# WITH ELECTRICAL HEAT TRACE Isolated from High Temperature Extremes

## **APPLICATION**

Freeze protection 5°C of steam lines. Continuous exposure to 593°C. TubeTrace HTX is a pre-engineered 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 -45°C with 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 measurements 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 593°C superheat steam temperature even when power is applied to the heat trace during ambient conditions of 5°C.

#### **RATINGS**

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

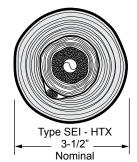
## **PRODUCT FEATURES**

- · "Touch safe" jackets protect personnel
- · "Cut-to-length" for faster installation
- Rated for 593°C continuous exposure temperatures
- Designed for ambient sensing control at +5°C
- Freeze protect in ambient of -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 ACCESSOIRES**

#### **END SEAL KIT**

## FAK-SSHT/HTX-1

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

## FAK-SSHT/HTX-2

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



#### Note

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

THERMON The Heat Tracing Specialists®

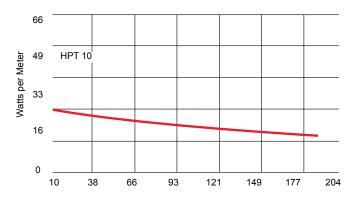
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#### **POWER OUTPUT CURVES**

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.

Catalog Number 120 Vac	Zone Length cm	Catalog Number 240 Vac	Zone Length cm	Power Output at 10°C
HPT 10-1	46	HPT 10-2	61	33



Pipe Temperature °C

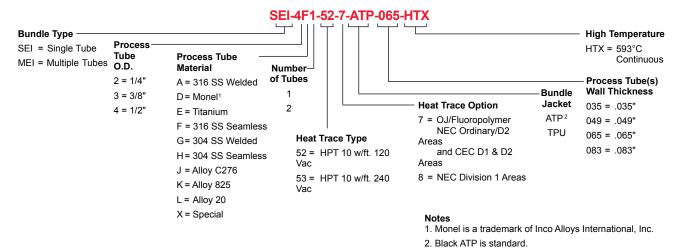
#### **CIRCUIT BREAKER SIZING**

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 Service Voltage		Max. Circuit Length vs. Breaker Size			
Catalog Number	Catalog Start-Up Number Temperature °C	m			
Hamboi		20A	30A	40A	50A
	10	47	73	91	
HPT 10-1	-18	44	66	91	
ПРТ 10-1	-29	41	64	88	91
	-40	40	61	84	91

240 Vac Service Voltage		Max. Circuit Length vs. Breaker Size			
Catalog Number	Start-Up Temperature	m			
Number	°C	20A	30A	40A	50A
	10	95	148	183	
LIDT 40.0	-18	85	133	183	
HPT 10-2	-29	82	128	177	183
	-40	79	122	168	183

## **HOW TO SPECIFY**



## **CERTIFICATIONS/APPROVALS**



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



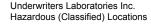


International Electrotechnical Commission IEC Certification Scheme for Explosive Atmospheres FMG 13.0020



FM

FM Approvals Ordinary and Hazardous (Classified) Locations



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