B6250S-070 Technical Data Sheet

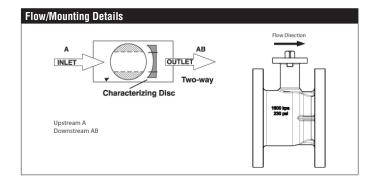


Stainless Steel Ball and Stem



	5
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5	year warranty

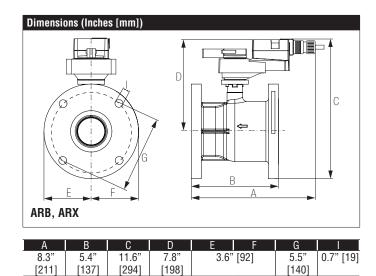
Technical Data	
Fluid	chilled or hot water, up to 60% glycol
Flow characteristic	equal percentage
Controllable flow range	75°
Valve Size [mm]	2.5" [65]
Pipe connection	pattern to mate with ANSI 125 flange
Housing	Cast iron - GG 25
Ball	stainless steel
Stem	stainless steel
Stem seal	EPDM (lubricated)
Seat	PTFE
O-ring	EPDM (lubricated)
Characterized disc	stainless steel
Body Pressure Rating	ANSI Class 125, standard class B
ANSI Class	125
Number of Bolt Holes	4
Close-off pressure Δps	100 psi
Cv	70
Weight	24.25 lb [11 kg]
Fluid Temp Range (water)	0250°F [-18120°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		
B6250S-070	ARB(X)	AFRB(X)		

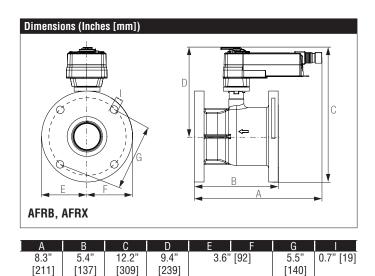


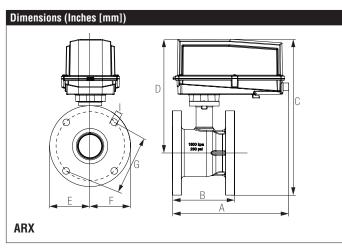
Safety Notes

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

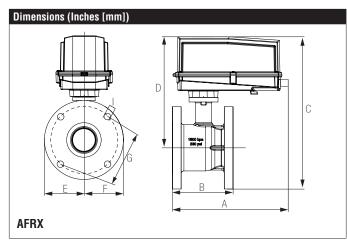


B6250S-070 Technical Data Sheet Stainless Steel Ball and Stem





A	B	С	D	E	F	G	
13.0"	5.4"	15.0"	7.8"	3.6"	[92]	5.5"	0.7" [19]
[330]	[137]	[380]	[198]			[140]	



A	В	С	D	E	F	G	
14.5"	5.4"	16.6"	11.9"	3.6"	[92]	5.5"	0.7" [19]
[368]	[137]	[422]	[302]			[140]	

