



# PRODUCT DATASHEET

## WarmTrace™ HSX®

SELF-REGULATING HEAT TRACING

### APPLICATION: HOT WATER TEMPERATURE MAINTENANCE

HSX heat tracing, the heart of Thermon's WarmTrace™ system, are specifically designed to maintain hot water supply piping at desired nominal maintenance temperatures. With 1.9 mm<sup>2</sup> (14 AWG) bus wires (larger than any other system available), HSX can reduce the number of circuits required to install an electric heat traced system.

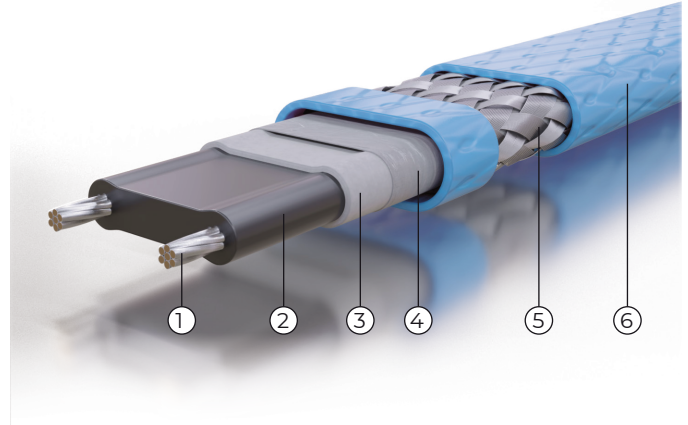
### EASY TO DESIGN

A WarmTrace system replaces the complex recirculation network of return pipes, circulating pumps and balancing valves. For each hot water supply line, simply match the hot water maintenance temperature with the corresponding color-coded trace heater and insulate per the design guide.

HSX self-regulating heat trace automatically maintains desired water temperatures. Changes in pipe diameters, flow rates and use patterns will not affect the design. Even variations in ambient or water temperature are compensated for as the trace heater adjusts its heat output along the entire length of a heat-traced pipe.

### EASY TO INSTALL

HSX heat tracing is cut to length and installed directly on the supply piping under conventional thermal insulation with ordinary hand tools. Kits for power connection, end termination and splicing, plus other accessories, are designed for quick and easy installation. Increased circuit lengths with HSX mean less circuits to fabricate and fewer total circuits.



### CHARACTERISTICS

1. 1.9 mm<sup>2</sup> (14 AWG) Nickel-Plated Copper Bus Wire
2. E-Beam Cross-Linked Polyolefin Semiconductive Heating Matrix
3. E-Beam Cross-Linked Polyolefin Primary Dielectric Insulation
4. Aluminumized Mylar Foil
5. Tinned Copper Metallic Braid
6. Polyolefin Outer jacket

### RATINGS

Supply voltages ..... 208 Vac  
Minimum bend radius  
    @ -15°C (5°F) ..... 10 mm (0.38")  
    @ -51°C (-60°F) ..... 32 mm (1.25")  
30 mA Ground-Fault Protection Required <sup>1</sup>

### ECONOMICAL TO OPERATE AND MAINTAIN

A WarmTrace system replaces recirculation and eliminates the costs of continuously operating pumps, deliberately overheating the water and maintaining a recirculation system. Potential water savings can also be realized since the heat tracing can be installed up to the point of use—no waiting for hot water!

### COMPONENTS

Thermon offers system accessories designed specifically for rapid, trouble-free installation of Thermon heat tracing. All trace heaters require a connection kit to comply with approval requirements. Information on accessories to complete a heater circuit installation can be found in the WarmTrace Systems Accessories product specification sheet (Form CPD1006).

### INSTALLATION INSTRUCTIONS

Detailed installation instructions (Form No. CPD1014) is available on request.



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## TRACE HEATER SELECTION

Catalog Number	Outer Jacket Color	Operating Voltage <sup>2</sup>	Nominal Maintain Temperature	Ambient Range	Max. Circuit Length vs. Breaker Size		
					15 A	20 A	30 A
HSX 2105-2	Blue	208 Vac	41°C (105°F)	24-27°C (75-80°F)	331 m (1085')	366 m (1200')	366 m (1200')
HSX 2120-2	Green	208 Vac	49°C (120°F)	22-27°C (72-80°F)	146 m (480')	195 m (640')	293 m (960')
HSX 2140-2	Red	208 Vac	60°C (140°F)	22-27°C (72-80°F)	84 m (275')	113 m (370')	169 m (555')

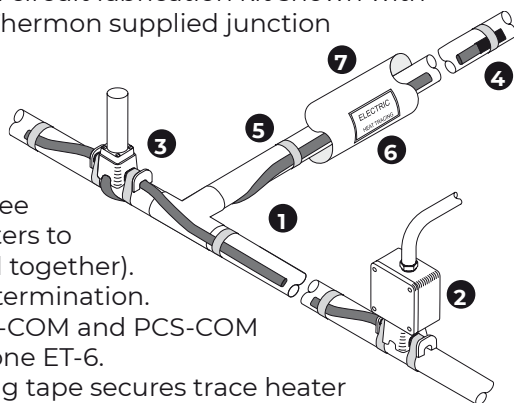
### Note

1. The National Electrical Code and the Canadian Electrical Code require ground-fault protection of equipment for each branch circuit supplying electric heating equipment.
2. HSX can be operated at 240 or 277 Vac with design assistance from Thermon.

## TYPICAL INSTALLATION

A WarmTrace HSX 2100 hot water temperature maintenance system will typically include the following components:

1. **HSX 2100** self-regulating heat tracing.
2. **PCA-COM** circuit fabrication kit shown with optional Thermon supplied junction box.
3. **PCS-COM** in-line/T-splice kit (permits two or three trace heaters to be spliced together).
4. **ET-6** end termination. Each PCA-COM and PCS-COM includes one ET-6.
5. **FT-1L** fixing tape secures trace heater to pipe; use on 12" to 24" intervals.
6. **CL** "Electric Heat Tracing" label (peel-and-stick label attaches to insulation vapor barrier on 10' intervals or as required by code or specification).
7. Fiberglass thermal insulation and vapor barrier (by others).



## CERTIFICATIONS/APPROVALS

