## HXR "HIGH TEMP" SELF REGULATING CABLE



HXR Heating Cables are designed for freeze protection and process temperature maintenance of metal pipes and tanks. The semiconductive polymer core changes its power output versus pipe temperature to optimize power usage and prevent overheating. The cables are designed for extended service life, are third-party tested and approved to strict industry standards for ordinary and hazardous area use. Cables are available from stock for same-day shipment.

#### **SPECIFICATIONS**

- Self-Regulating Power Output
- Continuous Maintenance Temperature
  - 375°F (190°C) Max
- Intermittent Exposure Temperature
  - 450°F (232°C) Max
- Output Wattage
  - 5,10,15,20,25,30 W/FT @ 50°F (other wattages also available)
- Supply Voltage
  - o 110-120 or 208-277 VAC
- Temperature Classification: T-2C\*
- Braid Resistance:
  - Tinned Copper: 0.003 Ω/ft
  - Stainless Steel:  $0.125 \Omega/ft$
- Size = 1/2" W x 1/4" H
- Minimum Bend Radius = 1 1/8"
- Minimum Install Temperature
  - -40°F (-40°C)
- Cut to Length and terminate in the field



#### **CONSTRUCTION**

- A. 16 AWG Nickel Plated Copper Buss Wires
- B. Modified Fluoropolymer heater core
- C. Modified Fluoropolymer insulating jacket
- D. Tinned Copper, Nickel Copper, or Stainless Steel Braid
- E. Fluoropolymer Outer Jacket
- Protects against organic, inorganic and corrosive chemical



Ordinary Locations
Hazardous Locations

- Class I, Div 1\*, Groups B, C, D
- Class 1, Div 2, Groups A, B, C, D
- Class II, III, Div 1\*, Groups E, F, G
- Class II/III, Div 2, Groups F, D
- Class I, Zone 1\*, Group IIIB+H2
- Class I, Zone 2, Group IIC



Ordinary Locations 3 (A, B, C), 5 (A, B)

Hazardous Locations

- Class I, Div 1\*/2, Groups B, C, D
- Class I, Div 2, Groups B, C, D
- Class II, Div 2, Groups F, G

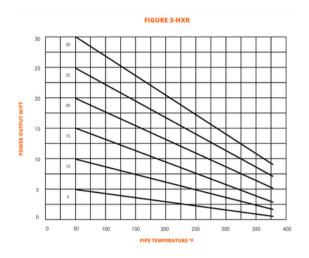
<sup>\*</sup>Contact a Classic Industrial Services representative for information on Division 1 Hazardous location systems.

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### **Power Output Curves**

Power Output Curves shown below apply to cables used at service voltages shown below on insulated metal pipes. For other applications contact Classic Industrial Services.



Power Adjustment Factor					
Model	208 Volts	277 Volts			
HXR5-2	0.85	1.17			
HXR10-2	0.88	1.14			
HXR15-2	0.91	1.11			
HXR20-2	0.94	1.08			
HXR25-2	0.96	1.04			
HXR30-2	0.99	1.01			

### Circuit Breaker Sizing

Maximum Circuit Lengths per start up temperature and circuit breaker size are shown below. Use local electrical codes to select appropriate branch circuit breakers. Ground Fault circuit breakers are required for heat trace branch circuits – typical minimum trip level is 30mA. Thermal magnetic circuit breakers are recommended to reduce nuisance tripping.

