

Butterfly Valve with Lug types

- Disc 304 stainless steel
- Bubble tight shut-off
- Resilient seat
- Valve face-to-face dimensions comply with API 609 & MSS-SP-67
- Completely assembled and tested, ready for installation



5-year warranty

Type overview

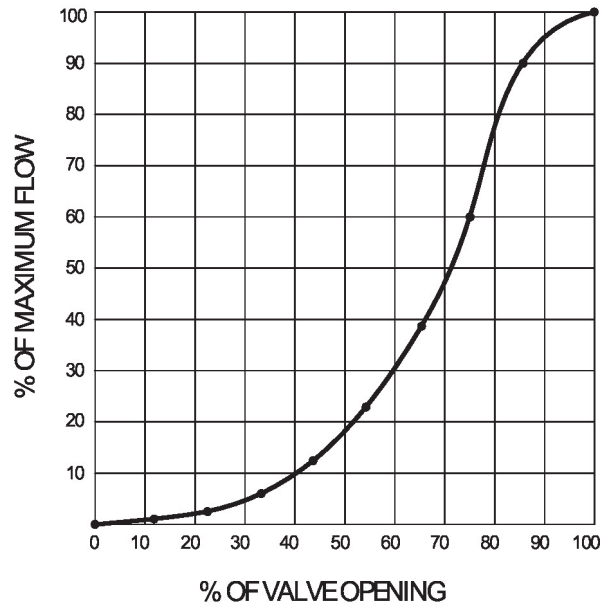
Type	DN
F665HD	65

Technical data

Functional data	Valve size [mm]	2.5" [65]
	Fluid	chilled or hot water, up to 60% glycol
	Fluid Temp Range (water)	-22...250°F [-30...120°C]
	Body Pressure Rating	ANSI Class Consistent with 125, 232 psi CWP
	Close-off pressure Δps	200 psi
	Flow characteristic	modified equal percentage
	Leakage rate	0% leakage, leakage rateA
	Pipe connection	Flange for use with ASME/ANSI class 125/150
	Servicing	maintenance-free
	Flow Pattern	2-way
	Controllable flow range	90° rotation
	Cv	196
	Maximum Velocity	12 FPS
	Lug threads	5/8-11 UNC
Materials	Valve body	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
Suitable actuators	Non Fail-Safe	ARB(X) GRB(X)
	Spring	AFRB(X)

