperature: 0 ... +50°C Relative humidity: 0 ... 75%
Stroke: 12, 16, 22, 40, 44 mm

Cover: plastic
Electrical connection 3 x M20x1.5
Manual operation

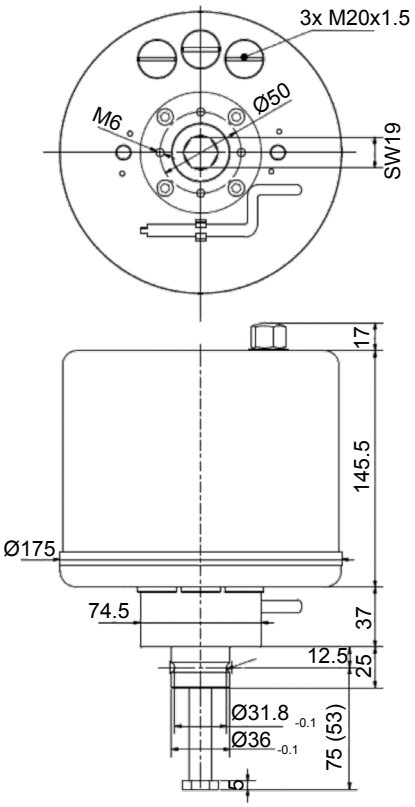
Yoke options:
Aluminum stand for DN15 ... DN125
S21 - for fittings with Ø 10 mm spindle
S21L - for fittings with Ø 16 mm spindle

Galvanized steel stand for DN150
S41 - for fittings without cooling tube
S41C - for fittings with cooling tube

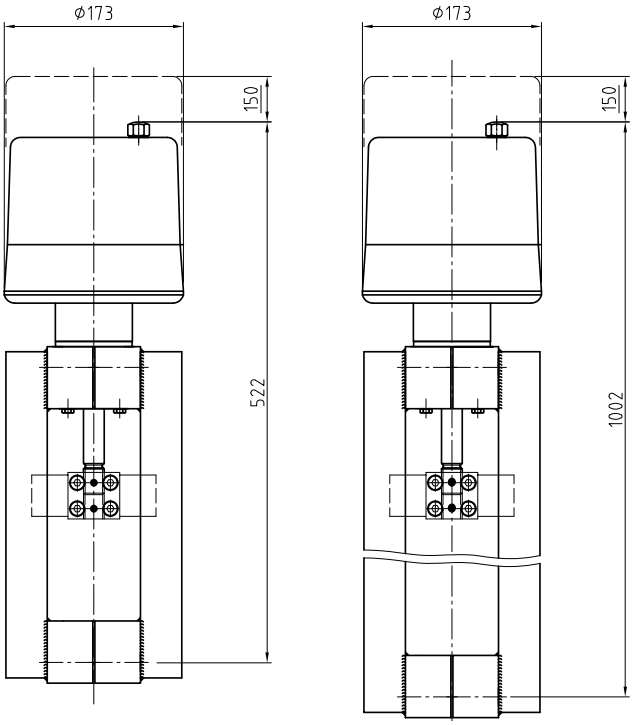
Type baelz 373	Weight	Power	Speed	Power consumption	Supply voltage	Protection type
	(kg)	(N)	(mm/min)	(VA)		
E45-40-15-S21/L	8	4000	15	11	230 V, 115 V, 24 V 50/60 Hz	IP65
E45-40-40-S21/L	8		40	64		
E45-40-15-S41	14.5		15	11		
E45-40-15-S41C	18					

