For Sterile Sampling

Unique Sampling Valve - Single Seat

**Working principle**
The Unique Sampling Valve is a single seat valve designed for sterilisation before and after each sample. The valve body and the connecting pieces are made of one piece of material, thereby avoiding the risk of cracks and welding pores.

**Closed valve: Sterilising**
When the valve is closed, the channel between the valve ports is open for sterilisation. If using steam, a small pressure relief valve (optional) on the outlet is recommended.

**Open valve: Sampling**
When the valve is opened, the stem and the membrane seal are retracted, allowing liquid to pass. By using the standard accessories, aseptic sampling is possible. The accessories are designed to ensure the right conditions when sterilising (2 bar - 121°C). Heat insulating material is used to avoid burning.

**Standard design**
The valve consists of three parts, a valve body, an actuator and a membrane seal. The rubber membrane seal is placed on the stem of the actuator and works as a stretchable plug. The valve bodies and actuators are interchangeable. The single seat valve can be upgraded to a double seat valve by replacing the handle or actuator with an upgrade kit - see ordering leaflet for accessories.

**The valve is available in three sizes:**
- Size 4 for low-viscosity products such as water, beer, wine and liquid milk.
- Size 10 for high-viscosity products such as fruit yoghurt, syrup and ice cream.
- Size 25 for products containing large particles such as fruit.

**Valve bodies:**
- Tank (welding)
- Collared tube (welding)
- Tri-Clamp

**Valve heads:**
- Handle (0-6 bar)
- Handle, high pressure (6-10 bar)
- Actuator (0-10 bar) air supply max. 8 (bar)

Optional
- Horizontal tube saddle (welding)
- Vertical tube saddle (welding)
### Technical data

#### Pressure
- Max. working pressure: 1000 kPa (10 bar)
- Min. working pressure: 0 kPa (0 bar)

#### Temperature
- Temperature range: 1°C - 130°C
- Max. sterilisation temperature, dry steam (2 bar): 121°C

Steam must be dry, since condensate will damage the membrane seal. It is recommended that the membrane seal be changed every 100 samples/sterilisations or in accordance with working conditions or experience.

<table>
<thead>
<tr>
<th>Valve</th>
<th>Viscosity (cP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size 4</td>
<td>0-100</td>
</tr>
<tr>
<td>Size 10</td>
<td>0-1000</td>
</tr>
<tr>
<td>Size 25</td>
<td>0-250000</td>
</tr>
</tbody>
</table>

#### Options
- A. Horizontal tube saddle valve body
- B. Vertical tube saddle valve body
- C. Varivent valve body
- D. Weld, Tri-Clamp, Quick or thread connections
- E. For accessories, please see ordering leaflet

#### Note!
For further information, see also instruction ESE01605.

### Materials
- **Valve body:** Stainless steel 1.4404 (316L)
- **Actuator:** Stainless steel 301, 303, 316L, PA 6.6/black, PTFE
- **Membrane seal:** EPDM rubber, silicone rubber

### Dimensions (mm)

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Size 4</th>
<th>Size 10</th>
<th>Size 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>See Ordering</td>
<td>See Ordering</td>
<td>See Ordering</td>
</tr>
<tr>
<td>B</td>
<td>Leaflet</td>
<td>Leaflet</td>
<td>Leaflet</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>14</td>
<td>25</td>
</tr>
<tr>
<td>D</td>
<td>6</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>E</td>
<td>77</td>
<td>82</td>
<td>120</td>
</tr>
</tbody>
</table>

### Standard Option

<table>
<thead>
<tr>
<th>Valve bodies</th>
<th>Tank</th>
<th>Collared pipe</th>
<th>Tri-Clamp</th>
<th>Horizontal pipe saddle</th>
<th>Vertical pipe saddle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connections</td>
<td>Tri-Clamp/Quick Coupling</td>
<td></td>
<td></td>
<td></td>
<td>Other connections on request</td>
</tr>
<tr>
<td>Actuators</td>
<td>Handle</td>
<td>Handle, high pressure</td>
<td>Actuator</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Valve bodies and valve heads (interchangeable).
The information contained herein is correct at the time of issue, but may be subject to change without prior notice.