Isopad IHH-ST1A/ST1D is a flexible heated hose for liquid and gaseous media with a maximum operating temperature of 100°C. The standard versions have smooth PTFE inner hose constructions with stainless steel braiding for pressurized operation. The thermal insulation consists of polyester fleece and ethylene propylene diene monomer (EPDM) foam. Mechanical protection is provided by a polyamide braid and soft EPDM endcaps. Built-in Pt100 sensors provide optimum temperature control for the medium. The evenly wrapped resistance heating cable allows an homogeneous heat distribution throughout the hose. The standard versions can be used for a wide range of applications. Special designs are available on request with focus on the performance level and/or environmental influences. See our list of options for your desired design on page 3.
Heater Construction

Thermal foam insulation EPDM of 9 to 11 mm thickness
Outer protection Polyamide braid

Lead Connection

Connection length 1.5 m
Cross section Depending on design
Maximum operating temperature 180°C
Insulation material Silicone

Temperature Control

Sensor type Pt100 two-wire DIN Class B
Sensor lead length 1.5 m
Lead cross section Depending on design
Maximum operating temperature 180°C
Sensor lead material Silicone

Technical Data

Frequency 50-60 Hz
Nominal operating voltage 120 or 230 Vac
Nominal power Depending on design
Power per meter Maximum 110 W/m (see performance table)
Minimum insulation resistance 100 MΩ
Maximum operating temperature 100°C
Maximum operating pressure See performance table
Minimum bend radius See performance table

Performance Table

<table>
<thead>
<tr>
<th>Nominal diameter Code</th>
<th>Power (W/m) at 100°C</th>
<th>Maximum static pressure (bars) at 20°C</th>
<th>Maximum static pressure (bars) at 100°C</th>
<th>Minimum bend radius (mm) Static</th>
<th>Minimum bend radius (mm) Dynamic(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>at 100°C</td>
<td>at 20°C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>70</td>
<td>250</td>
<td>238</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>80</td>
<td>240</td>
<td>228</td>
<td>150</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>90</td>
<td>200</td>
<td>190</td>
<td>200</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>100</td>
<td>175</td>
<td>166</td>
<td>140</td>
</tr>
<tr>
<td>5</td>
<td>13</td>
<td>110</td>
<td>150</td>
<td>143</td>
<td>270</td>
</tr>
</tbody>
</table>

(1) Dynamic performance represents two dimensional single piston stroke per second (1 Hz) with compressed air (medium) 6 bars at 100°C operating and 20°C ambient temperature. Dynamic performance of heated hoses is recommended to be tested for each individual application.
Ordering Information - Part Number Configurator (for standard versions only, not applicable for special versions)

Example: 1 m heated hose, 4 mm nominal diameter, 230 V supply voltage, AGR connection
Part Number: 1235-71212010

Options for Special Versions

If your requirements are not met by the above specifications, we can tailor-make a heated hose to suit you. Variations depend on design and can include:

- Other nominal sizes and inner hoses, e.g. supplied components for individual heating
- Sizes up to 120 m
- Sensor types, e.g. thermocouples Type K, Type J, etc.
- Supply voltage up to 400 V, single-phase or three-phase
- Higher power outputs
- Increased ingress protection, e.g. IP65 for outdoor applications
- Increased pressure resistance, up to 475 bar at 100°C (depending on nominal diameter)
- Other materials, e.g. for applications recommending silicone free production
- Approved components for the use in hazardous areas according to IECEx and ATEX
- Replaceable inner hoses for nonpressurized gas analysis
- Premounted plugs and special supply and messenger leads
- Controlling devices and high temperature lock-out thermostats