#### PRODUCT SPECIFICATIONS

# TubeTrace® Type SE/ME

# ELECTRICALLY HEATED INSTRUMENT TUBING with **BSX**™ Self-Regulating Heat Tracing

# **APPLICATION**

TubeTrace, with "cut-to-length" BSX self-regulating heat tracing, is designed to provide freeze protection or temperature maintenance from 5°C to 65°C for tubing where no "steam out" of the tubing is possible. BSX withstands temperature exposures of 85°C.

Self-regulating BSX heat tracing:

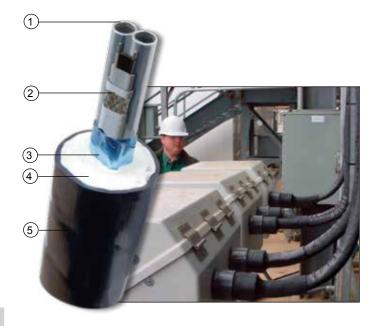
- Varies in response to the surrounding conditions along the entire length of a circuit.
- · Lower risk of overheating the tube or product.
- Installed cost is lower because "cut-to-length" BSX makes end connections easy with minimal waste.
- BSX is approved for use in ordinary (nonclassified) areas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



BSX	Ratings
Available watt densities	9, 15, 25, 32 W/m @ 10°C
Supply voltages	230 Vac
Tube temperature range	5°C to 65°C
Max. continuous exposure temperature Power-off	85°C
T-rating <sup>1</sup> 9, 15, 25 W/m 32 W/m Based on stabilized design <sup>2</sup>	T6 85°C T5 100°C T6 85°C

#### Note . . .

- 1. T-rating per internationally recognized testing agency guidelines.
- 2. Thermon heating cables are approved for the listed T-ratings using the stabilized design method. This enables the cable to operate in hazardous areas without limiting thermostats. The T-rating may be determined using CompuTrace® Electric Heat Tracing Design Software or contact TC-E for design assistance.



#### **CONSTRUCTION**

- 1 Process tube(s)
- 2 BSX 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 BSX and other Thermon heat tracing products and services, visit www.thermon.com.

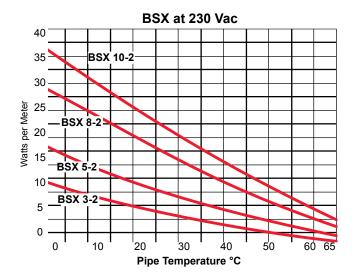
**THERMON The Heat Tracing Specialists®** 

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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

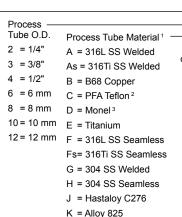
Sealing the ends of pre-insulated tubing bundles ensures their efficient and reliable performance. A variety of termination kits and accessories are available and can be found on Form CLX0020U.

# **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**

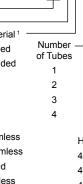


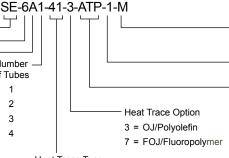


M = FEP Teflon P = Polyethylene

T = PTFE Teflon

X = Special





Heat Trace Type

41 = BSX 3 (9 W/m) @ 230Vac 43 = BSX 5 (15 W/m)@ 230 Vac

45 = BSX 8 (25 W/m) @ 230 Vac 47 = BSX 10 (32 W/m) @ 230 Vac

040 = .040" (Plastic Only) TPU 047 = .047" (Plastic Only) 049 = .049"

Bundle

Jacket

ATP<sup>4</sup>

PE

062 = .062" (Plastic Only) 065 = .065" (316/316L SS Seamless Only)

 $1.5 = 1.5 \, \text{mm}$ 

-M or I

Process Tube(s)

Wall Thickness

030 = .030"

035 = .035"

Metric or Imperial Indication

032 = .032" (B68 Copper)

able on special request. Tubing meets the ASTM standards, tubing that meets DIN standards is available on special request

3. Monel and Inconel are trademarks of Inco Allovs International, Inc.

1. Seamless tubing has a standard quality K3, other qualities are avail-

4. Black ATP is standard, other jacket materials are available.

2. Teflon is a trademark of E.I. du Pont de Nemours & Co., Inc.

## **CERTIFICATIONS/APPROVALS**



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





International Electrotechnical Commission IEC Certification Scheme for Explosive Atmospheres FMG 13.0020

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



**FM** Approvals Ordinary and Hazardous (Classified) Locations



Underwriters Laboratories Inc. Hazardous (Classified) Locations