

Three-way ball valves made of brass with electric actuator

Series 8E028 (T-port hole) and 8E029 (L-bore)



Design type	Electric geared motor with additional manual override, Actuator heater and Torque monitoring, Three-piece ball sealing
Connection	RP1/4"...RP2" according to ISO7/1
Materials Standard version	Actuator: Polymer housing PA6 or rather PA66 Ball valve: Body Brass CW617N nickel-plated, Ball Brass CW617N hard chrome-plated, Seals PTFE/FKM/EPDM
Application range	Gases and liquids of Group 2 in accordance with PED 2014/68/EU that do not attack the materials used.
Medium temperature	0...+100°C
Ambient temperature	-20...+55°C
Operating pressure	0bar up to Operating pressure according to table and pressure-temperature diagram, not suitable for vacuum
Mounting type	Installation in rigid piping system
Mounting position	any, except hanging downward

Electrical data:

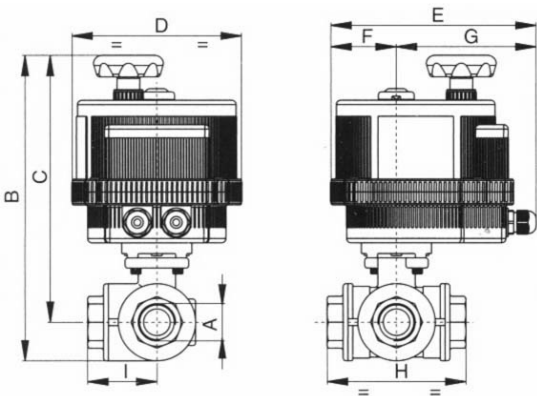
Voltage type	AC and DC voltage
Standard voltage	see table "Electrical data"
Permissible voltage fluctuation	± 10%
Electrical Connection	via cable gland PG11
End position shut-off	via built-in limit switches
Duty cycle	see table "Electrical data", however max. 100 switching cycles per day
Degree of protection	VB015 IP65 or rather all other sizes IP67 according to EN 60529 with properly installed cable entry (protection against dust ingress and splashing water)
Special version	higher medium temperatures, Battery pack for safety position, Positioner
Ordering note	When ordering the switching mode must be specified (see "switching diagram").
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.



Order code

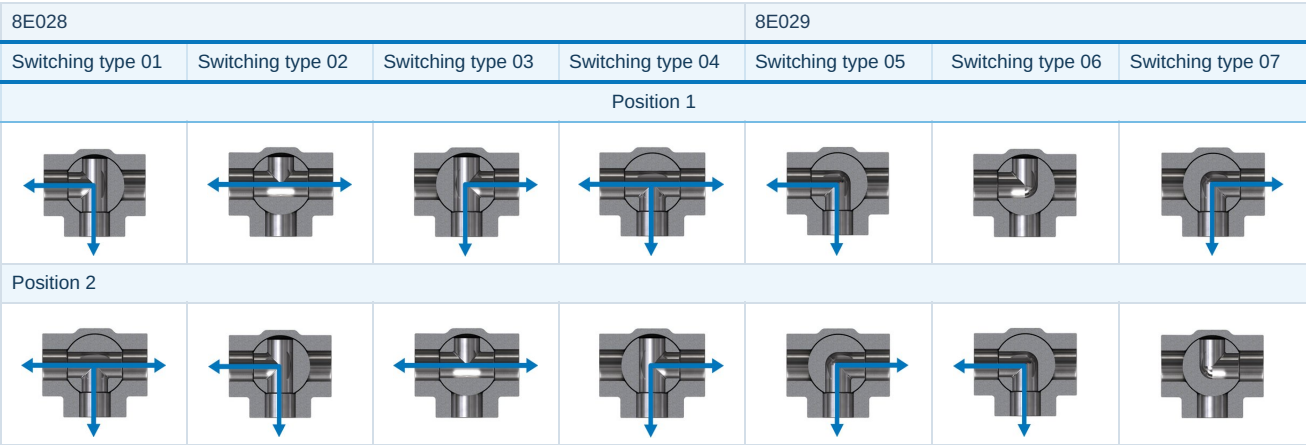
		T-port hole 8E028		L-bore 8E029		001 - 1/4"	
		12V/50-60Hz/12VDC	001				
		24V/50-60Hz/24VDC	002				
Voltage		100-240V/50-60Hz	004				
Connection	RP1/4"					1/4"	
	RP3/8"					3/8"	
	RP1/2"					1/2"	
	RP3/4"					3/4"	
	RP1"					1"	
	RP11/4"					11/4"	
	RP11/2"					11/2"	
	RP2"					2"	

