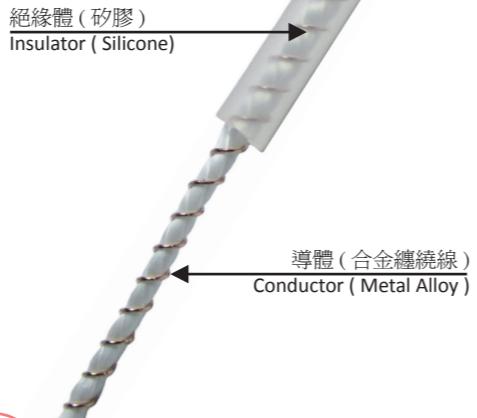


## UL 3324/3323

### 發熱線 / 発熱ワイヤ Heating Wire

#### 適用領域 / Product Application

適用於各種發熱，電毯，保暖物品及醫療呼吸管件內之發熱線。  
This heating wire can be used in electrical rag, wooden floor, medical aspiration pipe.



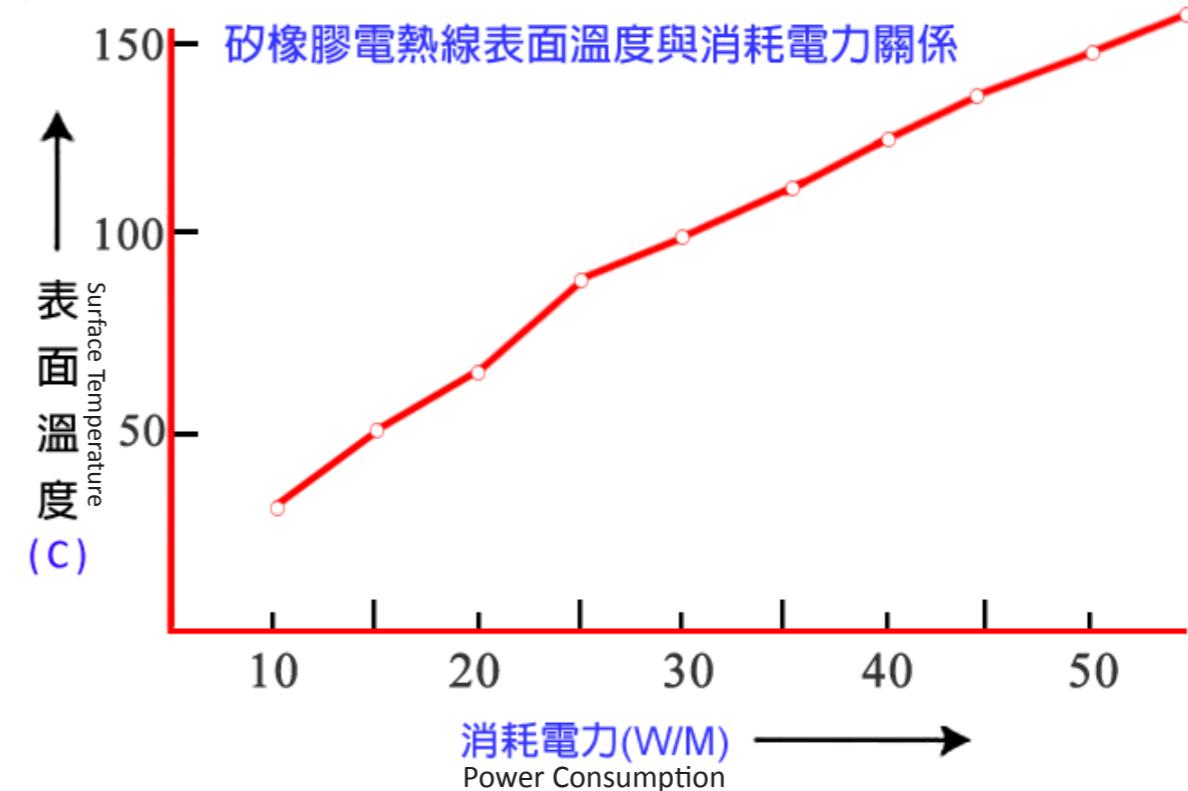
#### 技術資料 / TECHNICAL DATA

導體電阻 / Electrical Resistance:	1 ~ 2000
溫度範圍 / Temperature range:	-60°C ~ +80 / 1000°C FT-1
額定電壓 / Nominal Voltage:	300V/600V
導體 / Conductor:	合金纏繞線 / Metal Alloy
絕緣體 / Insulator:	矽橡膠，玻璃纖維 / Silicone, Fiberglass
顏色 / Braid Colours:	白 藍 紅 黑 棕 黃 綠 黃綠 White Blue Red Black Brown Yellow Green Yellow/Green

#### 專業認證 / CERTIFICATES



#### 溫度與電力關係曲線圖 / Temperature and power graph



材質 Material	耐溫 Temperature-resistance (in °C )	總外徑 Total Outside Diameter	電阻值 (歐姆) Electric resistance value (in Ohm)
聚丙烯 PP	60°C	1.80mm	可訂製，從 0.5Ω~5000Ω Can be specifically made, starting from 0.5Ω~5000Ω
聚氯乙烯 PVC	80°C	2.80mm	可訂製，從 0.5Ω~5000Ω Can be specifically made, starting from 0.5Ω~5000Ω
交連聚乙稀 XLPE	125°C	2.00mm	可訂製，從 0.5Ω~5000Ω Can be specifically made, starting from 0.5Ω~5000Ω
矽橡膠 Silicone	200°C	2.80mm	可訂製，從 0.5Ω~5000Ω Can be specifically made, starting from 0.5Ω~5000Ω
玻璃纖維 Fiberglass	300°C	1.75mm	可訂製，從 0.5Ω~5000Ω Can be specifically made, starting from 0.5Ω~5000Ω
高溫纖維 Silica fiber	500°C	2.00mm	可訂製，從 0.5Ω~5000Ω Can be specifically made, starting from 0.5Ω~5000Ω
石英纖維 Quartz Fiber	1000°C	2.00mm	可訂製，從 0.5Ω~5000Ω Can be specifically made, starting from 0.5Ω~5000Ω

