

AE BLV328 Plastic Ball Valve

2 Way - Manual Operated



Design

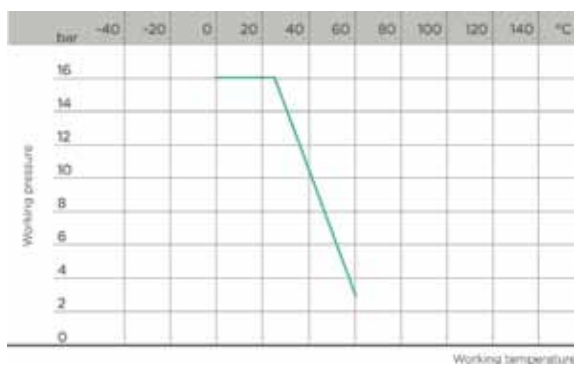
FIP DUAL BLOCK® 2 WAY BALL VALVE

- Double True Union design
- Solvent weld, threaded and flanged joints
- Floating full bore with high surface finish
- Injection moulded PN16 rigid PVC-U body
- Ergonomic HIPVC handle equipped with removable tool to adjust the ball carrier
- DUAL BLOCK® patented lock system that ensures union nut tightening hold even in severe conditions such as vibrations or heat dilation
- Easy and quick mounting of pneumatic or electric actuators for automation even after valve installation on the system via the optional Power Quick module

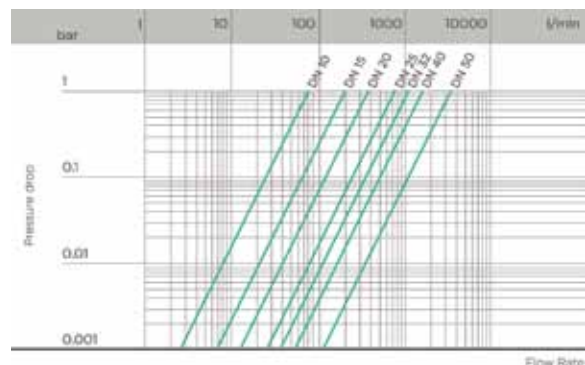
Specifications

Construction	2 way True Union ball valve with locked carrier and union nuts
Size range	DN10 to DN50
Nominal Pressure	PN16 with water at 20°C
Temperature range	0°C to +60°C
Port connection	Socket to DIN, ASTM or JIS standard (Standard) Threaded to BSP, NPT or Rc standard (On request) Flanged to DIN, ANSI or JIS standard (On request)
Valve material	PVC-U (PP, PVDF on request)
Seal material	EPDM, FPM (standard size O ring) PTFE (ball seats)
Operator	Manual, electric actuated or pneumatic actuated

Pressure Temperature Chart



Pressure Drop Chart



Kv100 Flow Coefficient

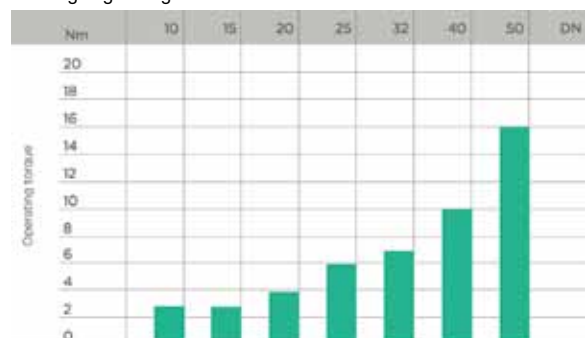
The Kv100 flow coefficient is the Q flow rate of litres per minute of water at a temperature of 20°C that will generate $\Delta p = 1$ bar pressure drop at a certain valve position.

The Kv100 values shown in the table are calculated with the valve completely open

DN	10	15	20	25	32	40	50
Kv100 l/min	80	200	385	770	1100	1750	3400

Operating Torque at Maximum Working Pressure

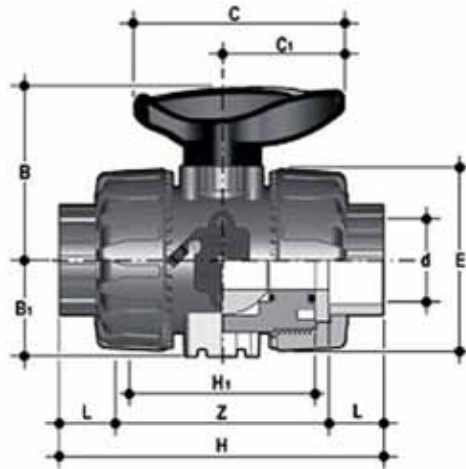
It is recommended to add at least 30% or more depending on type of media going through the valve for actuator selection



