

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

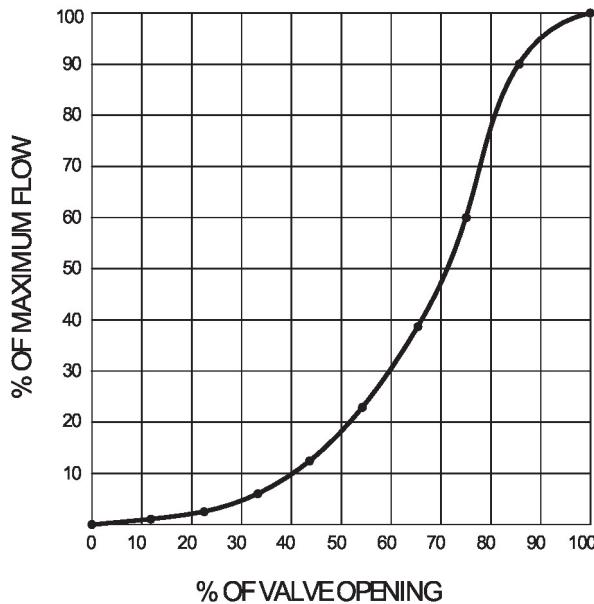
Type	DN
F6125HD	125

Technical data

Functional data	
Valve size [mm]	5" [125]
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 Δ ps	200 psi
Flow characteristic	modified equal percentage
Leakage rate	0% leakage, leakage rate A
Servicing	maintenance-free
Flow Pattern	2-way
Controllable flow range	90° rotation
Cv	1022
Maximum Velocity	12 FPS
Lug threads	3/4-10 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
Pipe connection	for use with ANSI class 125/150 flanges
Bearing	RPTFE
Disc	304 stainless steel
Gear operator materials	Gears - hardened steel
Suitable actuators	
Non-Spring	DRB(X) PRB(X)
Electrical fail-safe	PKRB(X)

