

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

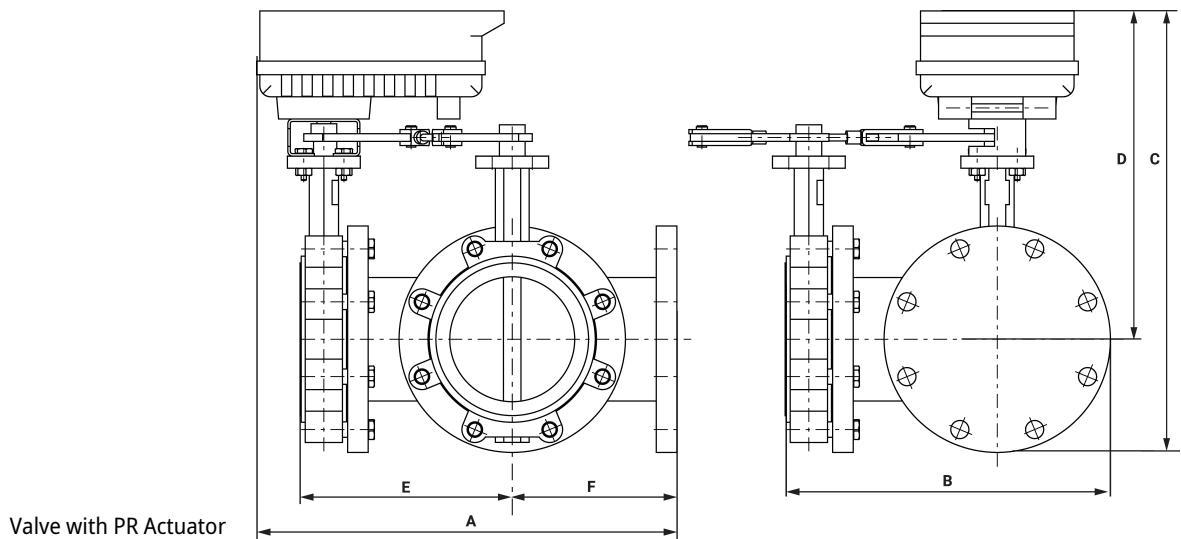
Type	DN
F7100HD	100

Technical data

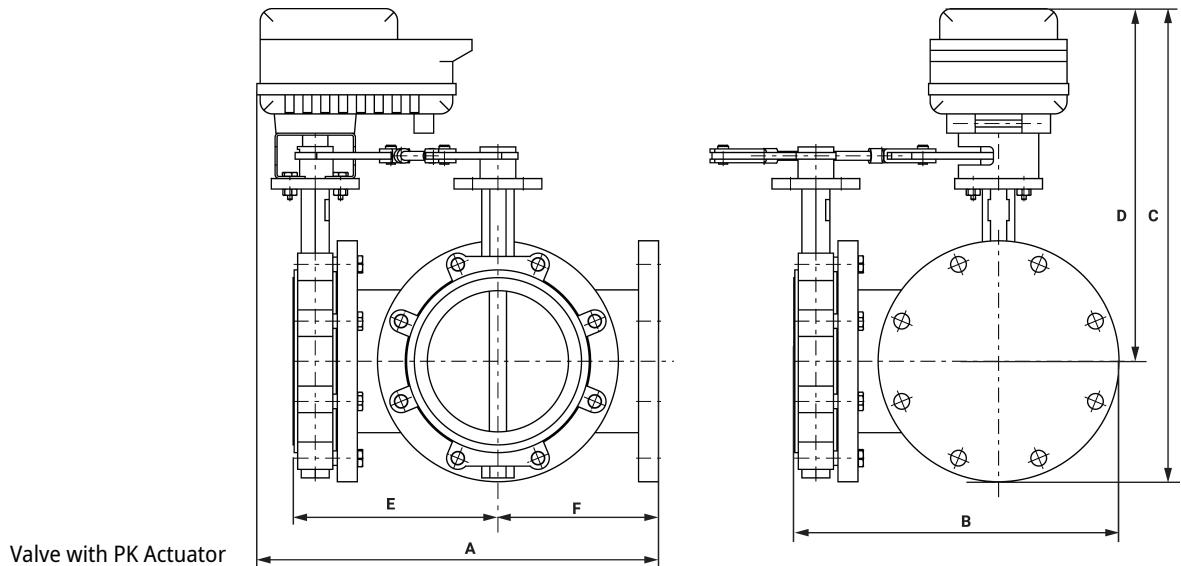
Functional data	Valve size [mm]	4" [100]
Fluid		chilled or hot water, up to 60% glycol
Fluid Temp Range (water)		-22...250°F [-30...120°C]
Body Pressure Rating		ANSI Class Consistent with 125, 232 psi CWP
Close-off pressure Δps		200 psi
Flow characteristic		modified linear
Leakage rate		0%
Pipe connection		Flange for use with ASME/ANSI class 125/150
Servicing		maintenance-free
Flow Pattern		3-way Mixing/Diverting
Controllable flow range		90° rotation
Cv		600
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
	Seat	EPDM
	Bearing	RPTFE
	Disc	304 stainless steel
Suitable actuators	Non Fail-Safe	PRB(X)
	Electrical fail-safe	PKRB(X)

