



PRODUCT SPECIFICATIONS

# TubeTrace® Type SEI/MEI - HTX2

## WITH ELECTRICAL HEAT TRACE

Isolated from High Temperature Extremes

**APPLICATION**

Freeze protection 5°C (40°F) of steam lines. Intermittent exposure to 593°C (1100°F). TubeTrace HTX2 is a pre-engineered electric traced tube bundle for steam sample lines and impulse lines to pressure transmitters. TubeTrace HTX2 will provide water freeze protection in ambient conditions down to -34°C (-30°F) with 40 kph (25 mph) wind. HTX2 is suitable for superheat steam service temperatures up to 593°C (1100°F) for a duration of 2 minutes per cycle.

In the past, the only option for tubing subject to high temperature exposure was heat traced with series resistance mineral insulated (MIQ) heat trace. MIQ heaters are custom made to fit each application, so long lead times and specific field measurements are often required. TubeTrace HTX2 solves this with Thermon parallel resistance HPT heat trace isolated from direct contact with high temperature tubing.

TubeTrace HTX2 bundles are suitable for continuous exposure to 399°C (750°F) and/or intermittent superheat steam service temperatures to 593°C (1100°F) even when power is applied to the heat trace during ambient conditions of 5°C (40°F).

**RATINGS**

Watt density	16 W/m @ 10°C (5 w/ft @ 50°F)
Supply voltages <sup>1</sup>	120 or 240 Vac Nominal
Maintain temperature	5°C (40°F) (Freeze protection)
Minimum design ambient	-34°C (-30°F)
Max. continuous exposure temp.	399°C (750°F)
Intermittent service temperature	593°C (1100°F)
Minimum bend radius	SEI- HTX2: 305 mm (12") MEI- HTX2: 406 mm (16")

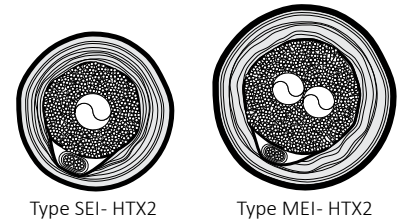
**PRODUCT FEATURES**

- “Touch Safe” jackets protect personnel
- “Cut-to-length” for faster installation
- Rated for intermittent exposure temperatures of 593°C (1100°F) for 2 minutes/2.5 hr cycle
- Designed for ambient sensing control at 5°C (+40°F)
- Freeze protect in ambient of -34°C (-30°F)



**CONSTRUCTION**

- 1 Process tube(s)
- 2 High temperature woven glass fiber thermal insulation
- 3 HPT heat trace
- 4 Thermal diffusion foil
- 5 Non-hygroscopic glass fiber insulation
- 6 Polymer outer jacket (ATP or TPU)



**BASIC ACCESSORIES**

**END SEAL KIT**

**FAK-7HTS-HTX2-1**

- Up to 3.0” o.d.
- Single tube, single tracer

**FAK-7HTS-HT/HTX-2**

- Up to 3.50” o.d.
- Dual tube, single tracer



**Note**

1. Higher voltages up to 480 Vac may be possible: contact Thermon for design assistance.



PRODUCT SPECIFICATIONS

# TubeTrace® Type SEI/MEI - HTX2

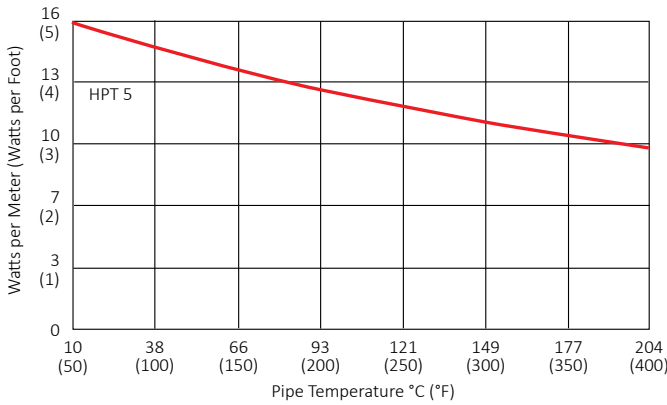
WITH ELECTRICAL HEAT TRACE

Isolated from High Temperature Extremes

## 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.

Catalog Number 120 Vac	Zone Length cm (in)	Catalog Number 240 Vac	Zone Length cm (in)	Power Output at 10°C (50°F)
HPT 5-1	61 (24)	HPT 5-2	76 (30)	16 (5)