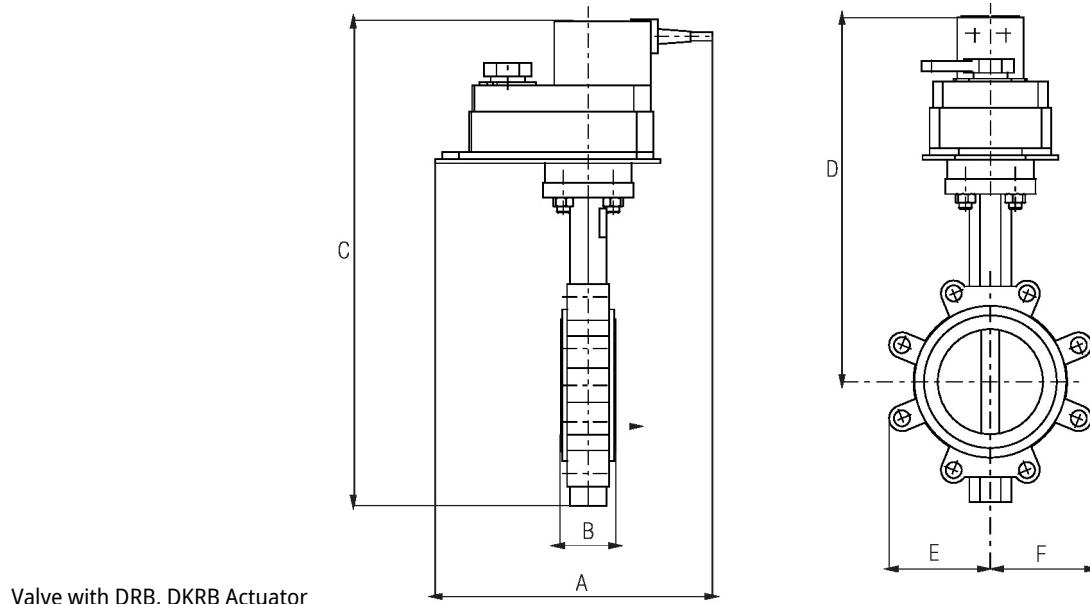
Product features

Flow/Mounting details

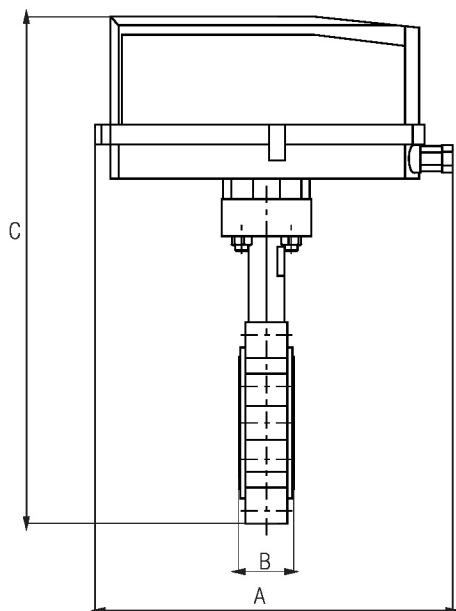


Dimensions

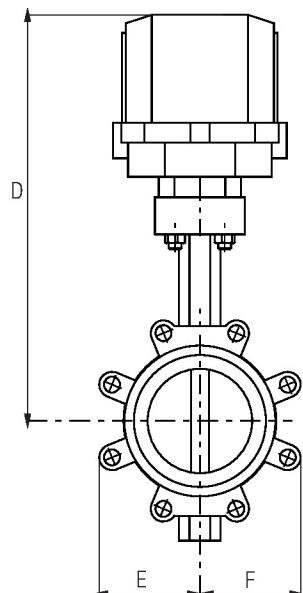
Type	DN	Weight
F6125HD	125	17 lb [7.5 kg]



A	B	C	D	E	F	Number of Bolt Holes
11.3" [286]	2.3" [58]	17.9" [454]	13.6" [345]	4.9" [124]	4.9" [125]	8

