



PRODUCT SPECIFICATIONS

TubeTrace® Type SE/ME

ELECTRICALLY HEATED INSTRUMENT TUBING
with HTSX™ Self-Regulating Heat Tracing

APPLICATION

TubeTrace, with “cut-to-length” HTSX self-regulating heat tracing, is designed to provide freeze protection or temperature maintenance from 5°C to 121°C for tubing where high temperature exposure capability is possible. HTSX withstands temperature exposures of 215°C.

Self-regulating HTSX heat tracing:

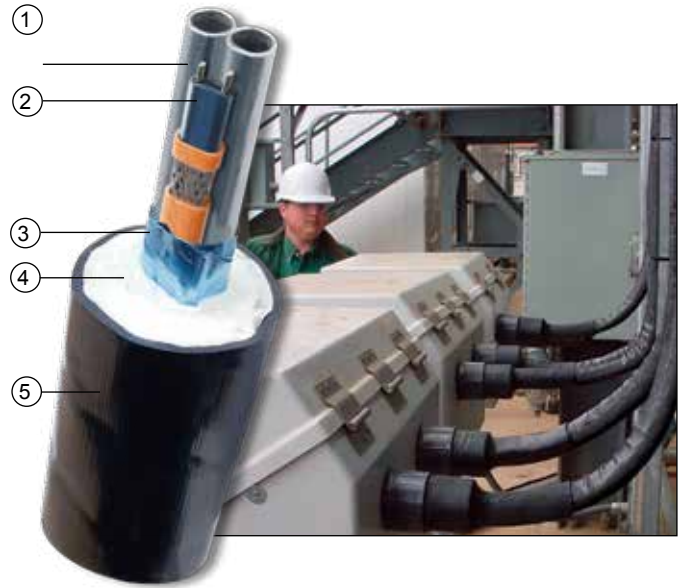
- Varies in response to the surrounding conditions along the entire length of a circuit.
- Lower risk of overheating the tube or product.
- Installed cost is lower because “cut-to-length” HTSX makes end connections easy with minimal waste.
- HTSX is approved for use in ordinary (non-classified) areas and hazardous (classified) areas.

RATINGS

HTSX	Ratings
Available watt densities	10, 20, 30, 39, 49, 66 W/m @ 10°C
Supply voltages	110-120 or 208-277 Vac
Tube temperature range	5°C to 121°C
Max. exposure temperature ¹	
Intermittent power-on	215°C
Intermittent power-off	250°C
Continuous power-off	205°C
T-rating	
3, 6, 9, 12, 15-2 W/ft	T3: 200°C
15-1 and 20-1 W/ft	T2D: 215°C
20-2 W/ft	T2C: 230°C

Note

1. This reflects maximum exposure for heater. If bundle jacket is to remain below 60°C in +27°C ambient (in consideration of personnel burn risk) tube temperature must remain below 205°C. Alternative designs to keep jacket below 60°C in higher ambients and/or with higher tube temperatures are available. Contact Thermon.



CONSTRUCTION

- 1 Process tube(s)
- 2 HTSX self-regulating electrical heat tracing
- 3 Heat reflective tape
- 4 Non-hygroscopic glass fiber insulation
- 5 Polymer outer jacket (ATP or TPU available)

PRODUCT FEATURES

- Self-regulating
- “Cut-to-length”
- Hazardous area approvals

For additional information on HTSX and other Thermon heat tracing products and services,

visit www.thermon.com.

