VIKING SupplyNet®

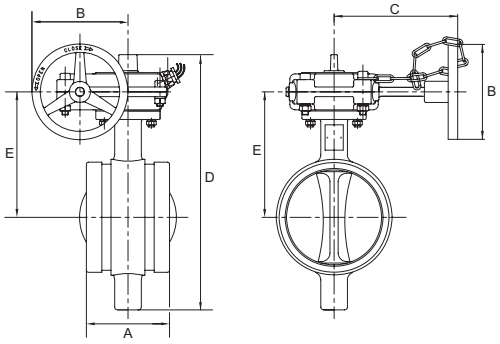
# Butterfly Valve (Grooved) with Gear Operator

## JPL

Control Valves

### Technical Features

- **Sizes available (Nominal) :** DN50/2", DN65/2 1/2", DN80/3", DN100/4", DN125/5", DN150/6", DN200/8", DN250/10" and DN 300/12".
- **Pressure data :** Working pressure : 12 bar (175 psi).
- **Finish :** Fusion bonded epoxy.
- **Connections :** Grooved joint dimensions are made in accordance with ANSI/AWWA C606 (Ductiile Iron and steel pipe) and metric pipe specifications.
- **Supervisory/Auxiliary Switches:** The gearbox is fitted with one internal supervisory switch and one internal auxiliary switch.




[1, 2, 3, 4] See approval exceptions in Physical Data table.

### Butterfly Valve (Grooved) with Gear Operator - JPL

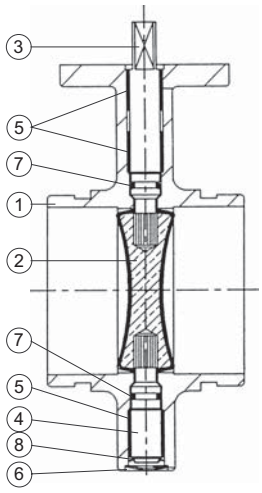
Physical Data

| Nominal Pipe Size | | Pipe O.D. (mm / inch) | Approvals | Dimensions (mm / inch) | | | | | Reference | Weight (kg / lb) |
|---|---|---|---|---|---|---|---|---|---|---|
| Metric | inch | | | A | B | C | D | E | | |
| DN50 | 2" | **60.3** / 2.38 | VdS | **82** / 3.2 | **150** / 5.9 | **208** / 8.2 | **314** / 12.4 | **135** / 5.3 | 39109050 | **8.8** / 19.4 |
| DN65 | 2 1/2" | **73.0** / 2.86 | UL, FM | **97** / 3.8 | **150** / 5.9 | **208** / 8.2 | **314** / 12.4 | **135** / 5.3 | 391095065073 | **9.5** / 20.9 |
| DN65 | 2 1/2" | **76.1** / 3.00 | UL, FM, VdS | **97** / 3.8 | **150** / 5.9 | **208** / 8.2 | **314** / 12.4 | **135** / 5.3 | 39109V065 | **9.5** / 20.9 |
| DN80 | 3" | **88.9** / 3.50 | UL, FM, VdS | **97** / 3.8 | **150** / 5.9 | **208** / 8.2 | **329** / 13.0 | **142** / 5.6 | 39109V080 | **9.9** / 21.8 |
| DN100 | 4" | **114.3** / 4.50 | UL, FM, VdS, LPCB | **116** / 4.6 | **150** / 5.9 | **208** / 8.2 | **369** / 14.5 | **165** / 6.5 | 39109V100 | **11.6** / 25.6 |
| DN125 | 5" | **139.7** / 5.50 | UL, FM, VdS, LPCB | **148** / 5.8 | **150** / 5.9 | **208** / 8.2 | **395** / 15.6 | **177** / 7.0 | 39109V125 | **14.8** / 32.6 |
| DN125 | 5" | **141.3** / 5.56 | UL, FM, LPCB | **148** / 5.8 | **150** / 5.9 | **208** / 8.2 | **395** / 15.6 | **177** / 7.0 | 39109S125 | **14.8** / 32.6 |
| DN150 | 6" | **165.1** / 6.50 | UL, FM, LPCB | **148** / 5.8 | **225** / 8.9 | **215** / 8.5 | **457** / 18.0 | **210** / 8.3 | 39109S150165 | **18.2** / 40.1 |
| DN150 | 6" | **168.3** / 6.63 | UL, FM, VdS, LPCB | **148** / 5.8 | **225** / 8.9 | **215** / 8.5 | **457** / 18.0 | **210** / 8.3 | 39109V150 | **17.9** / 39.5 |
| DN200 | 8" | **219.1** / 8.63 | UL, FM, VdS, LPCB | **133** / 5.2 | **225** / 8.9 | **215** / 8.5 | **503** / 19.8 | **234** / 9.2 | 39109V200 | **20.5** / 45.2 |
| DN250 | 10" | **273.0** / 10.75 | FM, VdS, LPCB | **159** / 6.3 | **300** / 11.8 | **276** / 10.9 | **612** / 24.1 | **301** / 11.9 | 39109V250 | **46.3** / 102.1 |
| DN300 | 12" | **323.9** / 12.75 | FM, VdS, LPCB | **165** / 6.5 | **300** / 11.8 | **276** / 10.9 | **662** / 26.1 | **326** / 12.8 | 39109V300 | **55.0** / 121.2 |

