APPLICATION

TubeTrace, with "cut-to-length" BSX self-regulating heat tracing, is designed to provide freeze protection or temperature maintenance from 40°F (5°C) to 150°F (65°C) for tubing where no “steam out” of the tubing is possible. BSX withstands temperature exposures of 185°F (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 (non-classified) areas and hazardous (classified) areas.

RATINGS

<table>
<thead>
<tr>
<th>BSX</th>
<th>Ratings</th>
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</thead>
</table>
| Available watt densities | 3, 5, 8, 10 w/ft @ 50°F  
10, 16, 26, 33 w/m @ 10°C |
| Supply voltages       | 110-120 or 208-277 Vac                        |
| Tube temperature range | 40°F to 150°F (5°C to 65°C)                   |
| Max. continuous exposure temperature Power-off | 185°F (85°C) |
| T-rating              | T6 185°F (85°C)                              |

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.
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.

![Power Output Curve Graph]

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

**Bundle Type**
- SE = Single Tube
- ME = Multiple Tubes

**Process Tube O.D.**
- 1 = 1/8"
- 2 = 1/4"
- 3 = 3/8"
- 4 = 1/2"
- 5 = 5/8"
- 6 = 3/4"
- 8 = 1" Stick

**Process Tube Material**

<table>
<thead>
<tr>
<th>Process Tube Material</th>
<th>SE-4A1-42-3-ATP-035</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = 316 SS Welded</td>
<td>Heat Trace Option 3</td>
</tr>
<tr>
<td>B = #122 Copper</td>
<td>3 = OJ/Polyolefin</td>
</tr>
<tr>
<td>C = PFA Teflon</td>
<td>7 = OJ/Fluoropolymer</td>
</tr>
<tr>
<td>D = Monel</td>
<td>NEC Ordinary/D2 Areas</td>
</tr>
<tr>
<td>E = Titanium</td>
<td>and CEC D1 &amp; D2 Areas</td>
</tr>
<tr>
<td>F = 316 SS Seamless</td>
<td>8 = NEC Division 1 Areas</td>
</tr>
<tr>
<td>G = 304 SS Welded</td>
<td></td>
</tr>
<tr>
<td>H = 304 SS Seamless</td>
<td></td>
</tr>
<tr>
<td>J = Alloy C276</td>
<td></td>
</tr>
<tr>
<td>K = Alloy 825</td>
<td></td>
</tr>
<tr>
<td>L = Alloy 20</td>
<td></td>
</tr>
<tr>
<td>M = FEP Teflon</td>
<td></td>
</tr>
<tr>
<td>N = Nylon</td>
<td></td>
</tr>
<tr>
<td>P = Polyethylene</td>
<td></td>
</tr>
<tr>
<td>T = TFE Teflon</td>
<td></td>
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<tr>
<td>X = Special</td>
<td></td>
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</tbody>
</table>

**Heat Trace Type**
- 40 = BSX 3 w/ft. 120 Vac
- 41 = BSX 3 w/ft. 240 Vac
- 42 = BSX 5 w/ft. 120 Vac
- 43 = BSX 5 w/ft. 240 Vac
- 44 = BSX 8 w/ft. 120 Vac
- 45 = BSX 8 w/ft. 240 Vac
- 46 = BSX 10 w/ft. 120 Vac
- 47 = BSX 10 w/ft. 240 Vac

**Bundle Jacket**
- ATP: TPU

**Process Tube(s) Wall Thickness**
- 030 = .030" (Copper Only)
- 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 Type**
- SE = Single Tube
- ME = Multiple Tubes

**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
- **FM Approvals**
  - Ordinary Locations
  - Hazardous (Classified) Locations
    - Class I, Division 2, Groups B, C and D
    - Class II, Division 2, Groups F and G
    - Class III, Divisions 1 and 2
    - Class I, Zones 1 and 2, AExe II

- **UL Listed**
  - Ordinary Locations
  - Hazardous (Classified) Locations
    - Class I, Division 2, Groups B, C and D
    - Class II, Division 2, Groups F and G
    - Class III, Divisions 1 and 2
    - Class I, Zones 1 and 2, AExe II

- **Canadian Standards Association**
  - Ordinary Locations
  - Hazardous (Classified) Locations
    - Class I, Division 2, Groups A, B, C and D
    - Class II, Division 1, Groups E, F and G
    - Class I, Division 1, Groups A, B, C and D
    - Class II, Division 1, Groups E, F and G
    - Ex e II