## CIRCUIT BREAKER SIZING

Maximum circuit lengths for various circuit breaker amperages are shown below. Breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code. The National Electrical Code and Canadian Electrical Code require ground-fault protection of equipment for each branch circuit supplying electric heating equipment. Check local codes for ground-fault protection requirements.

Catalog Number	Start-Up Temperature °C (°F)	Max. Circuit Length vs. Breaker Size m (ft)			
		20 A	30 A	40 A	50 A
HPT 5-1	10 (50)	98 (320)	130 (425)	--	--
	-18 (0)	88 (290)	130 (425)	--	--
	-29 (-20)	84 (275)	130 (425)	--	--
	-40 (-40)	81 (265)	127 (415)	130 (425)	--

Catalog Number	Start-Up Temperature °C (°F)	Max. Circuit Length vs. Breaker Size m (ft)			
		20 A	30 A	40 A	50 A
HPT 5-2	10 (50)	195 (640)	259 (850)	--	--
	-18 (0)	177 (580)	259 (850)	--	--
	-29 (-20)	169 (555)	233 (765)	259 (850)	--
	-40 (-40)	163 (535)	233 (765)	233 (765)	259 (850)

## HOW TO SPECIFY

**SEI-4F1-50-7-ATP-065-HTX2**

<b>Bundle Type</b> SEI = Single Tube MEI = Multiple Tubes	<b>Process Tube O.D.</b> 2 = 1/4" 3 = 3/8" 4 = 1/2"	<b>Process Tube Material</b> A = 316 SS Welded D = Monel <sup>1</sup> E = Titanium F = 316 SS Seamless G = 304 SS Welded H = 304 SS Seamless J = Alloy C276 K = Alloy 825 L = Alloy 20 X = Special	<b>Number of Tubes</b> 1 2	<b>Heat Trace Type</b> 50 = HPT 5 w/ft. 120 Vac 51 = HPT 5 w/ft. 240 Vac	<b>Heat Trace Option</b> 7 = OJ/Fluoropolymer NEC Ordinary/D2 Areas and CEC D1 & D2 Areas 8 = NEC Division 1 Areas	<b>Bundle Jacket</b> ATP <sup>2</sup> TPU	<b>High Temperature</b> HTX2 = Intermittent Exposure to 593°C (1100°F)	<b>Process Tube(s) Wall Thickness</b> 035 = .035" 049 = .049" 065 = .065" 083 = .083"
---	--	--	----------------------------------	--	---	---	---	---

### Notes

1. Monel is a trademark of Inco Alloys International, Inc.
2. Black ATP is standard.

## 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  
Division 1 Locations  
Requires Heater Cable Option 8:  
Class I, Division 1, Groups B, C and D  
Class II, Division 1, Groups E, F and G



Underwriters Laboratories Inc.  
Ordinary Locations  
Hazardous (Classified) Locations  
Class I, Division 2, Groups B, C and D  
Class II, Division 2, Groups E, F and G\*  
Class III, Divisions 1 and 2  
Class I, Zone 1, AExe II  
Class I, Zone 2, AExe II  
Division 1 Locations  
Requires Heater Cable Option 8:  
Class I, Division 1, Groups B, C and D  
Class II, Division 1, Groups E, F and G  
Canadian Standards Association



Ordinary Locations  
Hazardous (Classified) Locations  
Class I, Division 2, Groups A, B, C and D  
Class II, Division 2, 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

\* CL. II, Div. 2 requires Thermon design review.