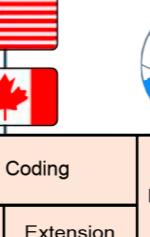
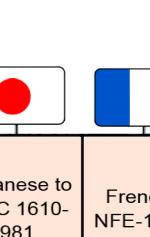
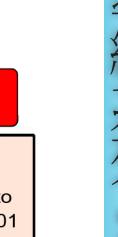
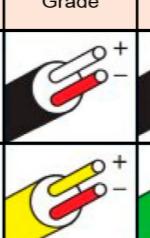
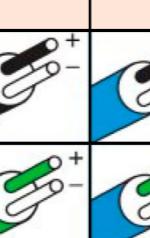
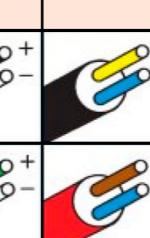
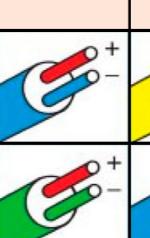
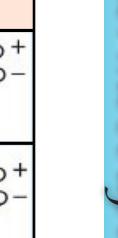
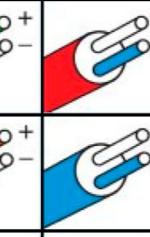
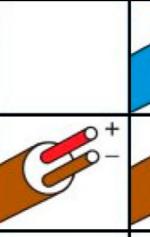
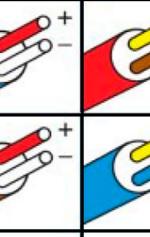
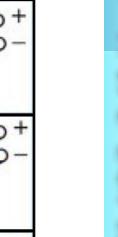
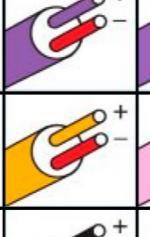
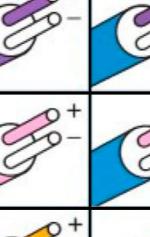
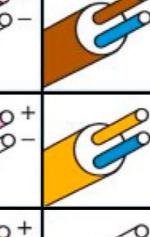
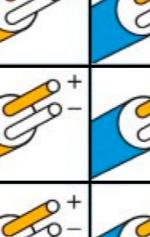
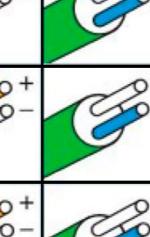
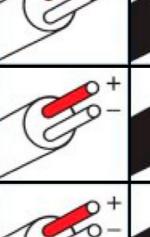
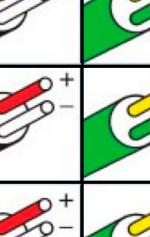
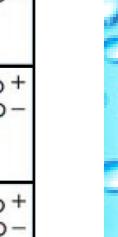
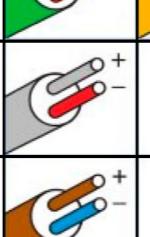
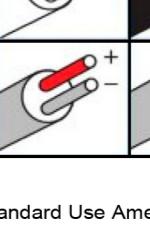
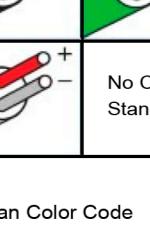
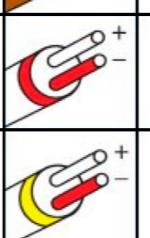
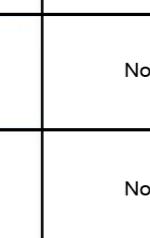
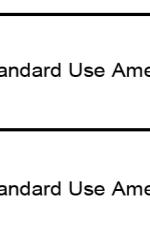
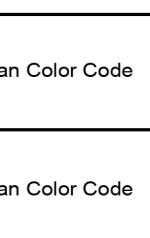
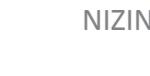
瓦數 Wattage (W/M)	消耗電力 Power consumption (VA)	表面溫度 Surface temperature (°C)
5	5.0	35
10	9.8	50
15	14.7	65
20	19.8	82
25	24.2	95
30	29.2	105
35	34.7	120
40	39.0	133
45	43.6	142
50	48.5	150

補償導線品號建立規格與縮寫代碼 Compensation Wire Item No. Establish Specifications							
TYPE+ 色規 TYPE+Color Code				絕緣 + 隔離 Insulator+Shield			
Type 代號 Wire Code	TYPE	色規代號 Wire Code	國際色規 International Color Code	材質代號 Wire Code	材質 Material	代號 Wire Code	隔離 Insulation
