BELIMO

2-way, Characterized Control Valve, Stainless Steel Ball and Stem

Technical data sheet B6400S-186-250

5-year warranty

Type overview

Type	DN
B6400S-186-250	100

Technical data

Functional data	Valve size [mm]	4" [100]
	Fluid	chilled or hot water, up to 60% glycol
	Fluid Temp Range (water)	0...250°F [-18...120°C]
	Body Pressure Rating	ANSI Class 250, raised-face
	Close-off pressure Δps	310 psi
	Flow characteristic	equal percentage
	Pipe connection type	Flange for use with ASME/ANSI class 250
	Servicing	maintenance-free
	Maximum differential pressure (water)	50 psi [345 kPa]
	Flow Pattern	2-way
	Leakage rate	0% for A – AB
	Controllable flow range	75°
	Cv	186
Materials	Valve body	Cast iron - GG 25
	Stem	stainless steel
	Stem seal	EPDM (lubricated)
	Seat	PTFE
	Characterized disc	stainless steel
	O-ring	EPDM (lubricated)
	Ball	stainless steel
Suitable actuators	Non-Spring	GRB(X)
	Electrical fail-safe	GKRB(X)

Safety notes

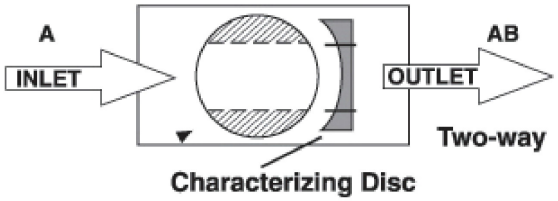
- WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

Product features

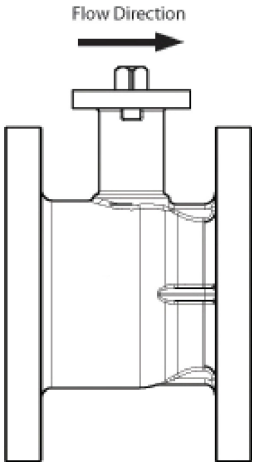
Application

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 flow.

Flow/Mounting details



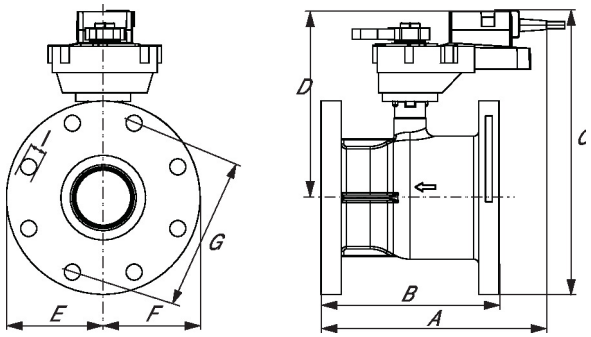
Upstream A
Downstream AB



Dimensions

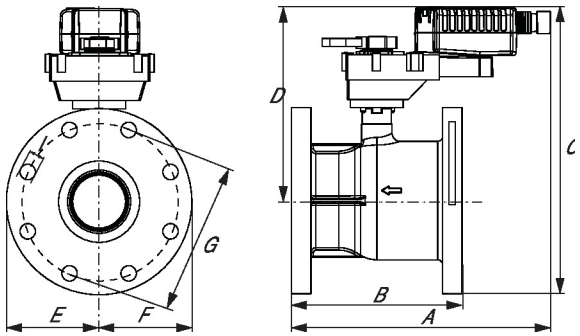
Type	DN	Weight
B6400S-186-250	100	70 lb [32 kg]

GRB, GRX



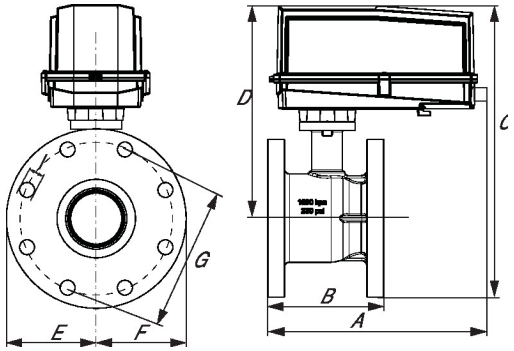
A	B	C	D	E	F	G	I	Number of Bolt Holes
11.3" [286]	8.3" [210]	12.8" [325]	8.7" [221]	4.4" [113]	4.4" [113]	7.9" [200]	0.9" [22]	8

GKRB, GKRX



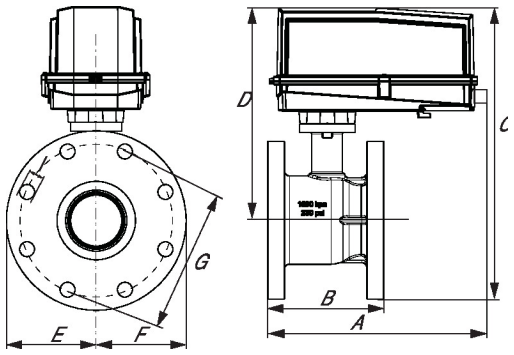
A	B	C	D	E	F	G	I	Number of Bolt Holes
11.3" [286]	8.3" [210]	12.9" [328]	9.7" [246]	4.4" [113]	4.4" [113]	7.9" [200]	0.9" [22]	8

