

# CONTROL VALVES

## HIGH TEMPERATURE BALL VALVES HTCCV SERIES



**BELIMO**



B215HT029/LRB24-SR



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CONTROL VALVES

### DESCRIPTION

The **Belimo HTCCV Series 2-way high temperature ball valves** are used for two-position, floating or proportional control of HVAC hot or chilled water, or low pressure steam. The valves come assembled with direct coupled Belimo electric actuators with spring return or non-spring return operation. This valve displays a true equal percentage characteristic. They come in standard sizes from 1/2" to 1" and Cv's from (0.29 to 28).

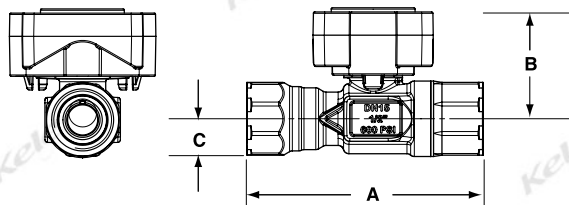
### FEATURES

- *Equal percentage flow characteristic*
- *Assembled, ready for installation*
- *Spring return or non-spring return actuators*
- *Floating, two-position, or proportional control*
- *Hot/chilled waer and low pressure steam up to 15psi*

### SPECIFICATIONS

<b>Size</b>	1/2", 3/4" and 1" FNPT	<b>Media Temperature Range</b>	60° to 266°F (16° to 130°C) water, limited to 250°F (121°C) for steam
<b>Cv Range</b>	0.29 to 28	<b>Compatible Actuators</b>	Non-spring return: TR, LRB, LRX Spring return: TFRB, TFRX
<b>Body Pattern</b>	2-way only	<b>Pressure Drop</b>	Maximum differential pressure 60 psid (414 kPa) for water (partially opened), 116 psid (799 kPa) for B215HT455 only 15 psid (104 kPa) for steam
<b>Flow Characteristic</b>	A-port equal percentage	<b>Body Pressure Rating</b>	600 psig (4135 kPa)
<b>Leakage Rating</b>	0%, bubble tight	<b>Approvals</b>	UL File #E108966 (for actuators only), CSA, CE
<b>Maximum Closeoff Pressure</b>	200 psid (1380 kPa)	<b>Warranty</b>	5 years
<b>Materials Of Construction</b>	Brass body (DZR) P-CuZn35Pb2, stainless steel ball and stem, Tefzel® characterized disc and seat, EPDM o-rings		
<b>Media Compatibility</b>	Chilled or hot water, <60% glycol, <15 psig (104kPa) steam		

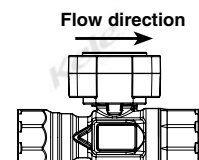
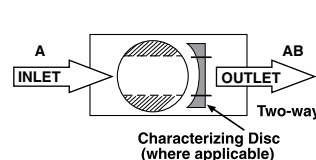
### DIMENSIONS



Valve Nominal Size			Dimensions - inches (cm)		
Valve Body	Inches	DN (mm)	A	B	C
B215HT	1/2"	15	3.33 (8.46)	2.09 (5.32)	0.53 (1.35)
B220HT	3/4"	20	3.96 (10.06)	2.37 (6.01)	0.67 (1.70)
B225HT	1"	25	5.14 (13.06)	3.14 (7.98)	0.92 (2.325)

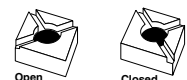
### FLOW PATTERN

#### 2-way High Temperature Characterized Control Valves



Upstream A  
Downstream AB

Valve should be installed with the characterization disc downstream (unlike the CCV series valves).



