# Serie F.200

## BUTTERFLY VALVE FLANGED

### F.240

The shut-off flanged butterfly valves in Series 200 are equipped with a centred disc and flanged type body, and are made of ductile iron, manufactured in accordance with severe product norms and in conformity to EN ISO 9001. These valves are suitable for heating and conditioning (HVAC), water treatment and water distribution, industrial applications, agricultural purposes for compressed air, gas, oils and hydrocarbons

**YES:** for in line and end of line installation with frequent actuation; the integrated support, in accordance with ISO 5211, allows easy mounting of a wide range of actuators and drives. They are suitable for choking and regulating the flow.

**NO:** for steam.

**Application fields**

WATER CONDITIONING INDUSTRY DRINKING WATER GAS HEATING MARINE FIRE FIGHTING

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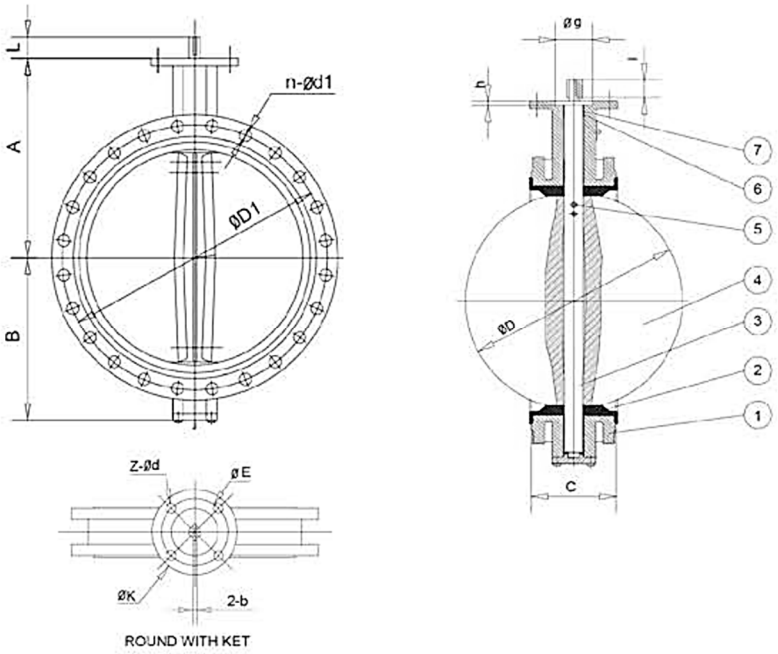



## Materials

| | Component | Material |
|---|---|---|
| 1 | Body | Ductile Iron |
| 2 | Seat | NBR, EPDM |
| 3 | Shaft | Stainless steel |
| 4 | Disc | Ductile Iron + Ni |
| 5 | Pin | Stainless steel |
| 6 | Bushing | PTFE, Bronze |
| 7 | O-Ring | NBR, EPDM |