Maximum Circuit Length vs Breaker Size & Start-Up Temp FT (M)						
Model	Start-Up Temperature Deg F Deg C	15 A	20 A	30 A	40 A	
	50 (10)	180 (55)	240 (73)	335 (102)	350 (107)	
HXR5-1	0 (-20)	165 (50)	220 (67)	330 (101)	350 (107)	
	-50 (-45)	150 (46)	200 (61)	300 (91)	350 (107)	
	50 (10)	360 (110)	480 (146)	540 (165)	680 (299)	
HXR5-2	0 (-20)	325 (99)	430 (131)	540 (165)	680 (299)	
	-50 (-45)	290 (88)	385 (117)	540 (165)	680 (299)	
	50 (10)	120 (37)	160 (49)	180 (55)	240 (73)	
HXR10-1	0 (-20)	105 (32)	140 (43)	180 (55)	220 (67)	
	-50 (-45)	90 (27)	120 (37)	180 (55)	220 (67)	
	50 (10)	240 (73)	320 (98)	360 (110)	470 (143)	
HXR10-2	0 (-20)	230 (70)	305 (93)	360 (110)	470 (143)	
	-50 (-45)	225 (69)	300 (91)	360 (110)	450 (137)	
	50 (10)	80 (24)	105 (32)	135 (41)	180 (55)	
HXR15-1	0 (-20)	70 (21)	90 (27)	135 (41)	160 (49)	
	-50 (-45)	60 (18)	80 (24)	120 (37)	135 41)	
	50 (10)	160 (49)	210 (64)	270 (82)	350 (107)	
HXR15-2	0 (-20)	140 (43)	185 (56)	270 (82)	340 (104)	
	-50 (-45)	120 (37)	160 (49)	240 (73)	300 (91)	
HXR20-1	50 (10)	60 (18)	90 (27)	120 (37)	120 (37)	
	0 (-18)	55 (17)	70 (21)	110 (34)	110 (34)	
	-50 (-45)	50 (15)	65 (20)	100 (30)	100 (30)	
HXR20-2	50 (10)	115 (35)	150 (46)	230 (70)	230 (70)	
	0 (-18)	110 (34)	145 (440	220 (67)	220 (67)	
	-50 (-45)	105 (32)	140 (43)	210 (64)	210 (64)	
HXR25-1	50 (10)	45 (14)	60 (18)	85 (26)	85 (26)	
	0 (-18)	40 (12)	50 (15)	80 (24)	80 (24)	
	-50 (-45)	40 (12)	50 (15)	80 (24)	80 (24)	
HXR25-2	50 (10)	90 (27)	120 (37)	170 (52)	170 (52)	
	0 (-18)	80 (24)	100 (30)	160 (49)	160 (49)	
	-50 (-45)	80 (24)	100 (30)	160 (49)	160 (49)	
HXR30-1	50 (10)	40 (12)	50 (15)	70 (21)	70 (21)	
	0 (-18)	35 (11)	45(14)	70 (21)	70 (21)	
	-50 (-45)	35 (11)	45 (14)	70 (21)	70 (21)	
HXR30-2	50 (10)	80 (24)	100 (30)	140 (43)	140 (43)	
	0 (-18)	70 (21)	90 (27)	140 (43)	140 (43)	
	-50 (-45)	70 (21)	90 (27)	140 (43)	140 (43)	

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### **Connection Accessories**

All Cables require power connection and end seal terminations as a minimum to comply with third-party requirements. Classic Industrial Services offers accessories to provide trouble free easy installation and maximum cable circuit life.

Ordering Information						
Output W/ft	Volts	Model	Stock	LBS/1000'		
5 W/FT @ 50F	120	HXR05-11T00	S	90		
	208-277	HXR05-21T00	S	90		
10 W/FT @ 50F	120	HXR10-11T00	S	90		
	208-277	HXR10-21T00	S	90		
15 W/FT @ 50F	120	HXR15-11T00	S	90		
	208-277	HXR15-21T00	S	90		
20 W/FT @ 50F	120	HXR20-11T00	S	90		
	208-277	HXR20-21T00	S	90		
25 W/FT @ 50F	120	HXR25-11T00	S	90		
	208-277	HXR25-21T00	S	90		
30 W/FT @ 50F	120	HXR30-11T00	S	90		
	208-277	HXR30-21T00	S	90		

Accessories - Ordinary Area / C1D2 Hazardous Area				
Description	HTS P/N			
A-Series Power Connection Kit	ACSX-1			
A-Series Power Tee/Splice Kit	ACSX-3			
A-Series Lighted End Seal	AESL			
A-Series End Seal (above)	AESX			
Power Connection Kit w/4" J-Box	PCX-H4JB-1			
Power Tee/Splice Kit w/ 6" J-Box	PTX-H6JB-3			
Power Connection Kit	PCX-81J			
End Seal Kit (below)	ESX-81			
Application Tape - High Temp	HXFT-HT			
Aluminum Foil Tape	HXAT-1			
6 inch Pipe Strap	HXPS-6			
10 Inch Pipe Strap	HXPS-10			
Small Pipe Adaptor	SPA			
Caution Label (10/Pkg)	HXCL-10			
Thermostat - Ambient Ord Area	ASTX			
Thermostat - Ambient Haz Area	ASTH			
Thermostat - Line Ord Area	LSTX			
Thermostat - Line Haz Area	LSTH			
TM Single Point Controller	MS-2101			
TM Dual Point Controller	MS-2102			

(Example shown: 20watt, 120volt, Tinned Copper w/ Fluoropolymer Jacket)

