

- 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) |

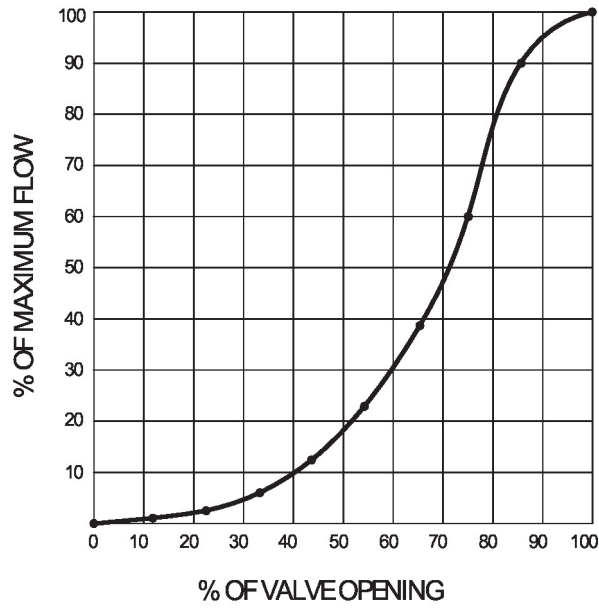
Safety notes



- 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

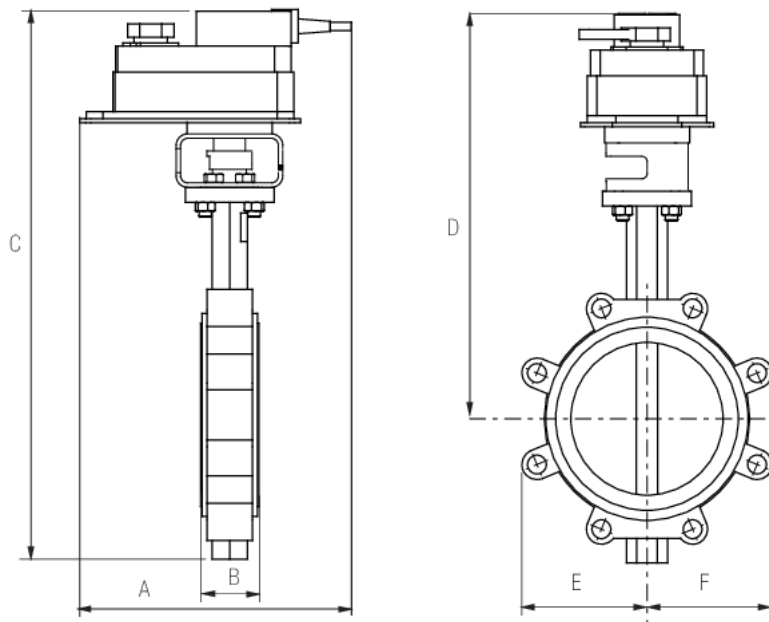
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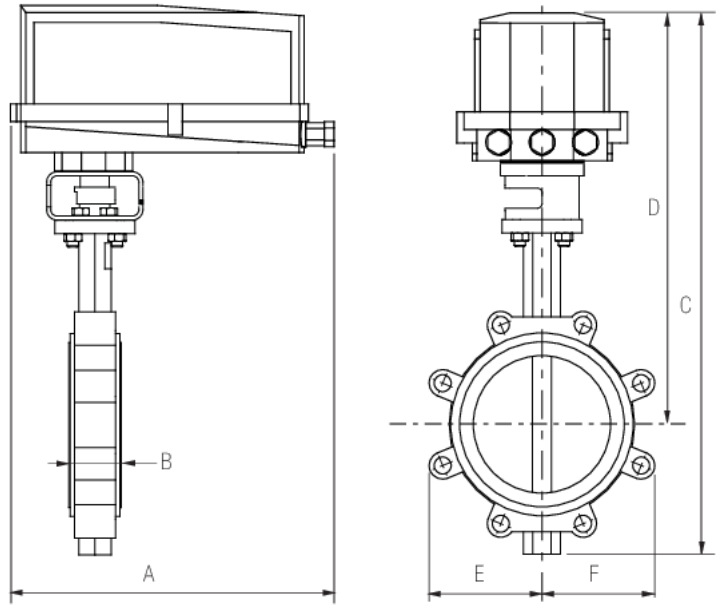
Weight

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 |



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 | Mechanically, 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 | 3.2 lb [1.5 kg] |
| Materials | Housing material | Die cast aluminium and plastic casing |

Accessories

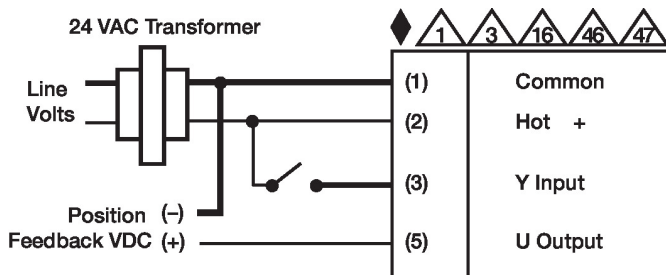
| Gateways | Description | Type |
|------------------------|---|---------|
| | Gateway MP to BACnet MS/TP | UK24BAC |
| | Gateway MP to Modbus RTU | UK24MOD |
| | Gateway MP to LonWorks | UK24LON |
| Electrical accessories | Description | Type |
| | Service Tool, with ZIP-USB function, for programmable 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 |
| | Connection 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



Floating Point

