



PRODUCT DATASHEET

TUBE TRACE[®] 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 150°C for tubing where high temperature exposure capability is possible. HTSX withstands temperature exposures of 250°C.

Self-regulating HTSX heat tracing:

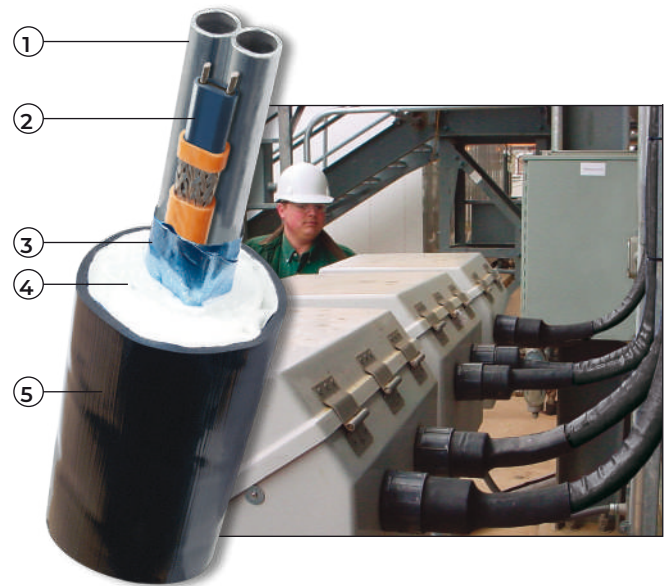
- Varies in response to the surrounding conditions along the entire length of a circuit.
- Lower risk of overheating the tube or product.
- Installed cost is lower because “cut-to-length” HTSX makes end connections easy with minimal waste.
- HTSX is approved for use in ordinary (non-classified) areas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

RATINGS

HTSX	Ratings
Available watt densities	9, 19, 29, 39, 49, 66 W/m @ 10°C
Supply voltages	110-120 or 208-277 Vac
Tube temperature range	5°C to 150°C
Max. exposure temperature ¹ Intermittent power on or off Continuous power-off	250°C 205°C
T-rating 3, 6, 9, 12, 15-2 W/ft 20-2 W/ft	T3: 200°C 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 TC-E.



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

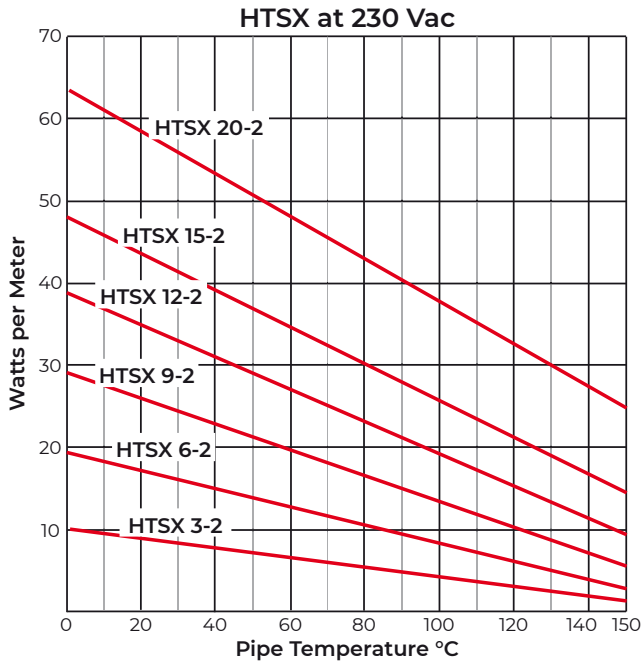
For additional information on HTSX and other Thermon heat tracing products and services, visit www.tc-e.nl.



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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 TC-E.



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-12F1-63-7-ATP-1-M⁵

<p>Bundle Type</p> <p>SE = Single Tube ME = Multiple Tubes</p>	<p>Process Tube O.D.¹</p> <p>2 = 1/4" 3 = 3/8" 4 = 1/2" 6 = 6 mm 8 = 8 mm 10 = 10 mm 12 = 12 mm</p>	<p>Process Tube Material</p> <p>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</p>	<p>Number of Tubes</p> <p>1 2 3 4</p>	<p>Heat Trace Option</p> <p>7 = Ordinary (nonclassified) areas and in potentially explosive atmospheres in accordance with the ATEX Directive and the IECEx Scheme</p>	<p>Heat Trace Type</p> <p>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</p>	<p>Bundle Jacket</p> <p>ATP⁴ TPU</p>	<p>Metric or Imperial</p> <p>M or I⁵</p> <p>Process Tube(s) Wall Thickness</p> <p>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) 1 = 1 mm 1.5 = 1.5 mm</p>
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- Notes**
- Contact factory for availability of long length coils 1" O.D.
 - Teflon is a trademark of E.I. du Pont de Nemours & Co., Inc.
 - Monel and Inconel are trademarks of Inco Alloys International, Inc.
 - Black ATP is standard, other jacket materials are available.
 - Ensure distinction between metric and imperial tubing are noted

CERTIFICATIONS/APPROVALS

Certificate FM12 ATEX 0014X in accordance with the EU ATEX Directive 94/9/EC

International Electrotechnical Commission IEC Certification Scheme for Explosive Atmospheres FMG 12.0004X

BSX has additional hazardous area approvals including:
 • DNV • Lloyd's • TIIS • CCE/CSIR • GOST-R
 Contact TC-E for additional approvals and specific information.