

TubeTrace® Type SEI/MEI - HT

Electrically Heat Traced (EHT) Tubing with EHT Isolated from High Temperatures (HT)

Product Specifications

Application . . .

Freeze protection 5°C of steam lines. (Continuous exposure to 399°C)

TubeTrace HT is a pre-engineered electric traced tube bundle for steam sample lines and impulse lines to pressure transmitters. TubeTrace HT will provide water freeze protection in ambient conditions down to -45°C with 40 kph wind conditions. HT will withstand continuous steam exposure temperatures up to 399°C.

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

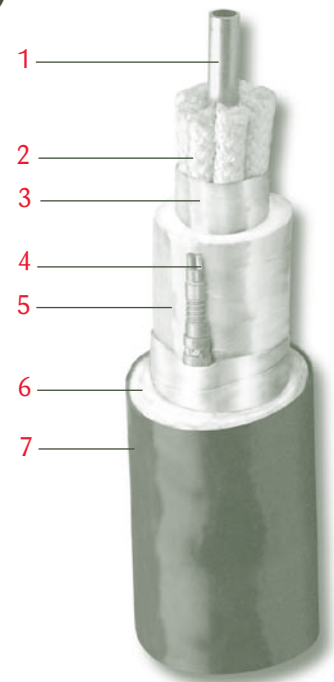
TubeTrace HT bundles are designed to withstand continuous 399°C steam exposure temperature even when power is applied to the heat trace during ambient conditions of 5°C.

Ratings/Specifications . . .

Watt density	33 W/m @ 10°C
Supply voltages ¹	230 Vac Nominal
Maintain temperature	5°C (Freeze protection)
Minimum design ambient	-45°C
Max. continuous exposure temp.	399°C
Minimum bend radius	406 mm

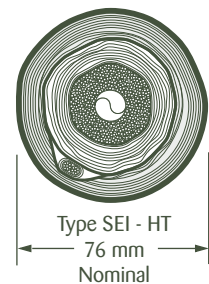
Notes . . .

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



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)



Product Features . . .

- "Touch Safe" Jackets Protect Personnel
- "Cut-to-Length" for Faster Installation
- Rated for 399°C Continuous Exposure Temperatures
- Designed for Ambient Sensing Control at 5°C
- Freeze Protect in Ambient of -45°C



THERMON . . . The Heat Tracing Specialists®

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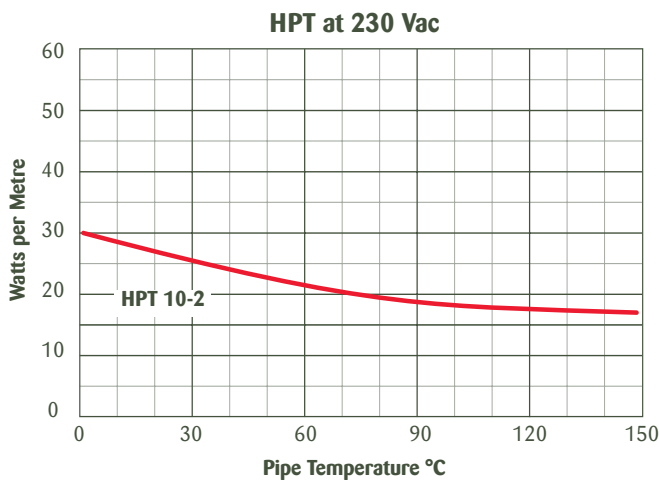
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Power Output Curves . . .

The power outputs shown apply to HPT 10 installed on insulated metallic pipe (using the procedures outlined in IEEE Standard 515-2004). Performance will be lower as HPT sandwiched between layers of thermal insulation will reduce its power output.

Catalog Number 230 Vac	Zone Length cm	Power Output at 10°C W/m
HPT 10-2	61	28



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. For information on design and performance on other voltages, contact Thermon.

The National Electrical Code and Canadian Electrical Code require ground-fault protection of equipment for electric heat tracing. Check local codes for specific ground-fault protection requirements.

Type B and C Circuit Breakers

Catalog Number	230 Vac Service Voltage	Start-Up Temperature °C	Max. Circuit Length* vs. Breaker Size Metres			
			16A	25A	32A	40A
HPT 10-2		10	124	199	199	199
		0	120	199	199	199
		-20	112	182	199	199

* Maximum circuit lengths shown are based on an instantaneous trip current characteristic per IEC 60898 at the referenced start-up temperature and a 10°C maintenance temperature. For maximum circuit lengths with other trip current characteristics contact Thermon.

How to Specify . . .

SEI-4F1-53-1-ATP-065-HT

Bundle Type SEI = Single Tube MEI = Multiple Tubes	Process Tube O.D. 2 = 1/4" 3 = 3/8" 4 = 1/2"	Process Tube Material A = 316 SS Welded D = Monel ¹ 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	Number of Tubes 1 2	Heat Trace Type 53 = HPT 10 w/ft. 230 Vac	Heat Trace Option 1 = BN Nickel Plated Braid 7 = OJ/Fluoropolymer 8 = Division 1 Approval	Bundle Jacket ATP ² TPU	High Temperature HT = 399°C Continuous	Process Tube(s) Wall Thickness 035 = .035" 049 = .049" 065 = .065" 083 = .083" (Seamless Only)
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Notes . . .

1. Monel is a trademark of Inco Alloys International, Inc.
2. Black ATP is standard. Other jacket materials are available.

Heat Trace Certifications/Approvals . . .

CENELEC European Organisation for Electrotechnical Standardisation
Hazardous (Classified) Locations

CE **Ex** II 2 G/D EEx e T2 to T6 DEMKO 02 ATEX 012337X

IEC Ex International Electrotechnical Commission
IEC Certification Scheme for Explosive Atmospheres
UL 06.0006

FM Approved Factory Mutual Research
Hazardous (Classified) Locations

UL LISTED Underwriters Laboratories Inc.
Hazardous (Classified) Locations

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