KC	補償級 K-Type Compensation class	A	美規 ANSI	P	聚氯乙烯 PVC	1	不鏽鋼 Stainless steel
KX	精密級 K-Type Precisions class	I	歐規 IEC	T	鐵氟龍 Teflon	2	鋁箔 Foil
J	精密級 J-Type Precisions class	J	日規 JIS	S	矽膠 Silicone Rubber	3	鋁箔 + 地線 Aluminum Foil + Drain Wire
T	精密級 T-Type Precisions class	D	德規 DIN	G	玻璃纖維 Fiberglass	4	鋁箔 + 地線 + 銅網 Aluminum Foil + Drain Wire+ Tinned Copper Braiding
R/S	精密級 R/S-Type Precisions class			R	橡膠 Rubber	5	鋁箔 + 銅網 Aluminum Foil +Tinned Copper Braiding
E	精密級 E-Type Precisions class			K	聚醯胺 Polymide/Kapton	6	鍍銀銅網 Silver plated copper
B	精密級 B-Type Precisions class			C	陶瓷纖維 Ceramic fiber	7	紙 Paper
N	精密級 N-Type Precisions class			M	雲母 Mica	8	麥拉 Mylar
				Q	石英纖維 Quartz Fiber	9	其他 (PTFE、鍍銀、鍍鎳、雲母 ... 等) Other(PTFE, Silver, nickel, mica ... etc.)
導體結構 Conductor structure		顏色 Color		特殊規格 Special Specifications			
代號 Wire Code	導體結構 Conductor structure	代號 Wire Code	顏色 Color	代號 Wire Code	圓 / 扁 Round / Flat		
14S1	0.65/7	W	白色 White	No.	扁線 / Flat Line		
14S	0.6/7	K	黑色 Black	1	1P 圓線 / 1P Round Wire		
16N	1.3/1	R	紅色 Red	2	2P 圓線 / 1P Round Wire		
16S2	0.45/7	Y	黃色 Yellow	3	3P 圓線 / 1P Round Wire		
16S1	0.65/4	B	藍色 Blue	4	4P 圓線 / 1P Round Wire		
16S	0.6/4	G	綠色 Green	5	5P 圓線 / 1P Round Wire		
18S	0.4/7	Br	棕色 Brown	6	6P 圓線 / 1P Round Wire		
20N	0.8/1	Gr	灰色 Gray	7	7P 圓線 / 1P Round Wire		
20S	0.3/7	Or	橘色 Orange	8	8P 圓線 / 1P Round Wire		
22N	0.6/1	P	紫色 Purple	9	9P 圓線 / 1P Round Wire		
22S	0.3/4	Pk	粉紅 Pink	10	10P 圓線 / 1P Round Wire		
24N	0.5/1	T	透明 Transparent	11	11P 圓線 / 1P Round Wire		
24S	0.2/7						
28N	0.3/1						
30N	0.254/1						
36N	0.12/1						

