

# B229 Technical Data Sheet

## Stainless Steel Ball and Stem



| Technical Data           |                                      |
|--------------------------|--------------------------------------|
| Fluid                    | chilled, hot water, up to 60% glycol |
| Flow characteristic      | equal percentage                     |
| Controllable flow range  | 75°                                  |
| Valve Size [mm]          | 1.25" [32]                           |
| Pipe connection          | NPT female ends                      |
| Housing                  | Nickel-plated brass body             |
| Ball                     | stainless steel                      |
| Stem                     | stainless steel                      |
| Stem seal                | EPDM (lubricated)                    |
| Seat                     | PTFE                                 |
| O-ring                   | EPDM (lubricated)                    |
| Characterized disc       | TEFZEL®                              |
| Body Pressure Rating     | 600 psi                              |
| Close-off pressure Δps   | 200 psi                              |
| Cv                       | 10                                   |
| Weight                   | 1.32 lb [0.60 kg]                    |
| Fluid Temp Range (water) | 0...250°F [-18...120°C]              |
| Leakage rate             | 0% for A – AB                        |
| Servicing                | maintenance-free                     |



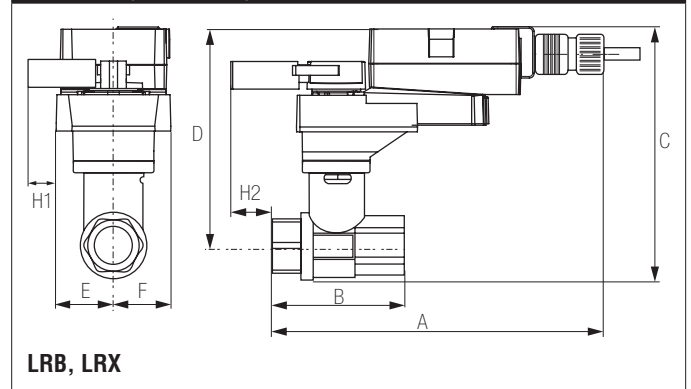
### Application

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 flow.

### Suitable Actuators

|      | Non-Spring | Spring |
|------|------------|--------|
| B229 | LRB(X), NR | LF     |

### Dimensions (Inches [mm])



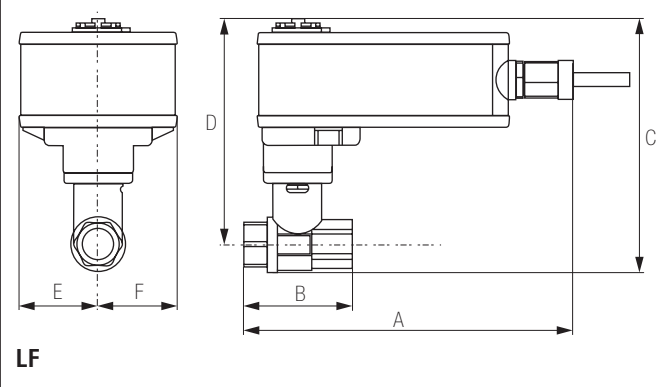
| A          | B         | C          | D          | E         | F | H1        | H2        |
|------------|-----------|------------|------------|-----------|---|-----------|-----------|
| 9.4" [239] | 3.7" [95] | 7.2" [184] | 6.3" [161] | 1.3" [33] |   | 1.2" [30] | 0.6" [15] |

### 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](http://www.p65warnings.ca.gov)

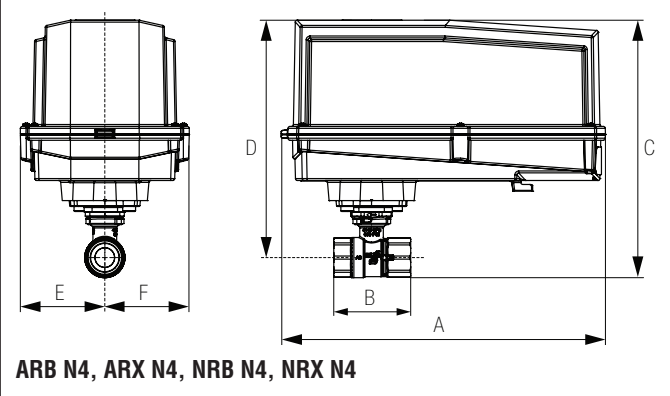
Date created, 10/29/2019 - Subject to change. © Belimo Aircontrols (USA), Inc.

### Dimensions (Inches [mm])



| A          | B         | C          | D          | E         | F |
|------------|-----------|------------|------------|-----------|---|
| 8.3" [211] | 3.7" [95] | 6.6" [167] | 5.6" [142] | 1.8" [46] |   |

### Dimensions (Inches [mm])



| A           | B         | C          | D          | E         | F |
|-------------|-----------|------------|------------|-----------|---|
| 11.4" [289] | 3.7" [95] | 7.8" [199] | 7.1" [181] | 3.1" [80] |   |

# LRX24-SR-T Technical Data Sheet

Modulating, Non-Spring Return, 24 V, for DC 2...10 V or 4...20 mA



5-year warranty



| Technical Data                     |   |
|------------------------------------|---|
| Power Supply                       | 24 VAC, ±20%, 50/60 Hz, 24 VDC, ±10%  |
| Power consumption in operation     | 1.5 W   |
| Power consumption in rest position | 0.2 W   |
| Transformer sizing                 | 3 VA (class 2 power source)   |
| Electrical Connection              | Screw terminal (for 26 to 14 GA wire)                                       |
| Overload Protection                | electronic throughout 0...90° rotation                                      |
| Operating Range                    | 2...10 V, 4...20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)                       |
| Input Impedance                    | 100 kΩ for 2...10 V (0.1 mA), 500 Ω for 4...20 mA                           |
| Position Feedback                  | 2...10 V  |
| Angle of rotation                  | 90°   |
| Direction of rotation motor        | reversible with built-in switch   |
| Position indication                | Mechanically, pluggable   |
| Manual override                    | external push button  |
| Running Time (Motor)               | 90 s  |
| Ambient humidity                   | max. 95% r.H., non-condensing   |
| Ambient temperature                | -22...122°F [-30...50°C]  |
| Storage temperature                | -40...176°F [-40...80°C]  |
| Degree of Protection               | IP54, NEMA 2  |
| Agency Listing                     | cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC |
| Noise level, motor                 | 35 dB(A)  |
| Servicing                          | maintenance-free  |
| Quality Standard                   | ISO 9001  |
| Weight                             | 1.1 lb [0.50 kg]  |

†Rated Impulse Voltage 800V, Type of Action 1, Control Pollution Degree 2.

### Safety Notes

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**Wiring Diagrams**

**INSTALLATION NOTES**

- 1 Provide overload protection and disconnect as required.
  - 2 Actuators may be connected in parallel. Power consumption and input impedance must be observed.
  - 3 Actuators may also be powered by 24 VDC.
  - 5 Only connect common to negative (-) leg of control circuits.
  - 7 A 500 Ω resistor (ZG-R01) converts the 4 to 20 mA control signal to 2 to 10 VDC.
  - 16 Actuators are provided with a numbered screw terminal strip instead of a cable.
- ◆ Meets cULus requirements without the need of an electrical ground connection.

**WARNING! LIVE ELECTRICAL COMPONENTS!**  
 During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