AFRX24 Technical Data Sheet

On/Off, Spring Return, Fail-Safe, AC/DC 24 V





Power Supply24 VAC, ±20%, 50/60 Hz, 24 VDC, ±10%Power consumption in operation5 WPower consumption in rest2.5 WpositionTransformer sizingTransformer sizing7.5 VA (class 2 power source)Electrical Connection18 GA appliance cable, 3 ft [1 m], with 1/2" conduit connectorOverload Protectionelectronic throughout 095° rotationAngle of rotation90°Torque motor180 in-lb [20 Nm]Direction of motion motorselectable by ccw/cw mountingDirection of motion fail-safereversible with cw/ccw mountingPosition indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 sAmbient temperature-22122°F [-3050°C]Storage temperature-40176°F [-4080°C]Degree of ProtectionIP54, NEMA 2, UL Enclosure Type 2Agency ListingCULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EUNoise level, motor45 dB(A)Noise level, fail-safe62 dB(A)Servicingmaintenance-freeQuality StandardISO 9001Weight4.0 lb [1.8 kg]	Technical Data	
Power consumption in rest position2.5 WTransformer sizing7.5 VA (class 2 power source)Electrical Connection18 GA appliance cable, 3 ft [1 m], with 1/2" conduit connectorOverload Protectionelectronic throughout 095° rotationAngle of rotation90°Torque motor180 in-lb [20 Nm]Direction of motion motorselectable by ccw/cw mountingDirection of motion fail-safereversible with cw/ccw mountingPosition indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s	Power Supply	24 VAC, ±20%, 50/60 Hz, 24 VDC, ±10%
positionTransformer sizing7.5 VA (class 2 power source)Electrical Connection18 GA appliance cable, 3 ft [1 m], with 1/2" conduit connectorOverload Protectionelectronic throughout 095° rotationAngle of rotation90°Torque motor180 in-lb [20 Nm]Direction of motion motorselectable by ccw/cw mountingDirection of motion fail-safereversible with cw/ccw mountingPosition indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s	Power consumption in operation	5 W
Transformer sizing7.5 VA (class 2 power source)Electrical Connection18 GA appliance cable, 3 ft [1 m], with 1/2" conduit connectorOverload Protectionelectronic throughout 095° rotationAngle of rotation90°Torque motor180 in-Ib [20 Nm]Direction of motion motorselectable by ccw/cw mountingDirection of motion fail-safereversible with cw/ccw mountingPosition indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s	Power consumption in rest	2.5 W
Electrical Connection18 GA appliance cable, 3 ft [1 m], with 1/2" conduit connectorOverload Protectionelectronic throughout 095° rotationAngle of rotation90°Torque motor180 in-lb [20 Nm]Direction of motion motorselectable by ccw/cw mountingDirection of motion fail-safereversible with cw/ccw mountingPosition indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s		
conduit connectorOverload Protectionelectronic throughout 095° rotationAngle of rotation90°Torque motor180 in-lb [20 Nm]Direction of motion motorselectable by ccw/cw mountingDirection of motion fail-safereversible with cw/ccw mountingPosition indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s	0	
Overload Protectionelectronic throughout 095° rotationAngle of rotation90°Torque motor180 in-lb [20 Nm]Direction of motion motorselectable by ccw/cw mountingDirection of motion fail-safereversible with cw/ccw mountingPosition indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s	Electrical Connection	
Angle of rotation90°Torque motor180 in-lb [20 Nm]Direction of motion motorselectable by ccw/cw mountingDirection of motion fail-safereversible with cw/ccw mountingPosition indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s		
Torque motor180 in-lb [20 Nm]Direction of motion motorselectable by ccw/cw mountingDirection of motion fail-safereversible with cw/ccw mountingPosition indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s		5
Direction of motion motorselectable by ccv/cw mountingDirection of motion fail-safereversible with cw/ccw mountingPosition indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s	Angle of rotation	90°
Direction of motion fail-safereversible with cw/ccw mountingPosition indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s	Torque motor	180 in-lb [20 Nm]
Position indicationMechanicalManual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s	Direction of motion motor	selectable by ccw/cw mounting
Manual override5 mm hex crank (3/16" Allen), suppliedRunning Time (Motor)75 sRunning time fail-safe<20 s	Direction of motion fail-safe	reversible with cw/ccw mounting
Running Time (Motor)75 sRunning time fail-safe<20 s	Position indication	Mechanical
Running time fail-safe<20 sAmbient humiditymax. 95% r.H., non-condensingAmbient temperature-22122°F [-3050°C]Storage temperature-40176°F [-4080°C]Degree of ProtectionIP54, NEMA 2, UL Enclosure Type 2Agency ListingcULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EUNoise level, motor45 dB(A)Noise level, fail-safe62 dB(A)Servicingmaintenance-freeQuality StandardISO 9001	Manual override	5 mm hex crank (3/16" Allen), supplied
Ambient humiditymax. 95% r.H., non-condensingAmbient temperature-22122°F [-3050°C]Storage temperature-40176°F [-4080°C]Degree of ProtectionIP54, NEMA 2, UL Enclosure Type 2Agency ListingcULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EUNoise level, motor45 dB(A)Noise level, fail-safe62 dB(A)Servicingmaintenance-freeQuality StandardISO 9001	Running Time (Motor)	75 s
Ambient temperature-22122°F [-3050°C]Storage temperature-40176°F [-4080°C]Degree of ProtectionIP54, NEMA 2, UL Enclosure Type 2Agency ListingcULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU2014/35/EUNoise level, motor45 dB(A)Noise level, fail-safe62 dB(A)Servicingmaintenance-freeQuality StandardISO 9001	Running time fail-safe	<20 s
Storage temperature-40176°F [-4080°C]Degree of ProtectionIP54, NEMA 2, UL Enclosure Type 2Agency ListingcULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU2014/35/EUNoise level, motor45 dB(A)Noise level, fail-safe62 dB(A)Servicingmaintenance-freeQuality StandardISO 9001	Ambient humidity	max. 95% r.H., non-condensing
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Agency ListingCULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EUNoise level, motor45 dB(A)Noise level, fail-safe62 dB(A)Servicingmaintenance-freeQuality StandardISO 9001	Storage temperature	-40176°F [-4080°C]
E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EUNoise level, motor45 dB(A)Noise level, fail-safe62 dB(A)Servicingmaintenance-freeQuality StandardISO 9001	Degree of Protection	IP54, NEMA 2, UL Enclosure Type 2
2014/35/EUNoise level, motor45 dB(A)Noise level, fail-safe62 dB(A)Servicingmaintenance-freeQuality StandardISO 9001	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA
Noise level, motor45 dB(A)Noise level, fail-safe62 dB(A)Servicingmaintenance-freeQuality StandardISO 9001		
Noise level, fail-safe62 dB(A)Servicingmaintenance-freeQuality StandardISO 9001		
Servicing maintenance-free Quality Standard ISO 9001	Noise level, motor	45 dB(A)
Quality Standard ISO 9001	Noise level, fail-safe	62 dB(A)
	Servicing	maintenance-free
Weight 4.0 lb [1.8 kg]	Quality Standard	ISO 9001
	Weight	4.0 lb [1.8 kg]

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



AFRX24 Technical Data Sheet

On/Off, Spring Return, Fail-Safe, AC/DC 24 V

Wiring Diagrams

🔀 INSTALLATION NOTES



Actuators with appliance cables are numbered.

Provide overload protection and disconnect as required.

Actuators may also be powered by 24 VDC.

Actuators may be powered in parallel. Power consumption must be observed.

Parallel wiring required for piggy-back applications.

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.

