BELIMO

# Technical data sheet B310B

3-way Mixing/Diverting, Characterized Control Valve, Chrome Plated Brass Ball and Nickel Plated Brass Stem



Picture may differ from product

5-year warranty

## Type overview

| Type | DN |
|---|---|
| B310B | 1/2" [15] |

## Technical data

| | | |
|---|---|---|
| **Functional data** | Valve size [mm] | 0.5" [15] |
| | Fluid | chilled or hot water, up to 60% glycol |
| | Fluid Temp Range (water) | 0...250°F [-18...120°C] |
| | Body Pressure Rating | 600 psi |
| | Close-off pressure Δps | 200 psi |
| | Flow | A-port: as stated in chart B-port: 70% of A–AB Cv |
| | Flow characteristic | A-port equal percentage, B-port modified for constant common port flow |
| | Leakage rate | 0% for A–AB, <2.0% for B–AB |
| | Pipe connection | Internal thread<br>NPT (female) |
| | Servicing | maintenance-free |
| | Flow Pattern | 3-way Mixing/Diverting |
| | Controllable flow range | 75° |
| | Cv | 1.2 |
| **Materials** | Valve body | Nickel-plated brass body |
| | Stem | nickel-plated brass |
| | Stem seal | EPDM (lubricated) |
| | Seat | PTFE |
| | Characterized disc | TEFZEL® |
| | O-ring | EPDM (lubricated) |
| | Ball | chrome plated brass |
| **Suitable actuators** | Non Fail-Safe | TR<br>LRB(X) |
| | Spring | TFRB(X)<br>LF |

## Safety notes

- WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

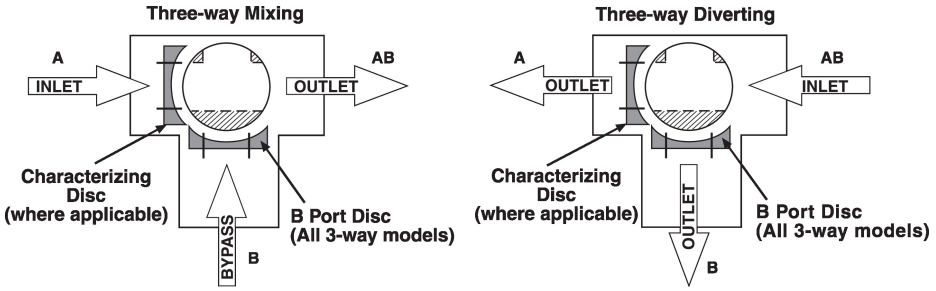
## Product features

**Application**

This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable or constant flow.

**Flow/Mounting details**

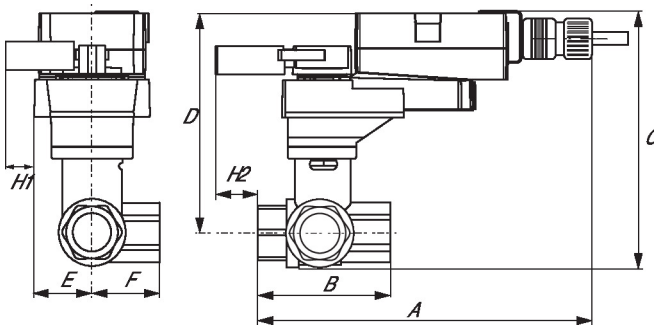
This valve is not suitable for use as a change over valve.




## Dimensions

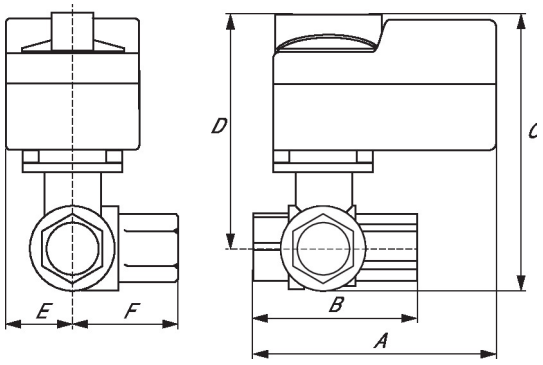
| Type | DN | Weight |
|---|---|---|
| B310B | 1/2" [15] | 0.59 lb [0.27 kg] |

LRB, LRX




| A | B | C | D | E | F | H1 | H2 |
|---|---|---|---|---|---|---|---|
| 8.5" [216] | 2.4" [60] | 5.2" [132] | 4.6" [117] | 1.3" [33] | 1.3" [33] | 1.2" [30] | 1.1" [28] |

