

- For potable water applications
- NSF/ANSI 372 - Lead Free
- NSF/ANSI 61 - Water Quality
- CRN: OC/2102CL
- MSS SP67-2002a



2-year warranty



Technical data

Functional data	Valve size [mm]	6" [150]
	Fluid	Potable water
	Fluid Temp Range (water)	-22...250°F [-30...120°C]
	Body Pressure Rating	ANSI Class Consistent with 125, 200 psi CWP
	Close-off pressure Δps	150 psi
	Flow characteristic	modified equal percentage
	Installation position	upright to horizontal (in relation to the stem)
	Servicing	maintenance-free
	Rangeability Sv	30:1 (for 30...70° range)
	Flow Pattern	2-way
	Leakage rate	0%
	Controllable flow range	90° rotation
	Cv	1579
	Maximum Velocity	12 FPS
	Lug threads	3/4-10 UNC
Materials	Valve body	Ductile cast iron ASTM A536
	Body finish	Epoxy powder coating (black RAL 9005)
	Stem	416 stainless steel
	Stem seal	Buna-N
	Seat	EPDM
	Pipe connection	for use with ANSI class 125/150 flanges
	Bearing	RPTFE
	Disc	Aluminum Bronze
Suitable actuators	Non-Spring	DRB(X) DRCB(X) N4
	Electrical fail-safe	DKRB(X)

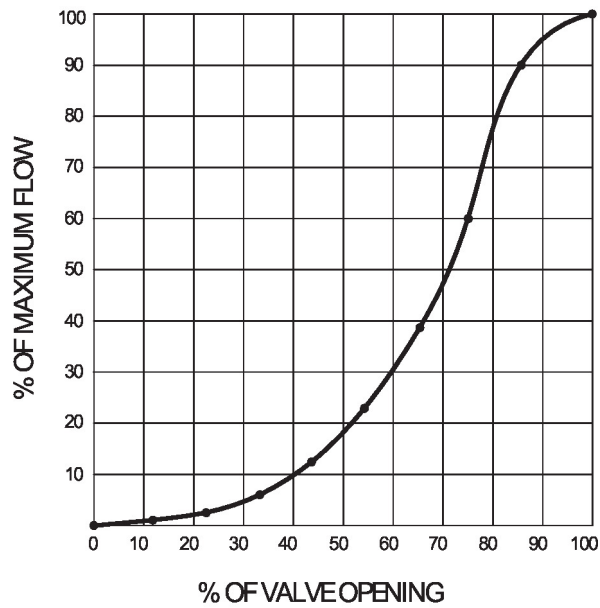
Safety notes



- The valve has to be exercised at least once a week, so that the quality of potable water as well as the functionality are not affected.

Product features

Flow/Mounting details



Mode of operation The valve is adjusted by a rotary actuator. The rotary actuator is connected by an on/off signal. Open the ball valve counterclockwise and close it clockwise.

