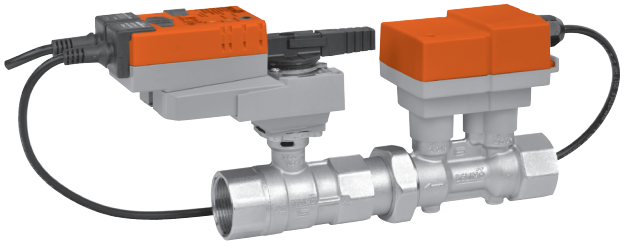
P2100SU-182 Technical Data Sheet



5-year warranty

Application
Water-side control of heating and cooling systems for AHUs and water coils. Equal Percentage/ Linear: heating and cooling applications.

Operation
The Electronic Pressure Independent Control Valve is a two-way valve that maintains constant flow regardless of pressure variations in the system.

Product Features
Provides constant flow regardless of pressure variations in the system. Maximizes chiller Delta T, preventing energizing additional chillers due to low Delta T. Simplified valve sizing and selection, no Cv calculations required.

Suitable Actuators

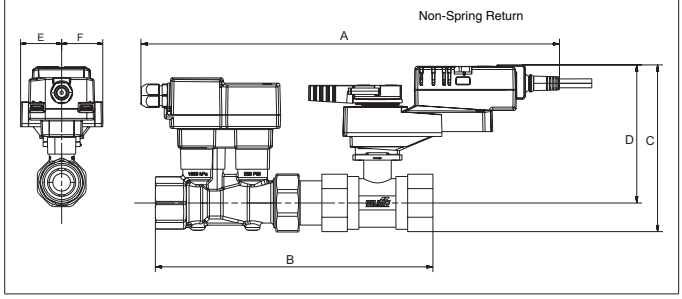
	Non-Spring	Electronic fail-safe
P2100SU-182	(LRF..)	(AKRB(X))

Technical Data

Fluid	chilled or hot water, up to 60% glycol max (open loop/steam not allowed)
Flow characteristic	equal percentage or linear
Valve Size [mm]	1" [25]
Pipe connection	NPT female ends
Housing	Nickel-plated brass body
Flow measuring pipe	brass body nickel-plated
Ball	stainless steel
Stem	stainless steel
Seat	PTFE
O-ring	EPDM
Characterized disc	stainless steel TEFZEL®
Body Pressure Rating	360 psi
Differential Pressure Range	5...50 psi or 1...50 psi see flow reductions chart in tech doc
Close-off pressure Δps	200 psi
Ambient temperature	-22...122°F [-30...50°C]
Inlet Length to Meet Specified Measurement Accuracy	5X nominal pipe size (NPS)
Ambient humidity	max. 95% r.H., non-condensing
Measuring accuracy flow	±2%*
Control accuracy	±5%
Flow Measurement Repeatability	±0.5%
Sensor Technology	ultrasonic with glycol and temperature compensation
Rangeability Sv	100:1
Power supply for the flow sensor	sensor is powered by the actuator
Weight	4.41 lb [2.0 kg]
GPM	18.2
Fluid Temp Range (water)	14...250°F [-10...120°C]
Leakage rate	0%

*All flow tolerances are at 68°F (20°C) & water.

Dimensions (Inches [mm])

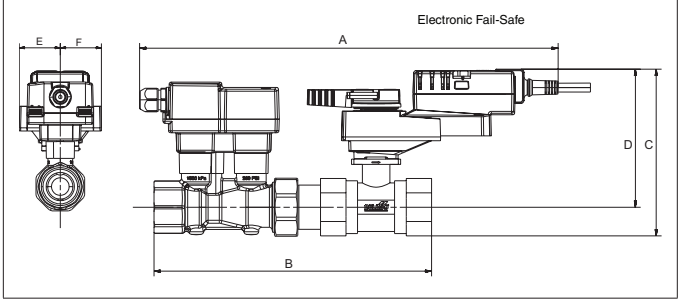


A	B	C	D	E	F
15.3" [388]	9.1" [231]	5.8" [147]	5.0" [127]	1.5" [39]	

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

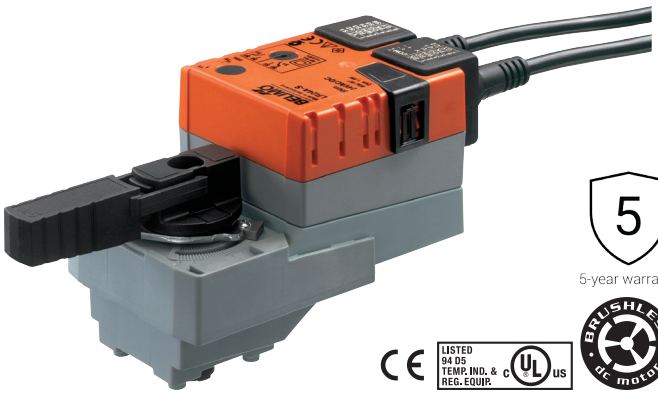
P2100SU-182 Technical Data Sheet

Dimensions (Inches [mm])



A	B	C	D	E	F
17.0” [433]	9.1” [231]	7.9” [201]	7.1” [181]	1.9” [48]	

LRX24-EP2 Technical Data Sheet



5-year warranty

Technical Data	
Power Supply	24 VAC, ±20%, 50/60 Hz, 24 VDC, -10% / +20%
Power consumption in operation	3.5 W
Transformer sizing	6 VA (class 2 power source)
Electrical Connection	18 GA plenum cable, 3 ft [1 m], with 1/2" conduit connector
Overload Protection	electronic thoughout 0...90° rotation
Operating Range	2...10 V (default), 4...20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor), VDC variable
Input Impedance	100 kΩ (0.1 mA), 500 Ω
Position Feedback	default 2...10 V, VDC variable
Angle of rotation	90°
Torque motor	45 in-lb [5 Nm]
Direction of motion motor	reversible with pc tool
Position indication	integrated into handle
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, UL Enclosure Type 2
Housing material	UL94-5VA
Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU
Noise level, motor	35 dB(A)
Servicing	maintenance-free
Quality Standard	ISO 9001
Weight	1.54 lb [0.7 kg]

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

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.

4 Actuators are provided with color coded wires. Wire numbers are provided for reference.

16 Actuators are provided with a numbered screw terminal strip instead of a cable.

21 IN4004 or IN4007 diode required

◆ 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.