

Technical Data Sheet

Low/High Temperature Tube Bundle



Product Description

MSCP's low and high-temperature tubing bundles (including tubing, heater, insulation, and jacket) are engineered for freeze protection or process temperature control and are suitable for various industrial applications. Paired with Mineral Insulated (MI) or Self-Regulating (SR) cables from our product line, they are approved for both hazardous and non-hazardous locations. The materials used offer flexibility for handling organic chemicals and corrosives in the oil, gas, and petrochemical industries. Installation times are reduced, leading to lower installed costs. All tubing bundles are insulated with Super Mat for superior thermal performance, flame resistance, and hydrophobic properties, while a Polyurea coating ensures protection in cold and freezing conditions.

Advantages

- Maintain Temperature
 - Up to 120°C (248°F) for SR model
 - Over 120°C (248°F) for MI model
- Maximum Exposure Temperature
 - 200°C (392°F) for SR model
 - 550°C (1022°F) for MI model
- Various nominal outputs available
- Can be cut to length in the field (SR model and No Heater model only)
- Weather proof (moisture proof)

Applications

- Freeze protection for impulse lines
- Temperature maintenance of instrumentation
- Chemical and petrochemical industries
- Oil and gas industries

Thermo Insulation

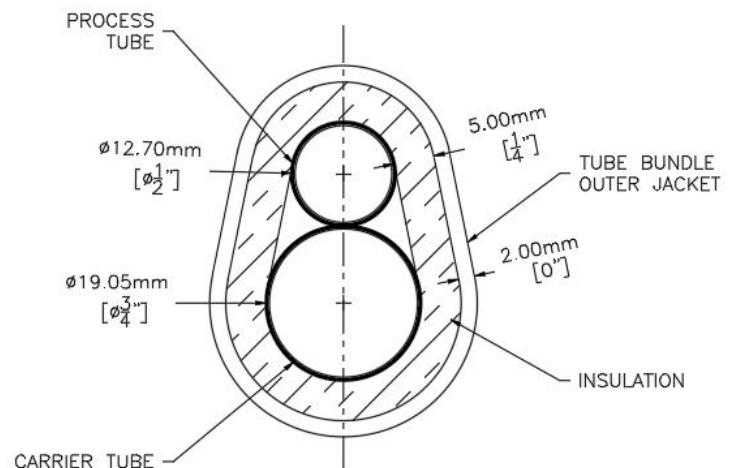
- High thermal performance
- Low thermal conductivity
- Hydrophobic (repels water and liquids)
- Protection against corrosion
- Low flame/fire spread properties

Outer Jacket (Polyurea PUA)

- Superior moisture resistance
- Provides corrosion and abrasion protection
- Eco-friendly
- Seamless

MI Model

One Process Tube with Carrier Tube



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Technical Information

Data

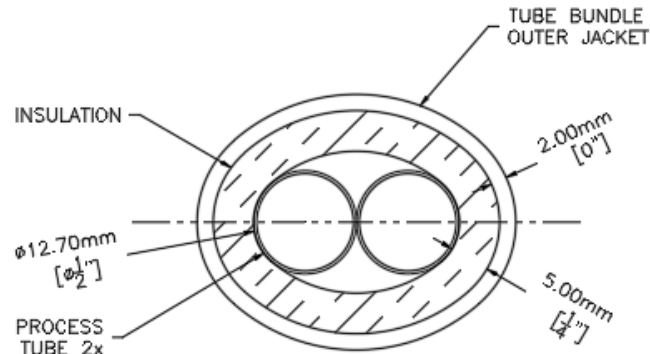
Process Tube Materials	316 Stainless Steel (Seamless) 0.035" - 0.065" wall thickness
Process Tube Diameters	1/8" to 1" single or double tube with or without heater cable carrier tube
Carrier Tube Materials	316 Stainless Steel (Seamless) 0.049" wall thickness
Carrier Tube Diameters	3/4" Single Tube
Insulation Material	Super Mat (8, 16, 20, 25mm) or Aerogel (5, 10, 15, 20mm)
Outer Jacket	Polyurea PUA (Black in colour, 2mm)
Classification (Dependent on type of cable)	Class I Div 1 Group B,C,D Class I Div 2 Group A,B,C,D Class II Div 2 Group E,F,G Class III T3 Class 1 Zone 1 Exe II T3
Certificates	CSA C US 2547790 CSA 22.2 130-16
Standards	IEEE 515, CSA 22.2 130.16 IEC/IEEE 60079-30-1
Rating	Heating cables are wet rated for outdoor use (WS)

Heating Cable Design

Type	Description	Voltage	Output
LTSR*	Low Temperature Heater Cable (Self-Regulating)	120V-208/240/277V	3W/ft - 10W/ft
HTSR*	High Temperature Heater Cable (Self-Regulating)	120V-208/240/277V	3W/ft - 20W/ft
MI 3V2C	MI Heating Cable - Two Conductor 300V	300V Max	Up to 60W/ft
MI 6V2C	MI Heating Cable - Two Conductor 600V	600V Max	Up to 60W/ft

