

Stainless steel flanged ball valves with electric actuator

Series BA051



Design type	Flanged ball valve with Electric geared motor, additional manual override, Actuator heater and Torque monitoring, Face-to-face length according to EN558-1 R27
Connection	Flanges DN15...DN150 according to EN1092-1
Materials Standard version	Actuator: Polymer housing PA6 or rather PA66 Ball valve: Body and ball stainless steel 1.4408, Ball seal PTFE, Spindle seal PTFE/FKM
Application range	Fluids and gases of group 1 and 2 in accordance with PED 2014/68/EU that do not attack the materials used
Medium temperature	-20...+160°C
Ambient temperature	-20...+55°C
Operating pressure	Vacuum max. 10^{-3} Torr up to Operating pressure according to table and pressure-temperature diagram
Mounting type	Installation in rigid piping system
Mounting position	any, except hanging downward

Electrical data:

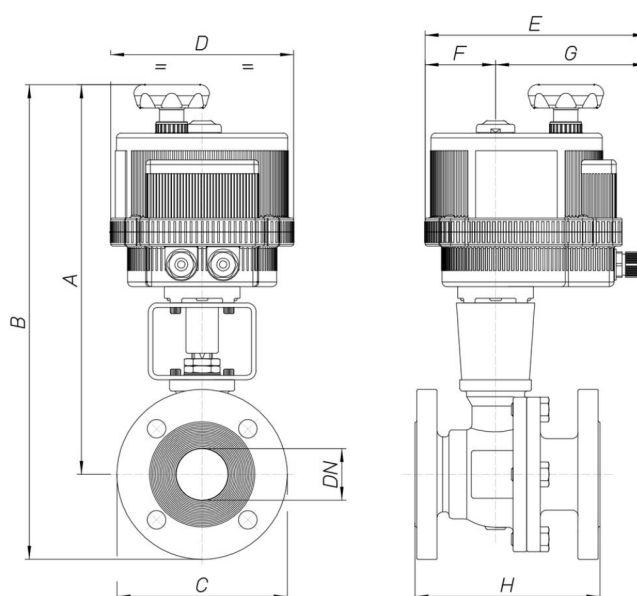
Voltage type	AC and DC voltage
Standard voltage	see table "Electrical data"
Permissible voltage fluctuation	± 10%
Electrical Connection	via cable gland PG11
End position shut-off	via integrated limit switches
Duty cycle	see table "Electrical data", however max. 100 switching cycles per day
Degree of protection	VB015 IP65 or rather all other sizes IP67 according to EN 60529 with properly installed cable entry (protection against dust ingress and splashing water)
Approvals	Ball valve ATEX, FireSafe, TA-Luft
Special version	oil-, grease- and silicone-free for oxygen, Battery pack for safety position, Positioner
Ordering note	When ordering, please also specify the operating medium, operating pressure and operating temperature.
Application note	The pressure and temperature specifications are maximum values for normal conditions, for lubricating or non-degreasing media. Degreasing media in particular reduce the specified values and increase the required torque. For these special cases, we recommend prior consultation.



Type code

		BA051- 15 - 0L	
	DN15	15	
	DN20	20	
	DN25	25	
	DN32	32	
	DN40	40	
	DN50	50	
	DN65	65	
	DN80	80	
	DN100	100	
	DN125	125	
Nominal size	DN150	150	
Voltage	12V/50-60Hz/12VDC	0D	
	24V/50-60Hz/24VDC	0L	
	100-240V/50-60Hz	0H	

