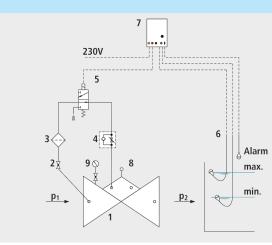
# hawle

### On/Off valve for electrical control - closes without current

## 1603



#### Components

- 1: Main valve
- 2: Ball valve
- 3: Filter
- 4: Throttle check valve
- 5: 3-way solenoid valve
- 6: Float switch
- 7: Electric control (option)
- 8: Opening limiter
- 9: Pressure gauge with ball valve

#### Mode of operation

 The open/close valve with an electric level switch, opens or closes for the electric actuation via the level switch and the solenoid valve The valve is closed when it is de—energised. The closing speed can be adjusted by means of a throttle non—return valve to prevent surges in pressure.

#### **Physical characteristics**

- The main valve is a hydraulically operating diaphragm valve. The work energy is the inherent medium.
- Most valve types operate purely hydraulically without any foreign energy.

#### Application

- To use in drinking water systems (other media after consultation)
- Level control in a reservoir or pressure—breaking shaft
- Level control in an equalising basin

#### **Product information**

- To calculate the dimensions of the valve please refer to the following information:
- Maximum and minimum inlet pressure (static and dynamic pressure ratios)
- Existing counterpressure of the reservoir
- Required flow rate
- Voltage information for the solenoid valve
- Available line diameters and lengths
- Construction of the valve (straight or angle design)
- The level switch operates with 24 VDC. The supply voltage for the control is 230 VAC.
- For the calculation basis, information on the loss of pressure and the characteristic values of the valve, please refer to the end of Chapter E.

#### Design

- Design according to DIN EN 1074
- Construction length acc. to DIN EN 558
- Flange mass according to DIN 1092-2, to PN 25 DN 300
- Pressure levels: PN 10 or PN 16 to DN 300, PN 25 to DN 200, higher pressures on request.
- Nominal widths DN 50, DN 80, DN 100 and DN 150 available in angular design
- Nominal widths 1 1/2" and 2" with threaded connection (female thread)
- Medium temperature up to 40°C



#### Installation and assembly

• Shut–off valves should be fitted on both

sides of the valve and a dirt trap should

be installed on the inlet side of the valve.

Depending on the installation situation, a mounting/dismounting adapter should be provided. If there is a free run into the water tank downstream from the valve, the slider on the outlet side can be omitted. Depending on the pressure ratios, an orifice plate should be installed on the outlet side of the valve and an opening limiter on the valve. The installation of a float protection pipe is recommended to guide the float.

#### Vantages

- Maintenance-free, non-rusting valve seat
- Pressed-in seat
- EWS-coating according to RAL GSK

	DN	PN (bar)	L (mm)	weight (kg)
1603007000	1 1/2"	16	210	9.000
1603008000	2"	16	210	10.000
1603040000	40	16	200	15.000
1603050000	50	16	230	17.800
1603065000	65	16	290	23.000
1603080000	80	16	310	26.600
1603100000	100	16	350	37.000
1603125000	125	16	400	53.000
1603150000	150	16	480	76.000
1603200000	200	10	600	116.100
1603200016	200	16	600	118.000
1603250000	250	10/16	730	249.000
1603300000	300	10/16	850	356.000

Comment: Up to DN 100 as per the diagram. From DN 125 with orifice plate and 2/2-way solenoid valve.