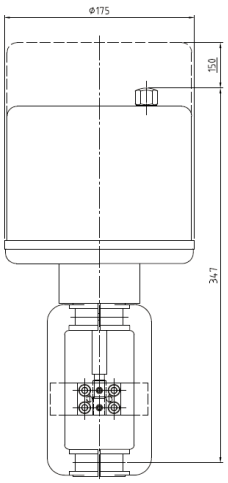
Options		
Option	**Description**	**Remarks**
2EZ-V2	2 limit switches with display	
1FgA	Potentiometer	A= 5 kΩ or 1 kΩ Specify resistance when ordering
2EZ-FgA	2 limit switches with position indicator and feedback potentiometer	
PEL-24	Positioner and position indicator for electric actuator 24V 50 / 60Hz	Specify 0-10 or 0 (4) -20 mA when ordering 0-10V (default) The option can only be used with the actuator with 1 kΩ potentiometer.
PEL-230	Positioner and position indicator for electric actuator 230V 50 / 60Hz	
PEL-115	Positioner and position indicator for electric actuator 115V 50 / 60Hz	
ESR-24VDC	Electronic position indicator (inductive)	4-20 mA The option can only be used with the actuator with 5 kΩ potentiometer.
Hzg-230	Heating resistor for electric actuator 230V 50 / 60Hz	Power 15W For ambient temperatures -20°C ... + 50°C
Hzg-115	Heating resistor for electric actuator 115V 50 / 60Hz	
Hzg-24	Heating resistor for electric actuator 24V 50 / 60Hz	
Hzg-OS	Outdoor model: with 1.4571 stainless steel cover with internal insulation and actuator heating.	Power 15W Outdoor model for min. temperature - 40°C





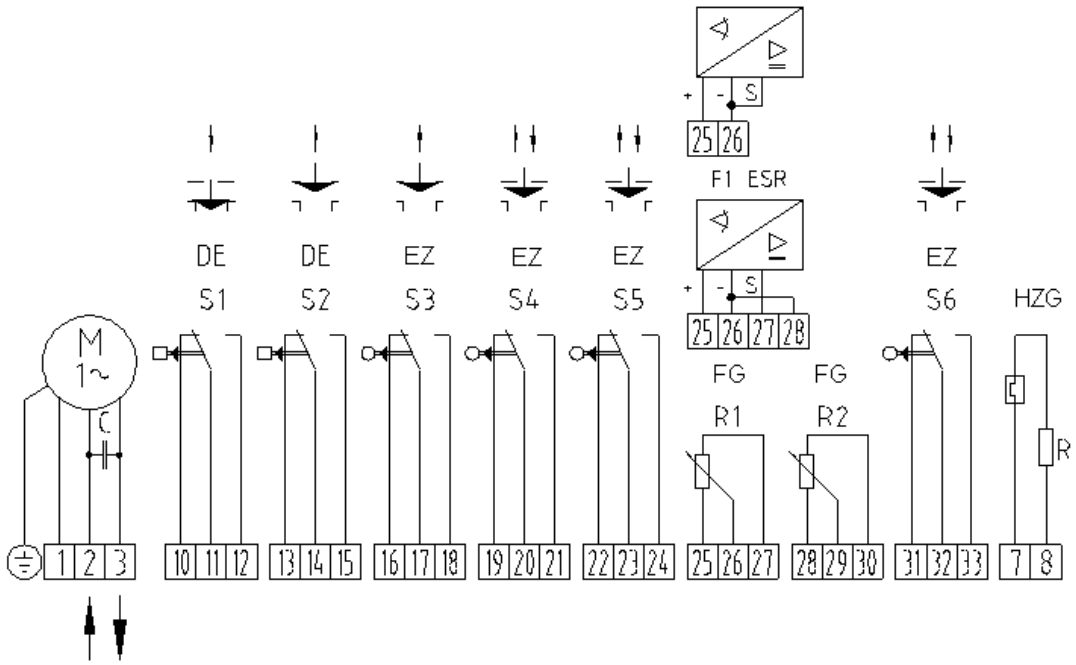
Dimensions
baelz 373-E45
with stand S41 /
S14-C (mm)





Dimensions
baelz 373-E45
with stand S21
(mm)

Wiring diagram for baelz 373-E45 electric actuator



Baelz-Katalog_00_EN_MJ_1118



baelz 373-E65

DESCRIPTION

Motorized linear actuator with emergency function

TECHNICAL SPECIFICATIONS

Environmental parameters:
Temperature: -10 ... +55°C Relative humidity: 0 ... 95%

