

F665HD Technical Data Sheet

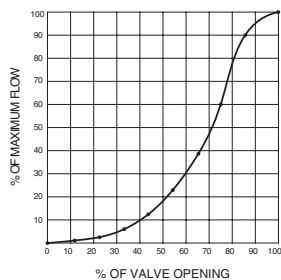
Resilient Seat, 304 Stainless Steel Disc



Technical Data

Fluid	chilled or hot water, up to 60% glycol
Flow characteristic	modified equal percentage
Controllable flow range	90° rotation
Valve Size [mm]	2.5" [65]
Pipe connection	for use with ANSI class 125/150 flanges
Housing	Ductile cast iron ASTM A536
Body finish	epoxy powder coating (blue RAL 5002)
Stem	416 stainless steel
Stem seal	EPDM (lubricated)
Seat	EPDM
Bearing	RPTFE
Disc	304 stainless steel
Body Pressure Rating	ANSI Class Consistent with 125, 232 psi CWP
ANSI Class	Consistent with 125
Number of Bolt Holes	4
Lug threads	5/8-11 UNC
Close-off pressure Δ ps	200 psi
Rangeability Sv	10:1 (for 30° to 70° range)
Maximum Velocity	12 FPS
Cv	196
Weight	6.2 lb [2.8 kg]
Fluid Temp Range (water)	-22...250°F [-30...120°C]
Leakage rate	0%
Servicing	maintenance-free

Flow/Mounting Details



Application

Valve is designed for use in ANSI flanged piping systems to meet the needs of bi-directional high flow HVAC hydronic applications with 0% leakage. Typical applications include cooling tower bypass, primary flow change-over systems, and large air-handler coil control. Valve face-to-face dimensions comply with API 609 & MSS-SP-67, Completely assembled and tested, ready for installation.

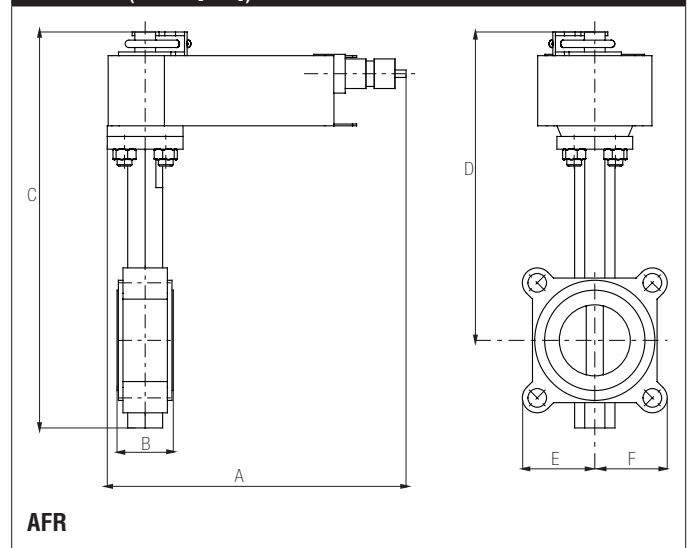
Jobsite Note

Valve assembly should be stored in a weather protected area prior to installation. Reference the butterfly valve installation instruction for additional information.

Flow/Cv								
Cv 10°	Cv 20°	Cv 30°	Cv 40°	Cv 50°	Cv 60°	Cv 70°	Cv 80°	Cv 90°
0.1	6	12	25	45	75	119	178	196

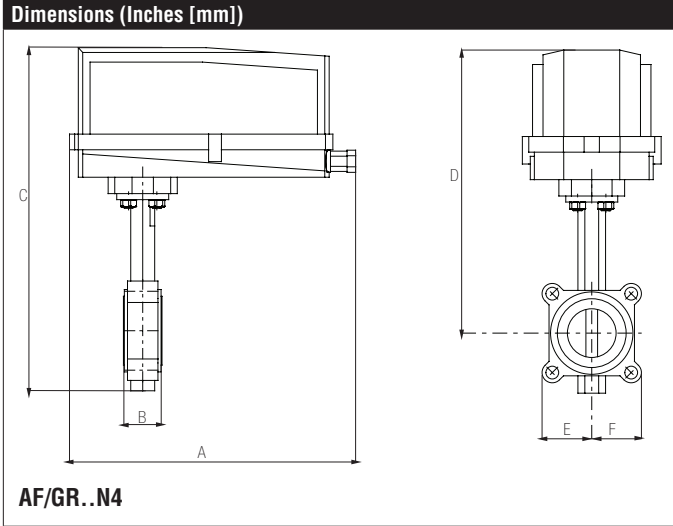
Suitable Actuators		
	Non-Spring	Spring
F665HD	ARB(X), GRB(X)	AFRB(X)

Dimensions (Inches [mm])

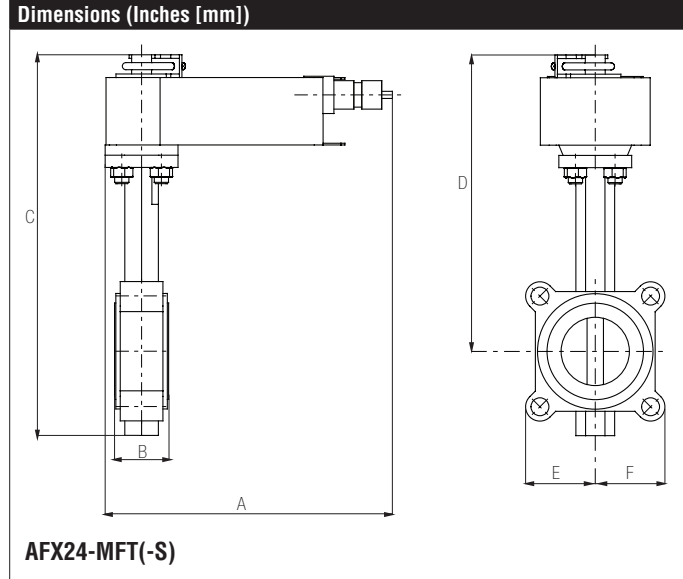


A	B	C	D	E	F
10.5" [267]	1.9" [49]	12.8" [325]	9.8" [248]	3.3" [85]	