## Dimensions (mm)

| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 120 | 130 | 145 | 155 | 170 | 190 | 205 | 235 | 280 | 310 | 340 | 375 | 430 | 500 | 560 | 620 | 665 | 735 |
| B | 83 | 93 | 100 | 114 | 125 | 143 | 170 | 198 | 223 | 279 | 300 | 345 | 355 | 410 | 478 | 529 | 584 | 657 |
| C | 108 | 112 | 114 | 127 | 140 | 140 | 152 | 165 | 178 | 190 | 216 | 222 | 229 | 267 | 292 | 318 | 330 | 410 |
| D | 52.9 | 64.5 | 78.8 | 104 | 123.3 | 155.6 | 202.5 | 250.5 | 301.6 | 333.3 | 389.6 | 440.5 | 491.6 | 592.5 | 695 | 794.7 | 864.7 | 965 |
| L | 32 | 32 | 32 | 32 | 32 | 32 | 45 | 45 | 45 | 45 | 51.2/72 | 51.2/72 | 52.7/77.5 | 70.2/80 | 66/82 | 66/82 | 118 | 141 |
| bxl | 3x16 | 3x16 | 3x16 | 5x19 | 5x19 | 5x19 | 5x19 | 8x28 | 8x28 | 8x28 | 10x50 | 10x50 | 10x50 | 2-16x60 | 2-18x63 | 2-18x63 | 2-20x100 | 2-22x140 |
| K | 70 | 70 | 70 | 90 | 90 | 90 | 125 | 125 | 140 | 140 | 175 | 175 | 175 | 210 | 300 | 300 | 300 | 300 |
| E | 50 | 50 | 50 | 70 | 70 | 70 | 102 | 102 | 102 | 102 | 140 | 140 | 140 | 165 | 254 | 254 | 254 | 254 |
| z-d | 4-7 | 4-7 | 4-7 | 4-9 | 4-9 | 4-9 | 4-12 | 4-12 | 4-12 | 4-12 | 4-18 | 4-18 | 4-18 | 4-23 | 8-18 | 8-18 | 8-18 | 8-18 |
| g | 35 | 35 | 35 | 55 | 55 | 55 | 70 | 70 | 70 | 70 | 100 | 100 | 100 | 130 | 200 | 200 | 200 | 200 |
| h | 3 | 3 | 3 | 3 | 3 | 3 | 3.5 | 3.5 | 3.5 | 3.5 | 4 | 4 | 4 | 5 | 5.5 | 5.5 | 5.5 | 5.5 |
| D1 | 125 | 145 | 160 | 180 | 210 | 240 | 295 | 350/355 | 400/410 | 460/470 | 515/525 | 565/585 | 620/650 | 725/770 | 840 | 950 | 1050 | 1160/1170 |
| n-d1 | 4-18 | 4-18 | 4/8-18 | 8-18 | 8-18 | 8-23 | 8/12-23 | 12-23/27 | 12-23/27 | 16-23/27 | 16-27/30 | 20-27/30 | 20-27/33 | 20-30/36 | 24-30/36 | 24-33/39 | 28-33/39 | 28-36/42 |

**Certificates**

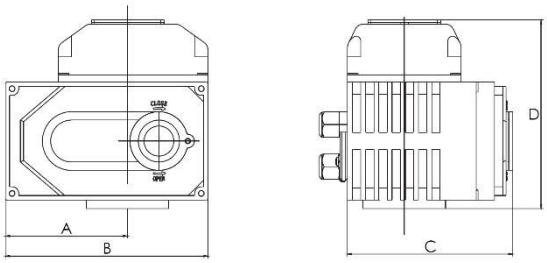
**Standards**

Design : TS EN 593
Face to face : BS5155
Tests : TS EN 12266-1
Nominal Pressure: PN16
Temperature: -10 ~ 110°C

## Accessories

- Gearbox
- Actuator

## Actuator for butterfly valve



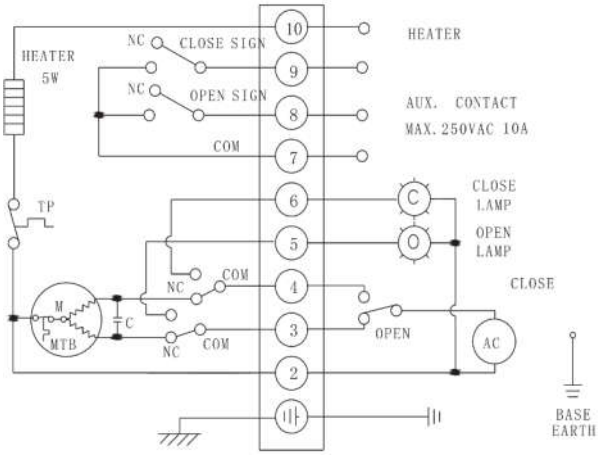

## Specification

| | |
|---|---|
| Shell | Aluminium alloy shell, Enclosure: IP67, NEMA4 and 6 (Option: IP68) |
| Power | Single phase 220V AC (Option: 24V DC) |
| Motor | Squirrel-cage Asynchronous Motor |
| Limit switch | 2xOpen / Close, SPDT, 250V AC 10A |
| Auxiliary switch | 2xOpen / Close, SPDT, 250V AC 10A |
| Stall protection | Internal placed thermal protection |
| Indicator | Continuous situation indication |
| Manual operation | Mechanical lever (Handwheel is optional) |
| External coating | Dry powder, Epoxy polyester |

