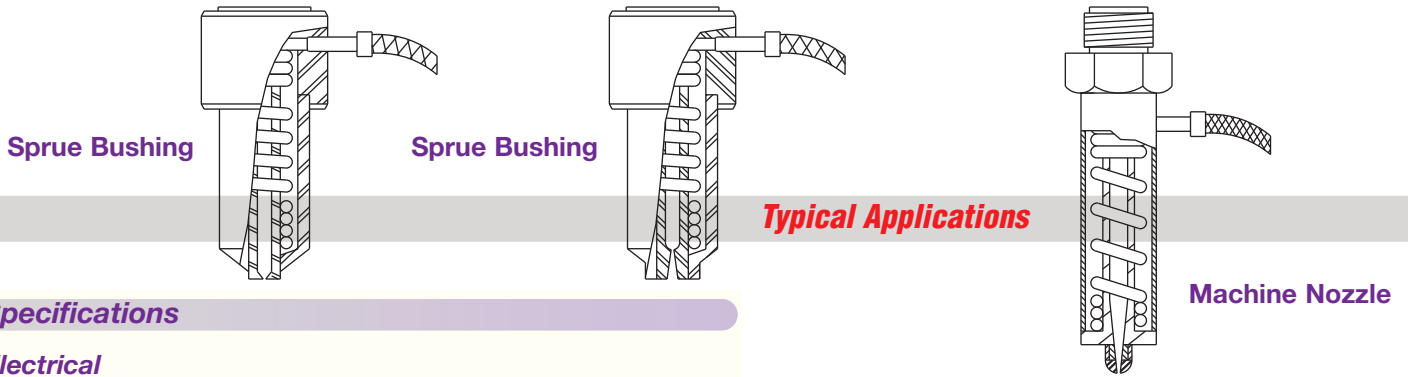




Mightyband™ Coil Heater Specifications



Specifications

Electrical

- Resistance Tolerance: ±10%
 - Wattage Tolerance: ±10%
 - Maximum Amperage: 20 Amps
 - Standard Voltage: 120 or 240 Volts
- Higher or lower voltages applicable for specific heater designs; consult Tempco with your requirements.*

Dimensional

- Standard square cable: 0.125", 0.134" square
- Standard rectangular cable: 0.110" × 0.160"
- Standard round cable diameters: 0.115", 0.120", 0.125"
0.132", 0.153", 0.163"
Others available upon request.
- Cable diameter tolerance: ±0.005
- Standard potting adapter: 5/16" Diameter
Used with heater only and heater with T/C leads, 20 gauge and under.
- 1/2" Diameter
Used with heater only and heater with T/C leads, 18 gauge to 10 gauge.
- Standard potting adapter length: 1-1/2"
Other lengths available.
- Standard coil I.D.: From 3/8" up to 2-1/2" in any increments.
Applicable Coil I.D. is subject to cable diameter.
- Coil I.D. Tolerance: 3/8" to 3/4", +0.000", -0.020"
..... 7/8" to 1-1/4", +0.000", -0.030"
..... 1-1/2" to 2-1/2", +0.000", -0.060"
- Coil Width (length): Up to 12" on 3/8" to 3/4" I.D.
..... Up to 16" on 7/8" to 1-1/4" I.D.
..... Up to 18" on 1-1/2" to 2-1/2"
- Coil Width Tolerance: 0 to 6": +0, -1/8"
..... 6 to 12": +1/8", -1/4"
..... 12 to 18": ±1/4"
- Standard Sheath Material: 304 stainless steel
For temperatures up to 1500°F (815°C)
- Optional Sheath Material: Inconel® 600
For temperatures up to 1800°F (982°C)
- Standard Thermocouple: ANSI Type J
- Optional Thermocouple: ANSI Type K
- Minimum Bending Radius: Two times the sheath diameter

Typical Configurations



Close Wound Coil



Distributed Wattage

By specifically arranging a coiling pattern on the heater cable, heat distribution can be concentrated where it is needed. Useful to compensate for heat losses along the edges of the part being heated. Specify concentration.



Clamping Straps

Mightybands normally do not require clamping straps as the inside diameter of the coil is wound undersize for a screw fit. At times because of differences in the expansion and contraction in materials a clamping strap may be required to ensure circumferential clamping forces. Clamping straps also provide additional protection of the heater coils from accidental damage. If optional clamping strap is required, specify.