Dimensions

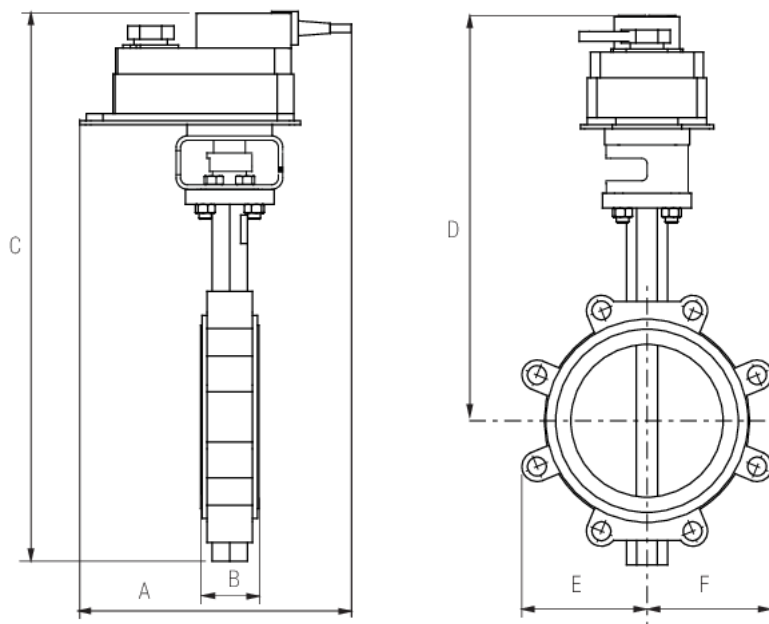
DN

150

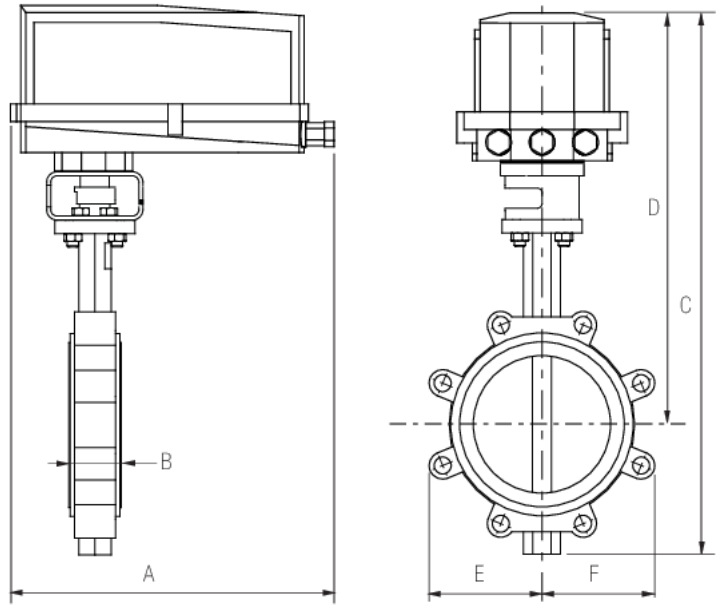
Weight

26 lb [11.8 kg]

Valve with DR/DK Actuator



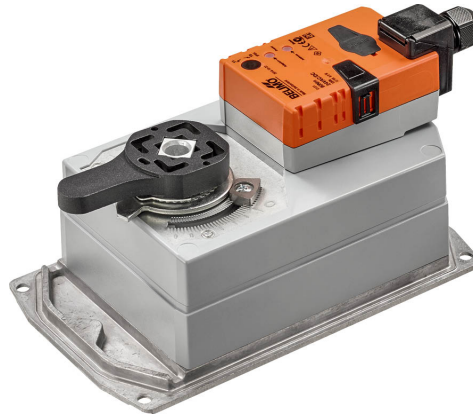
A	B	C	D	E	F	Number of Bolt Holes
11.3" [286]	2.3" [58]	22.1" [562]	18.0" [457]	5.4" [137]	5.4" [137]	8



Valve with DR N4/DK N4 Actuator

A	B	C	D	E	F	Number of Bolt Holes
14.1" [358]	2.3" [58]	25.1" [638]	20.1" [511]	5.4" [137]	5.4" [137]	8

MFT/programmable, Non fail-safe, 24 V



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	Screw terminal (for 22 to 12 GA wire)
	Overload Protection	electronic throughout 0...90° rotation
Functional data	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, 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
	Manual override	external push button
	Running Time (Motor)	35 s / 90°
	Running time motor variable	35...150 s
	Noise level, motor	45 dB(A)
	Position indication	integrated into handle
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

Technical data

Weight	Weight	7.8 lb [3.5 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
	Battery backup system, for non-spring return models	NSV24 US
	Battery, 12 V, 1.2 Ah (two required)	NSV-BAT
	Feedback potentiometer 140 Ω add-on, grey	P140A GR
	Feedback potentiometer 5 kΩ add-on, grey	P5000A GR
	Feedback potentiometer 1 kΩ add-on, grey	P1000A GR
	Feedback potentiometer 2.8 kΩ add-on, grey	P2800A GR
	Feedback potentiometer 500 Ω add-on, grey	P500A GR
	Feedback potentiometer 10 kΩ add-on, grey	P10000A GR
	Auxiliary switch 1x SPDT add-on	S1A
	Auxiliary switch 2x SPDT add-on	S2A
	Connecting cable 16 ft [5 m], A: RJ11 6/4 ZTH EU, B: 6-pin for connection to service socket	ZK1-GEN
	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

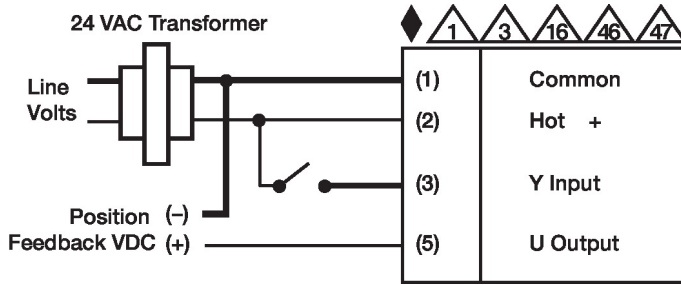
Electrical installation
INSTALLATION NOTES

- 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.

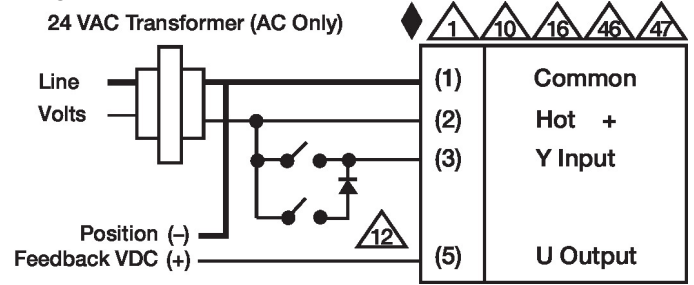
Electrical installation

Wiring diagrams

On/Off



Floating Point



VDC/mA Control

