

# PRODUCT DATASHEET **TUBETRACE<sup>®</sup> TYPE SEI/MEI – HTX** WITH ELECTRICAL HEAT TRACE ISOLATED FROM HIGH TEMPERATURE EXTREMES

# **APPLICATION**

Freeze protection 40°F (5°C) of steam lines. Continuous exposure to 1100°F (593°C). TubeTrace HTX is a preengineered electric traced tube bundle for steam sample lines and impulse lines to pressure transmitters. TubeTrace HTX will provide water freeze protection in ambient conditions down to -50°F (-45°C) with 25 mph (40 kph) wind conditions.

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 measurments are often required. TubeTrace HTX solves this with Thermon parallel resistance HPT heat trace isolated from direct contact with high temperature tubing.

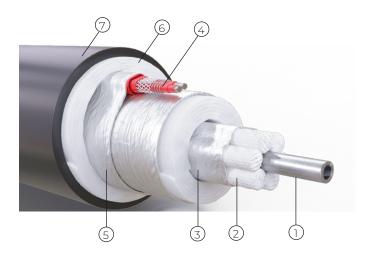
TubeTrace HTX bundles are designed to withstand continuous 1100°F (593°C) superheat steam temperature even when power is applied to the heat trace during ambient conditions of 40°F (5°C).

#### RATINGS

Watt density	10 w/ft @ 50°F (33 W/m @ 10°C)
Supply voltages <sup>1</sup>	120 or 240 Vac Nominal
Maintain temperature	40°F (5°C) (Freeze protection)
Minimum design ambient	-50°F (-45°C)
Max. continuous exposure temp.	1100°F (593°C)
Minimum bend radius	20" (508 mm)

# **PRODUCT FEATURES**

- "Touch safe" jackets protect personnel
- "Cut-to-length" for faster installation
- Rated for 1100°F (593°C) continuous
  exposure temperatures
- Designed for ambient sensing control at +40°F (5°C)
- Freeze protect in ambient of -50°F (-45°C)



#### **CONSTRUCTION**

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

# BASIC ACCESSORIES

# END SEAL KIT FAK-7HTS-HT/HTX-1

- Up to 3.50" o.d.
- Single tube, single tracer

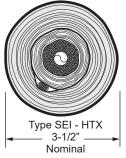
# FAK-7HTS-HT/HTX-2

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



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

Thermon • 100 Thermon Dr • PO Box 609 San Marcos, TX 78667-0609 • Phone: 512-396-5801 • 1-800-820-4328 For the Thermon office nearest you visit us at www.thermon.com







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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 Thermon.

Cata Num 120 \	ber	Zone Length in (cm)	Catalog Number 240 Vac		Zone Length in (cm)	Power Output at 50°F (10°C)	
HPT	10-1	18 (46)	HPT 10	-2	24 (61)	10	(33)
20 (66) 5 (49) 5 (16) 0 0 0	НРТ 10						
		00 150 58) (66		250 (121) nperatur	(149		400 204)

#### **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.

120 Vac Se	ervice Voltage	Max. C	ircuit Lena	cuit Length vs. Breaker Size			
Catalog Number	Start-Up Temperature	ft (m)					
Number	°F (°C)	20A	30A	40A	50A		
HPT 10-1	50 (10)	155 (47)	240 (73)	300 (91)			
	O (-18)	145 (44)	215 (66)	300 (91)			
	-20 (-29)	135 (41)	210 (64)	290 (88)	300 (91)		
	-40 (-40)	130 (40)	200 (61)	275 (84)	300 (91)		

240 Vac Service Voltage		Max. Circuit Length vs. Breaker Size				
Start-Up Temperature	ft (m)					
°F (°C)	20A	30A	40A	50A		
50 (10)	310 (95)	485 (148)	600 (183)			
O (-18)	280 (85)	435 (133)	600 (183)			
-20 (-29)	270 (82)	420 (128)	580 (177)	600 (183)		
-40 (-40)	260 (79)	400 (122)	550 (168)	600 (183)		
	Start-Up Temperature °F (°C) 50 (10) 0 (-18) -20 (-29)	Start-Up Temperature °F (°C)      20A        50 (10)      310 (95)        0 (-18)      280 (85)        -20 (-29)      270 (82)	Start-Up Temperature °F (°C)      20A      30A        50 (10)      310 (95)      485 (148)        0 (-18)      280 (85)      435 (133)        -20 (-29)      270 (82)      420 (128)	Start-Up Temperature °F (°C)      20A      30A      40A        50 (10)      310 (95)      485 (148)      600 (183)        0 (-18)      280 (85)      435 (133)      600 (183)        -20 (-29)      270 (82)      420 (128)      580 (177)		

# HOW TO SPECIFY

#### SEI-4F1-52-7-ATP-065-HTX Bundle Type **High Temperature** Process SEI = Single Tube HTX = 1100°F (593°C) Tube Process Tube Material Continuous MEI = Multiple O.D. Number A = 316 SS Welded Tubes 2 = 1/4" of Tubes Process Tube(s) D= Monel<sup>1</sup> 1 Bundle Wall Thickness 3 = 3/8" E = Titanium Jacket Heat Trace Option 2 4 = 1/2" 035 = .035" F = 316 SS Seamless ATP<sup>2</sup> 7 = OJ/Fluoropolymer 049 = .049' G= 304 SS Welded NEC Ordinary/D2 Areas TPU 065 = .065" Heat Trace Type and CEC D1 & D2 Areas H= 304 SS Seamless 083 = .083" 52 = HPT 10 w/ft. 120 Vac 8 = NEC Division 1 Areas J = Alloy C276 53 = HPT 10 w/ft. 240 Vac K = Alloy 825 L = Alloy 20 X = Special

# **CERTIFICATIONS/APPROVALS**

FM Approvals

FM

Ordinary Locations Hazardous (Classified) Locations Class I, Division 2, Groups B, C and D Class II, Division 2, Groups F & df G\* Class III, Division 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

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: review. Class I, Division 1, Groups B, C and D Class II, Division 1, Groups E, F and G Canadian Standards Association



2. Black ATP is standard.

Notes

#### Ordinary Locations

1. Monel is a trademark of Inco Alloys International, Inc.

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