



Cast Nozzle Heater Bushings

Cast Bronze Nozzle Heater Bushings

Typical Applications

- Hot Runner Systems
- Sprue Bushings
- Hot Melt Adhesive Systems



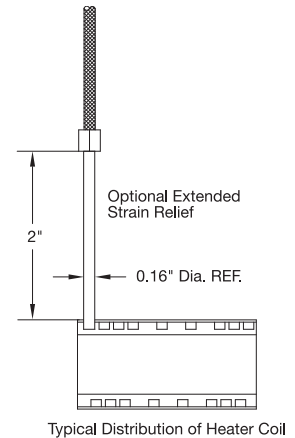
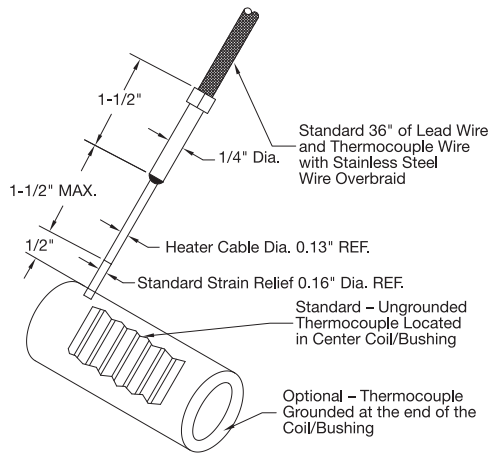
Typical Applications

- Plastic Injection Nozzles
- Medical, Laboratory and Pharmaceutical Equipment

Design Features

- Bronze Cast construction for excellent heat transfer and long life
- Operating Temperature to 1200°F (650°C)
- Built-in Type J or K Thermocouple for accurate temperature control
- Distributed wattage for even heat transfer
- Precision machining of the inside diameter
- Choice of leads and lead protection

Custom Engineered/Manufactured to meet customer specifications – we welcome your inquiries.



Construction Characteristics

Tempco's cast bronze nozzle heater bushings offer the latest in state-of-the-art technology to these innovative designs. They eliminate uneven temperature profiles and short heater life; their precision machining also eliminates poor fit and the need for clamping bands, while providing maximum heat transfer.

The casting is protected by a stainless steel tube. The maximum operating temperature for the bronze casting is 1200°F (650°C); the optional aluminum casting has a maximum operating temperature of 600°F (315°C). The built-in thermocouple in either Type J

or K gives exceptional temperature control when connected to a Tempco TEC controller. The thermocouple has as standard an ungrounded junction located in the center of the width, which helps eliminate stray EMFs caused by the heater. A grounded junction at the end is optional.

The heater and thermocouple have a standard termination of 36-inch fiberglass leads with a stainless steel overbraid. Options include Teflon® insulated leads and armor cable. All terminations are available with the optional 2-inch-long extended strain relief.

Standard (Non-Stock) Bronze Heater Bushings

ID		OD		Width		Volts	Watts	Part Number
in	mm	in	mm	in	mm			
1/2	13	1	25	2	51	240	300	NHB00002
5/8	16	1 1/8	29	2	51	240	300	NHB00003
5/8	16	1 1/8	29	3	76	240	500	NHB00004
5/8	16	1 1/8	29	4	102	240	750	NHB00005
3/4	19	1 1/4	32	1	25	240	250	NHB00006
3/4	19	1 1/4	32	2	51	240	350	NHB00007
7/8	22	1 3/8	35	2	51	240	500	NHB00008
7/8	22	1 3/8	35	3	76	240	750	NHB00009
7/8	22	1 3/8	35	4	102	240	1000	NHB00010



Note: Inside Diameter machined to a tolerance of ± 0.001". Width tolerance to 4" ± 0.02". Wattage and Resistance are ± 10%.

Tabletop Point-of-Use Temperature Control Console Systems

See Section 13, Page 13-52





Custom Engineered/Manufactured Heater Bushings

Ordering Code:

NHB -

Inside Diameter BOX 1

- A = .375"
- B = .500"
- C = .563"
- D = .625"
- E = .750"
- F = .875"
- G = Other (Specify)

Nominal Outside Diameter BOX 2

- A = 1"
- B = 1-1/8"
- C = 1-1/4"
- D = 1-3/8"
- E = Other (Specify)

Width (Length) BOX 3

- A = 1"
- B = 2"
- C = 3"
- D = 4"
- X = Other (Specify)

Volts BOX 4

- A = 240 Standard
- B = 120 Optional

Wattage BOX 5

- X = (Specify)

Lead Length BOX 6

- Whole inches
- 01 to 999
- 36" Standard (036)

Lead Construction BOX 7

- A = Fiberglass, Heater and T/C with SS overbraid – Standard
 - B = Fiberglass, Heater and T/C
 - C = Teflon® Insulated, Heater and T/C
 - D = Teflon® Insulated with SS overbraid (no T/C)
 - E = Fiberglass Insulated with SS armor cable (no T/C)
 - F = Teflon® Insulated with SS armor cable (no T/C)
- NOTE: For A, D, E and F the cable or braid length will be 2" shorter than the lead wire length unless otherwise specified.

Extended Strain Relief (2" long) BOX 8

- 1 = Yes
- 2 = No

Thermocouple Type BOX 9

- J = Type J Iron/Constantan
- K = Type K Chromel/Alumel
- 0 = None Required

T/C Junction Location BOX 10

- A = Ungrounded (Standard)
- B = Grounded (Optional)
- 0 = None Required

Casting Construction BOX 11

- B = Bronze (Standard) 1200°F (650°C)
- A = Aluminum (Optional) 600°F (315°C)

Cold Length BOX 12

- Whole inches
- 02 to 18
- 2" Standard (02)

Special Requirements BOX 13

- X = Specify
 - 0 = None
- Example:* Set screws in bushing available upon request.

Ordering Information

Standard (Non-Stock) Heaters

Order standard Heater Bushings by part number from the table on page 5-28.

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 Heater Bushing to meet your requirements. **Standard lead time is 4 weeks.**

To order a custom Heater Bushing **create an order code number** by filling in the boxes with the appropriate number and/or letter designation for your requirements. A product part number will be assigned at time of order.

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

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