Butterfly valves PN6, PN10, PN16 for shut-off function

- for open and closed cold and warm water systems
- connection and disconnection of several heat or cold generators
- for open heat exchangers

**Technical data sheet D6..**

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### Technical data

**Functional data**

- **Flow media**: Cold and hot water, water with max. 50% volume of glycol
- **Temperature of medium**: +2 °C ... +90 °C for water (without glycol)
  -20 °C ... +70 °C for water with glycol
  (lower or higher temperatures on request)
- **Rated pressure $p_s$**: 1600 kPa (PN6, PN10, PN16)
- **Flow rate $k_{VS}$**: See «Type overview»
- **Leakage rate**: Tight (BN1, DIN 3230 T3)
- **Pipe connector**: Flange PN6, PN10, PN16
- **Closing pressure $\Delta p_s$**: See «Type overview»
- **Angle of rotation**: 90°<sup>o</sup>
- **Installation position**: Upright to horizontal (in relation to the stem)
- **Maintenance**: Maintenance-free

**Materials**

- **Fitting**: GGG 40
- **Valve cone**: GGG 40, nylon-coated
- **Stem**: Stainless steel
- **Seat**: EPDM
- **Stem seal**: EPDM O-ring
- **Stem bearing**: RPTFE

**Dimensions / Weights**

see «Dimensions and weights», page 3

**Motorizing**

see the complete overview of water solutions
Butterfly valves PN6, PN10, PN16

Safety notes

• The butterfly valve has been designed for use in stationary heating, ventilation and air conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
• It may only be installed by suitably trained personnel.
• All applicable legal or institutional installation regulations must be complied with.
• The butterfly valve does not contain any parts that can be replaced or repaired by the user.
• The butterfly valve is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.
• The recognized rules should be applied when determining the flow characteristic of final controlling elements.

Product features

Mode of operation
The butterfly valve is closed or fully opened by a rotary actuator (AF.., SR.., GR.., DGR.., SY..). The rotary actuators are controlled either by a standard controller or by a 1 or 2-wire control unit. The nylon-coated valve cone is pressed into the soft-sealing EPDM seat by the rotary action and guarantees zero leakage losses. The open position is characterized by low flow losses and a high kv value.

Manual operation
The butterfly valve can be moved into any position, depending on the rotary actuator type. (Lever mounted directly on the butterfly valve on request.)

Installation notes

Recommended mounting positions
The butterfly valve may be mounted either vertically or horizontally. It is not permissible, mounting the butterfly valve with the stem pointing downwards.

Water quality requirements
The water quality requirements specified in VDI 2035 must be adhered to.

Maintenance
• The butterfly valves and rotary actuators are maintenance-free.
• Before any kind of service work is carried out on actuator sets of this type, it is essential to isolate the rotary actuator from the power supply (by unplugging the power lead). Any pumps in the part of the piping system concerned must also be switched off and the appropriate isolating fittings closed (allow everything to cool down first if necessary and reduce the pressure in the system to atmospheric).
• The system must not be returned to service until the butterfly valve and the rotary actuator have been properly reassembled in accordance with the instructions and the pipework has been refilled in the proper manner.

Accessories

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<td>Mechanical accessories</td>
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Products no longer available
Butterfly valves PN6, PN10, PN16

### Dimensions [mm]

#### Dimensional diagrams

**Mounted flange**

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3) Acc. to ISO 5211
Free stem end
(mounting flange up to end face of stem head)

**PN6**

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1) Minimum distance with respect to the valve centre

The actuator dimensions can be found on the respective actuator data sheet

**Further documentation**

- Complete overview of water solutions
- Data sheets for actuators
- Installation instructions for butterfly valves and/or actuators
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance etc.)