Mightyband™ (Square Cable)

Mightyband™ Coil Heaters with Square/Rectangular MI Cable

TEMPCO offers a square sheathed, mineral insulated, coiled nozzle heater with a built-in-thermocouple. The unique feature of the 1/8" square sheath is a larger sheath contact area as compared to its round sheathed counterpart, allowing for faster start-up cycles. The ANSI Type J standard or optional Type K thermocouple normally has a grounded junction. However, an optional ungrounded junction is available. Heaters can be formed into a compact coiled nozzle heater supplying a full 360° of heat to the distributed wattage coil. The low mass of the heater allows quick response to both heating and cooling.

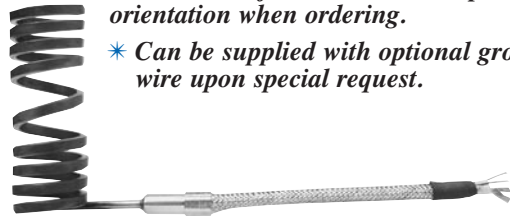


Specifications

- Resistance tolerance: ±10%
- Wattage tolerance: ±10%
- Maximum Wattage: 720 watts (for 240 volt heaters)
300 watts (for 120 volt heaters)
- Maximum operating temperature: 1500°F (816°C)
- Maximum Watt density: 134 watts/in² applied to nozzle
- Physical Dimensions: 1/8" square
(except non-heated tail section, which is 1/8" round)
- Length of non-heated section: 1" to 6" (specify when ordering)
- Potting Adapter: 5/16" O.D. × 1-1/2" long
Standard Lead Length as specified in table below (if other than standard, specify)

Standard Features

- * Standard lead wire construction is a fiberglass braided insulation with stainless steel overbraid suitable for 482°F (250°C). Optional constructions using Teflon® insulation or armor cable are available on request.
- * The standard wire to M.I. cable transition area (potting adapter) is temperature rated to 450°F (232°C). High temperature 842°F (450°C) is optional.
- * The ANSI Type J standard or optional Type K thermocouple junction can be grounded at the tip (the end farthest from transition area) or ungrounded anywhere along the length of the heater.
- * Heaters can be supplied with optional stainless steel clamping straps, which provide additional circumferential clamping forces and protection of the heater coils from accidental damage.
- * All Mightyband coil heaters are available with one (1) of six (6) different lead orientations (LO) as shown on Page 5-4. Other custom lead orientations can be manufactured to suit. Specify lead orientation when ordering.
- * Can be supplied with optional grounding wire upon special request.



Standard (Non-Stock) 1/8" Square Tempco-Pak Cable Heaters (Non-heated tail section is 1/8" round)

Standard Cable Heaters have 304 Stainless Steel Sheath

Coil I.D.		Closed Coil Width		Stretched Width		Built-In T/C	Voltage	Wattage	Standard Lead Length		Lead Protection	Lead Orientation	Part Number
in	mm	in	mm	in	mm				in	mm			
.500	12.7	2.00	50.8	2.5	63.5	yes	240	450	40	1016	C†	L01	MHC00116
.500	12.7	2.50	63.5	4.6	116.8	yes	240	300	48	1219	A†	L05	MHC00117
.750	19.1	1.25	31.8	—	—	yes	230	125	48	914	M†	L04	MHC00118
.750	19.1	1.25	31.8	—	—	yes	230	250	48	914	M†	L04	MHC00119
.750	19.1	1.25	31.8	1.5	38.1	yes	240	300	48	1219	S2	L05	MHC00120
.750	19.1	0.95	24.1	—	—	yes	240	250	72	1829	M1	L01	MHC00121
.968	24.6	0.95	24.1	—	—	yes	240	250	72	1829	M2	L01	MHC00122
.968	24.6	1.58	40.1	—	—	yes	240	300	72	1829	M2	L01	MHC00123

† Cement Potted Teflon® insulated SPC wire

Ordering Information

Standard Heaters

Order by Part number for standard heaters listed above for runnerless plastic injection molding, hot sprue bushings and nozzles.

If not otherwise specified, all Mightyband heaters are supplied with close wound coiling pattern, Type L01 lead orientation (see page 5-4), 24" of leads and 20" of stainless steel overbraid with Type J thermocouple. If longer leads are required, please specify.

Custom Engineered/Manufactured Heaters

An electric heater can be very application specific; for sizes, ratings and terminations not listed, TEMPCO will design and manufacture a Mightyband heater to meet your requirements. **Standard lead time is 3 weeks.**

Please Specify the following:

- Inside Diameter
- Width (Length)
- Specify width as closed or stretched
- Wattage
- Voltage
- Length of non-heated tail section
- Lead length
- Lead Orientation (see page 5-4)
- Lead Transition (see page 5-5)
- Lead protection (see page 5-5)
- Thermocouple Type—if required

⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.