Dimensions



Connection A	Nominal size DN[mm]	max. Operating pressure [bar]	B	C	D	E	F	G	H	I	Kv value [m³/h]	Weight [approx. kg]	Actuator type	Type T-port hole	Type L-bore
RP1/4"	8	30	190	173	123	164	43	121	67	34	2,8	2,0	VB015	8E028...-1/4"	8E029...-1/4"
RP3/8"	10	30	190	173	123	164	43	121	67	34	3	2,0	VB015	8E028...-3/8"	8E029...-3/8"
RP1/2"	15	30	195	175	123	164	43	121	77	39	3,9	2,1	VB015	8E028...-1/2"	8E029...-1/2"
RP3/4"	20	30	208	184	123	164	43	121	87	44	7,9	2,5	VB015	8E028...-3/4"	8E029...-3/4"
RP1"	25	16	265	235	157	191	61	130	105	53	13	4,0	VB030	8E028...-1"	8E029...-1"
RP11/4"	32	10	284	248	157	191	61	130	123	62	20,7	5,1	VB030	8E028...-11/4"	8E029...-11/4"
RP11/2"	40	10	332	289	185	215	68	147	139	70	38,7	8,2	VB060	8E028...11/2"	8E029...11/2"
RP2"	50	10	356	300	185	215	68	147	166	83	54	12,0	VB060	8E028...-2"	8E029...-2"