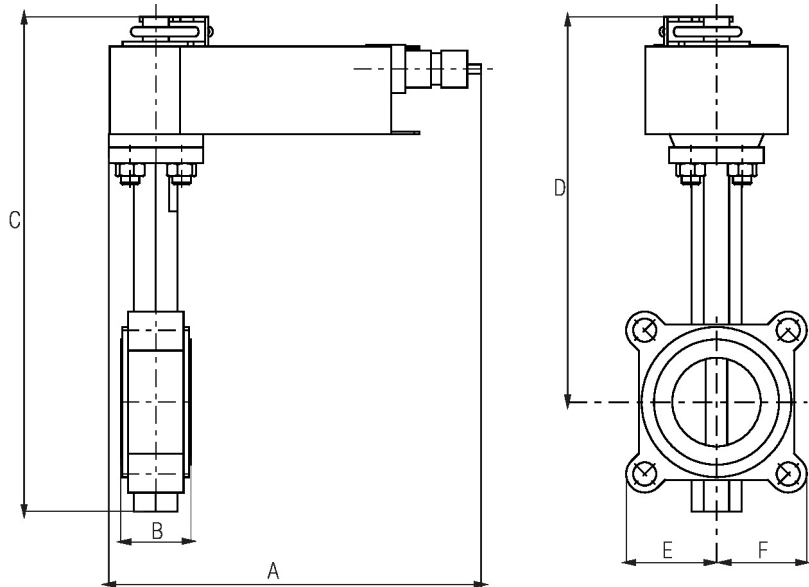
Product features

Flow/Mounting details



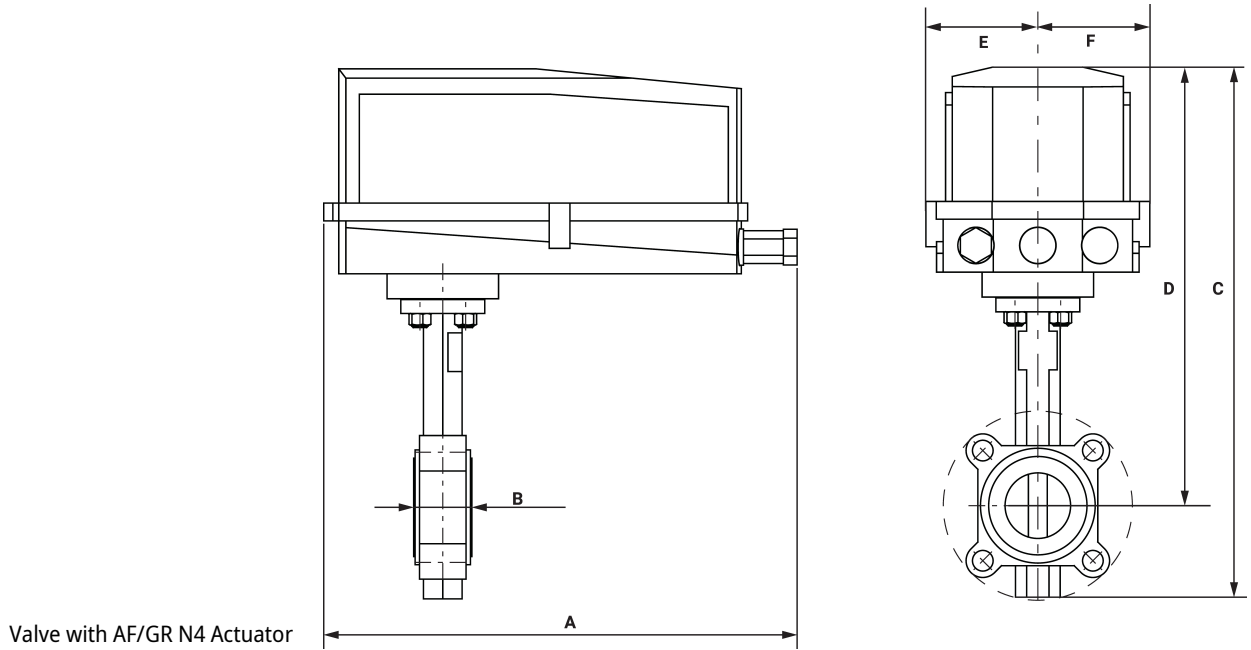
Dimensions

Type	DN	Weight
F665HD	65	22 lb [10 kg]



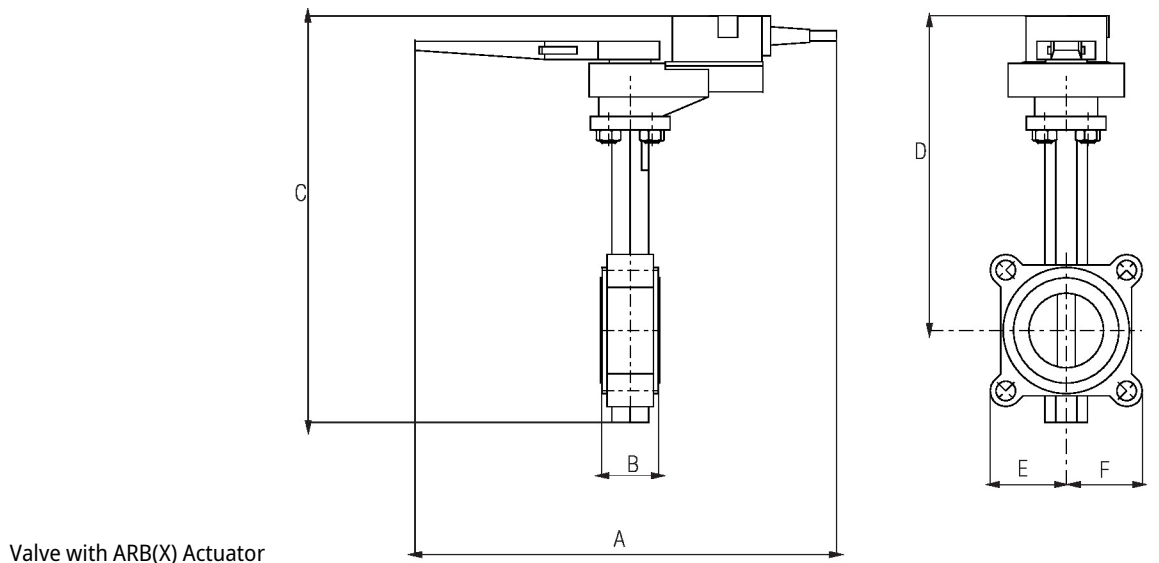
Valve with AFR Actuator

A	B	C	D	E	F	Number of Bolt Holes
10.1" [257]	1.9" [49]	13.1" [333]	10.1" [256]	3.3" [85]	3.3" [85]	4



