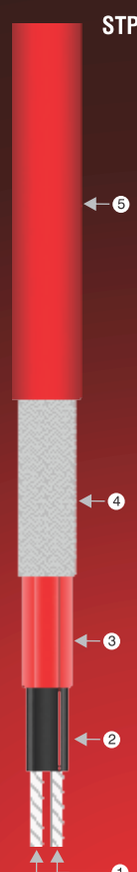
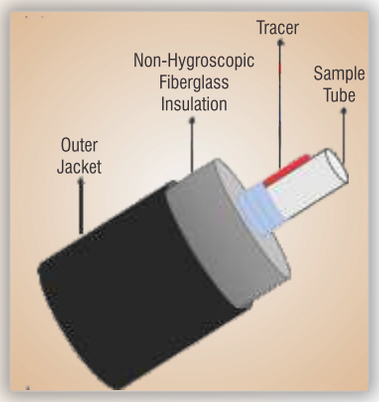
Thermopads

Heated / Insulated Hoses & Tubings



TP Pre-Insulated Heated Hose

TP Pre-Insulated Heated Hoses are used for Sample Transportation Applications to Process Analyzer & Emission Monitoring Systems, Anti-Freeze Applications for Instrumentation Impulse Tubes & Hot Melt Applications to feed viscous liquids to applicator system like glue, paint, etc.



Construction

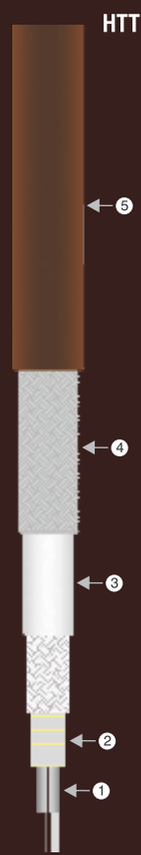
1. Sample Tube (Single / Multi Tubes)
2. Heat Tracer
3. Non-Hygroscopic Fiberglass Insulation
4. Outer Jacket

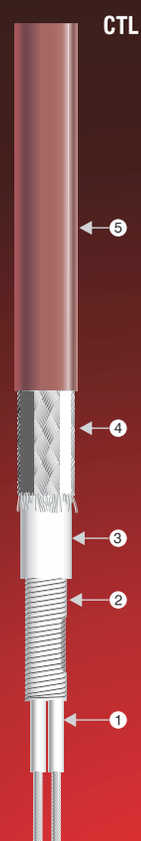
Features

Standards	Heat Tracer or Heating Cable used in the Heated Hose meets all test requirements as per BS / IEEE / European Standards.
Approvals	Heat Tracers or Heating Cables used are certified for use in hazardous area as per ATEX & EAC.
Efficient	Heat reflective foil on the heating cable and process tube ensures efficient heat transfer.
Ready To Use	Prefabricated with sample line and heating system incorporated is ready to use.
Easy To Install	No need of any fabrication and fixing, ready to use with required connectors and end connections. Since there is no need for any special tools it is easy to install.
Range	Depending on the application and site conditions (viz. temperature, weather conditions, and chemical environment) we can offer various options to match your individual needs.

Technical Specifications

Item Description	Heated Tube Bundle / Hose	Hot Melt Hose
Process Tube	PTFE, Seamless S.S 316 L, commercially available special alloys	SS Braided PTFE
Process Tube Size	Up to ½" OD	Up to ½" OD
Heating Element	Self-Regulating, Power Limiting, Constant Watt type (Series / Parallel)	Constant Watt type (Series / Parallel)
Thermal Insulation	Fiberglass Wool / Felt Insulation	Silicon Foam & Polyurethane Foam
Outer Jacket	U.V. Resistant Extruded FRLS PVC, Corrugated Flexible PA Conduit	Nylon Braided & Corrugated Flexible PA Conduit
Operating Voltage	230V / 110V AC	230V / 110V AC
Maximum Wattage	Up to 120W/M with 2 Tracers	Up to 200W/m
Max. Operating Temperature	220°C	200°C
Temperature Sensor	In built RTD / Thermocouple / Thermostat	In built RTD / Thermocouple / Thermostat
Process Connection	None	Connector Coupling / Flanged / as per customers requirement
Power/Control Connection	Pre-terminated available on request.	2M of Lead cable (3 wire) for both power and control
Area Approvals	Safe & Hazardous area approvals available (ATEX, EAC)	Safe area only