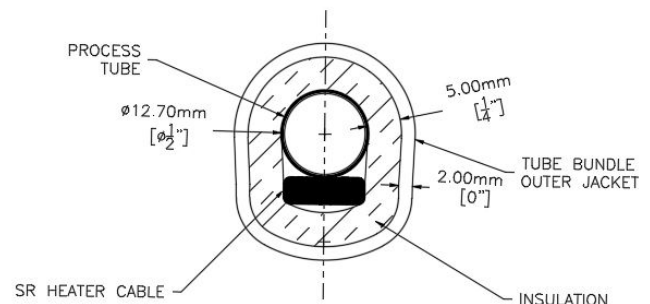
No Heater Model

Two Process Tubes with No Carrier Tube



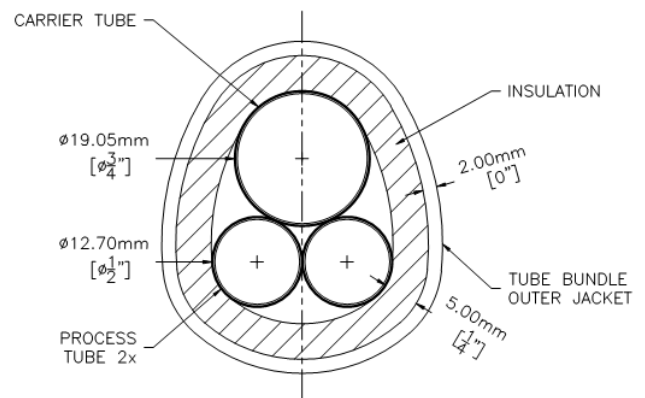
SR Model

One Process Tube with SR Cable



MI Model

Two Process Tubes with Carrier Tube



*For the SR Model, the bundle is designed to use "C" corrosive environment protective braid and a fluoropolymer outer jacket only.

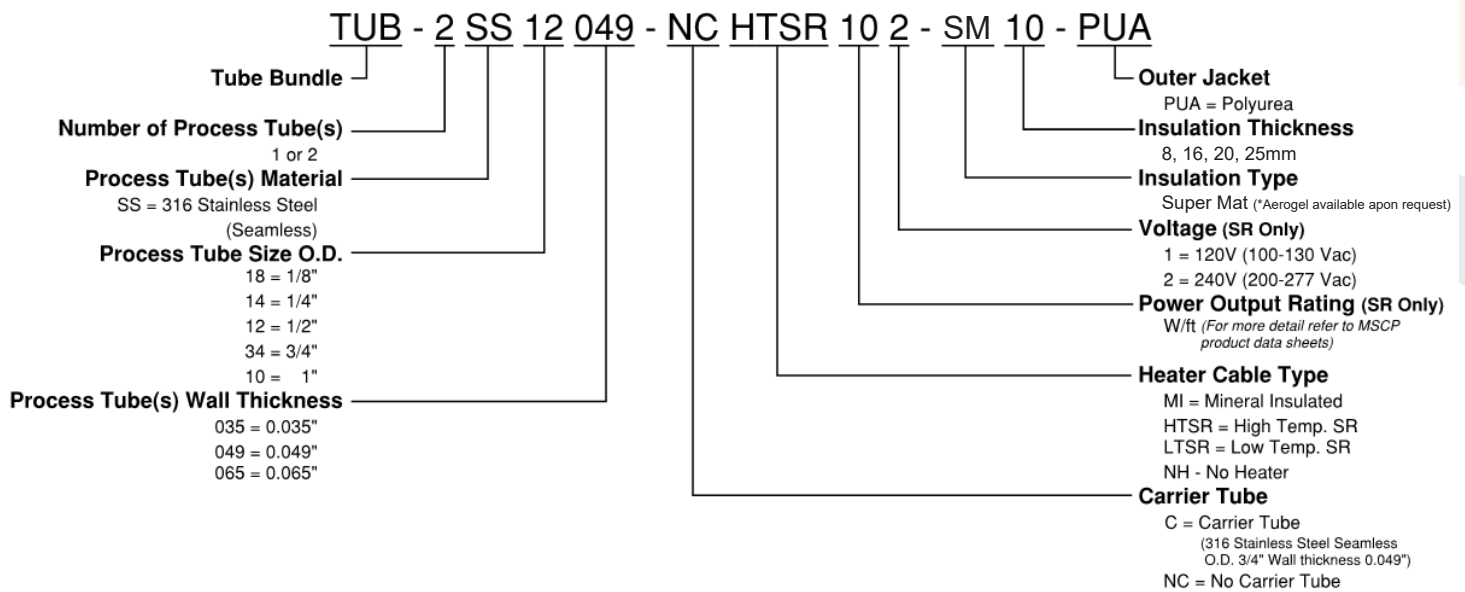
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Tube Bundle Reference Number

MSCP's low and high temperature tubing bundles are available in various configurations. The chart below details the components of each bundle and the corresponding catalog numbers.



MI Example: TUB-2SS12049-CMI-AH10-PUA

SR Example: TUB-1SS12049-NCHTSR202-AH5-PUA

No Heater Example: TUB-2SS12049-NCNH-AD5-PUA

Heating Cable Design

Process Tube O.D	Nominal Wall Thickness
1/8"	0.035"
1/4"	0.035" 0.049"
1/2"	0.035" 0.049" 0.065"
3/4"	0.049" 0.065"
1"	0.049" 0.065"