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Dimensions



VKDIV DUAL BLOCK® 2-way ball valve with female ends for solvent welding, metric series

d	DN	PN	B	B ₁	C	C ₁	E	H	H ₁	L	Z	Weight (g)
16	10	16	54	29	67	40	54	103	65	14	75	215
20	15	16	54	29	67	40	54	103	65	16	71	205
25	20	16	65	34.5	85	49	65	115	70	19	77	330
32	25	16	69.5	39	85	49	73	128	78	22	84	438
40	32	16	82.5	46	108	64	86	146	88	26	94	693
50	40	16	89	52	108	64	98	164	93	31	102	925
63	50	16	108	62	134	76	122	199	111	38	123	1577

VKDAV DUAL BLOCK® 2-way ball valve with female ends for solvent welding, ASTM series

d	DN	PN	B	B ₁	C	C ₁	E	H	H ₁	L	Z	Weight (g)
3/8"	10	16	54	29	67	40	54	117	65	19.5	78	230
1/2"	15	16	54	29	67	40	54	117	65	22.5	72	215
3/4"	20	16	65	34.5	85	49	65	129	70	25.5	78	345
1"	25	16	69.5	39	85	49	73	142	78	28.7	84.6	448
1 1/4"	32	16	82.5	46	108	64	86	162	88	32	98	718
1 1/2"	40	16	89	52	108	64	98	172	93	35	102	975
2"	50	16	108	62	134	76	122	199	111	38.2	122.6	1712

VKDJV DUAL BLOCK® 2-way ball valve with female ends for solvent welding, JIS series

d	DN	PN	B	B ₁	C	C ₁	E	H	H ₁	L	Z	Weight (g)
1/2"	15	16	54	29	67	40	54	131	65	30	71	225
3/4"	20	16	65	34.5	85	49	65	147	70	35	77	335
1"	25	16	69.5	39	85	49	73	164	78	40	84	448
1 1/4"	32	16	82.5	46	108	64	86	182	88	44	94	728
1 1/2"	40	16	89	52	108	64	98	212	93	55	102	1015
2"	50	16	108	62	134	76	122	248	111	63	122	1727

AE BLV328 Plastic Ball Valve

2 Way - Pneumatic and Electric Actuated



Design

AE BLV328 2 Way Plastic Ball Valve when retrofitted with pneumatic or electric actuator make it suitable for automatic process control application.

Pneumatic actuator is available in double acting (DA) or spring return (SR) version. Wide range of accessories including E/P positioner, limit switch box for position feedback, declutchable manual override gearbox and pilot solenoid valves complete the range to meet various application requirements.

Electric actuator is available in on/off or modulating control version and comes standard with manual override built in.

The actuator can be mounted onto the valve in normally open or normally closed position either directly or using customized mounting bracket. It is fully tested for alignment and proper functioning before delivery.

Specifications - Pneumatic Actuator

Function	Double Acting (DA) or Spring Return (SR)
Material	
Housing	Extruded aluminum alloy, hard anodized
End Cap	Pressure die cast aluminum alloy, epoxy coated
Pinion	Carbon steel, nickel plated
Piston	Cast aluminum / steel, hard anodized / Zinc galvanized
Cap Screw	Stainless steel
Spring	Spring steel, Dip Coated
Bearing and Guide	Engineering plastic
Travel Stop Cam	Alloy steel
Adjustment Screw	Stainless steel
Seal	NBR
Mounting Bracket	Aluminum, stainless steel, alloy steel
Operating Media	Dry or lubricated compressed air or non-corrosive gases
Supply Pressure	Min. 2 bar, Max. 8 bar
Operating Temperature	-20°C to +80°C (NBR) Lower or higher temperature version on request
Rotation	90°
Travel Adjustment	± 5°
Connection and Mounting	Namur, ISO5211 and DIN3337
Torque Output	3 Nm to 13024 Nm (DA) 4 Nm to 6584 Nm (SR)
Selection	Actuator is selected and matched in accordance to each process operating conditions and requirement to ensure proper functioning of the actuated valve