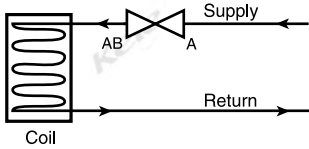


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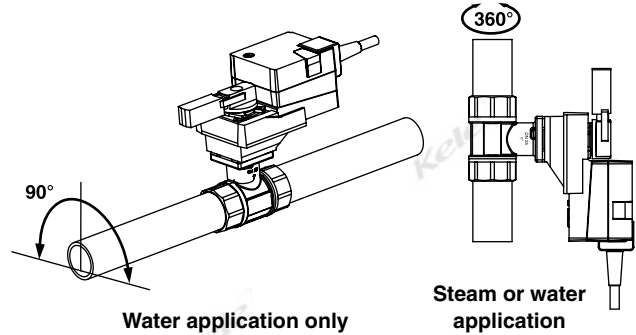
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### MOUNTING / PIPING DIAGRAMS

2-way Valve Piping Diagram  
(1 Input, 1 Output)



Assembly can be mounted horizontally or vertically for water applications. For steam applications the valve can be mounted vertically but if mounted horizontally the valve must be 90° off center of the pipe. Do not install with actuator below pipe.



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CONTROL VALVES

### ORDERING INFORMATION

VALVE SPECIFICATION				NON-SPRING RETURN		SPRING RETURN		
Port	Valve#	Cv	Size	Two-Pos/Tri-state	Proportional	Two-Pos	Tri-state	Proportional
Two-way	B215HT029	0.29	1/2"	TR24-3	TR24-SR	TFRB24	TFRB24-3	TFRB24-SR
Two-way	B215HT046	0.46	1/2"	TR24-3	TR24-SR	TFRB24	TFRB24-3	TFRB24-SR
Two-way	B215HT073	0.73	1/2"	TR24-3	TR24-SR	TFRB24	TFRB24-3	TFRB24-SR
Two-way	B215HT116	1.16	1/2"	TR24-3	TR24-SR	TFRB24	TFRB24-3	TFRB24-SR
Two-way	B215HT186	1.86	1/2"	TR24-3	TR24-SR	TFRB24	TFRB24-3	TFRB24-SR
Two-way	B215HT290	2.9	1/2"	TR24-3	TR24-SR	TFRB24	TFRB24-3	TFRB24-SR
Two-way	B215HT455*	4.55	1/2"	TR24-3	TR24-SR	TFRB24	TFRB24-3	TFRB24-SR
Two-way	B220HT186	1.86	3/4"	LRB24-3	LRB24-SR	LF24	LF24-3	LF24-SR
Two-way	B220HT290	2.9	3/4"	LRB24-3	LRB24-SR	LF24	LF24-3	LF24-SR
Two-way	B220HT464	4.64	3/4"	LRB24-3	LRB24-SR	LF24	LF24-3	LF24-SR
Two-way	B220HT731	7.31	3/4"	LRB24-3	LRB24-SR	LF24	LF24-3	LF24-SR
Two-way	B220HT928	9.28	3/4"	LRB24-3	LRB24-SR	LF24	LF24-3	LF24-SR
Two-way	B220HT1320	13.2	3/4"	LRB24-3	LRB24-SR	LF24	LF24-3	LF24-SR
Two-way	B225HT464	4.64	1"	LRB24-3	LRB24-SR	LF24	LF24-3	LF24-SR
Two-way	B225HT731	7.31	1"	LRB24-3	LRB24-SR	LF24	LF24-3	LF24-SR
Two-way	B225HT1160	11.6	1"	LRB24-3	LRB24-SR	LF24	LF24-3	LF24-SR
Two-way	B225HT1856	18.56	1"	LRB24-3	LRB24-SR	LF24	LF24-3	LF24-SR
Two-way	B225HT2800	28	1"	LRB24-3	LRB24-SR	LF24	LF24-3	LF24-SR

\*Modified equal percentage characteristic

B\_ \_ \_ / Select ball valve # from list above (brackets and mounting are included).

Select actuator # from list above (other options for the actuator family are also available)

**Example:** B215HT029 / TR24-SR 1/2" ball valve, Cv=0.29 with proportional non-spring return actuator

All valves are factory assembled. No field assembly required.

**Note:** For actuator information see B2, B3 Series Ball Valve page.

**Note:** Multi-Function Technology® (MFT) model actuators are available on certain models. Replace LRB models with LRX; TFRB models with TFRX. Then add -MFT to the base model number and specify the control signal configuration or the Belimo P-code for a pre-set MFT configuration (not required if to be field configured, or if the default configuration of 2-10 VDC is required).

SSTAG

#### RELATED PRODUCTS

Stainless steel tag on bead chain, 1" x 2" dogtag, custom engraved per order