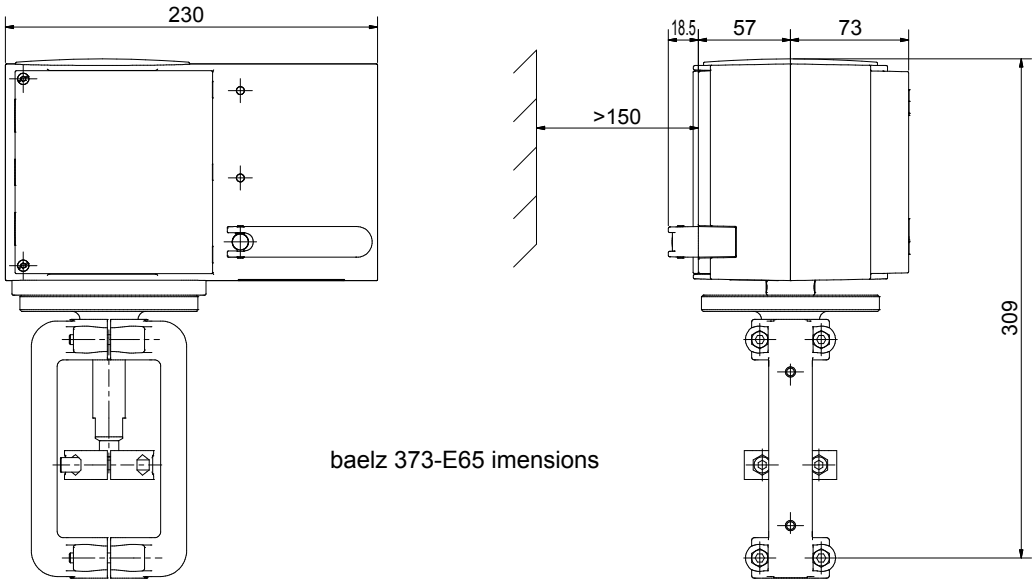
Stroke: 40 mm max., self-adapting
2EZ: 2 auxiliary changeover contacts 12 ... 250 V AC, freely adjustable
Electrical connection: M20 x 1.5, M16 x 1.5
load-dependent shutdown
Housing: plastic
silicone-free model

Aluminum stand, coupling and fixing screws:
S21 (standard) - fittings with Ø 10 mm spindle
S21L - fittings with Ø 16 mm spindle

Accessories: Voltage module 110 / 230 V, split-range module

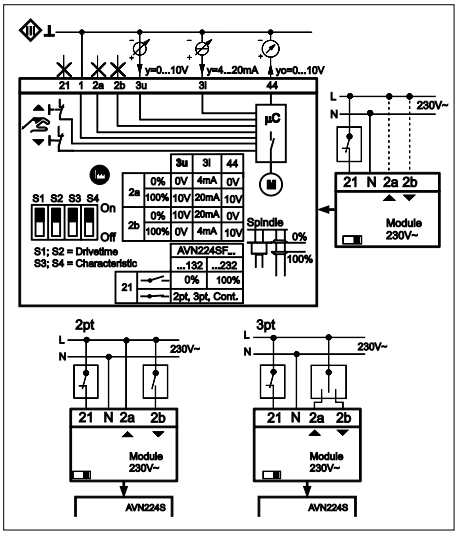
Type baelz 373	Weight	Power	Actuating speed	Power consumption	Supply voltage	at voltage failure	Protection type
	(kg)	(N)	(mm/min)	(VA)			
E65-D-11-30	5.6	1100	10, 15, 30 adjustable, please specify when ordering. Delivery state: 10	18	230 V. 110 V AC oder 24 V AC/DC 50/60 Hz	pressing/extending	IP66 (installation standing)
E65-Z-11-30						pulling/withdrawing	
E65-D-20-30		2000				pressing/extending	
E65-Z-20-30						pulling/withdrawing	