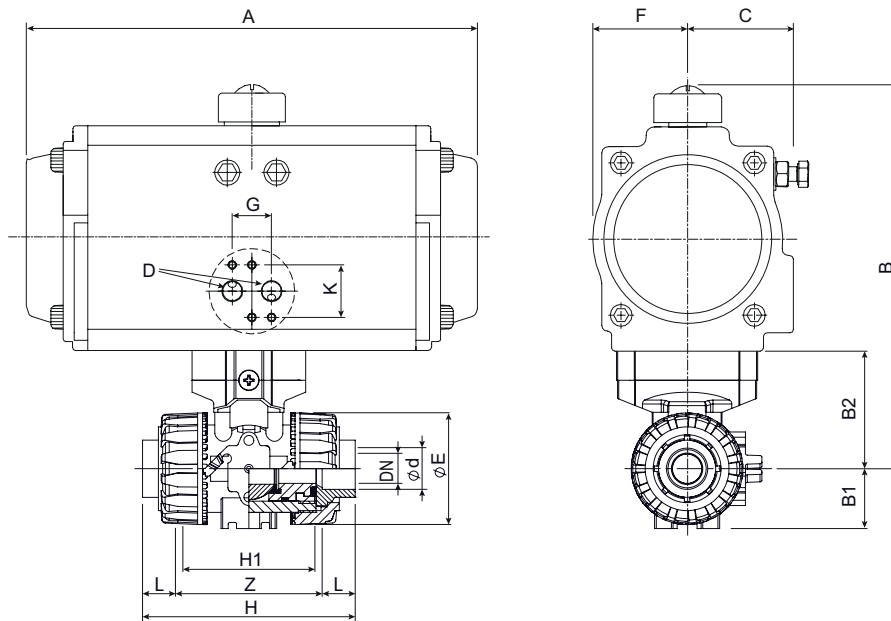
Specifications - Electric Actuator

Function	On/Off (Modulating type with 4 to 20 mA input on request)
Material	
Housing	Nylon PA6 (Aluminum on request)
Gear	S45C Carbon Steel and SCM21 Steel
Seal	NBR
Power Supply	24VDC, 110VAC, 220VAC
Position Feedback Limit Switches	2 x SPDT for Open/Close position
Rotation	90° (other rotation on request)
Stall protection	Internal overheating protection
Manual Operation	Mechanical by wrench
Position Indicator	Standard mechanical position indicator
Enclosure	IP67
Electrical Conn.	1/2" PF
Operating Temperature	-10°C to +60°C
Ambient Humidity	30% ~ 95% RH
Mounting	ISO5211
Torque Output	9 Nm to 3000 Nm
Selection	Actuator is selected and matched in accordance to each process operating conditions and requirement to ensure proper functioning of the actuated valve
Options	
Space heater	
Position Feedback Potentiometer	
Frequent-working (100%ED) version	
Failsafe version	
Quick Opening Version	

AE BLV328 Plastic Ball Valve

2 Way - Pneumatic and Electric Actuated

Pneumatic Actuated Version Common Selection and Dimension (mm)



Function	DN	Ød	Pressure Range ¹⁾ (bar)	Actuator @ pilot air of min. 5 bar	Dimensions													Weight (kg)					
					A	B	B1	B2	C	D	ØE	F	G	H	H1	K	L		Z				
DA	15	Refer to manual valve dimensions	0 to 16	AEJAT040DA	123	144	29	58	33	G1/8	54	23.5	20	Refer to manual valve dimensions	65	29	Refer to manual valve dimensions	Refer to manual valve dimensions	1.2				
				AEJAT052DA	145	156			41	G1/4		30	24						32	1.8			
	20		0 to 16	AEJAT040DA	123	155	34.5	69	33	G1/8	65	23.5	20		70	29			1.5				
				AEJAT052DA	145	167			41	G1/4		30	24		32	2.0							
	25		0 to 16	AEJAT040DA	123	160	39	74	33	G1/8	73	23.5	20		78	29			1.6				
				AEJAT052DA	145	172			41	G1/4		30	24		32	2.1							
32	0 to 16		AEJAT063DA	169	206	46	91	46	G1/4	86	46	24	88		32	3.3							
40	0 to 16		AEJAT063DA	169	212	52	97	46	G1/4	98	46	24	93		32	3.6							
50	0 to 16		AEJAT063DA	169	229	62	114	46	G1/4	122	46	24	111		32	4.4							
SR	15		Refer to manual valve dimensions	0 to 16	AEJAT052SR	145	156	29	58	41	G1/4	54	30		24	Refer to manual valve dimensions			65	32	Refer to manual valve dimensions	Refer to manual valve dimensions	1.9
					AEJAT052SR	145	167			34.5	69		41		G1/4								65
	25			0 to 16	AEJAT052SR	145	172	39	74	41	G1/4	73	30		24				78	32			2.2
		AEJAT063SR			169	206	46			91	46		G1/4	86	46		24	88	32	3.6			
	40	0 to 16		AEJAT063SR	169	212	52	97	46	G1/4	98	46	24	93	32		3.8						
	50	0 to 16		AEJAT075SR	201	240	62	114	52	G1/4	122	46	24	111	32		5.6						