GRX, GKRX



A	B	C	D	E	F	G	I	Number of Bolt Holes
15.0" [381]	8.3" [210]	16.3" [415]	12.6" [321]	4.4" [113]	4.4" [113]	7.9" [200]	0.9" [22]	8

GRX, GKRX



A	B	C	D	E	F	G	I	Number of Bolt Holes
15.0" [381]	8.3" [210]	16.3" [415]	12.6" [321]	4.4" [113]	4.4" [113]	7.9" [200]	0.9" [22]	8

On/Off, Floating point, Electronic fail-safe, 24 V

5-year warranty

Technical data

Electrical data	Nominal voltage	AC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V
	Power consumption in operation	12 W
	Power consumption in rest position	3 W
	Transformer sizing	21 VA
	Electrical Connection	18 AWG plenum cable, 1 m, with 1/2" NPT conduit connector
	Overload Protection	electronic thoughout 0...90° rotation
Functional data	Bridging time (PF)	2 s
	Pre-charging time	5...20 s
	Direction of motion motor	selectable with switch 0/1
	Direction of motion fail-safe	reversible with switch
	Manual override	under cover
	Angle of rotation	Max. 95°
	Angle of rotation note	adjustable with mechanical stop
	Running Time (Motor)	150 s / 90°
	Running time motor note	constant, independent of load
	Running time motor variable	90 or 150 s
	Running time fail-safe	<35 s
	Noise level, motor	52 dB(A)
	Noise level, fail-safe	61 dB(A)
	Position indication	Mechanical, 30...65 mm stroke
Safety data	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP66/67
	Degree of protection NEMA/UL	NEMA 4X
	Housing	UL Enclosure Type 4X
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1, CSA C22.2 No 24-93, CE acc. to 89/336/EC
	Quality Standard	ISO 9001
	Ambient humidity	Max. 100% RH

Technical data

Safety data	Ambient temperature	-22...122°F [-30...50°C]
	Ambient temperature note	-40...50°C [104...122°F] for actuator with integrated heating
	Storage temperature	-40...176°F [-40...80°C]
	Servicing	maintenance-free
Weight	Weight	7.7 lb [3.5 kg]
Materials	Housing material	Die cast aluminium and plastic casing

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

Accessories

Factory add-on option only	Description	Type
	Heater, with adjustable thermostat	ACT_PACK_H

Electrical installation

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 DC 24 V.

11 Actuators may be connected in parallel if not mechanically linked. Power consumption and input impedance must be observed.

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

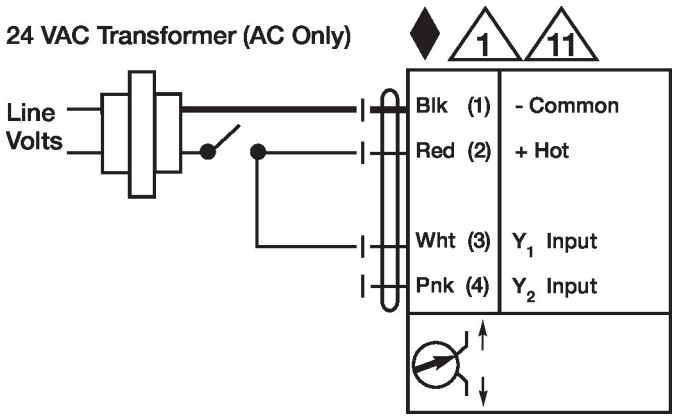
Meets cULus requirements without the need of an electrical ground connection.

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.

Wiring diagrams

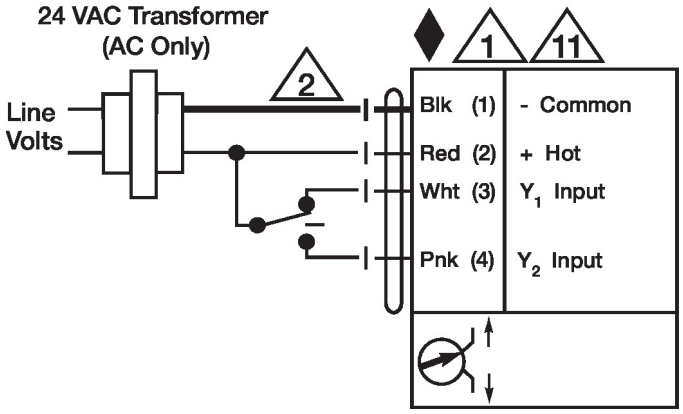
On/Off



Electrical installation

Wiring diagrams

Floating Point



NEMA 4 Heater