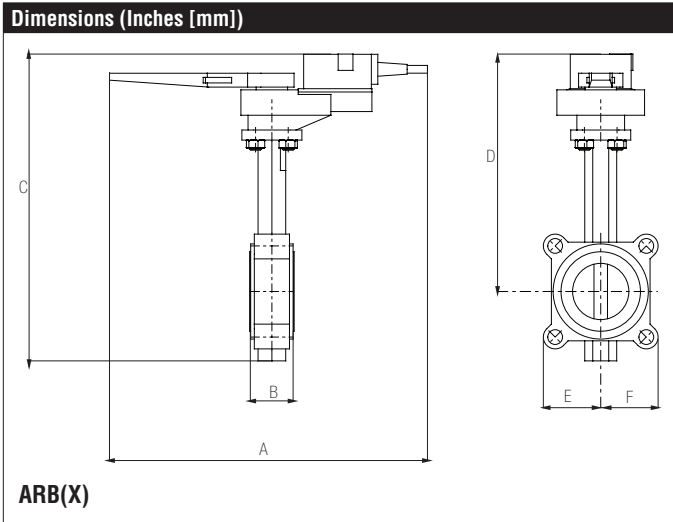
Date created, 04/22/2020 - Subject to change. © Belimo Aircontrols (USA), Inc.



A	B	C	D	E	F
14.1" [358]	1.9" [49]	17.2" [438]	14.2" [361]	3.3" [85]	



A	B	C	D	E	F
10.5" [267]	1.9" [49]	16.0" [406]	12.9" [328]	3.3" [85]	

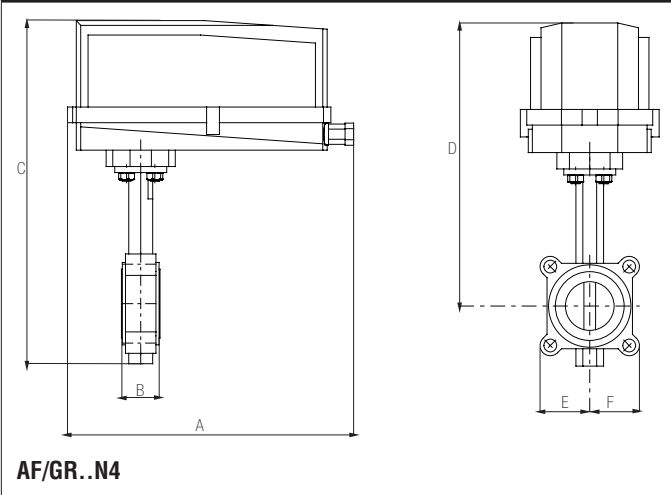


A	B	C	D	E	F
14.6" [370]	1.9" [49]	13.2" [335]	10.2" [260]	3.3" [85]	

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Resilient Seat, 304 Stainless Steel Disc

Dimensions (Inches [mm])

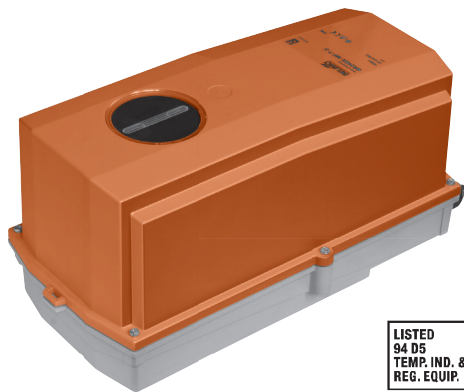


AF/GR..N4

A	B	C	D	E	F
13.8" [350]	1.9" [49]	17.2" [438]	14.2" [361]	3.3" [85]	

GRCX120-3 N4 Technical Data Sheet

On/Off, Floating Point, Non-Spring Return, AC 100...240 V



5-year warranty



Technical Data

Power Supply	100...240 VAC, $\pm 20\%$, 50/60 Hz, DC, $\pm 10\%$
Power consumption in operation	6 W
Power consumption in rest position	2 W
Transformer sizing	11 VA (class 2 power source)
Electrical Connection	18 GA appliance cable, 3 ft [1 m], with 1/2" conduit connector
Overload Protection	electronic throughout 0...90° rotation
Input Impedance	600 Ω
Angle of rotation	90°, adjustable with mechanical stop
Direction of motion motor	selectable with switch 0/1
Position indication	Mechanically, 5...20 mm stroke
Manual override	under cover
Running Time (Motor)	35 s, constant, independent of load
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	IP66/67, NEMA 4X, UL Enclosure Type 4X
Housing material	Polycarbonate
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	45 dB(A)
Servicing	maintenance-free
Quality Standard	ISO 9001
Weight	9.92 lb [4.5 kg]

†Rated Impulse Voltage 2.5kV, Type of Action 1.AA, Control Pollution Degree 3.

Wiring Diagrams

✂ INSTALLATION NOTES

- A Actuators with appliance cables are numbered.
- 1 Provide overload protection and disconnect as required.
- 2 Actuators may be connected in parallel. Power consumption and input impedance must be observed.
- 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.