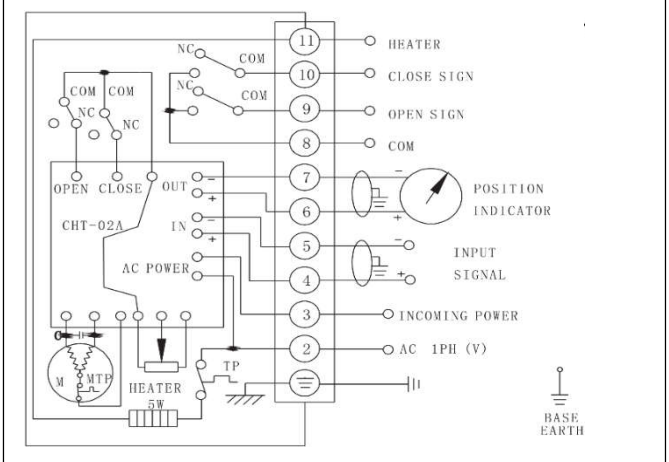
## Performance Parameter

| DN | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A (mm) | 74 | 89 | 89 | 89 | 107 | 107 | 152 | 152 | 152 | 152 | 391 | 391 | 391 | 391 |
| B (mm) | 123 | 160 | 160 | 160 | 189 | 189 | 268 | 268 | 268 | 268 | 508 | 508 | 508 | 508 |
| C (mm) | 100 | 121 | 121 | 121 | 145 | 145 | 205 | 205 | 205 | 205 | 285 | 285 | 285 | 285 |
| D (mm) | 113 | 121 | 121 | 121 | 129 | 129 | 164 | 164 | 164 | 164 | 368 | 368 | 368 | 368 |
| Operating time (s) | 20 | 30 | 30 | 30 | 30 | 40 | 30 | 40 | 40 | 40 | 60 | 60 | 120 | 200 |
| Motor (W) | 8 | 10 | 10 | 10 | 15 | 15 | 60 | 60 | 90 | 90 | 90 | 90 | 90 | 90 |
| Ampere (220V-50Hz) | 0.25 | 0.24 | 0.24 | 0.26 | 0.4 | 0.42 | 0.34 | 0.35 | 0.56 | 0.59 | 0.6 | 0.62 | 0.64 | 0.66 |

On/off type
Wiring diagram




Modulating type
Wiring diagram




* Note 1: Heater is an option

* Note 2: 24V DC have different wiring diagram

## Instruction and Recommendations

**STORING AND TRANSPORT**

- Keep in dry and closed place.
- While stored, the disc must be partially open.
- Avoid knocks, take special care to protect lever, hand wheel, gear boxes/actuators.
- Do not use lever or hand wheel to lift the valve.

**RECOMMENDATIONS**

Before carrying out maintenance or dismantling the valve: be sure that the pipes, valves and fluids have cooled down, that the pressure has decreased, and that the lines and pipes have been drained in case of toxic, corrosive, inflammable or caustic liquids.
Temperatures above 50°C and below 0°C might cause damage to people.

**INSTALLATION**

- Handle with care
- Do not weld the flanges to the piping after installing the valve
- Water hammers might cause damage and ruptures. Inclination, twisting and misalignments of the piping may subject the valve to stress, once it has been installed. It is recommended that elastic joints be used, in order to reduce these effects as much as possible. The disc must be partially open
- The mounting can be made with the stem axis in a horizontal or vertical position. In case the fluid contains suspended solid particles (for example, sand, impurities, etc.) o solid particles that may leave deposits, it is recommend that the valve be installed with its axis horizontal, and in such a way that the bottom end of the disc opens in the direction of flow.
- Carefully clean the contact surface.
- As far as possible, avoid flat flanges for welding (EN 1092 01 type); if these flanges are used, ensure perfect centring between the flange and valve, and be sure to weld exactly edgewise to the flange. Do not let protrusions or sharp edges on the piping cause damage to the rubber surface of the valve.
- Turbulences of the fluid might increase erosion and reduce the life-cycle of the valve. Install the valve at a distance of at least 1 x DN upstream, and at a distance of 2-3 x DN downstream, away from fittings or bends.