Dimensions



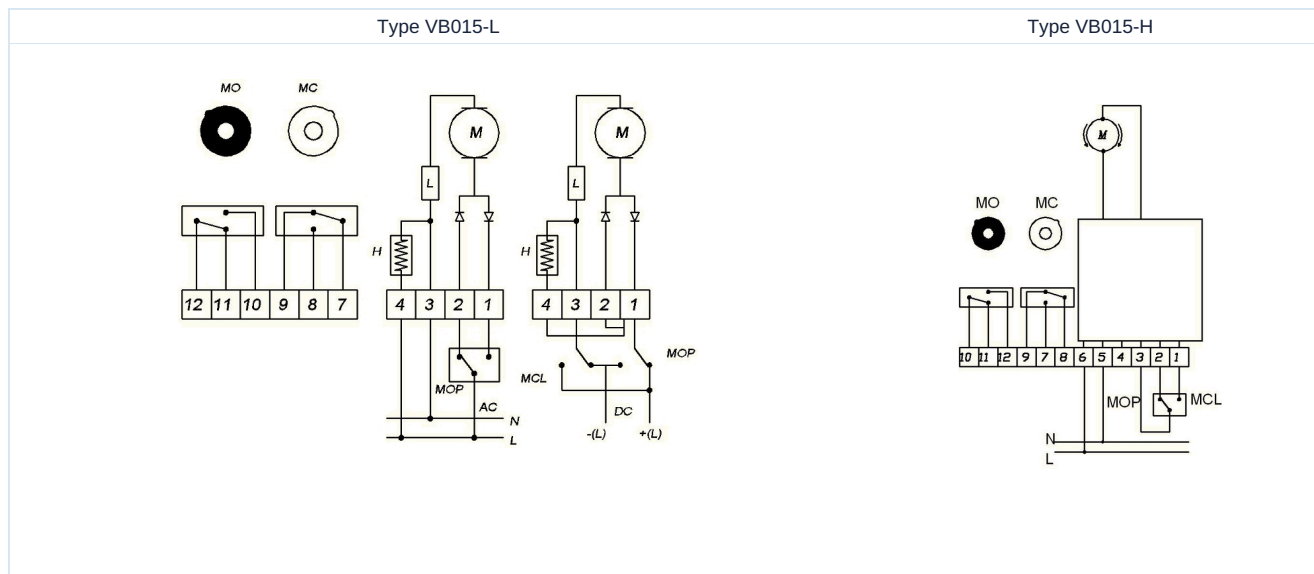
Nominal size DN[mm]	max. operating pressure [bar]	A	B	C	D	E	F	G	H	Kv value [m ³ /h]	Weight [approx. kg]	Actuator type	Type
15	40	225	272	95	123	164	43	121	115	16,3	4,2	VB015	BA051-15-0.
20	40	229	282	105	123	164	43	121	120	29,5	4,9	VB015	BA051-20-0.
25	40	294	351	115	157	191	61	130	125	43	7,1	VB030	BA051-25-0.
32	40	324	394	140	185	215	68	147	130	89	9,4	VB060	BA051-32-0.
40	40	351	426	150	185	215	68	147	140	230	11,7	VB060	BA051-40-0.
50	40	359	441	165	185	215	68	147	150	265	15	VB060	BA051-50-0.
65	16	386	478	185	211	237	84	153	170	540	20,6	VB110	BA051-65-0.
80	16	420	520	200	211	237	84	153	180	873	25,7	VB110	BA051-80-0.
100	16	435	544	220	211	237	84	153	190	1390	32	VB190	BA051-100-0.
125	16	458	583	250	222	247	77	170	325	1707	56,8	VB270	BA051-125-0.
150	16	491	634	285	222	247	77	170	350	2024	82	VB350	BA051-150-0.



Electrical data

Type	Voltage	Current consumption [A]	Rated torque [Nm]	Duty cycle (S3)	Actuation time [Sek.]
VB015-L-12	12V/50-60Hz/12VDC	1,2	15	AC 50% / DC 75%	10
VB015-L-24	24V/50-60Hz/24VDC	0,6	15	AC 50% / DC 75%	10
VB015-H	100-240V/50-60Hz	0,3-0,19	15	75%	10
VB30-L-12	12V/50-60Hz/12VDC	AC 2,2 / DC 1,8	30	50%	8
VB30-L	24V/50-60Hz/24VDC	AC 1 / DC 0,7	30	75%	8
VB30-H	100-240V/50-60Hz	0,4-0,2	30	75%	8
VB060-L-12	12V/50-60Hz/12VDC	AC 3,8 / DC 2,85	60	50%	9
VB060-L	24V/50-60Hz/24VDC	AC 1,8 / DC 1,2	60	75%	9
VB60-H	100-240V/50-60Hz	0,6-0,3	60	75%	9
VB110-L-12	12V/50-60Hz/12VDC	AC 2,2 / DC 1,8	110	50%	27
VB110-L	24V/50-60Hz/24VDC	AC 1 / DC 0,7	110	75%	27
VB110-H	100-240V/50-60Hz	0,4-0,2	110	75%	27
VB190-L-12	12V/50-60Hz/12VDC	AC 3,8 / DC 2,85	190	50%	27
VB190-L	24V/50-60Hz/24VDC	AC 1,8 / DC 1,2	190	75%	27
VB190-H	100-240V/50-60Hz	0,6-0,3	190	75%	27
VB270-L-12	12V/50-60Hz/12VDC	AC 3,8 / DC 2,85	270	50%	50
VB270-L	24V/50-60Hz/24VDC	AC 1,8 / DC 1,2	270	75%	50
VB270-H	100-240V/50-60Hz	0,6-0,3	270	75%	50
VB350-L-12	12V/50-60Hz/12VDC	AC 4,75 / DC 3,65	350	50%	50
VB350-L	24V/50-60Hz/24VDC	AC 1,895/ DC 1,65	350	75%	50
VB350-H	100-240V/50-60Hz	0,75-0,4	350	75%	50