Valve	Actuator	Function
340, ..., 342 ..., 347 ..., 353, 354, 365, 367	**E65-D-11-30... E65-D-20-30...**	OSO
344, 356, 358, 359, 360, 471, 480, 585, 590, 591	**pressing (extending)**	OSG
340,...,342...,347..., 353, 354, 365, 367	**E65-Z-11-30... E65-Z-20-30...**	OSG
344, 356, 358, 359, 360, 471, 480, 585, 590, 591	**pulling (withdrawing)**	OSO

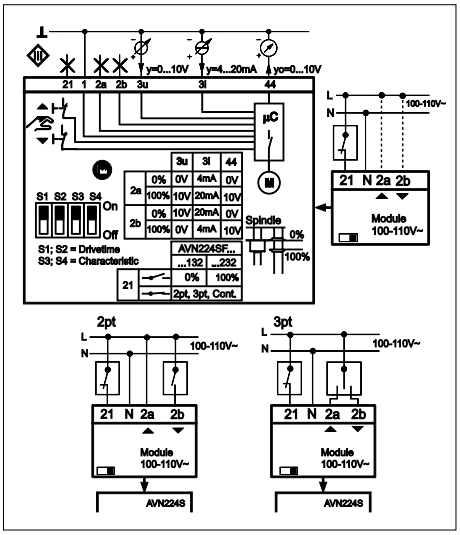


baelz 373-E65 imensions

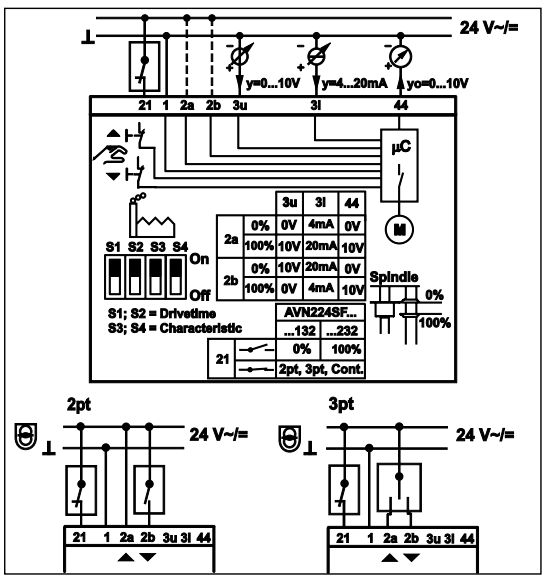
230V



110V



24V



baelz 373-E65 wiring diagrams



baelz 373-E66

DESCRIPTION

Electric linear actuator with synchronous motor. For control valves to DN150-DN300.

TECHNICAL SPECIFICATIONS

Environmental parameters:
Temperature: -10 ... +50°C
Relative humidity: 0 ... 75%

Stroke:
16 - 80 mm - specified in the actuator

Cover: painted steel
2 cable inlets M16x1.5
1 screw plug for cable inlet M16x1.5
Manual operation

Yoke options:
S41 - for fittings with Ø 22 mm spindle without cooling tube
S41C - for fittings with Ø 22 mm spindle with cooling tube

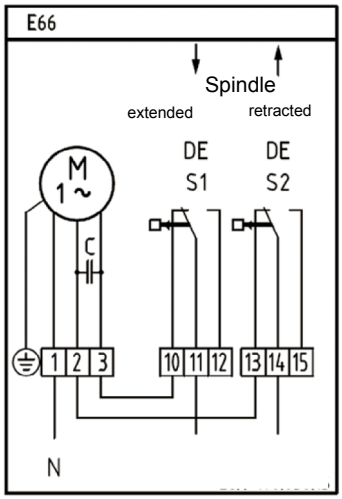
Type baelz	Weight	Power	Actuating speed	Power	Supply voltage	Protection type
	(kg)	(N)	(mm/min)	VA		
E66-150-080-25	13	8000	25	34	230 V. 115 V. 24 V 50/60 Hz	IP65
E66-150-150-22		15000	22			