Thermopads

Electrical Heat Tracer - Construction

S.No	STF (Low Temp. Self-Regulating)	STP (High Temp. Self-Regulating)	HTT (Power Limiting)	CTL (Constant Wattage)
1	1.25 Sq.mm Coated Copper Bus wires.	1.25 Sq.mm Coated Copper Bus wires.	Insulated ,3.3Sq.mm Coated Copper Bus wires.	Insulated, Bus wires of multi Strand Copper.
2	Semi Conductive Heating core extruded over the bus wires.	Semi Conductive Heating core extruded over the bus wires.	Coiled Heater Alloy Heating Element.	Heating Element.
3	TPE Jacket providing electrical insulation, mechanical strength & moisture resistance.	Fluoropolymer Jacket providing electrical insulation, mechanical strength & moisture resistance.	Fluoropolymer Jacket providing electrical insulation, mechanical strength & moisture resistance.	Insulation sheath.
4	Aluminum Mylar with Drain Wire / Coated Copper braid to give a continuous ground path.	Coated Copper braid to give a continuous ground path.	Coated Copper braid to give a continuous ground path.	Coated Copper (ATC/NPC) braid for mechanical protection and earth continuity.
5	Outer Jacket UV resistant Fluoropolymer / TPE to enable usage in corrosive area.	Outer Jacket UV resistant Fluoropolymer to enable usage in corrosive area & high temperatures.	Outer Jacket UV resistant Fluoropolymer to enabl usage in corrosive area & high temperatures	Outer Jacket (optional) to enable use in corrosive atmosphere.

Specifications

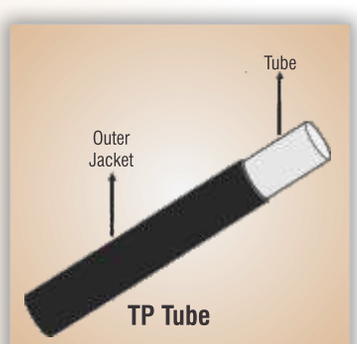
Tracer Reference	STF (Low Temp. Self-Regulating)	STP (High Temp. Self-Regulating)	HTT (Power Limiting)	CTL (Constant Wattage)
Heating Power W/m (230V AC) at 10 °C	10 / 15 / 25 / 33	15 / 30 / 45 / 60	30 / 45 / 60	33 / 45 / 60
Voltage Supply	230V AC / 110V AC / 120V AC	230V AC / 110V AC / 120V AC	230V AC / 110V AC / 120V AC	230V AC / 110V AC / 120V AC
Min. Installation Temperature	-65°C	-65°C	-65°C	-65°C
Max. Exposure Temp. Power On	65°C	150°C	180°C	220°C
Max. Exposure Temp. Power Off	85°C	250°C	260°C	260°C
Tracer Minimum Bending Radius	25 mm	25 mm	25 mm	20 mm

TP Jacketed Tube

The jacketed tube is used to protect outdoor installed SS316L tubes from corrosion in Corrosive Plant and Marine Environments. These tubes supplied in coils can be installed in straight long lengths without requirement of tube fittings along the way offering uninterrupted surface protection.
TP Jacketed Tubes are used in Pneumatic Tubes, Hydraulic Tubes and Gas & Liquid Sample Transportation.

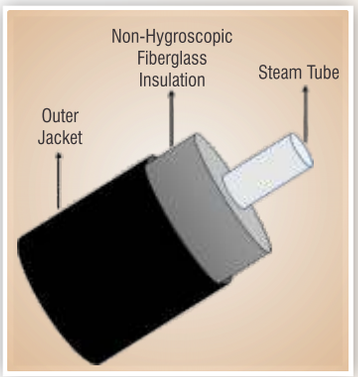
Technical Specifications

Item Description	Pre-insulated Tube Bundle / Hose
Process Tube	Welded SS316L (others on request)
Process Tube Size	¼" to ¾" OD, WT 0.035" to 0.049" (other tube schedules on request)
Outer Jacket	U.V. Resistant Extruded FRLS PVC, TPU
Accessories	Self-Bonding Tape, Heat Shrink Boots.
Others	• Continuous lengths in coil form • Choice of jacket colors



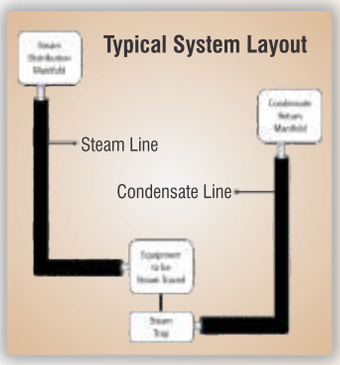
TP Steam Hose - Pre-Insulated Tube

For Steam and Condensate Transportation



The pre-insulated tube is used to transport high temperature gas or liquid samples from its source to destination. On most occasions this is used to provide personnel safety from high temperature surfaces or to prevent sample temperature loss during transport.

The most popular application is however to transport in steam heating or steam tracing applications. These pre-insulated tubes are used to transport steam from source which may be the steam manifold to the user point or equipment to be heated. The same product can also be used for transporting condensate from the return point to the condensate manifolds.



Technical Specifications

Item Description	**Pre-insulated Tube Bundle / Hose**
Process Tube	Seamless SS316L, Welded SS316L, Copper (others on request)
Process Tube Size	¼" to ¾" OD, WT 0.035" to 0.049" (other tube schedules on request)
Thermal Insulation	Non-hygroscopic Fiberglass
Outer Jacket	U.V. Resistant Extruded FRLS PVC, TPU
Accessories	End Seals, Silicon Sealant, Patch Kit
Others	• Continuous lengths in coil form • Choice of jacket colors

IBM Technology Award Winner...

ISO 9001, 14001, 45001.

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