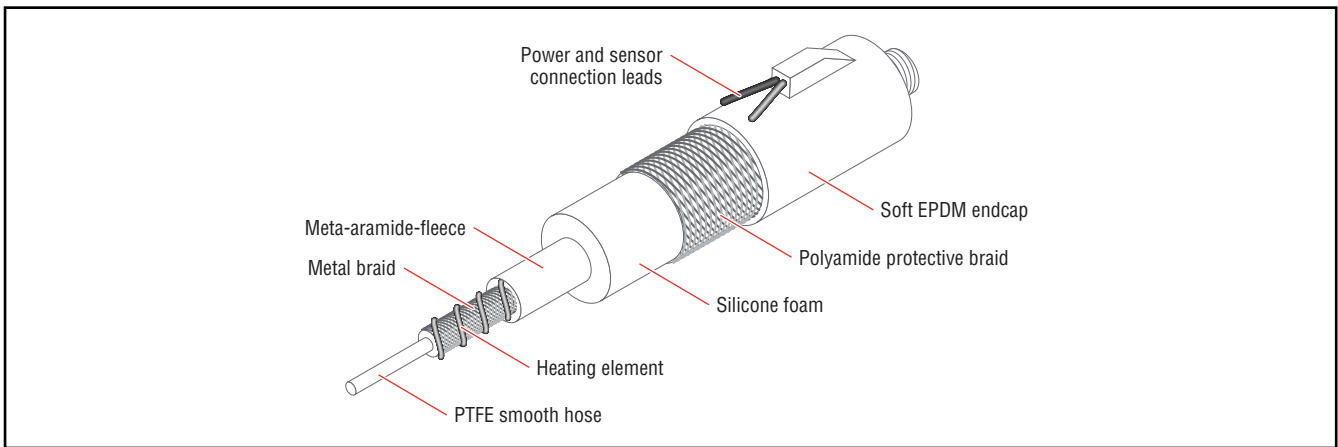


## Heated hose, standard range for liquid and gaseous media

Isopad IHH-ST2A/ST2D is a flexible heated hose for liquid and gaseous media with a maximum operating temperature of 200°C. The standard versions have smooth PTFE inner hose constructions with stainless steel braiding for pressurized operation. The thermal insulation consists of meta-aramide fleece and silicone foam.

Mechanical protection is provided by a polyamide braid and soft ethylene propylene diene monomer (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.



### Area Specifications

Area classification	Nonhazardous, ordinary area
Ingress protection	IP54
Electrical protection class	Class I
Maximum withstand temperature (power off)	200°C
Ambient temperature range	-20 to +40°C

### Standard Manufacturing Sizes

Length	Up to 19 m <sup>(1)</sup>
Tolerances	According to DIN 20066
Nominal width	4, 6, 8, 10, 13 mm

<sup>(1)</sup> Available in steps of 0.1 m

### Heater Construction

Type	Resistance heating cable
Material	Various alloys
Material of insulation	PTFE
Material of outer sheath	Copper-nickel braid
Carrier	Stainless steel braid
Inner hose	Smooth PTFE hose
Fittings	AGR or DKR according to ISO 228/1
Fitting material	Galvanized steel
Thermal fabric fibre insulation	Meta-aramide-fleece of 4 to 5 mm thickness

**Heater Construction**

Thermal foam insulation	Silicone 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 140 W/m (see performance table)
Minimum insulation resistance	100 MΩ
Maximum operating temperature	200°C
Maximum operating pressure	See performance table
Minimum bend radius	See performance table

**Performance Table**

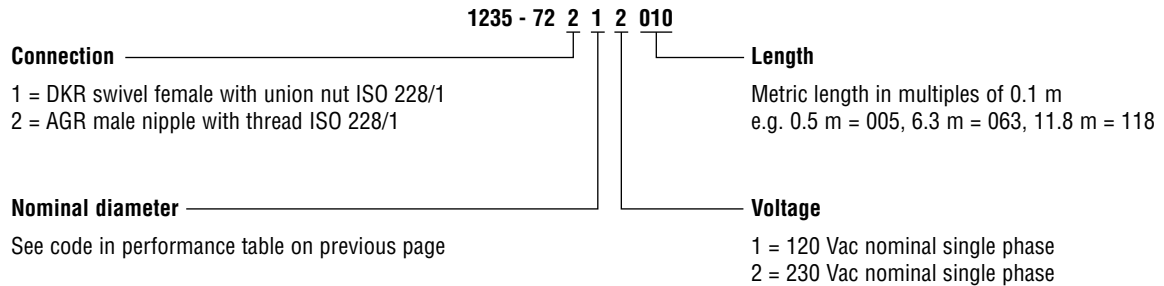
Nominal diameter		Power (W/m) at 200°C	Maximum static pressure (bars)		Minimum bend radius (mm)	
Code	mm		at 20°C	at 200°C	Static	Dynamic <sup>(1)</sup>
1	4	90	250	208	100	200
2	6	100	240	199	150	300
3	8	110	200	166	200	400
4	10	120	175	145	140	480
5	13	140	150	125	270	540

<sup>(1)</sup>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.

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**Ordering Information - Part Number Configurator (for standard versions only, not applicable for special versions )**


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**Example:** 1 m heated hose, 4 mm nominal diameter, 230 V supply voltage, AGR connection  
**Part Number: 1235-72212010**

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**Options for Special Versions**


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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 415 bar at 200°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
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