

# KSX™ Self-Regulating Heating Cable

## Product Specifications

### Application . . .

#### Process Temperature Maintenance or Freeze Protection

High performance KSX self-regulating heating cables are designed specifically for high heat loss freeze protection applications or process temperature maintenance where steam cleaning is not required.

The heat output of KSX cable varies in response to the surrounding temperature by reducing its thermal output with increasing temperature.

KSX cables are approved for use in ordinary (nonclassified) areas and hazardous (classified) areas.

### Ratings . . .

Available watt densities .....	15, 20 W/ft @ 50°F 49, 66 W/m @ 10°C
Supply voltages .....	240 Vac
Max. maintenance or exposure temperature	
Continuous power-on .....	250 °F (121°C)
Minimum installation temperature .....	-40°F (-40°C)
Minimum bend radius .....	1.25" (32 mm)
T-rating <sup>1</sup> .....	T3 392°F 200°C
Based on stabilized design <sup>2</sup> .....	T4 to T6

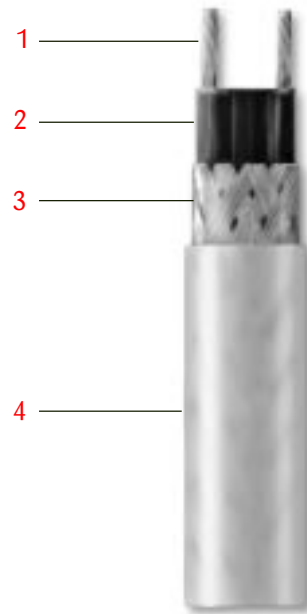
### Basic Accessories<sup>2</sup> . . .

**Power Connection:** All KSX cables require a Terminator, PCA or ECA power connection kit for terminating the circuit before connecting to power.

**End-of-Circuit Termination:** KSX cables require the ET-8 end cap for terminating at the end of the circuit.

### Notes . . .

1. T-rating per the NEC and CEC.
2. Thermon heating cables are approved for the listed T-ratings using the stabilized design method. This enables the cable to operate in hazardous areas without limiting thermostats. The T-rating may be determined using CompuTrace® Electric Heat Tracing Design Software or contact Thermon for design assistance.
3. Information on additional accessories to complete a heater circuit installation and to comply with approval requirements can be found in the "Self-Regulating Cables Systems Accessories" product specification sheet (Form TEP0010).



### Construction . . .

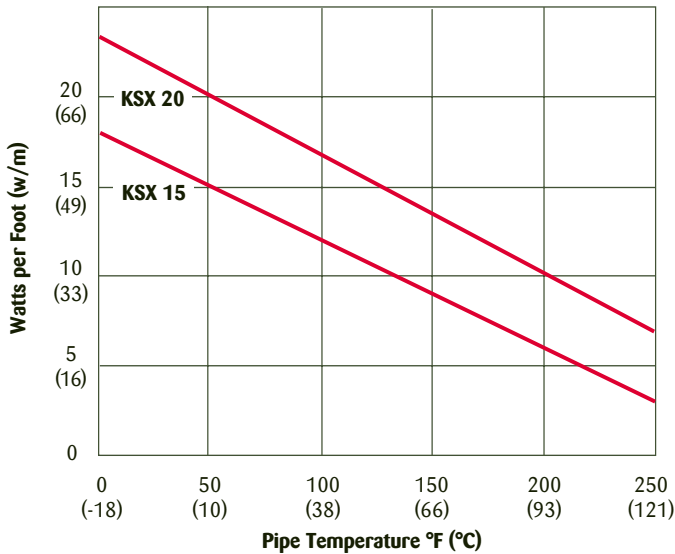
- 1 Nickel-Plated Copper Bus Wires (16 AWG)
- 2 Semiconductive Heating Matrix and Fluoropolymer Dielectric Insulation
- 3 Tinned Copper Braid
- 4 Fluoropolymer overjacket provides additional protection to cable and braid where exposure to chemicals or corrosives is expected.



### Power Output Curves . . .

The power outputs shown apply to cable installed on insulated metallic pipe (using the procedures outlined in IEEE Standard 515-1997) at the service voltage stated below.

Catalog Number 240 Vac Nominal	Power Output at 50°F (10°C) W/ft (m)
KSX 15-2	15 (49)
KSX 20-2	20 (66)



### Circuit Breaker Sizing and Type . . .

Maximum circuit lengths for various circuit breaker amperages are shown below. Ground-fault protection of equipment should be provided for each branch circuit supplying electric heating equipment.

Catalog Number	240 Vac Service Voltage Start-Up Temperature °F (°C)	Max. Circuit Length vs. Breaker Size ft (m)		
		20A	30A	40A
KSX 15-2	50 (10)	199 (61)	317 (97)	-
	0 (-18)	199 (61)	317 (97)	-
	-20 (-29)	199 (61)	317 (97)	-
	-40 (-40)	187 (57)	296 (90)	317 (97)
KSX 20-2	50 (10)	158 (48)	248 (76)	276 (84)
	0 (-18)	158 (48)	248 (76)	276 (84)
	-20 (-29)	158 (48)	248 (76)	275 (84)
	-40 (-40)	153 (47)	239 (73)	258 (79)

### Certifications/Approvals . . .



**Underwriters Laboratories Inc.**  
 Ordinary Locations  
 Hazardous (Classified) Locations  
 Class I, Division 2, Groups B, C and D  
 Class II, Division 2, Groups F and G  
 Class III, Divisions 1 and 2  
 Class I, Zones 1 and 2, AEx e II



**Canadian Standards Association**  
 Ordinary Locations  
 Hazardous (Classified) Locations  
 Class I, Division 2, Groups A, B, C and D  
 Class II, Division 2, Groups E, F and G

