

FLEXIBLE HIGH WATT DENSITY ELECTRIC HEATERS

NO OTHER ELECTRIC HEATER CAN CLAIM THE SIMULTANEOUS ADVANTAGES:

- **FLEXIBILITY.** The element can be readily bent by hand or production machinery to a desired configuration and it can retain that configuration after repetitive heating and cooling cycles. This feature permits placing the heater where the heat is required and thus eliminating hot spots.
- **HIGH WATT DENSITY.** By choice of materials it is possible to obtain 150 watts per square inch of surface area without loss of other performance characteristics.
- **FAST TIME RESPONSE.** By elimination of unnecessary volume, the weight and therefore heating time is greatly reduced.
- **CORROSION RESISTANCE.** By choice of Inconel 600* sheath material, the heater can be immersed in many corrosive fluids without deterioration.
- **LONG LIFE.** By new and patented methods of lead wire attachment, we eliminated the source of 70% of electric heater failures. We've used these types of heaters in aircraft applications and warranted 8000 hours of flight time (notice this isn't energized time) which means that the total "on" time would exceed 20,000 hours. Industrial applications probably do not have as long a useful life since the environment is varied and often more severe.
- **NUCLEAR APPLICATION.** By choice of materials, these heaters can withstand long time exposures in the core of a power nuclear reactor with negligible deterioration.

*Reg. T.M. International Nickel Corp.

AEROROD® BXD HEATERS

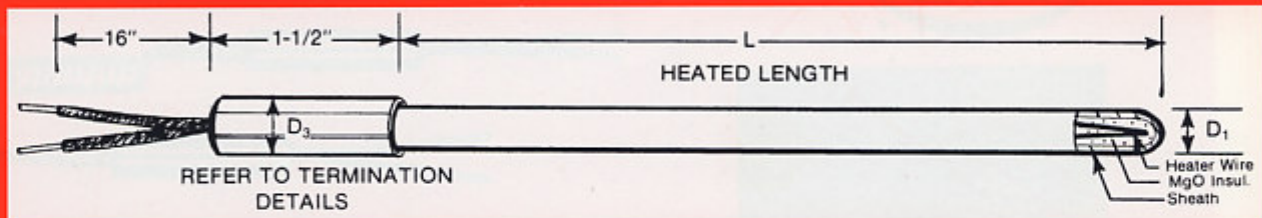


TABLE 1

HEATED DIAMETER D_1 INCHES	POWER AT 115 VOLTS WATTS	POWER DENSITY AT 115 VOLTS WATTS/IN ²	POWER AT 230 VOLTS WATTS	POWER DENSITY 230VOLTS WATTS/IN ²	HEATED LENGTH L INCHES	PART NUMBER
0.040	75	8	—	—	71	BXD-04B-71-K
	100	15	—	—	53	BXD-04B-53-K
	150	34	—	—	35	BXD-04B-35-K
0.062	200	17	—	—	61	BXD-06B-61-K
	300	38	—	—	41	BXD-06B-41-T
	400	66	—	—	31	BXD-06B-31-T
0.093	300	12	1200	46	88	BXD-09B-88-T
	500	32	—	—	53	BXD-09B-53-T
	700	63	—	—	38	BXD-09B-38-T
0.125	600	18	2400	73	83	BXD-13B-83-T
	800	33	—	—	62	BXD-13B-62-T
	1000	51	—	—	50	BXD-13B-50-T
0.188	900	12	3600	48	126	BXD-19B-126-T
	1200	22	—	—	94	BXD-19B-94-T
	1500	33	—	—	76	BXD-19B-76-T

The above heaters are normally in stock. Please consult factory for wattages not listed or other special requirements you may have.

NOTES: (Apply To Table 1)

- For power at other voltages, multiply power at 115 volts by $(\text{new voltage}/115)^2$. Tolerance on wattages is $\pm 10\%$.
- Tolerance on diameter D_1 is ± 0.005 inches.
- Tolerance on length (L) is $\pm 5\%$.
- Sheath material is Inconel 600.
- Wire material is nickel-chrome iron with resistivity of 620 ohms – cmf at 68°F. (20°C.)
- These heaters can be coiled or formed to meet your requirements. Please consult factory with your requirements.