Option	
HZG	Frost protection resistance via a thermal time switch with automatic temperature control, max. power 15 W, Supply voltage 24, 115, 230V, 50/60 Hz Temperature operation -20 ° C ... + 50°C

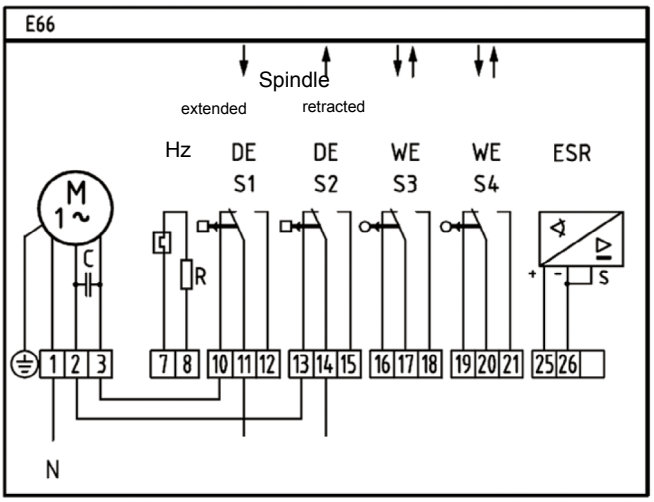
Option set 1 - continuous control	
2WE	2 additional limit switches (S3 and S4) for indicating the end and intermediate positions, freely adjustable. Max. 250V AC, approved value for resistance load max. 5A, for inductive load max. 3A
FG	Potentiometer 1 kΩ, max 1.5 kW, contact current 30 mA
PEL	Positioner for electric actuator, input 0 ... 10 V, 0 (4) ... 20 mA, Output 0 ... 10 V, 0 (4) ... 20 mA, supply voltage 24V, 115V, 230V, 50 / 60Hz, with potentiometer 1 kΩ.
HZG	Frost protection resistance via a thermal time switch with automatic temperature control, max. power 15 W, Supply voltage 24, 115, 230V, 50/60 Hz Temperature operation -20 ° C ... + 50°C

Option set 2 - three-point control	
2WE	2 additional limit switches (S3 and S4) for indicating the end and intermediate positions, freely adjustable. Max. 250 V AC, permitted value for resistance load max. 5A, for inductive load max. 3A
FG	Potentiometer 5 kΩ, max 1.5 kW, contact current 30 mA
ESR	Electronic position transmitter, 2 cable scheme, output 4 ... 20 mA, 24VDC voltage, with 5 kΩ potentiometer.
HZG	Frost protection resistance via a thermal time switch with automatic temperature control, max. power 15 W, Supply voltage 24, 115, 230V, 50/60 Hz Temperature operation -20 ° C ... + 50°C