Dimensions

Type	DN	Weight
F7100HD	100	150 lb [67 kg]

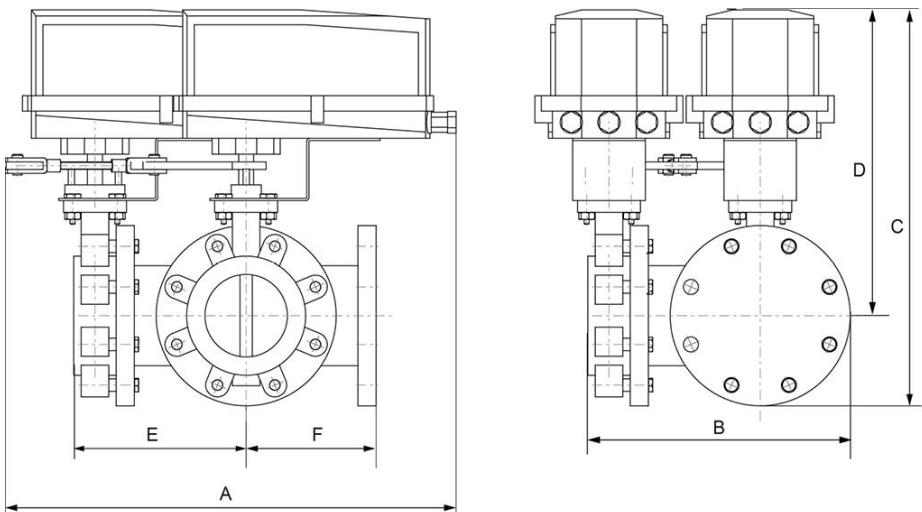


A	B	C	D	E	F	Number of Bolt Holes
17.4" [443]	13.1" [332]	19.4" [492]	15.0" [381]	8.6" [218]	6.5" [165]	8



A	B	C	D	E	F	Number of Bolt Holes
17.4" [443]	13.1" [332]	21.0" [533]	16.6" [421]	8.6" [218]	6.5" [165]	8

Dimensions



A	B	C	D	E	F	Number of Bolt Holes
21.7" [551]	13.3" [337]	21.7" [550]	17.4" [441]	8.6" [218]	6.5" [165]	8