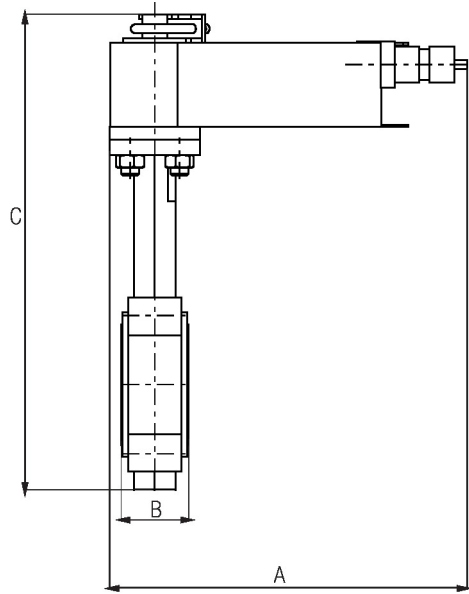
Valve with AF/GR N4 Actuator

A	B	C	D	E	F	Number of Bolt Holes
14.5" [368]	1.9" [49]	17.0" [433]	13.9" [354]	3.4" [86]	3.4" [86]	4



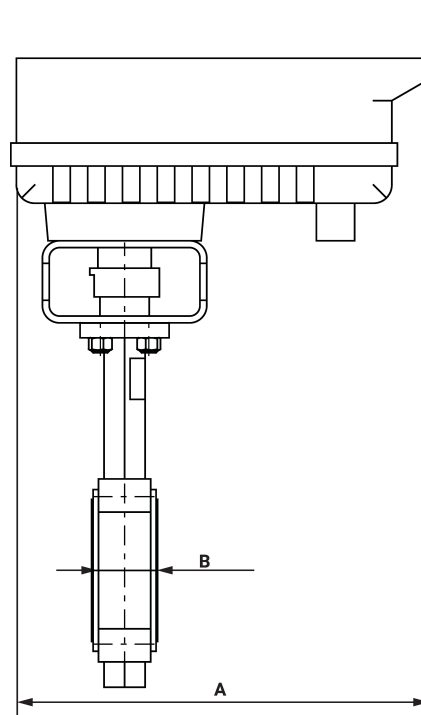
Valve with ARB(X) Actuator

A	B	C	D	E	F	Number of Bolt Holes
14.5" [368]	1.9" [49]	13.3" [337]	10.2" [260]	3.3" [85]	3.3" [85]	4



Valve with AFX24-MFT(-S) Actuator

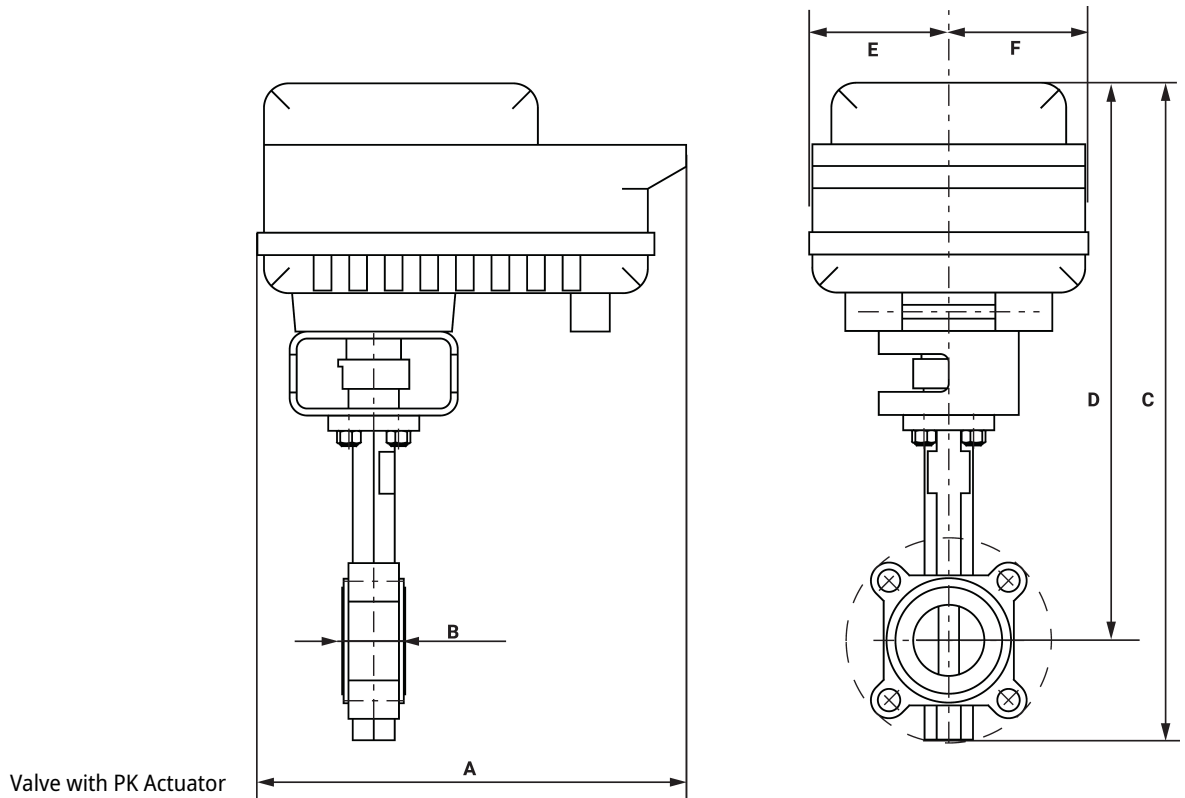
A	B	C	D	E	F	Number of Bolt Holes
10.1" [257]	1.9" [49]	16.0" [406]	12.9" [328]	3.3" [85]	3.3" [85]	4



