

Stainless steel ball valves with electric actuator, Weld ends

Series 8E031



Design type	Ball valve with Electric geared motor, additional manual override, Actuator heater and Torque monitoring
Connection	Weld ends DN10...DN100
Materials Standard version	Actuator: Polymer housing PA6 or rather PA66 Ball valve: Body and ball stainless steel 1.4401, Ball seal PTFE glass fiber reinforced, Spindle seal PTFE/FKM
Application range	gaseous and liquid media that do not attack the materials used. For steam applications we recommend using special steam valves.
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:

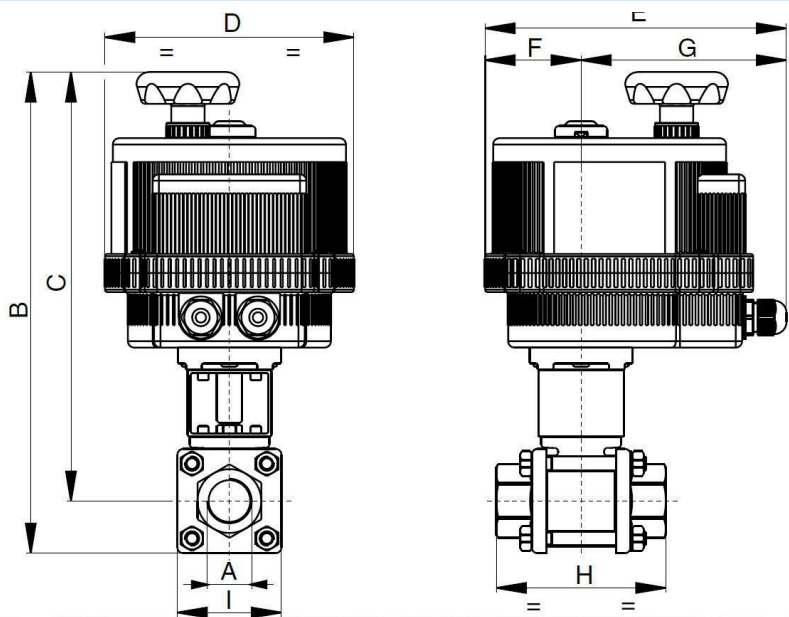
Voltage type	AC and DC voltage
Standard voltage	see table "Electrical data"
Permissible voltage fluctuation	$\pm 10\%$
Electrical Connection	via cable gland PG11
End position shut-off	via built-in limit switches
Duty cycle	VB015 50% ED VB030, VB060, VB110 and VB190 75% ED, however max. 100 switching 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)
Special version	Oil- and grease-free version for oxygen, Battery pack for safety position, Positioner
Ordering note	Please also specify the operating medium, operating pressure and operating temperature when ordering.
Application note	The pressure and temperature specifications are maximum values for normal conditions, for lubricating or non-degreasing media. In particular, degreasing media reduce the specified values and increase the required torque. For these special cases, we recommend prior consultation.



Order code

8E031 001 - 3/8"			
12V/50-60Hz/12VDC		001	
24V/50-60Hz/24VDC		002	
Voltage	100-240V/50-60Hz	004	
Connection	DN10	3/8"	
	DN15	1/2"	
	DN20	3/4"	
	DN25	1"	
	DN32	1 1/4"	
	DN40	1 1/2"	
	DN50	2"	
	DN65	2 1/2"	
	DN80	3"	
	DN100	4"	

