

APPLICATION

Transport of gases and fluids in manufacturing, laboratory and testing environments, including RATA testing, where consistent temperature control is required. HSL1000 prevents condensation or sample degradation from collection point to destination.

GENERAL DESCRIPTION

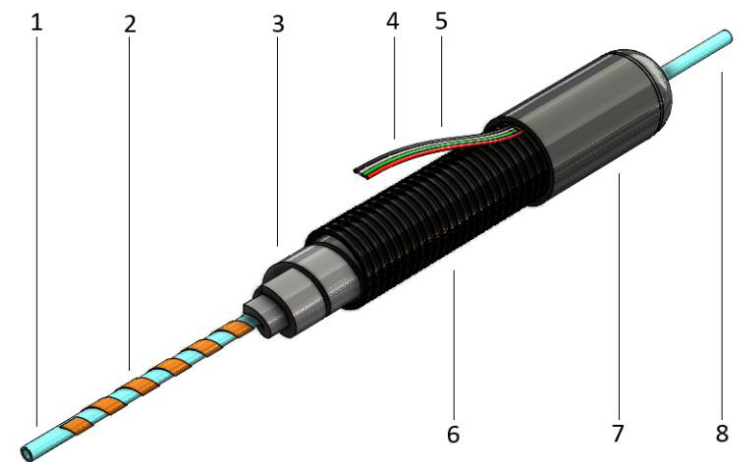
The Thermon HSL1000 is a flexible, heated sample line designed for the reliable transfer of gases or liquids in environments requiring precise thermal regulation. Utilizing a Polyimide/Silicone Insulated allow wire heating element, this heated sample line offers enhanced thermal coupling, superior flexibility, and customizable performance to suit specific testing, research, and manufacturing requirements.

KEY FEATURES

- Custom Power Density & Lengths: Tailored wattage output 5-20 W/f (16-65 W/m) and configurable line lengths from 3-100 ft. (0.5 to 30 m).
- Polyimide/Silicone Composite Heater Tape: Provides excellent dielectric strength, durability, and precise thermal transfer.
- Temperature Control Ready: Integrated Type K thermocouple, RTD or Thermistor at key points for precise closed-loop control.
- Flexible Construction: Maintains bend radius <100 mm even at low temperatures.
- Sample Integrity Protection: Maintains internal fluid or gas temperature between 0°C-200°C with ±1°C stability (with controller).
- Insulation: Meta Aramid Felt (up to 1/2" thick) for energy retention and burn protection.
- Corrugated PVC exterior shell offers protection from the elements and is washdown ready. Braided Sleeve provides a slim body and protects the unit from abrasion, wear and damage.
- End Connections: Custom swaged fittings or compression-style, with optional quick connects, or raw tube ends.

TECHNICAL SPECIFICATIONS

Parameter	Value/Range
Heating Element	Self Regulating Heat Cable
Heater Jacket	Fluoropolymer Overjacket
Max Operating Temp	Maintain 200C (400F)
Min Bend Radius	100 mm (4 in)
Voltage	120/208/240/277 VAC
Heated Length	Typically 0.5 - 30 meters (1.5-100 ft)
Optional Temp. Control	GHT2002J, ExoTouch, PID
Sensor Options	RTD, Thermistor, Type K, Type J
Tube Material	PFA 3/8" OD x 0.062" Wall
Insulation	1/2" Meta Aramid Felt
Outer Shell	Corrugated Tube Teflon & Alloy Options



CERTIFICATIONS/APPROVALS



FM Approvals
Ordinary Locations
Hazardous (Classified) Locations
Class I, Division 2, Groups B, C and D
Class II, Division 2, Groups F and G
Class III, Divisions 1 and 2
Class I, Zones 1 and 2, AEx eb IIC, AEx tb IIIC



Canadian Standards Association
Ordinary Locations
Hazardous (Classified) Locations
Class I, Division 1, Groups A, B, C and D
Class II, Division 1, Groups E, F and G
Class I, Division 2, Groups A, B, C and D
Class II, Division 2, Groups E, F and G
Ex eb IIC, Ex tb IIIC

HEATER CONSTRUCTION

1. PROCESS TUBE
2. ALLOY HEATER WIRE ON POLYIMIDE SILICONE TAPE
3. META ARAMID FELT INSULATION
4. POWER LEADS
5. TEMPERATURE SENSOR
6. OUTER JACKET
7. END SEALS
8. OPTIONAL END CONNECTIONS