## ANSI and IEC Color Codes For Thermocouples, Wire and Connectors

補償導線國際色規 / 各國規格による補償導線カラーコード

All NIZING® Thermocouple Wire, Probes and Connectors are available with either ANSI or IEC Color Codes.

ANSI Code	Comments Environment-Bare Wire	Color Coding		International IEC 584-3	International IEC 584-3 Intrinsicly Safe	CZECH British to BS 1843	Netherlands German to DIN 43710	Japanese to JIS C 1610-1981	French to NFE-18801
		Thermocouple Grade	Extension Grade						
<b>J</b>	Reducing Vacuum, Inert. Limited Use in Oxidizing at High Temperatures. Not Recommended for Low Temperatures.								
<b>K</b>	Clean Oxidizing and Inert. Limited use in Vacuum or Reducing. Wide Temperature Range. Most Popular Calibration.								
<b>V</b>	Alternative to KX Type Extension Wire for Low Temperature. Not Recommended for General Use.	None Established	None Established						
<b>T</b>	Mid Oxidizing, Reducing Vacuum or Insert. Good Where Moisture is Present. Low Temperature and Cryogenic Applications.								
<b>E</b>	Oxidizing or Inert. Limited Use in Vacuum or Reducing Highest EMF Change Per Degree								No Standard Use American Color Code
<b>N</b>	Alternative to Type K More stable at High Temperature								
<b>R</b>	Oxidizing or Inert. Do Not Insert in Metal Tubes. Beware of contamination. High Temperature	None Established							
<b>S</b>	Oxidizing or Inert. Do Not Insert in Metal Tubes. Beware of Contamination. High Temperature	None Established							
<b>U</b>	Extension Guide Connecting Wire for R and S Thermocouples Also Known as RX and SX Extension Wire	None Established							
<b>B</b>	Oxidizing or Inert. Do Not Insert in Metal Tubes. Beware of Contamination. High Temperature. Common Use in Glass Industry.	None Established					No Color Standard		No Color Standard
<b>G (W)</b>	Vacuum, Inert, Hydrogen. Beware of Embrittlement. Not Practical Below 399°C (750°F) Not for Oxidizing Atmosphere.	None Established							No Standard Use American Color Code
<b>C (W5)</b>	Vacuum, Inert, Hydrogen. Beware of Embrittlement. Not Practical Below 399°C (750°F) Not for Oxidizing Atmosphere.	None Established							No Standard Use American Color Code
<b>D (W3)</b>	Vacuum, Inert, Hydrogen. Beware of Embrittlement. Not Practical Below 399°C (750°F) Not for Oxidizing Atmosphere.	None Established							No Standard Use American Color Code