### Butterfly Valve with Gear Operator - JPL

Materials List

| Item | Description | Material | Specification | |
|---|---|---|---|---|
| 1 | Body | Ductile Iron | FGS 400.18 | ASTM A 395.76 Gr 60-40-18 |
| 2 | Disc | Ductile Iron EPDM Encapsulated | FGS 400.15 | ASTM B124 |
| 3 | Control Shaft | Stainless Steel | | AISI 420 |
| 4 | Spindle | Stainless Steel | | AISI 420 |
| 5 | Bushing | PTFE Bronze Sintered on Steel | | |
| 6 | Retainer Plug | Plated Steel | | ASTM A283 Gr.B |
| 7 | O-Ring | NBR | | |
| 8 | Locking Ring | Spring Steel | | |




Updates the datasheet of 2005-02-18 (Added LPCB Approvals)

2005-06-14

**Worldwide Fire Protection**

**www.vikingcorp.com**

Manufactured for Viking SupplyNet by Sapag Industrial Valves. Pressure ratings require the use of couplings with equivalent pressure ratings. Rigid couplings are recommended for all valve end connections.
Refer to Manufacturer's datasheet. Specifications subject to change without notice.

# Butterfly Valve (Grooved) with Gear Operator

## JPL

Control Valves

### Design requirements

The butterfly valve should be connected to the piping system with approved couplings or flanges available from Viking SupplyNet. Flow may be from either direction through the valve, and the valve may be positioned in any direction.

### Installation

When the valves are received from Viking SupplyNet they should be handled carefully to avoid breakage and damage to the seating area. Before installation of the valve, clean the piping, and connecting flange or coupling. Lubricate the coupling gasket with approved lubricant, and place over the adjoining pipe or fitting. Position the valve against the mating pipe or fitting and slide the gasket into position o the valve such that the gasket seal seats properly on the valve and pipe/fitting according to the manufacturer's recommendadtions. Assemble the coupling according to the coupling manufacturer's recommendations.

To prevent distortion, properly support the piping adjacent to the inlet and outlet of the valve. Avoid damage and do not use the valve to force the piping into position.

The valve should never be forced to seat by applying excessive torque to the gearbox or through the use of a wrench. This may distort the valve components or score the sealing surface. Care must be taken to align wafer valves correctly so that the disc operation to the fully open position will not be obstructed. The use of excessive force to open or close the valve violates all warranties whether express or implied.

Conduit and electrical connections to the supervisory/auxiliary switches must be in accordance with the requirements of the Authority having Juristiction.

### Care and Maintenance

Inspect and verify proper operation on an annual basis or according to the requirements of the Authority Having Jurisdiction. Check for leakage at the valve pipe connection and body-to-operator connection. Installation, inspection and maintenance should be performed by a qualified person(s) certified by the Authority Having Jurisdiction.

If the valve closes hard, check to make sure that there is no debris lodged in the waterway around the seating area. Backing off the handwheel and closing the valve again can often correct this condition.

### Butterfly Valve (Grooved) with Gear Operator - JPL

Wiring Instructions

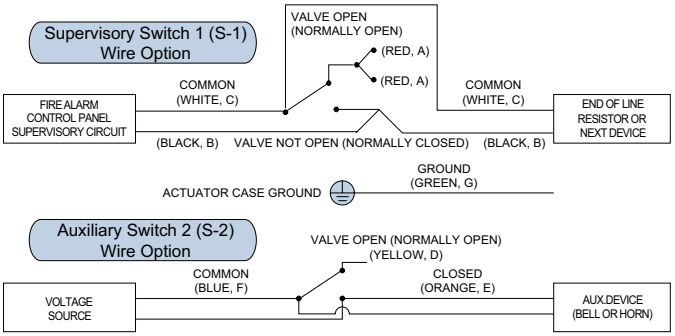
The JPL series butterfly valves come complete with one internal supervisory position switch and one internal auxiliary switch.

The supervisory/auxiliary switches operate by a cam connected to the valve stem and are designed to notify in the case of valve closure. Please refer to the relevant installation standard and Authority Having Jurisdiction.

The switch will change position and close within two (2) full turns of the hand wheel from the fully open position. No adjustment is possible. The circuit condition is shown for a valve in the fully open position

| Switch number | Wire | Wire color | Mode/Description |
|---|---|---|---|
| Supervisory switch #1 | A | Red | Normally open |
| Supervisory switch #1 | B | Black | Normally closed |
| Supervisory switch #1 | C | White | Common |
| Auxiliary switch #2 | D | Yellow | Normally open |
| Auxiliary switch #2 | E | Orange | Normally closed |
| Auxiliary switch #2 | F | Blue | Common |
| | G | Green | Ground lead |

Notes : Connection to power limited circuitry is required. Switch rating is limited to 5 A at 115VAC, 1 A at 250VAC or 0.5 A at 24VAC.




Updates the datasheet of 2005-02-18 (Added LPCB Approvals)

2005-06-14




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