Dimensions



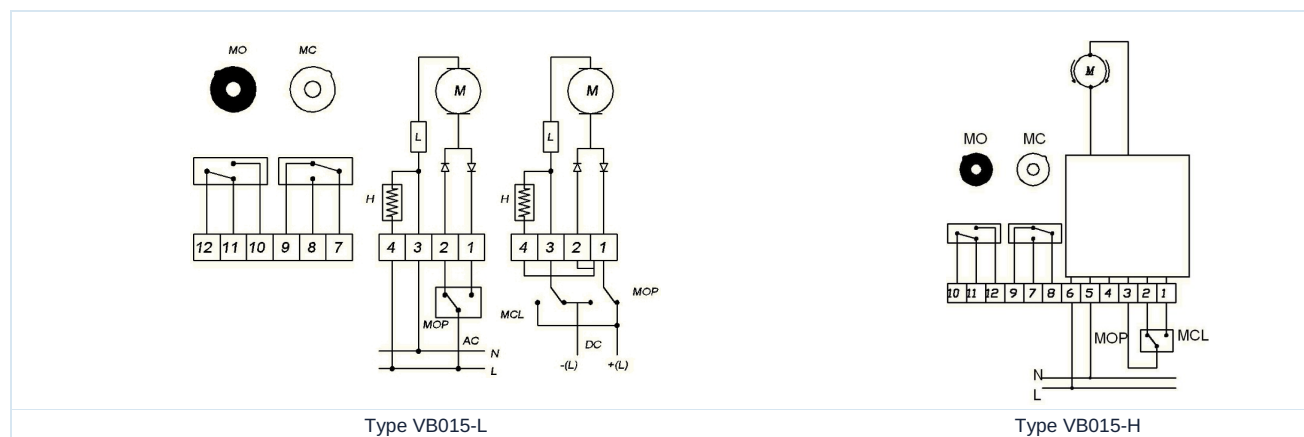
Nominal size A DN[mm]	max. Operating pressure [bar]	B	C	D	E	F	G	H	I	Kv value [m³/h]	Weight [approx. kg]	Actuator type	Type
10	64	205	188	123	164	43	121	57	33	6	1,68	VB015	8E031...-3/8"
15	64	211	192	123	164	43	121	65	38	16,3	1,8	VB015	8E031...-1/2"
20	40	252	229	123	164	43	121	76	47	29,5	2,0	VB015	8E031...-3/4"
25	40	309	280	157	191	61	130	92	58	43	3,4	VB030	8E031...-1"
32	25	317	283	157	191	61	130	107	67	89	3,8	VB030	8E031...-1 1/4"
40	25	368	330	185	215	68	147	116	76	230	5,4	VB060	8E031...1 1/2"
50	25	382	337	185	215	68	147	136	90	265	6,5	VB060	8E031...-2"
65	16	434	367	211	237	84	153	154	134	540	13,05	VB110	8E031...-2 1/2"
80	16	459	379	211	237	84	153	180	161	873	17,7	VB110	8E031...-3"
100	16	510	415	211	237	84	153	217	190	1390	26,4	VB190	8E031...-4"

For more detailed dimensions for the ball valves, please refer to our data sheet for the manual ball valve 712000.

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
VB030-L-12	12V/50-60Hz/12VDC	AC 2,2 / DC 1,8	30	50%	8
VB030-L	24V/50-60Hz/24VDC	AC 1,0 / DC 0,7	30	75%	8
VB030-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
VB060-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

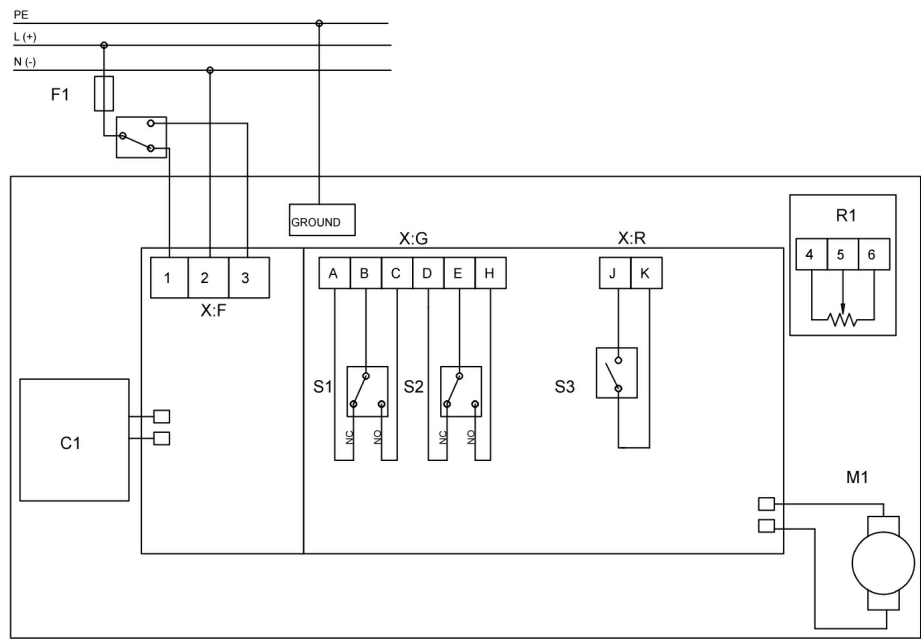
Electrical connection VB015



Position	Description	Note
H	Heater	Standard
L	Torque limiter	Standard
MC	End position feedback signals ON	Standard max. 1A/240VAC-1A/30VDC
MO	End position feedback signals CLOSED	Standard max. 1A/240VAC-1A/30VDC
MCL	Connection	Actuator CLOSED
MOP	Connection	Actuator OPEN