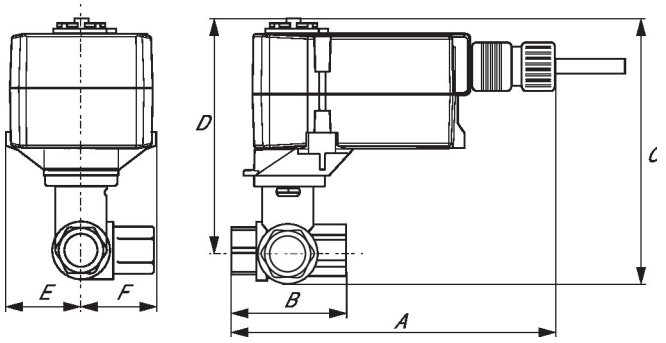
TR




| A | B | C | D | E | F |
|---|---|---|---|---|---|
| 3.7" [95] | 2.4" [60] | 4.8" [122] | 4.2" [107] | 1.3" [33] | 1.2" [31] |

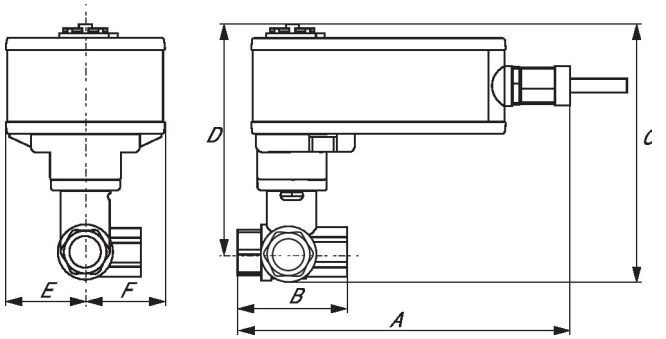
## Dimensions

TFRB, TFRX




| A | B | C | D | E | F |
|---|---|---|---|---|---|
| 6.6" [167] | 2.4" [60] | 4.9" [124] | 4.3" [110] | 1.5" [39] | 1.2" [31] |

LF

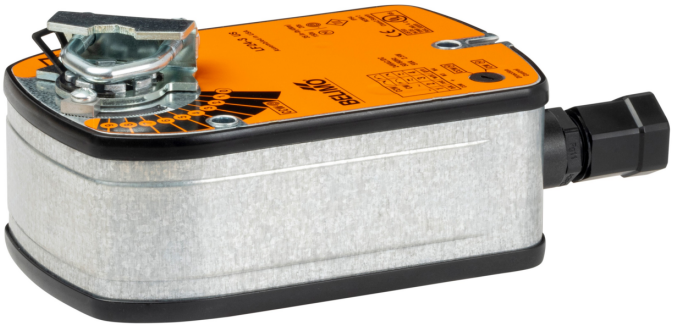



| A | B | C | D | E | F |
|---|---|---|---|---|---|
| 7.91" [200] | 2.4" [60] | 5.7" [146] | 5.1" [129] | 1.8" [46] | 1.9" [48] |

BELIMO

# Technical data sheet LF120 US

On/Off, Spring return, 100...240 V



Picture may differ from product

5-year warranty

## Technical data

| | | |
|---|---|---|
| **Electrical data** | Nominal voltage | AC 100...240 V |
| | Nominal voltage frequency | 50/60 Hz |
| | Nominal voltage range | AC 96...132 V |
| | Power consumption in operation | 5.5 W |
| | Power consumption in rest position | 3.5 W |
| | Transformer sizing | 7.5 VA |
| | Electrical Connection | 18 AWG appliance cable, 1 m, with 1/2" NPT conduit connector |
| | Overload Protection | electronic throughout 0...95° rotation |
| **Functional data** | Direction of motion motor | selectable with switch 0/1 |
| | Direction of motion fail-safe | reversible with cw/ccw mounting |
| | Angle of rotation | 90° |
| | Running Time (Motor) | 75 s / 90° |
| | Running time fail-safe | <25 s @ -20...50°C, <60 s @ -30°C |
| | Sound power level, motor | 50 dB(A) |
| | Sound power level, fail-safe | 62 dB(A) |
| | Position indication | Mechanical |
| **Safety data** | Degree of protection IEC/EN | IP54 |
| | Degree of protection NEMA/UL | NEMA 2 |
| | Housing | UL Enclosure Type 2 |
| | Agency Listing | cULus acc. To UL 873 and CAN/CSA C22.2 No. 24-93 |
| | Quality Standard | ISO 9001 |
| | UL 2043 Compliant | Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC |
| | Ambient humidity | Max. 95% RH, non-condensing |
| | Ambient temperature | -22...122°F [-30...50°C] |
| | Storage temperature | -40...176°F [-40...80°C] |
| | Servicing | maintenance-free |
| **Weight** | Weight | [] |
| **Materials** | Housing material | galvanized steel |

**Footnotes** †Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3

## Electrical installation

**Wire colors:**
1 = blue
2 = brown

AC 230 V, on/off