AEROROD® BXX HEATERS

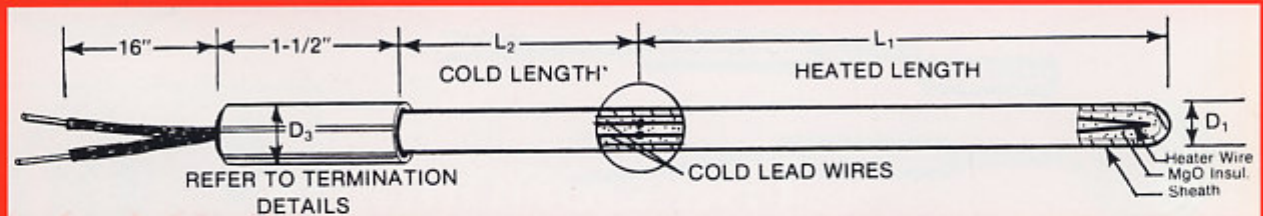


TABLE 2

HEATED DIAMETER D1 INCHES	POWER AT 115 VOLTS WATTS	POWER DENSITY AT 115 VOLTS WATTS/IN ²	POWER AT 230 VOLTS WATTS	POWER DENSITY 230VOLTS WATTS/IN ²	HEATED LENGTH L1 INCHES	COLD LENGTH L2 INCHES	PART NUMBER
0.040	115	20	—	—	46	4	BXX-04B-46-4K
0.062	300	38	—	—	41	4	BXX-06B-41-4K
	400	66	—	—	31	4	BXX-06B-31-4T
	500	107	—	—	24	4	BXX-06B-24-4T
0.093	300	12	1200	47	88	4	BXX-09B-88-4T
	500	32	2000	129	53	4	BXX-09B-53-4T
	700	63	—	—	38	4	BXX-09B-38-4T
	900	106	—	—	29	4	BXX-09B-29-4T
0.125	600	18	2400	74	83	4	BXX-13B-83-4T
	800	33	—	—	62	4	BXX-13B-62-4T
	1000	51	—	—	50	4	BXX-13B-50-4T
	1500	116	—	—	33	4	BXX-13B-33-4T
0.188	1200	22	4800	86	94	5	BXX-19B-94-5T
	1500	33	—	—	76	5	BXX-19B-76-5T
	2000	59	—	—	57	5	BXX-19B-57-5T
	2500	94	—	—	45	5	BXX-19B-45-5T
0.250	1800	18	7200	73	126	5	BXX-25B-126-5T
	2000	23	—	—	113	5	BXX-25B-113-5T
	2500	35	—	—	91	5	BXX-25B- 91-5T
	3500	69	—	—	65	5	BXX-25B- 65-5T

The above heaters are normally in stock. Please consult factory for wattages not listed or other special requirements you may have.

NOTES: (Apply To Table 2 and 3)

1. For power at other voltages, multiply power at 115 volts by $(\text{new voltage}/115)^2$.
Tolerance on wattages is $\pm 10\%$.
2. Tolerance on diameter D_1 is ± 0.005 inches.
3. Tolerance on heated length (L_1) is $\pm 5\%$.
4. Tolerance on cold length L_2 is ± 1.0 inch.
5. Sheath material is Inconel 600.
6. Wire material is nickel-chrome iron with resistivity of 620 ohms – cmf at 68°F. (20°C.)
7. These heaters can be coiled or formed to meet your special requirements. Please consult factory with your requirements.
8. The standard cold lead lengths are 4 or 5 inches, for our stock heaters.
9. Cold lead wire material is nickel internally spliced to the heater wires.

AEROROD® BxB HEATERS

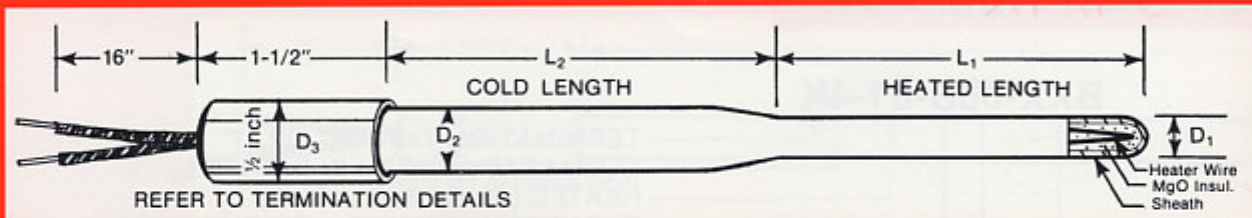
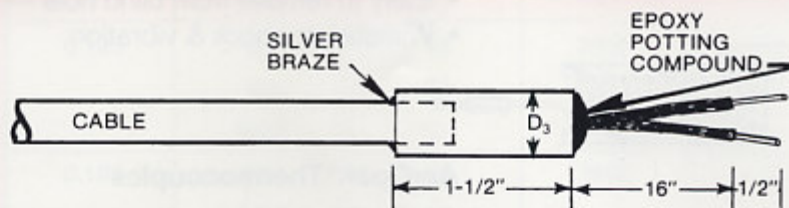