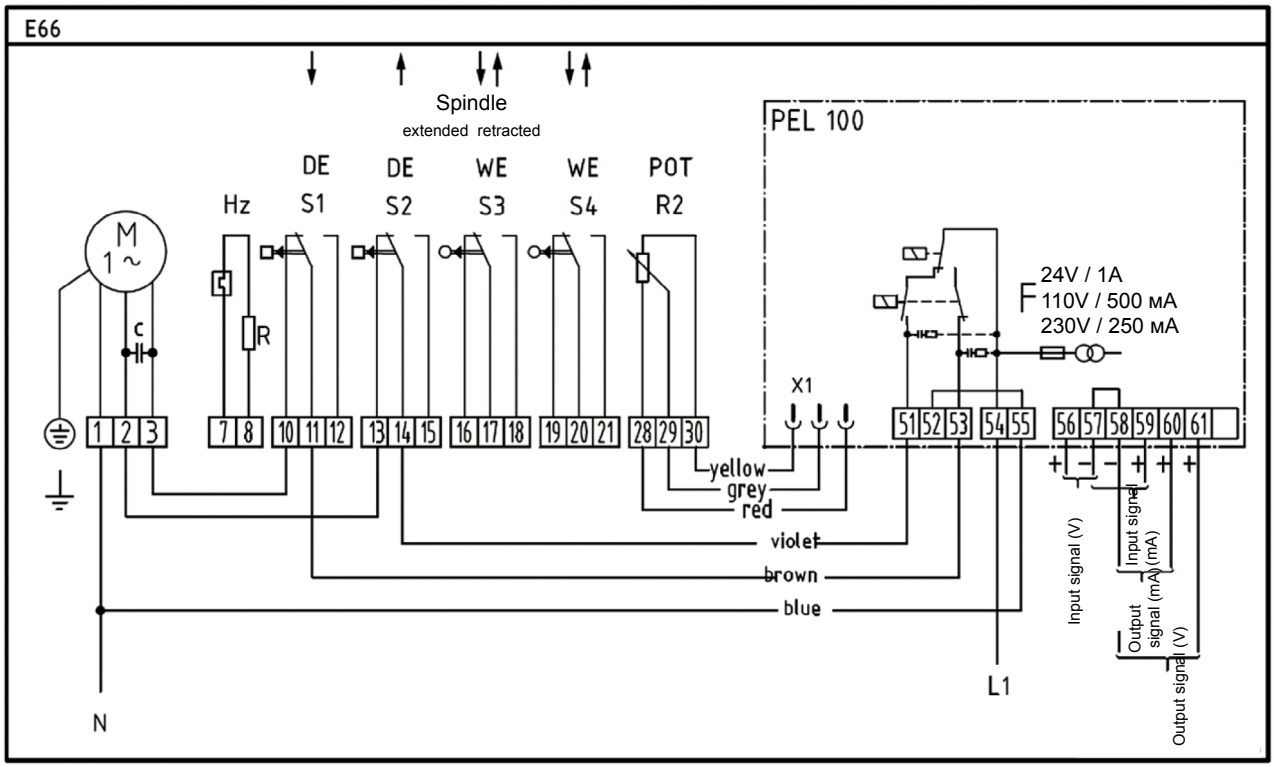
Without options



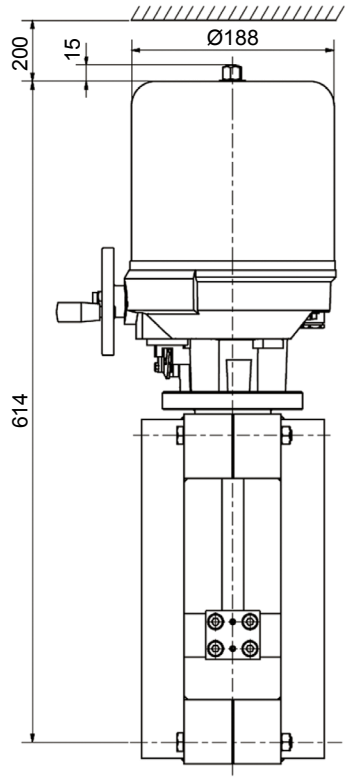
Option set 2

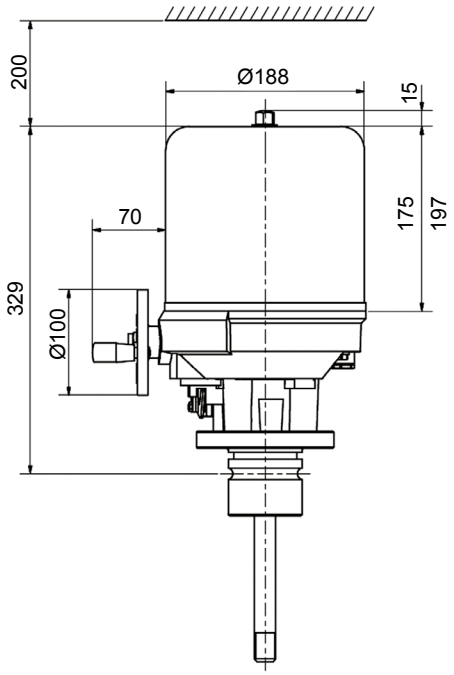


Option set 1

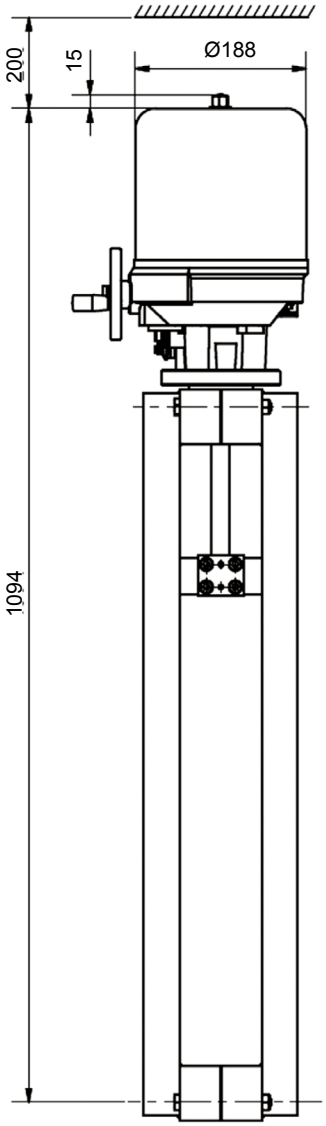


373-E66 actuator with S41 stand





373-E62 actuator with S41 stand





