

NELSON

Self-Regulating Trace for Temperature Maintenance Specification – Application Information

Pre-insulated Tubing Bundle



Description:

Nelson pre-insulated tubing bundles consist of single or dual process tubes traced with self-regulating heater cable, non-hygroscopic fiberglass insulation and an outer jacket of PVC or Urethane Elastomer. This system is designed to provide temperature maintenance or steam cleaning up to 250°F (121°C) at low ambient temperatures to -40°F (40°C).

Applications:

Impulse lines; flow transmitters, pressure transmitters, level transmitters and pressure switches, Sample lines; analyzers, Process lines; steam supply, condensate return, chemical feed and air lines.

Heater Cable Performance and Ratings:

Catalog Number	Service Voltage	Maximum Length @ 240V	Maximum Maintenance Temperature	Maximum Intermittent Exposure	T-Rating*
HLT3	120	395	250°F	375°F	T3
HLT23	208-277	785	250°F	375°F	T3
HLT5	120	310	250°F	375°F	T3
HLT25	208-277	620	250°F	375°F	T3
HLT8	120	225	250°F	375°F	T3
HLT28	208-277	460	250°F	375°F	T3
HLT10	120	190	250°F	375°F	T3
HLT210	208-277	375	250°F	375°F	T3
HLT12	120	170	250°F	375°F	T3
HLT212	208-277	335	250°F	375°F	T3
HLT15	120	135	250°F	375°F	T3
HLT215	208-277	270	250°F	375°F	T3
HLT18	120	125	250°F	375°F	T3
HLT218	208-277	245	250°F	375°F	T3
HLT20	120	105	250°F	375°F	T3
HLT220	208-277	210	250°F	375°F	T3

* Electrical equipment T-rating codes define the maximum surface temperature that equipment will reach. It is used in hazardous (classified) area applications.

Tube Bundle Specifications:

Process Tube O.D.	Nominal Wt. LB/FT (KG/M)	Nominal Dimensions IN (CM)
1 - .250 IN	0.3 (0.45)	1.1 (2.8) x 1.0 (2.5)
1 - .375 IN	0.4 (0.60)	1.3 (3.3) x 1.0 (2.5)
1 - .500 IN	0.5 (0.74)	1.4 (3.6) x 1.1 (2.8)
2 - .250 IN	0.4 (0.60)	1.3 (3.3) x 1.1 (2.8)
2 - .375 IN	0.6 (0.89)	1.5 (3.8) x 1.2 (3.0)
2 - .500 IN	0.8 (1.19)	1.7 (4.3) x 1.4 (3.6)

* For other process tubes or cable, consult factory.



NELSON

Self-Regulating Trace for Temperature Maintenance Specification – Application Information

Pre-insulated Tubing Bundle

SELECTION TABLE

The selection table below allows for the proper specifying of Electric Trace Tubing