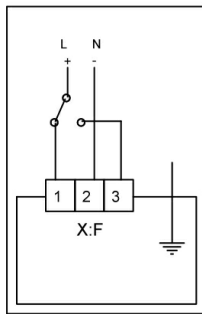
Electrical connection VB030-VB190



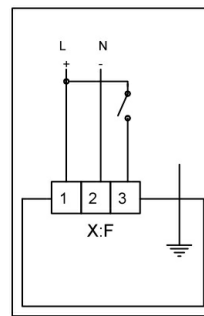
Position	Description	Note
C1	Battery pack for safety position	optional available
R1	Potentiometer 5 K Ω /1W	optional available
S1	End position feedback signals CLOSED	Standard max. 2A/250VAC-2A/30VDC
S2	End position feedback signals ON	Standard max. 2A/250VAC-2A/30VDC
S3	Fault message	Standard max. 1A/120VAC-2A/24VDC
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-VB190

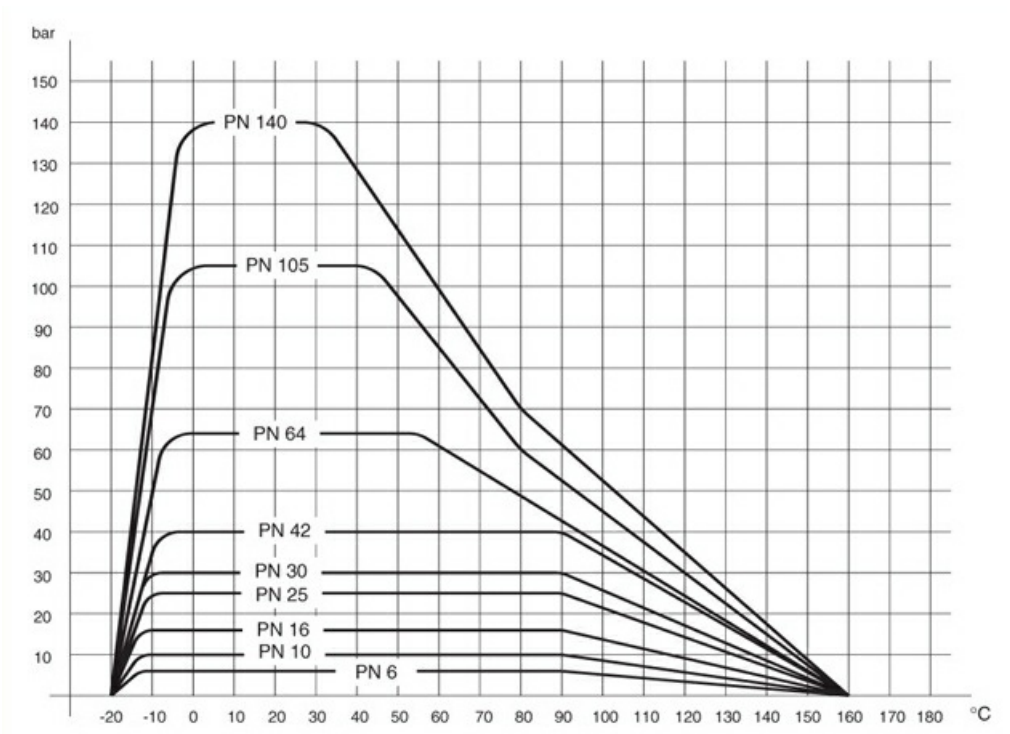
3-point control



2-point control



Pressure-temperature diagram



Illustrations non-binding
Design, dimensional and material changes reserved

Armatures / Ball valves - automatically operated / Ball valves - electrically operated / Ball valve with electrical actuator Series 8E031