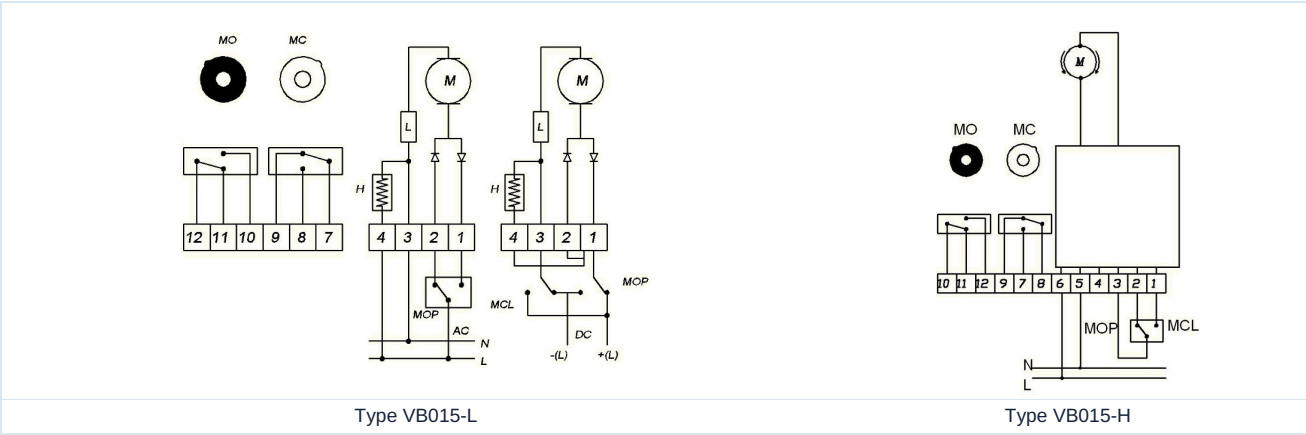
Circuit diagram



Electrical data

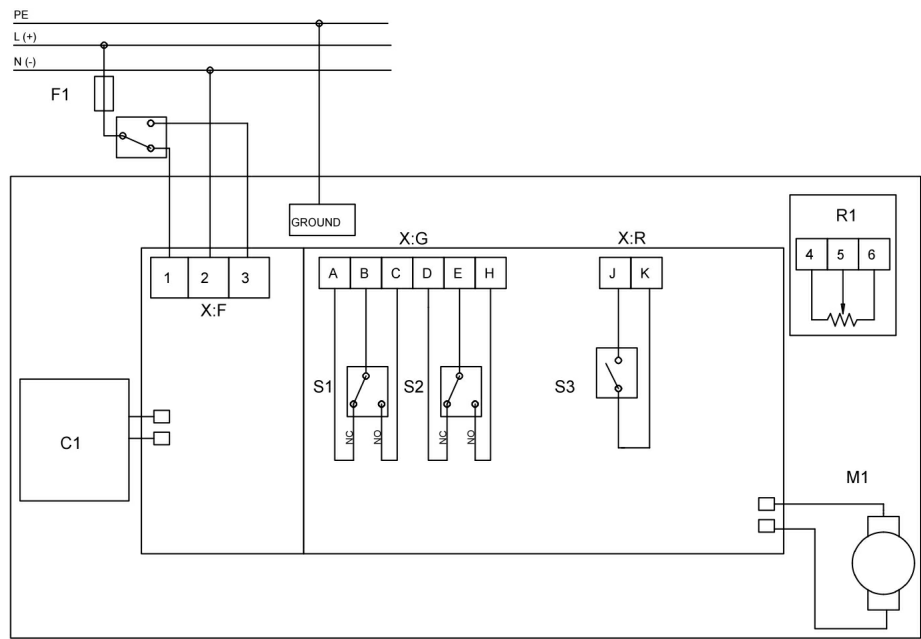
Type	Voltage	Current consumption [A]	Rated torque [Nm]	Duty cycle (S3)	Actuation time [Sek.]
VB015-L-12	12V/50-60Hz/12VDC	AC / DC 1,2	15	AC50% / DC 75%	10
VB015-L-24	24V/50-60Hz/24VDC	AC / DC 0,6	15	AC50% / DC 75%	10
VB015-H	100-240V/50-60Hz	0,3-0,19	15	75%	10
VB30-L-12	12V/50-60Hz/12VDC	AC 2,2 / DC 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

Electrical connection example 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

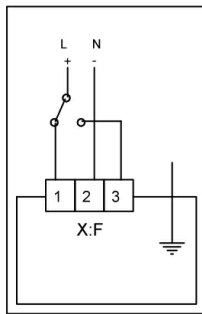
Electrical connection example VB030-VB060



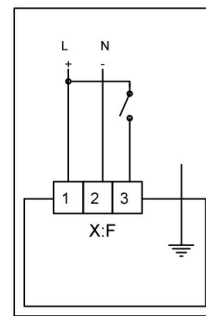
Position	Description	Note
C1	Battery pack for safety position	optional available
R1	Potentiometer 5 K Ω /1W	optional available
S1	End position feedback signals CLOSED	Standard max. 2A/250VAC-2A/30VDC
S2	End position feedback signals ON	Standard max. 2A/250VAC-2A/30VDC
S3	Fault message	Standard max. 1A/120VAC-2A/24VDC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

2-Point control or 3-point control by changing the electrical connection VB030-VB060

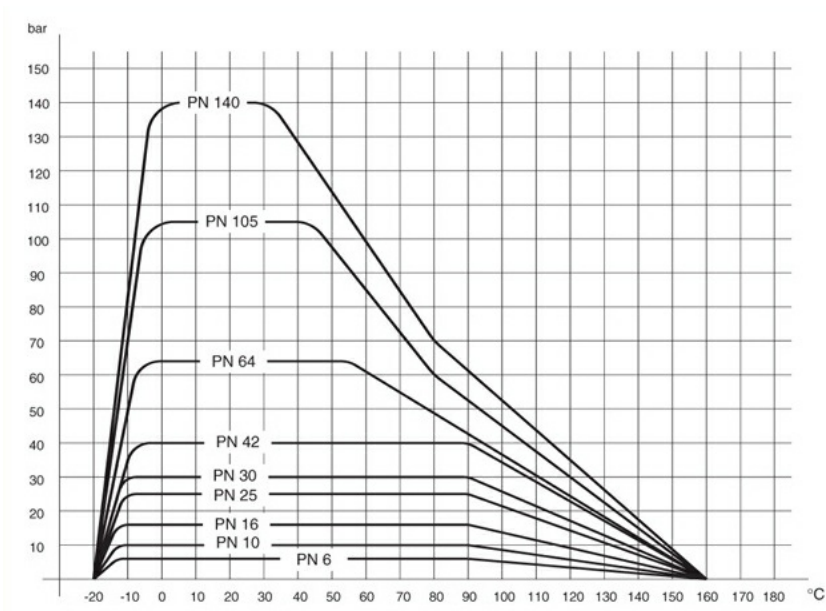
3-point control



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 8E029, 8E028