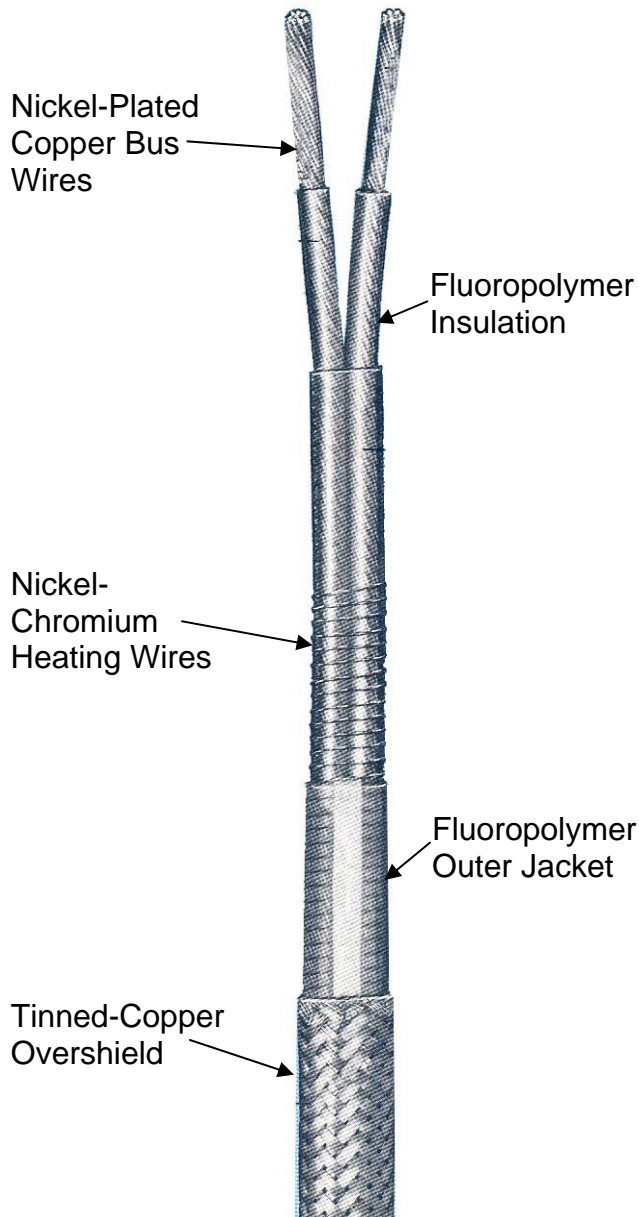


Constant Power Density Heating Element



Description

Dekorun Unitherm Constant Power Density heating elements are designed to produce uniform foot-to-foot power output. They are constructed of two parallel-stranded nickel-plated copper bus wires with spiral-wound zones of high-resistance nickel-chromium heating wire. Alternating bus contact at fixed intervals for a chain of parallel zones of equal resistance producing constant power output in each zone.

The heaters are designed to provide freeze protection and temperature maintenance up to 400°F (204°C). Flexible yet durable, these heating cables are the standard for all Dekorun Unitherm 2252 and 2262 Series Electric Traced Tubing Bundles. A thermostat or temperature controller is used to allow discrete temperature control and to prevent overheating.

To help protect against impact and mechanical abuse, the heating cables are supplied with a 100% tinned copper overshield.

These heaters are Factory Mutual Approved for use in Class I Division 2, Groups B, C and D; Class II Division 2, Groups F and G; and Class III Division 2 hazardous (classified) areas. Approvals require the use of Dekorun Unitherm kits and accessories for installation in hazardous areas.

Heaters meet or exceed requirements described IEEE Standard 515 .

Technical Information

DEKORON®/Unitherm™

Heater Specifications:

Buss Wires	12 AWG stranded nickel-plated copper
Operating Voltages	120 to 277 VAC, 1 phase
Heating Wire	solid nickel-chromium high resistance wire
Maximum Exposure Temperature	450°F (232°C)
Maximum Maintenance Temperature	400°F (204°C)
Electrical Insulation	PFA Fluoropolymer
Maximum Current	25 Amperes (rated ampacity of bus wires per NEC Code Article 310)
Bus Contact Interval	24 to 36 inches
Surface Area	0.065 sq. ft./ linear ft.

CPD Heating Elements can provide alternate power outputs when powered at a voltage less than their rated voltage. The table below shows the power available at alternate voltages for Dekoron / Unitherm heating elements.

Dekoron / Unitherm 2252 and 2262 bundles carry a T rating of "T2C" as defined by Article 500 of the National Electric Code.

A "T rating" indicates the maximum surface temperature of the device and is used to determine whether a heater can or cannot be used in a hazardous (classified) area.

For the purpose of T rating a 2252 or 2262 Series Electric Traced Tubing Bundle, the sheath temperature of the heating element is calculated as follows:

$$T_{SH} = [(WC)/(UA)] + T_p$$

Where: TSH = Heating element sheath temperature (°F, °C)

W = Heating element output (W/Ft W/M)*

C = Conversion factor (1 if U in watts, 3.413 if U in BTU)

U = Overall heat transfer coefficient (BTU/Hr sq Ft °F or W/sq M °C)

Tp = Process maintenance Temperature (°F °C)

*The U value for Dekoron / Unitherm bundles has been empirically defined as $U = 0.06998 * W + 2.5778$

Heater Part No.	Heater Output (Watts / Ft) at listed voltage				
	120 VAC	208 VAC	220 VAC	240 VAC	277 VAC
0111-07901	2.2	6.8	7.6	9	12
0111-07903	12	N/A	N/A	N/A	N/A
0111-07906	4	12	N/A	N/A	N/A
0111-07909	3	9	10.1	12	N/A



1531 Commerce Creek Blvd
Cape Coral, FL 33909 USA
Toll Free: 800.633.5015
Phone: 239.995.8111
Fax: 239.995.8027

For additional information or for an e-quote visit our website: www.unithermcc.com

The material contained in this document is presented in good faith and believed to be reliable and accurate. However, because testing conditions may vary and material quality or information that may be provided in whole or part by others may be beyond our control, no warranty, expressed or implied, is given and Dekoron / Unitherm Inc. can assume no liability for results obtained or damages incurred through the application of the data and tests presented.