THERMON The Heat Tracing Specialists®



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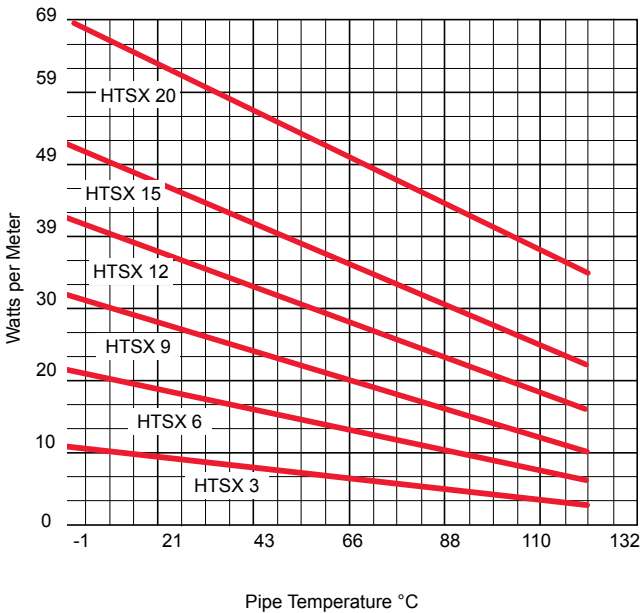
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POWER OUTPUT CURVES

The power outputs shown apply to cable installed on insulated metallic pipe (using the procedures outlined in IEEE Standard 515) at the service voltages stated below. For use on other service voltages, contact Thermon.



DESIGN TOOLS

Technical Design Information and CompuTrace® - IT computer design program for TubeTrace heated instrument tubing are available online at

www.thermon.com.

TUBETRACE ACCESSORIES

Sealing the ends of pre-insulated tubing bundles ensures their efficient and reliable performance. A variety of termination kits and accessories are available and can be found on Form CLX0020U.

ELECTRICAL HEAT TRACE ACCESSORIES

Thermon manufactures every type of electrical resistance heat tracing available in the world today. Power connection and termination kits (Form CLX0024U) and a variety of controls are all available for heated instrument tubing applications.

HOW TO SPECIFY

SE- 4A1-62-7-ATP-035

Bundle Type

SE = Single Tube
ME = Multiple Tubes

Process Tube O.D.

2 = 1/4"
3 = 3/8"
4 = 1/2"
6 = 6 mm
8 = 8 mm
10 = 10 mm
12 = 12 mm

Process Tube Material

A = 316 SS Welded
B = #122 Copper
C = PFA Teflon²
D = Monel³
E = Titanium
F = 316 SS Seamless
G = 304 SS Welded
H = 304 SS Seamless
J = Alloy C276
K = Alloy 825
L = Alloy 20
M = FEP Teflon
N = Nylon
P = Polyethylene
T = TFE Teflon
X = Special

Number of Tubes

1
2
3
4

Heat Trace Option

7 = NEC Ordinary/D2 Areas
and CEC D1 & D2 Areas
8 = NEC Division 1 Areas

Heat Trace Type

61 = HTSX 3 w/ft. 240 Vac
63 = HTSX 6 w/ft. 240 Vac
65 = HTSX 9 w/ft. 240 Vac
67 = HTSX 12 w/ft. 240 Vac
69 = HTSX 15 w/ft. 240 Vac
71 = HTSX 20 w/ft. 240 Vac

Process Tube(s) Wall Thickness

030 = .030"
032 = .032" (Copper Only)
035 = .035"
040 = .040" (Plastic Only)
047 = .047" (Plastic Only)
049 = .049"
062 = .062" (Plastic Only)
065 = .065"
083 = .083" (SS Only)

Bundle Jacket

ATP⁴
TPU

Notes

1. Contact factory for availability of long length coils 1" O.D.
2. Teflon is a trademark of E.I. du Pont de Nemours & Co., Inc.
3. Monel and Inconel are trademarks of Inco Alloys International, Inc.
4. Black ATP is standard, other jacket materials are available.

CERTIFICATIONS/APPROVALS



Certificate FM13 ATEX 0052
in accordance with the EU ATEX Directive 94/9/EC



FM Approvals
Ordinary and Hazardous (Classified) Locations



International Electrotechnical Commission
IEC Certification Scheme for Explosive Atmospheres
FMG 13.0020



Underwriters Laboratories Inc.
Hazardous (Classified) Locations

BSX has additional hazardous area approvals including:

- DNV • Lloyd's • TIIS • CCE/CSIR • GOST-R

Contact Thermon for additional approvals and specific information.