NON-RETURN VALVES NV300 / NV400

Benefits
- a spring loaded non-return valve prevents back feeding of gases which could lead to unwanted gas mixtures
- low pressure drops – using complex valve assembly with low opening pressures NV300 – approx. 3.5 mbar, NV400 – approx. 3.0 mbar
- no leaks – using a spring loaded valve assembly with elastomer sealing
- stainless steel filter (100 µm) in the gas inlet protects the non-return valve against dirt contamination, extending the service life
- diverse applications – useful for many technical gases
- reduce installation costs – the spring loaded valve is not affected by gravity and may be installed in any orientation

Operation / Usage
- non-return valves are used to protect equipment and pipelines against dangerous reverse gas flow. Use is possible for applications according to EN 746-2
- non-return valves are tested to DIN EN ISO 5175-2. They may also used as a safety device to protect against flashbacks (proved in accordance to DIN EN ISO 5175-1 point 6.7) from combustion natural gas with air
- WITT non-return valves may be mounted in any position / orientation
- the maximum ambient / working temperature is 70 °C / 158 °F

Maintenance
- annual testing of the non-return valve, body leak tightness and flow capacity is recommended
- WITT is happy to supply special test equipment
- non-return valves are only to be serviced by the manufacturer. The dirt filter may be replaced according to model by competent staff

Approvals
Company certified according to ISO 9001 and PED 2014/68/EU Module H
CE-marked according to:
- PED 2014/68/EU
Cleaned for Oxygen Service according to:
- EIGA IGC Doc 13/12/E: Oxygen Pipeline and Piping Systems

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NV300</td>
<td>Town gas (C), Natural gas (M) and LPG (P), Hydrogen (H), Oxygen (O), Compressed air (D) non-flammable gases</td>
<td>Brass</td>
<td>Elastomer</td>
<td>1,568</td>
<td>G 1</td>
<td>300038002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>G 1.1/4</td>
<td>300038031</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>G 1.1/2</td>
<td>400038024</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>G 2</td>
<td>400038008</td>
</tr>
<tr>
<td>NV400</td>
<td>Flashback resistant to DIN EN ISO 5175-1 combustion with air Natural gas (M) (Model NV400)</td>
<td>Brass</td>
<td>Elastomer</td>
<td>2,789</td>
<td>G 1.1/2</td>
<td>400038024</td>
</tr>
</tbody>
</table>

Other connections available upon request
NON-RETURN VALVES NV300 / NV400

NV300

Flow diagram for air (20 °C / 68 °F)

Inlet pressure: $P_v$ [bar] Opening pressure: 3.5 mbar

Conversion factors:
- Butane: x 0.68
- Natural Gas: x 1.25
- Methane: x 1.33
- Propane: x 0.80
- Oxygen: x 0.95
- Town gas: x 1.54
- Hydrogen: x 3.75

NV400

Flow diagram for air (20 °C / 68 °F)

Inlet pressure: $P_v$ [bar] Opening pressure: 3 mbar

Conversion factors:
- Butane: x 0.68
- Natural Gas: x 1.25
- Methane: x 1.33
- Propane: x 0.80
- Oxygen: x 0.95
- Town gas: x 1.54
- Hydrogen: x 3.75