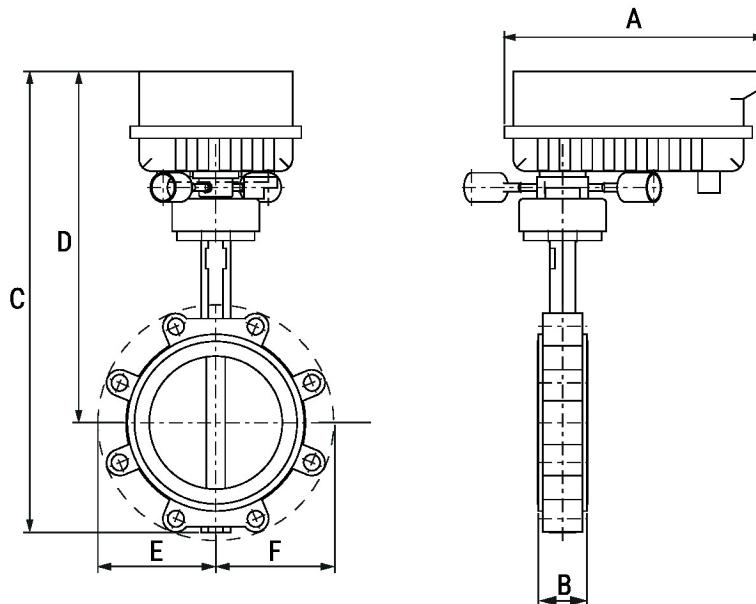


Valve with DRB..N4, DKRB..N4 Actuator

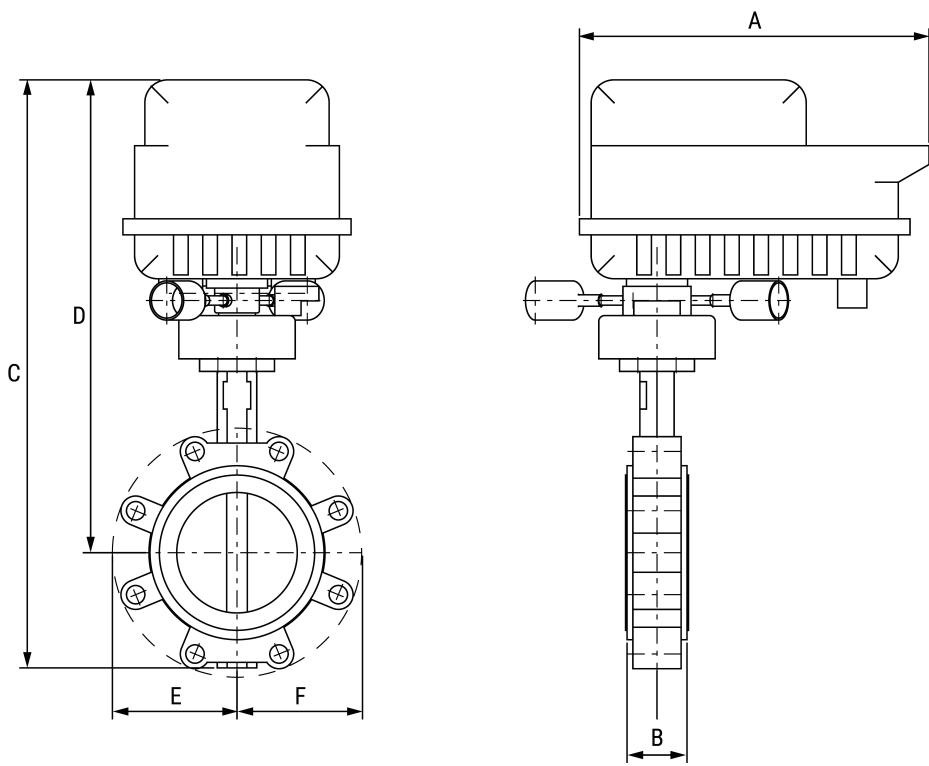


Valve with PRB(X) Actuator

A	B	C	D	E	F	Number of Bolt Holes
14.1" [358]	2.3" [58]	20.0" [509]	15.7" [399]	4.9" [124]	4.9" [125]	8



A	B	C	D	E	F	Number of Bolt Holes
12.0" [304]	2.3" [58]	19.9" [506]	15.5" [394]	4.9" [124]	4.9" [125]	8



Valve with PKR Actuator

A	B	C	D	E	F	Number of Bolt Holes
12.0" [304]	2.3" [58]	22.1" [562]	17.8" [453]	4.9" [124]	4.9" [125]	8



5-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	12 W
Power consumption in rest position	3 W
Transformer sizing	21 VA
Electrical Connection	Terminal blocks
Overload Protection	electronic throughout 0...90° rotation
Functional data	
Torque motor	90 Nm
Operating range Y	2...10 V
Operating range Y note	4...20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)
Input impedance	100 kΩ for 2...10 V (0.1 mA), 500 Ω for 4...20 mA, 1500 Ω for On/Off
Operating range Y variable	Start point 0.5...30 V End point 2.5...32 V
Operating modes optional	variable (VDC, PWM, on/off, floating point)
Position feedback U	2...10 V
Position feedback U note	Max. 0.5 mA
Position feedback U variable	VDC variable
Direction of motion motor	selectable with switch 0/1
Direction of motion fail-safe	reversible with switch
Manual override	external push button
Running Time (Motor)	150 s / 90°
Running time motor variable	90...150 s
Running time fail-safe	<35 s
Noise level, motor	45 dB(A)
Noise level, fail-safe	50 dB(A)
Position indication	Mechanical, pluggable
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
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	8.3 lb [3.8 kg]
Materials	Housing material	Die cast aluminium and plastic casing

Accessories

	Gateways	Description	Type
		Gateway MP to BACnet MS/TP	UK24BAC
		Gateway MP to Modbus RTU	UK24MOD
		Gateway MP to LonWorks	UK24LON
Electrical accessories		Description	Type
		Service tool, with ZIP-USB function, for programmable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US
Mechanical accessories		Description	Type
		Terminal-strip cover for NEMA 2 rating (-T models).	ZS-T
Tools		Description	Type
		Connecting cable 10 ft [3 m], A: RJ11 6/4 ZTH EU, B: 3-pin Weidmüller and supply connection	ZK4-GEN
		Service tool, with ZIP-USB function, for programmable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US

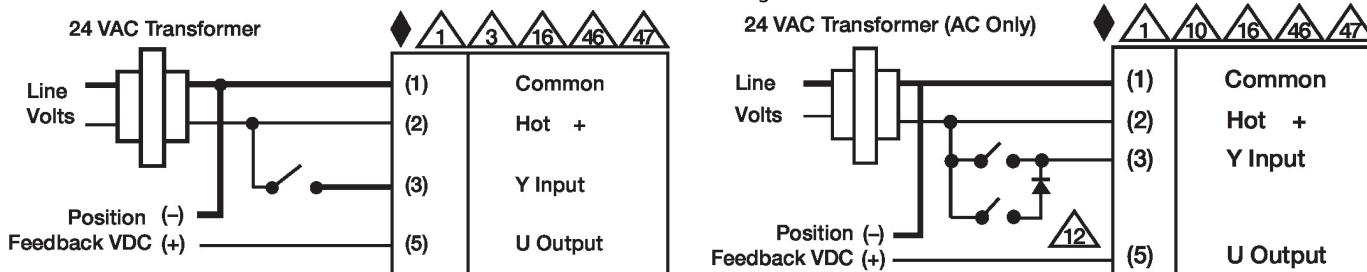
Electrical installation

☒ INSTALLATION NOTES

- ⚠₁ Provide overload protection and disconnect as required.
- ⚠₃ Actuators may also be powered by DC 24 V.
- ⚠₅ Only connect common to negative (-) leg of control circuits.
- ⚠₇ A 500 Ω resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V.
- ⚠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.
- ⚠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.
- ⚠ 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



VDC/mA Control

24 VAC Transformer

Line
VoltsControl Signal (-)
VDC/mA (+)Position
Feedback VDC