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



2-year warranty



Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 21.6...28.8 V
	Power consumption in operation	8 W
	Power consumption in rest position	2.5 W
	Transformer sizing	12 VA
	Electrical Connection	Terminal blocks
	Overload Protection	electronic throughout 0...95° rotation
Functional data	Direction of motion motor	selectable with switch 0/1
	Manual override	external push button
	Angle of rotation	Max. 95°
	Angle of rotation note	adjustable with mechanical stop
	Running Time (Motor)	35 s / 90°
	Running time motor note	constant, independent of load
	Noise level, motor	45 dB(A)
	Position indication	Mechanical, 5...20 mm stroke
Safety data	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP66
	Degree of protection NEMA/UL	NEMA 4X
	Housing	UL Enclosure Type 4X
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU
	Quality Standard	ISO 9001
	Ambient humidity	Max. 100% RH
	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	□

Materials	Housing material	Die cast aluminium and plastic casing
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Footnotes [†]Rated Impulse Voltage 800V, Type action 1, Control Pollution Degree 3.

Accessories

Electrical accessories	Description	Type
	Battery backup system, for non-spring return models	NSV24 US
	Battery, 12 V, 1.2 Ah (two required)	NSV-BAT
	Auxiliary switch 1x SPDT add-on	S1A
	Auxiliary switch 2x SPDT add-on	S2A
	Feedback potentiometer 140 Ω add-on, grey	P140A GR
	Feedback potentiometer 1 k Ω add-on, grey	P1000A GR
	Feedback potentiometer 10 k Ω add-on, grey	P10000A GR
	Feedback potentiometer 2.8 k Ω add-on, grey	P2800A GR
	Feedback potentiometer 500 Ω add-on, grey	P500A GR
	Feedback potentiometer 5 k Ω add-on, grey	P5000A GR
Factory add-on option only	Description	Type
	Heater, with adjustable thermostat	ACT_PACK_H

Electrical installation

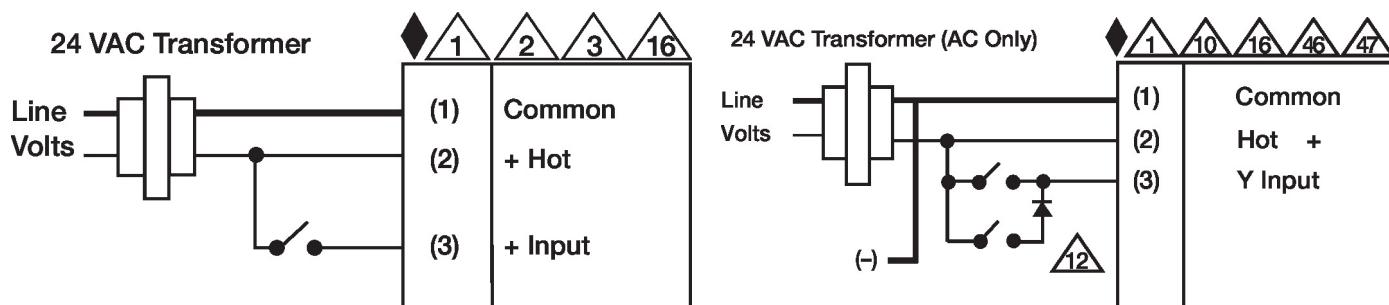
INSTALLATION NOTES

-  A Actuators with appliance cables are numbered.
-  1 Provide overload protection and disconnect as required.
-  3 Actuators may also be powered by DC 24 V.
-  6 Actuators Hot wire must be connected to the control board common. Only connect common to neg. (-) leg of control circuits. Terminal models (-T) have no-feedback.
-  10 For triac sink the Common connection from the actuator must be connected to the Hot connection of the controller. Position feedback cannot be used with a triac sink controller; the actuator internal common reference is not compatible.
-  11 Actuators may be connected in parallel if not mechanically linked. Power consumption and input impedance must be observed.
-  12 IN4004 or IN4007 diode. (IN4007 supplied, Belimo part number 40155).
-  16 Actuators are provided with a numbered screw terminal strip instead of a cable.
-  46 Actuators may be controlled in parallel. Current draw and input impedance must be observed.
-  47 Master-Slave wiring required for piggy-back applications. Feedback from Master to control input(s) of Slave(s).
-  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.

Electrical installation

Wiring diagrams

On/Off



Floating Point - Triac Source

