Reverse Rinsing Actuator

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2.1 2.3
2.4 3.1 3.2
A reverse rinsing interval of 45 days is set during manufacture.

5.1

5.2  Position indicator
blue = valve closed
red  = valve open

6.1a) 6.2 6.3
1. Installation
It is necessary during installation to observe codes of good practice, to comply with local requirements and to follow the installation instructions. The installation location should be protected against frost and be easily accessible.

2. Assembly
2.1 Close isolating valves [1] and [2].
2.2 Open the ball valve.
⚠️ Check availability of a suitable drainage outlet or catchment vessel.
2.3 Filter connection 1/4" - 1/4" (also 1/2" and 2" manufactured 1995 and onwards)
• Unscrew the ball valve [3] from the filter (whilst restraining with the forked key SW 24)
• Screw in the Z11AS with the sealing ring provided
• Screw existing drain connection or hose connector into the Z11AS.
2.4 Filter connection sizes 1/2" and 2" (up to 1995):
• Unscrew ball valve [3] from filter, whilst restraining with a 24mm open-end wrench
• Push and turn the ball valve on the Z11AS by 180° so that the internal thread is towards the filter
• Screw in Z11AS using existing seal ring.
2.5 Flange filter sizes DN 65 to DN 100
• Unscrew ball valve [3] from filter
• Seal in the ball valve of the Z11AS with suitable material (e.g. hemp)
• Screw existing drain connection into Z11AS.
2.6 Insert electrical plug
⚠️ This will cause a reverse rinsing cycle to occur.

3. Reverse Rinsing Water Drainage
3.1 Direct Connection Connect drainage according to DIN 1988 or to national standards.

⚠️ Drainage connection must have a minimum cross section ‘A’ as indicated in table below to prevent overflow from the pipework.

<table>
<thead>
<tr>
<th>Filter size</th>
<th>Diameter pipe A*</th>
<th>Transition Connector B</th>
<th>Reverse Rinsing Quantity (litres**)</th>
<th>C mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; + 1/4&quot;</td>
<td>DN 70</td>
<td>DN 50/70</td>
<td>Approx. 12</td>
<td>300</td>
</tr>
<tr>
<td>1&quot; + 1/4&quot;</td>
<td>DN 70</td>
<td>DN 50/70</td>
<td>Approx. 15</td>
<td>300</td>
</tr>
<tr>
<td>1 1/2&quot; + 2&quot;</td>
<td>DN 70</td>
<td>DN 40/100</td>
<td>Approx. 18</td>
<td>300</td>
</tr>
<tr>
<td>65-100</td>
<td>DN 100</td>
<td>DN 40/100</td>
<td>Approx. 15</td>
<td>400</td>
</tr>
</tbody>
</table>

* At necessary pipes and flange (3x 90° bends)
** At 4.0 bar operating pressure and 25 second reverse rinsing duration

When our drain connector is used, the free 20 mm discharge dimension required in DIN 1988 is integral with the connector.

3.2 Discharge into existing floor drainage

4. Fitting Batteries and Fuses
The batteries provide a power supply to close the ball valve in compliance with regulations if the mains current fails during the reverse rinsing cycle.

Battery are not supplied with the appliance.
4.1 Pull out the electrical mains plug.
4.2 Unscrew the housing screws and remove the lid.
4.3 Insert the batteries (Four LR 6 - 1,5 V - Mignon/AA size alkali-manganese).
4.4 Changes if necessary.
4.5 Reassemble in reverse order.
⚠️ Do not leave the mains unplugged for too long when batteries are fitted.

5. Setting of the Reverse Rinsing Interval

DIN 1988 requires that a reverse rinsing cycle must occur at intervals of not more than two months. The time interval should be set according to the level of contamination present.

Setting of Other Intervals
Select required interval from the table [1] on the housing cover
• Press pushbutton [2] until the required programme appears on display [3]

Display [5] indicates the number of completed reverse rinsing cycles. This number can be reset by briefly pressing pushbutton [4].