Electrical connection example VB015



Position	Description	Note
H	Heater	Standard
L	Torque limiter	Standard
MC	End position feedback signals CLOSED	Standard max. 1A/250VAC-1A/30VDC
MO	End position feedback signals ON	Standard max. 1A/250VAC-1A/30VDC
MCL	Actuator CLOSED	
MOP	Actuator OPEN	



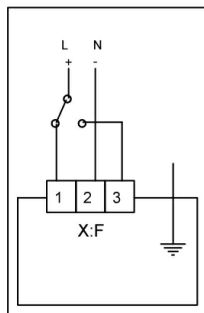
Electrical connection example VB030 - VB350



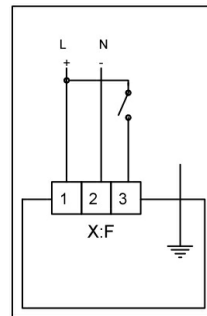
Position	Description	Note
C1	Battery pack for safety position	optional available
R1	Potentiometer 5 K Ω /1W	optional available
S1	End position feedback signals CLOSED	Standard max. 2A/250VAC-2A/30VDC
S2	End position feedback signals ON	Standard max. 2A/250VAC-2A/30VDC
S3	Fault message	Standard max. 1A/120VAC-2A/24VDC
X:F:1	Connection terminal	Actuator CLOSED
X:F:2	Connection terminal	
X:F:3	Connection terminal	Actuator OPEN

2-Point control or 3-point control by changing the electrical connection
VB030 - VB350

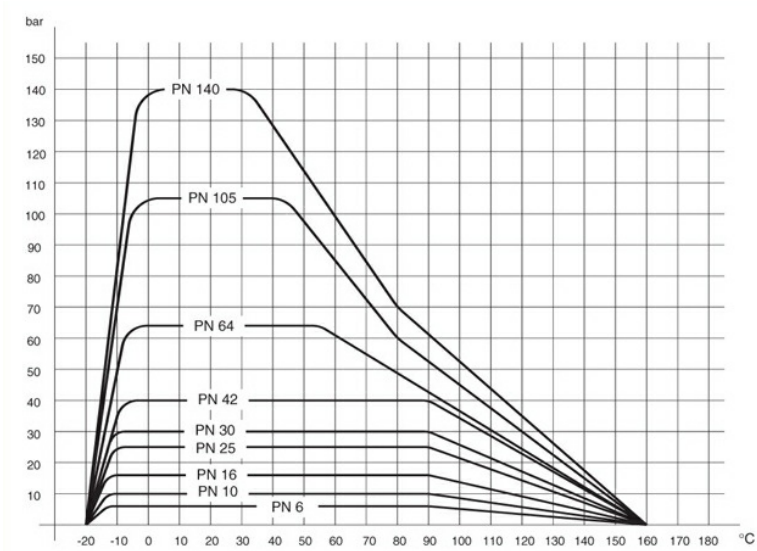
3-point control



2-point control



Pressure-temperature diagram



Illustrations non-binding
Design, dimensional and material changes reserved

Armatures / Ball valves - automatically operated / Other materials - A03 / Flanged ball valve with pneumatic actuator Series BA051-S0