¹⁾ Actuator selection serve as a guide and is based on clean lubricating operating media at pressure up to 16 bar. For other operating conditions, please consult us.

Accessories Available for Pneumatic Actuated Version



- Pneumatic Solenoid Valves**
- 3/2 way or 5/2 way
 - NAMUR interface
 - Standard ported
 - Gang mounted
 - Explosion proof version
 - Full stainless steel version



- Limit Switch Box for position feedback**
- NAMUR interface mounting
 - 2 x SPDT mechanical switches
 - Explosion proof version



- Electro-Pneumatic Positioner**
- Single or Double Acting
 - NAMUR interface mounting
 - Conventional version
 - SMART version
 - Explosion proof version
 - Full stainless steel version

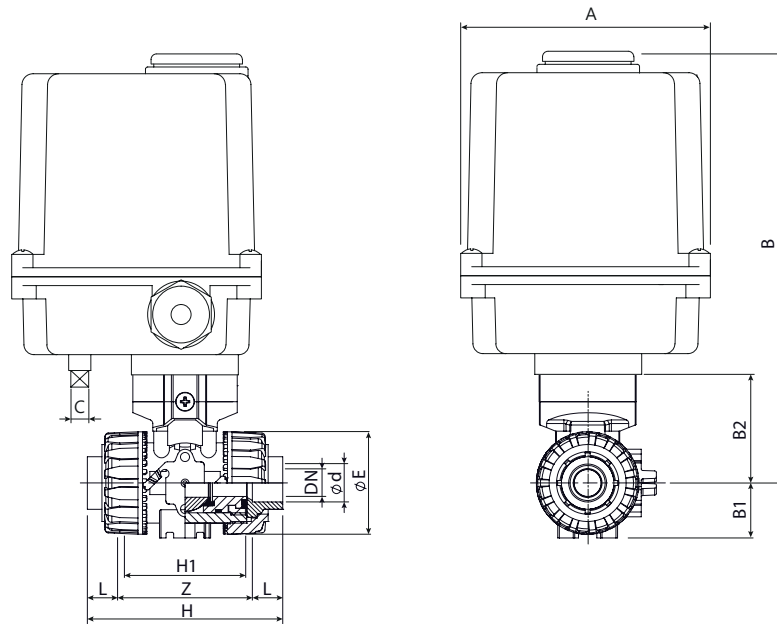


- Declutchable Manual Override Gearbox**

AE BLV328 Plastic Ball Valve

2 Way - Pneumatic and Electric Actuated

Electric Actuated Version Common Selection and Dimension (mm)



Function	DN	Ød	Pressure Range ¹⁾ (bar)	Actuator	Dimensions										Weight (kg)
					A	B	B1	B2	C	ØE	H	H1	L	Z	
Bi-Stable	15	Refer to manual valve dimensions	0 to 16	UM-1	118	203	29	58	8	54	Refer to manual valve dimensions	65	Refer to manual valve dimensions	Refer to manual valve dimensions	2.2
	20		0 to 16	UM-1	118	214	34.5	69	8	65		70			2.4
	25		0 to 16	UM-1	118	219	39	74	8	73		78			2.5
	32		0 to 16	UM-1	118	236	46	91	8	86		88			3.1
	40		0 to 16	UM-1	118	242	52	97	8	98		93			3.3
	50		0 to 16	UM-1	118	259	62	114	8	122		111			4.3

¹⁾ Actuator selection serve as a guide and is based on clean lubricating operating media at pressure up to 16 bar. For other operating conditions, please consult us.

The specifications given in this document represent the state of engineering at the time of publishing. We reserve the right to make modifications to the specification and materials