TubeTrace® Type SE/ME

Electrically Heated Instrument Tubing
BSX™ Self-Regulating Heat Tracing

Product Specifications

Application . . .

Freeze Protection or Process Temperature Maintenance
Range: 5°C to 65°C

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

Self-regulating BSX heat tracing

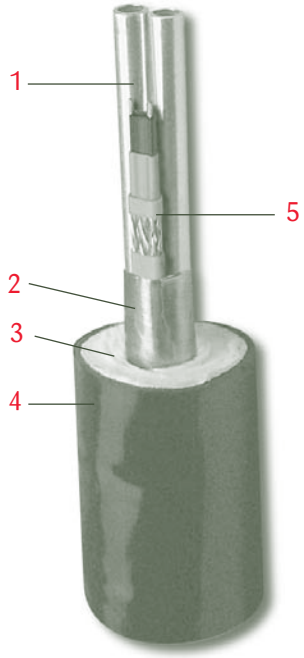
- Varies in response to the surrounding conditions along the entire length of a circuit.
- Lower risk of overheating the tube or product.
- Installed cost is lower because "cut-to-length" BSX makes end connections easy with minimal waste.
- BSX cables are certified for use in ordinary (nonclassified) areas and in potentially explosive atomospheres in accordance with the ATEX Directive and the IEC Ex Scheme.

Ratings/Specifications . . .

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

Note . . .

1. T-rating per internationally recognised testing agency guidelines.
2. Thermon heating cables are approved for the listed T-ratings using the stabilised 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 Thermon for design assistance.



Construction . . .

1 Process Tube
2 Heat Reflective Tape
3 Non-Hygroscopic Glass Fiber Insulation
4 Polymer Outer Jacket (ATP or TPU available)
5 BSX Self-Regulating Electrical Heat Tracing

BSX 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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ISO 9001 REGISTERED

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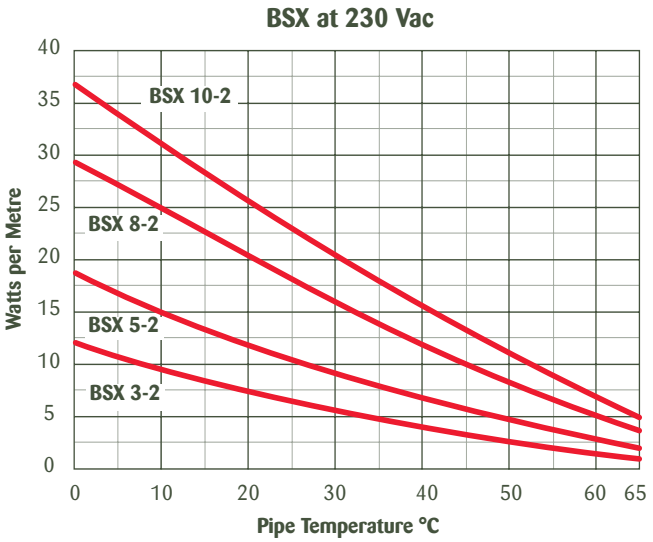
TubeTrace® Type SE/ME

Electrically Heated Instrument Tubing with **BSX**™ Self-Regulating Heat Tracing

Product Specifications

Power Output Curves . . .

The power outputs shown apply to BSX heat tracing installed on insulated metallic pipe (using the procedures outlined in IEEE Standard 515-2004). Power output may be slightly higher due to the thermal efficiency of TubeTrace.



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 CLX0020.

Electrical Heat Trace Accessories . . .

Thermon manufactures every type of electrical resistance heat tracing available in the world today. Power connection and termination kits (Form CLX0024) and a variety of controls are all available for heated instrument tubing applications.

How to Specify . . .

SE-6A1-41-3-ATP-1-M

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[1]
A = 316L SS Welded
As= 316Ti SS Welded
B = B68 Copper
C = PFA Teflon[2]
D = Monel[3]
E = Titanium
F = 316L SS Seamless
Fs = 316Ti SS Seamless
G = 304 SS Welded
H = 304 SS Seamless
J = Hastaloy C276
K = Alloy 825
M = FEP Teflon
P = Polyethylene
T = PTFE Teflon
X = Special

Number of Tubes
1
2
3
4

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

Heat Trace Option
3 = OJ/Polyolefin
7 = FOJ/Fluoropolymer

Bundle Jacket
ATP[4]
PE
TPU

Process Tube(s) Wall Thickness
030 = .030"
032 = .032" (B68 Copper)
035 = .035"
040 = .040" (Plastic Only)
047 = .047" (Plastic Only)
049 = .049"
062 = .062" (Plastic Only)
065 = .065" (316/316L SS Seamless Only)
1 = 1 mm
1.5 = 1.5 mm

M or I
Metric or Imperial Indication

Notes . . .

1. Seamless tubing has a standard quality K3, other qualities are available on special request. Tubing meets the ASTM standards, tubing that meets DIN standards is available on special request.
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.

Heat Trace Certifications/Approvals . . .

CENELEC — **European Organisation for Electrotechnical Standardisation**
Ordinary and Hazardous (Classified) Locations

CE Ex — II 2 G/D Ex e II T5 or T6 D 02 ATEX 0132424

IEC Ex — **International Electrotechnical Commission**
IEC Certification Scheme for Explosive Atmospheres
UL 06.0013

FM Approved — **Factory Mutual Research**
Ordinary and Hazardous (Classified) Locations

UL LISTED — **Underwriters Laboratories Inc.**
Hazardous (Classified) Locations

BSX has additional hazardous area approvals including:
• DNV • Lloyd's • JIS • CCE/CMRS
Contact Thermon for additional approvals and specific information.

