



**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**

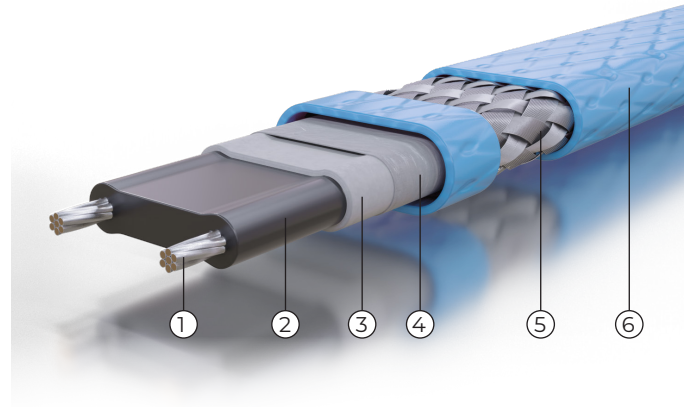
A WarmTrace system replaces the complex recirculation network of return pipes, circulating pumps and balancing valves. For each hot water supply line, simply match the hot water maintenance temperature with the corresponding color-coded trace heater and insulate per the design guide.

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.

Contact Thermon for details regarding heat tracing systems for legionella prevention.

**ECONOMICAL TO OPERATE AND MAINTAIN**

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



**CONSTRUCTION**

1. Bus Wire: 2,1 mm<sup>2</sup> Nickel-plated Copper
2. Semiconductive Heating Matrix
3. Primary Dielectric Insulation
4. Aluminized Foil Wrap
5. Tinned Copper Braid
6. Polyolefin Overjacket

**CHARACTERISTICS**

Minimum bend radius..... 32 mm  
 Supply voltage.....230 Vac  
 Circuit protection....30 mA ground-fault protection  
 Max. exposure temperature.....65°C



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**CIRCUIT BREAKER SIZING AND TYPE**

230 Vac Service Voltage		Max. Circuit Length vs. Breaker Size Meters (B and C-Type Breakers)				
Product Type	Start-Up Temp	10 A	16 A	20 A	25 A	32 A
HSX 50-2	10° C	68	104	140	177	234
HSX 55-2	10° C	53	85	107	135	177
HSX 60-2	10° C	36	58	73	92	119

\* Multiply values by 0,85 for B-Type breakers.

**CERTIFICATIONS/APPROVALS**



No. 2043400

**ACCESSORIES**



**E-Connect...**an easy connection system designed to provide a reliable method for rapid, trouble-free installation of Thermon heating cables. It's modular design provides a solution for quick installation with a large number of connection combination possibilities.



**CL...**vinyl-based peel-and-stick caution labels are intended for direct exposure to harsh environments. Electrically heated pipelines should be clearly identified at frequent intervals along the pipeline. Caution labels should be placed at 3 to 6 m intervals or as required by code or specification. Additional languages are available; contact Thermon.



**FT-1L...**fixing tapes for circumferential banding cable to piping every 30 cm or as required by code or specification.

**AL-20L...**aluminium tape for continuous (longitudinal) covering and/or circumferential banding cable to plastic piping and/or equipment.

Item #	Max. Temp. (Exposure)	Min. Temp. (Installation)	Size (mm x m)
<b>FT-1L</b>	93°C	5°C	12 x 33
<b>AL-20L</b>	66°C	5°C	50 x 46

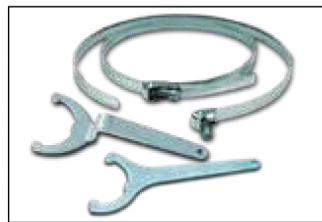


**PETK-1...**circuit fabrication kit includes a power boot, end cap, RTV adhesive.



**JB-K-1, JB-K-2...**rugged, impact-resistant nonmetallic junction boxes for use in nonhazardous environments and have an IP65 degree of protection.

Item	Electrical	Size (mm)
<b>JB-K-1</b>	5-pt strip-34 Amps	98 x 98 x 58
<b>JB-K-2</b>	5-pt strip-43 Amps	139 x 119 x 70

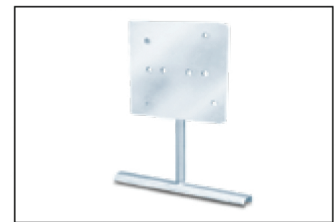


**B-4, B-10, B-21...**stainless steel attachment bands for securing Thermon JB-K nonmetallic kits and XP-1-140x140 mounting brackets to pipes. For pipes up to 100 mm, 250 mm and 530 mm diameters, respectively.



**Insulation Entry Kits (IEK)...**are used for inserting permanent circular and noncircular cables into the insulation. The kit protects and seals the cable while penetrating the insulation cladding.

Item Description	Cable
IEK-20	HSX



**XP-1-140x140...**pre-drilled stainless steel (type 304) mounting bracket designed for mounting Thermon junction boxes directly to the pipe work. The bracket is easily secured to the pipe using B4, B-10 or B-21 attachments bands. The XP-1 is predrilled for use with JB-K-1 and JB-K-2, has plate dimensions of 140 x 140 mm and utilises a 110 mm standoff