Service Indicator Displays
If programme pushbutton [2] and reset pushbutton [4] (for five seconds) are pushed at the same time, the remaining time to the next timed reverse rinsing cycle is indicated on [3] and display [5] will indicate the corresponding time interval between reverse rinsing cycles (0= minutes, 1 = hours and 2 = days).

After electrical power has failed, when it is restored a reverse rinsing cycle will automatically occur. The set timed programme and counter reading are retained. Counter [5] can be reset to 0 by pressing reset button [4].

Manual Actuation of the Reverse Rinsing

Manual Reverse Rinsing when Electrical Power is off
Push the housing against the ball valve and towards the filter and turn the housing 90° anti-clockwise. After approximately 15 seconds return the housing to the original outlet position.
6. Additional connection options

6.1 Remote switching
The Z11AS can be remotely actuated by:
- A volt-free switching circuit (e.g. Honeywell Centra Bürkle type REL 2)
- Via an open-collector output.

In both cases the minimum holding period is one second. Reverse rinsing occurs when the inputs “Start” and “U+” have been separated.

6.2 Remote monitoring
For remote monitoring of the open/closed position of the ball valve the installation of a building management system with 0 to 10 V input is recommended. The maximum current is 10 mA. With a current of 0.5 V the ball valve is open and with a value between 5 V and 6 V the ball valve is closed.

6.3 Differential pressure switch
The reverse rinsing function can be actuated according to demand using the DDS76 differential pressure switch with voltage free switching. It is recommended that the differential pressure be set to 1.0 bar. Operation occurs when the inputs “Start” and “U+” have been separated, that is, after the differential pressure has fallen below the set value. Through this it is guaranteed that a maximum quantity of water is available for reverse rinsing. If reverse rinsing starts immediately irrespective of the duration of the differential pressure signal, then the inputs should be connected instead to “U+” and “SIGN”.

⚠️ The DDS76 differential pressure switch can only be used where F76 / F76S-F fine filters are also installed.

7. Safety Guidelines

7.1 Use appliance only:
- In good condition
- According to regulations
- With due regard to safety

7.2 Follow installation instructions

7.3 Immediately rectify any malfunctions which may influence safety.

7.4 The Z11AS automatic reverse rinsing actuator is exclusively for use in reverse rinsing applications with Honeywell Braukmann filters and filter combinations. Any variation from this or other use will not comply with requirements.

⚠️ All electrical work must be carried out by authorised specialists and comply with local regulations.

⚠️ Materials containing solvents must not be used for cleaning.

⚠️ For safety reasons it is required that a fuse be fitted to protect the electrical junction box.

8. Technical Data
The appliance is fitted with electrical suppression during manufacture.

<table>
<thead>
<tr>
<th>Nominal voltage</th>
<th>Version A = 230 V ~</th>
<th>Version B = 24 V ~</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>50 / 60 Hz</td>
<td></td>
</tr>
<tr>
<td>Electrical consumption</td>
<td>10 W</td>
<td></td>
</tr>
<tr>
<td>Supply cable</td>
<td>1,5 m</td>
<td></td>
</tr>
<tr>
<td>Battery life</td>
<td>Approximately 3 years</td>
<td></td>
</tr>
<tr>
<td>Fuse</td>
<td>800 mA ~</td>
<td></td>
</tr>
<tr>
<td>Reverse rinsing duration</td>
<td>Approximately 25 s with mains electricity</td>
<td></td>
</tr>
<tr>
<td>Reverse rinsing quantity</td>
<td>See table 3.1</td>
<td></td>
</tr>
<tr>
<td>Ambient conditions</td>
<td>5 . . . 90 % humidity; 0 . . . 60 °C</td>
<td></td>
</tr>
<tr>
<td>Type of protection</td>
<td>IP 55 water vapour protected</td>
<td></td>
</tr>
<tr>
<td>Protection class</td>
<td>1 (DIN VDE 0700-T1 / EN 60335-1)</td>
<td></td>
</tr>
<tr>
<td>Approx. dimensions</td>
<td>Width: 70 mm depth: 160 mm</td>
<td></td>
</tr>
</tbody>
</table>