baelz 7164

MICROPROCESSOR BUILT-IN CONTROLLER

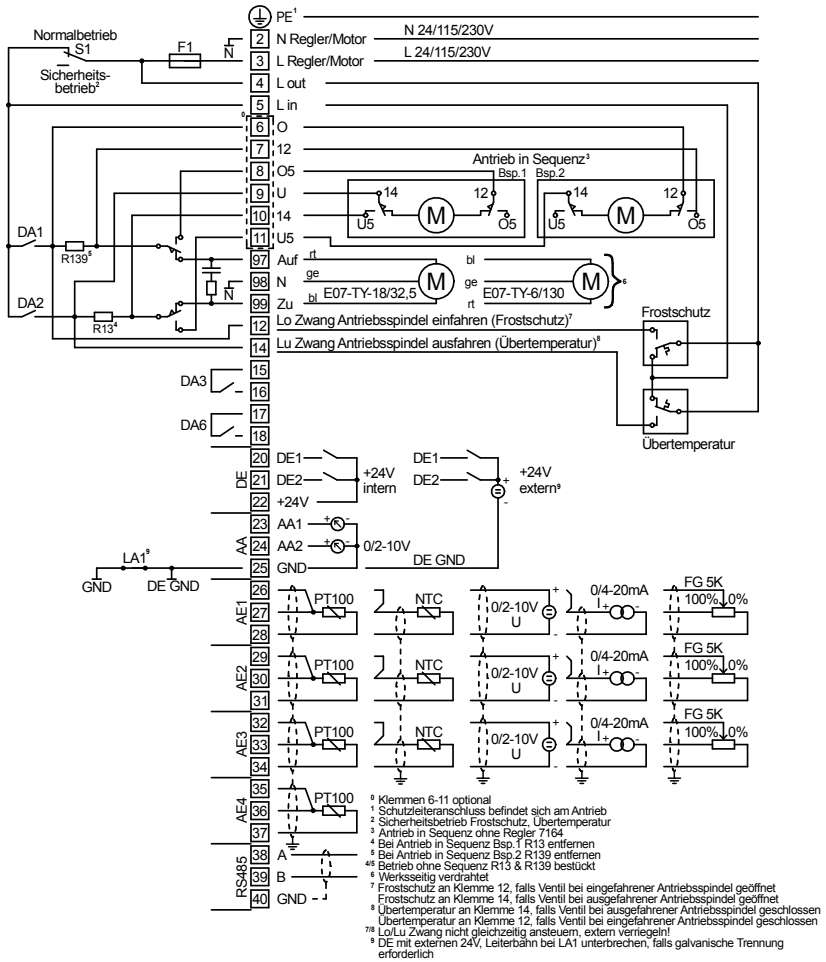
Installed in baelz 373-E07 motorized linear actuator
Constant setpoint or heating curve with 5 plotting points
Analog inputs PT100 (-40 ... + 120°C), NTC, O / 4 ... 20 mA, 0/2 ... 10 V, teletransmitter 1-5 kΩ