1	S	35	P	38	-	THLT	1	8	CB																		
									<table border="1"> <tr> <th colspan="2">SPECIFY HEATER CONSTRUCTION</th> </tr> <tr> <td>CB</td> <td>Tinned Copper Braid</td> </tr> <tr> <td>J</td> <td>Overjacketed Heater</td> </tr> </table>	SPECIFY HEATER CONSTRUCTION		CB	Tinned Copper Braid	J	Overjacketed Heater												
SPECIFY HEATER CONSTRUCTION																											
CB	Tinned Copper Braid																										
J	Overjacketed Heater																										
									<table border="1"> <tr> <th colspan="2">SPECIFY WATTAGE</th> </tr> <tr> <td>3</td> <td>3 Watts per foot</td> </tr> <tr> <td>5</td> <td>5 Watts per foot</td> </tr> <tr> <td>8</td> <td>8 Watts per foot</td> </tr> <tr> <td>10</td> <td>10 Watts per foot</td> </tr> <tr> <td>12</td> <td>12 Watts per foot</td> </tr> <tr> <td>15</td> <td>15 Watts per foot</td> </tr> <tr> <td>18</td> <td>18 Watts per foot</td> </tr> <tr> <td>20</td> <td>20 Watts per foot</td> </tr> </table>	SPECIFY WATTAGE		3	3 Watts per foot	5	5 Watts per foot	8	8 Watts per foot	10	10 Watts per foot	12	12 Watts per foot	15	15 Watts per foot	18	18 Watts per foot	20	20 Watts per foot
SPECIFY WATTAGE																											
3	3 Watts per foot																										
5	5 Watts per foot																										
8	8 Watts per foot																										
10	10 Watts per foot																										
12	12 Watts per foot																										
15	15 Watts per foot																										
18	18 Watts per foot																										
20	20 Watts per foot																										
									<table border="1"> <tr> <th colspan="2">SPECIFY VOLTAGE</th> </tr> <tr> <td>1</td> <td>120 VAC</td> </tr> <tr> <td>2</td> <td>208-277 VAC</td> </tr> </table>	SPECIFY VOLTAGE		1	120 VAC	2	208-277 VAC												
SPECIFY VOLTAGE																											
1	120 VAC																										
2	208-277 VAC																										
									<table border="1"> <tr> <th colspan="2">SPECIFY HEATER FAMILY</th> </tr> <tr> <td>THLT</td> <td>Ordinary and Class I, Division 2</td> </tr> <tr> <td>D1THLT</td> <td>Class I, Division 1, Class II, Division 1, Zone 1</td> </tr> </table>	SPECIFY HEATER FAMILY		THLT	Ordinary and Class I, Division 2	D1THLT	Class I, Division 1, Class II, Division 1, Zone 1												
SPECIFY HEATER FAMILY																											
THLT	Ordinary and Class I, Division 2																										
D1THLT	Class I, Division 1, Class II, Division 1, Zone 1																										
									<table border="1"> <tr> <th colspan="2">SPECIFY TUBE DIAMETER</th> </tr> <tr> <td>25</td> <td>.25" O.D.</td> </tr> <tr> <td>38</td> <td>.375" O.D.</td> </tr> <tr> <td>50</td> <td>.50" O.D.</td> </tr> </table>	SPECIFY TUBE DIAMETER		25	.25" O.D.	38	.375" O.D.	50	.50" O.D.										
SPECIFY TUBE DIAMETER																											
25	.25" O.D.																										
38	.375" O.D.																										
50	.50" O.D.																										
									<table border="1"> <tr> <th colspan="2">SPECIFY BUNDLE JACKET MATERIAL</th> </tr> <tr> <td>P</td> <td>Black PVC</td> </tr> <tr> <td>U</td> <td>Black Urethane Elastomer</td> </tr> </table>	SPECIFY BUNDLE JACKET MATERIAL		P	Black PVC	U	Black Urethane Elastomer												
SPECIFY BUNDLE JACKET MATERIAL																											
P	Black PVC																										
U	Black Urethane Elastomer																										
									<table border="1"> <tr> <th colspan="2">SPECIFY TUBE WALL THICKNESS</th> </tr> <tr> <td>35</td> <td>.035" Wall</td> </tr> <tr> <td>49</td> <td>.049" Wall</td> </tr> </table>	SPECIFY TUBE WALL THICKNESS		35	.035" Wall	49	.049" Wall												
SPECIFY TUBE WALL THICKNESS																											
35	.035" Wall																										
49	.049" Wall																										
									<table border="1"> <tr> <th colspan="2">SPECIFY TUBE CONSTRUCTION</th> </tr> <tr> <td>S</td> <td>Seamless</td> </tr> <tr> <td>W</td> <td>Welded</td> </tr> </table>	SPECIFY TUBE CONSTRUCTION		S	Seamless	W	Welded												
SPECIFY TUBE CONSTRUCTION																											
S	Seamless																										
W	Welded																										
									<table border="1"> <tr> <th colspan="2">SPECIFY NUMBER OF TUBES</th> </tr> <tr> <td>1</td> <td>Single Tube</td> </tr> <tr> <td>2</td> <td>Dual Tube</td> </tr> </table>	SPECIFY NUMBER OF TUBES		1	Single Tube	2	Dual Tube												
SPECIFY NUMBER OF TUBES																											
1	Single Tube																										
2	Dual Tube																										

ACCESSORIES

- Connection Kits for Power Connection and End Seals (Nelson PLT-TB-P)
- Thermostatic Controls (Nelson TA, TH, TE and HC Series)
- Junction Boxes, Tapes and Warning Signs
- Custom Control, Monitoring and Power Panels
- Division 1 Connection Kits for Power Connection and End Connection (Nelson Hask Series)



NELSON HEAT TRACING SYSTEMS

P.O. Box 726 • Tulsa, OK 74101 • 918-627-5530 • Fax: 918-622-9308 • www.nelsonheaters.com