PRODUCT INFORMATION

Serving the Gas Industry Worldwide
Features

- Operates according to the suction method
- Safe and easy-to-operate stainless-steel design with clamping-ring connection (SWAGELOK)
- Diaphragm proportioning pump with solenoid actuator [EEx e]
  - Infinitely variable for volume-proportional odorization
  - High proportioning accuracy
- Permanently filled 5-litre reserve tank with level indicator
- Manual proportioning check
- Changing the odorant tank is possible without interrupting operation
- Integrated hand vacuum pump Easy start-up for filling the reserve tank for the first time
- Venting the pump head poses no problem even if the gas line is under pressure
- Convertible to sulfur-free odorant
- Flushing device (option)
- Measuring device for delivery rate (option)

Method of operation

The odorization system operates in accordance with the injection method. The volume-proportional pulses received from a measuring device for volume at base conditions cause the electromagnetically operated diaphragm proportioning pump (2) to perform strokes through a control unit. With each stroke, the pump delivers the preset odorant quantity (mm) via the injection nozzle (3) into the gas flow. The odorization pump (2) replenishes its supply of odorant by drawing odorant from the odorant tank (5) through a permanently filled 5-litre reserve tank (4). The level of the reserve tank only falls when the odorant tank is empty.
Gas Odorization System GOE 07
Start-up, operation, manual proportioning check, level indicator, options, accessories, specifications

Start-up

Using an integrated hand vacuum pump (6), a vacuum is built up in the pipes upstream of the odorization pump, which first fills the reserve tank. The vacuum persists and makes the system self-priming. Afterwards, the odorization pump needs to be vented for 1 minute and the system is ready for operation.

Operation

The odorant quantity in mm³ per stroke has to be set at the stroke setting unit of the odorization pump depending on the required odorant concentration. A scaling factor for the frequency of the control pulses has to be programmed on the associated control unit. In this way, the pulse sequence of a measuring device for volume at base conditions is turned into suitable stroke frequency of the pump and odorization is performed in proportion to the volume.

Manual proportioning check

It is possible to check the preset volume being injected (mm³ per stroke) at any time using the measuring burette (9) which is connected parallel to the reserve tank. At the same time, the measuring burette is used for checking the odorant level.

Level indicator

Continuous odorant level indication is provided by the vacuum gauge (10) which is installed as standard. It is also used for checking the functional performance of the system at the same time. In the case of malfunctions or an empty odorant tank, the system cannot build up a vacuum.

Options

- **Delivery monitoring:** The flow monitor of Type FS-01 (11) which is installed in the outlet pipe of the odorization pump monitors the delivery of the odorant into the piping with each pump stroke.
- **Level monitoring,** float switch (14) in the reserve tank.
- **Stainless-steel cabinet,** for installation of the odorization system.
- **Floor stand,** for locating the odorization system.

Accessories

- 2 flexible PTFE connecting hoses (12) with stainless-steel sheathing.
- Injection nozzle (3) with non-return valve (22) and shut-off valve (21).
- Stainless-steel safety collector (15) for odorant (50, 100 and 200 litres).
- Odorant tank for transportation and storage (5) of THT, approved by GGVE/GGVS and DVGW as per DIN 30 650 (25, 50 and 200 litres).
- Activated carbon filter as odor trap for installation in the venting pipe (13). Its location has already been provided.
- Insulating coupling for the injection pipe, dia. 6 mm, for the electrical isolation of the piping and the odorization system, with Swagelok fitting.

### Specifications

<table>
<thead>
<tr>
<th>Pump type</th>
<th>MH-6-47</th>
<th>MH-6-65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement (mm³/ stroke)</td>
<td>10 - 80</td>
<td>12 - 150</td>
</tr>
<tr>
<td>max. operating pressure (bar)</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>max. (min.) number of strokes per hour</td>
<td>7200 (60)</td>
<td>7200 (60)</td>
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<tr>
<td>Solenoid actuator</td>
<td>Single solenoid actuator, degree of protection EEx e G 4 196 V DC / 100% ED/0, 133 A</td>
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<tr>
<td>Design</td>
<td>Reciprocating diaphragm pump and ruby ball valves</td>
<td></td>
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<tr>
<td>Parts in contact with fluid</td>
<td>Stainless steel, ruby, PTFE</td>
<td></td>
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<tr>
<td>Injectable fluids</td>
<td>Liquids, e.g. tetrahydrothiophene, mercaptans</td>
<td></td>
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<tr>
<td>Operating temperature range</td>
<td>+5°C to +40°C</td>
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</tr>
</tbody>
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<th>Pump type</th>
<th>MH-6-47</th>
<th>MH-6-65</th>
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<tbody>
<tr>
<td>Odorant concentration (mg/Nm³)</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>max. (min.) pumpstrokes (strokes per h)</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Odorizabel gas flow:</td>
<td>7200 (60)</td>
<td>7200 (60)</td>
</tr>
<tr>
<td>max. displacement (Nm³/h)</td>
<td>57600 (480)</td>
<td>108000 (900)</td>
</tr>
<tr>
<td>min. displacement (Nm³/h)</td>
<td>7200 (60)</td>
<td>8640 (72)</td>
</tr>
</tbody>
</table>

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For More Information
To learn more about Honeywell’s Advanced Gas Solutions, visit www.honeywellprocess.com or contact your Honeywell account manager

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