ADVANTAGES AT A GLANCE

- Reduction of the susceptibility to interference through short lines between the controller and the sensor
- Installation cost and effort are minimized
- Space saving, as the controller hardware sits in the actuator
- Variable, outside temperature-controlled characteristic

baelz 7164 positioner technical specifications			
Analog inputs	4	Interface	RS485 Modbus RTU / connector for manual control unit
Analog outputs	2x (0/2 ... 10 V)	Power supply	230 V. 50/60 Hz; 115 V. 50/60 Hz; 24 V. 50/60 Hz;
Digital outputs	2x relays	Weight	approx. 0.2 kg
Digital inputs	2	Ambient temperature	0 ... 50 °C
Connection	Spring clips	Ambient humidity	5 ... 90% (non-condensing)
Precision	0.3 % of upper range value		

baelz 7164 wiring diagram



0 Klemmen 6-11 optional
1 Schutzleiteranschluss befindet sich am Antrieb
2 Sicherheitsbetrieb Frostschutz, Übertemperatur
3 Antrieb in Sequenz ohne Regler 7164
4 Bei Antrieb in Sequenz Bsp.1 R13 entfernen
5 Bei Antrieb in Sequenz Bsp.2 R139 entfernen
4/5 Betrieb ohne Sequenz R13 & R139 bestückt
6 Werksseitig verdrahtet
7 Frostschutz an Klemme 12, falls Ventil bei eingefahrener Antriebsspindel geöffnet
Frostschutz an Klemme 14, falls Ventil bei ausgefahrener Antriebsspindel geöffnet
8 Übertemperatur an Klemme 14, falls Ventil bei ausgefahrener Antriebsspindel geschlossen
Übertemperatur an Klemme 12, falls Ventil bei eingefahrener Antriebsspindel geschlossen
7/8 Lo/Lu Zwang nicht gleichzeitig ansteuern, extern verriegeln!
9 DE mit externen 24V, Leiterbahn bei LA1 unterbrechen, falls galvanische Trennung erforderlich



baelz 7020

DIGITAL POSITIONER

Installed in baelz 373-E07 motorized linear actuator

Setting with DIP switches and LED or Modbus.

ADVANTAGES AT A GLANCE

- Self-adaptation (controller, hysteresis, valve runtime)
- Detection and suppression of interference signals
- Error detection and alarm functions - e.g. fail-safe position
- Free WTP parameterisation software (Modbus RTU)
- Comfortable operation and optimized actuator installation
- Variable valve characteristics with high resolution

baelz 7020 positioner technical specifications			
Analog output	0/2...10 V	Interface	RS485 Modbus RTU
Analog input	0/2...10 V, 0/4...20 mA Precision 0.1 %	Operation	12 DIP switch / extended operation via free software Winbas Tools Par / Modbus operation
Digital outputs	2 potential-free auxiliary changeover contacts freely adjustable, max. 250 V, 4 A, min. contact load digital outputs: 10 V / 100 mA	Power supply	230 V. 50/60 Hz; option 115 V. 50/60 Hz; 24 V. 50/60 Hz;
		Fuse	internal 1.6 A/T
Digital input	1 freely adjustable (e.g. summer/winter switchover), Imax 5 mA, low = 0...5 V DC, high = 9...38 V DC, Re = 5 kΩ	Power consumption	approx. 5 VA
		Protection type	IP 42
		Weight	approx. 0.2 kg
DE supply voltage	24 V DC. Imax = 5 mA	Ambient temperature	0 ... 50 °C
Connection	PUSH IN spring clamps	Ambient humidity	5 ... 90% (non-condensing)

baelz 7020 wiring diagram