Valve with PR Actuator

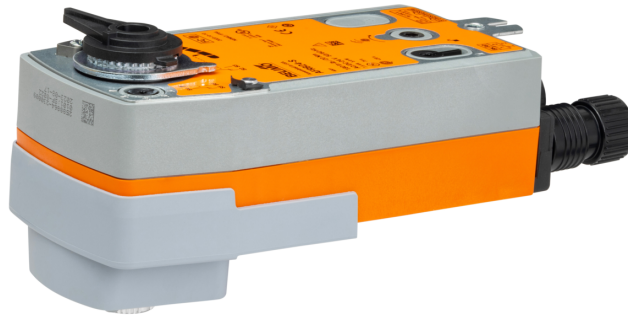
A	B	C	D	E	F	Number of Bolt Holes
12.0" [304]	1.9" [49]	17.6" [448]	14.5" [368]	3.9" [100]	3.9" [100]	4

Dimensions



A	B	C	D	E	F	Number of Bolt Holes
12.0" [304]	1.9" [49]	19.3" [490]	16.2" [411]	3.9" [100]	3.9" [100]	4
A	B	C	D	E	F	Number of Bolt Holes
8.4" [213]	1.9" [49]	16.0" [406]	12.9" [328]	3.3" [85]	3.3" [85]	4
A	B	C	D	E	F	Number of Bolt Holes
10.8" [275]	1.9" [49]	13.9" [354]	10.8" [274]	3.3" [85]	3.3" [85]	4

On/Off, Spring return, 24...240 V



5-year warranty


Technical data

Electrical data	Nominal voltage	AC 24...240 V / DC 24...125 V	
	Nominal voltage frequency	50/60 Hz	
	Nominal voltage range	AC 19.2...264 V / DC 21.6...137.5 V	
	Power consumption in operation	7 W	
	Power consumption in rest position	3.5 W	
	Auxiliary switch	2x SPDT, 1 mA...3 A (0.5 A inductive), DC 5 V...AC 250 V, 1x 10% / 1x 11...90%	
	Switching capacity auxiliary switch	1 mA...3 A (0.5 A inductive), DC 5 V...AC 250 V	
	Electrical Connection	(2) 18 GA appliance cables, 3 ft [1 m], with 1/2" NPT conduit connectors	
	Overload Protection	electronic throughout 0...95° rotation	
	Functional data	Direction of motion motor	selectable by ccw/cw mounting
Direction of motion fail-safe		reversible with cw/ccw mounting	
Manual override		5 mm hex crank (3/16" Allen), supplied	
Angle of rotation		90°	
Running Time (Motor)		75 s / 90°	
Running time fail-safe		<20 s	
Noise level, motor		45 dB(A)	
Noise level, fail-safe		62 dB(A)	
Position indication		Mechanical	
Safety data	Power source UL	Class 2 Supply	
	Degree of protection IEC/EN	IP54	
	Degree of protection NEMA/UL	NEMA 2	
	Enclosure	UL Enclosure Type 2	
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02 CE acc. to 2014/30/EU and 2014/35/EU	
	Quality Standard	ISO 9001	
	UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC	
	Ambient humidity	Max. 95% RH, non-condensing	
	Ambient temperature	-22...122°F [-30...50°C]	
	Storage temperature	-40...176°F [-40...80°C]	
	Servicing	maintenance-free	
	Weight	Weight	5.2 lb [2.4 kg]

Technical data

Materials Housing material Galvanized steel and plastic housing

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

Electrical installation

✂ INSTALLATION NOTES

- (A)** Actuators with appliance cables are numbered.
- (UP)** Universal Power Supply (UP) models can be supplied with AC 24...240 V, or DC 24...125 V.
- (1)** Provide overload protection and disconnect as required.
- (45)** Actuators may be powered in parallel. Power consumption must be observed.
- (48)** 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.

Wiring diagrams
On/Off

