WITT non-return valves for reliable protection against dangerous reverse gas flow.

Flow-optimised valve system causes very low pressure drop at minimal noise emission.
Every non-return valve 100% tested.

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 (ca. 4 mbar)
- Stainless steel filter (100 µm) in the gas inlet protects the non-return valve against dirt contamination, extending the service life
- Flow-optimised valve system for:
  - Ultra low pressure drop
  - Minimal noise emission
- No leaks – using of a spring loaded valve assembly with elastomer sealing
- In accordance with DIN EN ISO 5175-2
- Available in brass or stainless steel (ES)
- 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
- 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 and body leak tightness is recommended
- WITT is happy to supply special test equipment
- Non-return valves are only to be serviced by the manufacturer

Approvals
Company certified according to ISO 9001
Cleaned for Oxygen Service according to:
- EIGA IGC Doc 13/12/E: Oxygen Pipeline and Piping Systems

<table>
<thead>
<tr>
<th>Model</th>
<th>Max. working pressure</th>
<th>Weight [g]</th>
<th>Connection [inch]</th>
<th>Seal Material</th>
<th>Housing Material</th>
<th>Order-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NV150</td>
<td>Town gas (C), Natural gas (M), Hydrogen (H), Oxygen (O), Compressed air (D) non-flammable gases</td>
<td>16</td>
<td>221</td>
<td>G 1/2</td>
<td>Elastomere</td>
<td>Brass 034-003</td>
</tr>
<tr>
<td>NV150-ES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Stainless steel</td>
<td>034-004</td>
</tr>
</tbody>
</table>

Other connections available upon request
NON-RETURN VALVE NV150

Conversion factors:
- Butane: $x \times 0.68$
- Natural gas: $x \times 1.25$
- Methane: $x \times 1.33$
- Oxygen: $x \times 0.95$
- Town gas: $x \times 1.54$
- Hydrogen: $x \times 3.75$

Flow diagram for air (20 °C / 68 °F)

Inlet pressure: $P_v$ [bar]
Opening pressure: 4 mbar

Normal volume flow [Nm$^3$/h]
- $\Delta P=0.3$ bar: 100
- $\Delta P=0.6$ bar: 200
- $\Delta P=30$ mbar: 700
- $\Delta P=20$ mbar: 600
- $\Delta P=10$ mbar: 500
- Normal volume flow [Nm$^3$/h] (1013 mbar / 14.7 psia, 0 °C / 32 °F)