TABLE 3

HEATED DIAMETER D1 INCHES	COLD LEAD DIAMETER D2 INCHES	POWER AT 115 VOLTS WATTS	POWER DENSITY AT 115 VOLTS WATTS/IN ²	POWER AT 230 VOLTS WATTS	POWER DENSITY 230VOLTS WATTS/IN ²	HEATED LENGTH L1 INCHES	COLD LENGTH L2 INCHES	PART NUMBER
0.188	0.375	1575	37	6000	141	72	5	BXB-19B-72-5T
0.188	.0375	3000	141	—	—	36	5	BXB-19B-36-5T

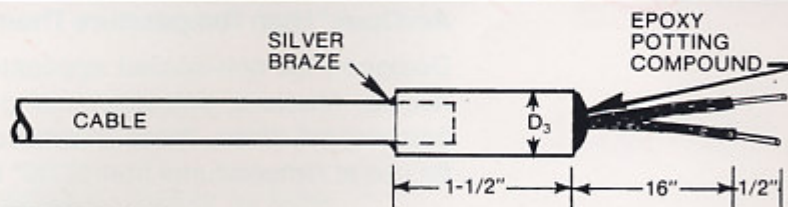
The above heaters are normally in stock. Please consult factory for wattages not listed or other special requirements you may have.

TERMINATION DETAILS



"K" - TERMINATION:

- 1) RATED FOR CONTINUOUS OPERATION OF 400°F. (204°C.)
- 2) $D_3 = 1/4"$ FOR .040 TO .188" CABLE DIAMETER
 $D_3 = 1/2"$ FOR .250 TO .375" CABLE DIAMETER
- 3) STANDARD LEAD WIRE LENGTH APPROXIMATELY 16"

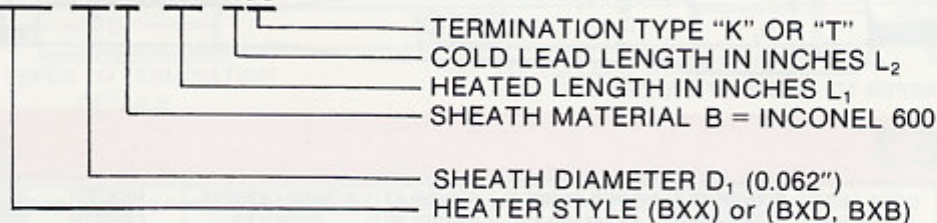


"T" - TERMINATION:

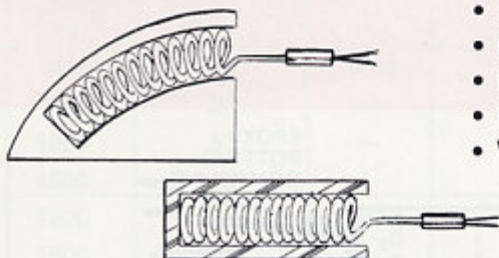
- 1) RATED FOR CONTINUOUS OPERATION OF 800°F. (427°C.)
- 2) $D_3 = 3/8"$ FOR .040 TO .188" CABLE DIAMETER
 $D_3 = 1/2"$ FOR .250 TO .375" CABLE DIAMETER
- 3) STANDARD LEAD WIRE LENGTH APPROXIMATELY 16"

EXPLANATION OF PART NUMBER:

BXX-06B-61-4K



ARiCoil™



Flexible Cartridge Heater made from ARi Heaters.

- Fast Time response
- Inserted into rough-drilled hole or curved hole
- Good contact with walls of hole
- Flexible
- Easy to remove from blind hole — does not seize
- Withstands shock & vibration

AerOpak® Thermocouples

AerOpak® assemblies incorporate thermocouple wires insulated in compacted MgO within a st/st sheath. Usable temp. range -400° to 2000° F. AerOpak® thermocouples can be furnished either as complete assemblies or replacement elements.

BULLETINS 1.0, 1.3, 1.4, 7.3

ACCESSORIES

AerOpak® High Temperature Thermocouples

Designed for non-cooled applications in steel mills, nuclear reactors, petrochemical plants, aircraft, and process industries, these thermocouples are suitable for use at temperatures from 2000° to 4000° F.

BULLETINS 2.0, 2.2, 2.3

ARiDET®

Resistance Temperature Detector

$\pm 0.1^{\circ}$ F accuracy with industrial ruggedness. Strain free platinum element with mineral insulation and stainless steel sheath for use in an application from -300° F to $+1000^{\circ}$ F.

BULLETINS 8.0, 8.4

The Bendables



ARi Heating Cables and Assemblies

ARi Industries Inc

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CALL TOLL FREE 1-800-AEROPAK (1-800-237-6725)

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