Cartridge Heaters

Immersion

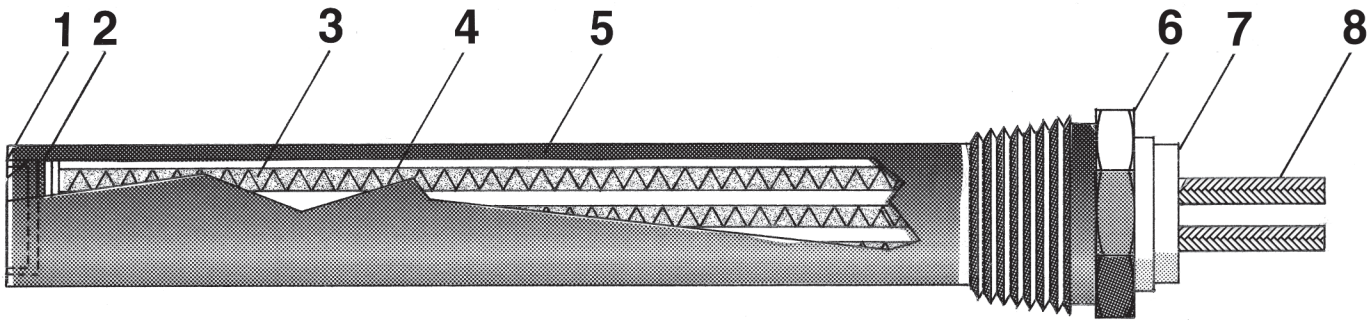
U.L. Recognized-E56973
C.S.A. Certified – 016386-0-000

Features:

- The Hotwatt Immersion Heater may be supplied with various junction boxes for additional terminal or lead protection.
- For corrosive environments, units can be supplied in other special alloys best suited to the operating conditions.
- The lead end of the unit may be sealed for extreme environmental conditions.
- Units may be supplied for three phase or three heat operation.
- Made in U.S.A.

Construction:

1. Welded end.
2. Mica.
3. Magnesium oxide packing.
4. Element wire situated in close proximity to outside surface for maximum heat transfer and minimum internal temperature while preserving good dielectric qualities.
5. Series 316 stainless steel sheath.
6. Mounting bushing.
7. Ceramic cap.
8. Flexible stranded nickel alloy insulated leads or rust resistant post terminals.



Phone: 978-777-0070 ■ Fax: 978-774-2409

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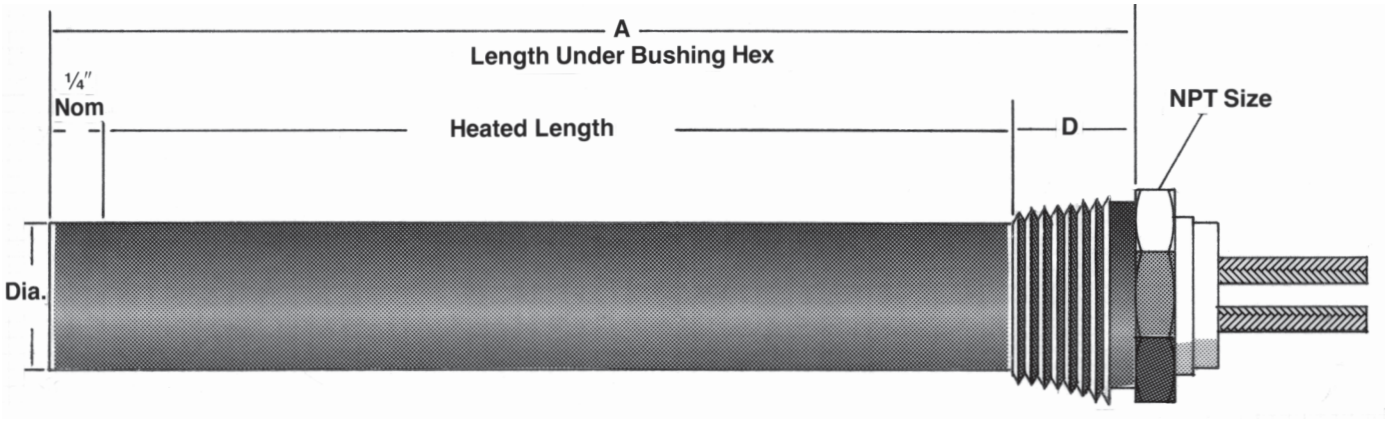
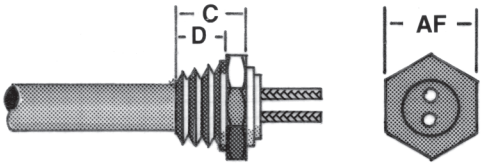


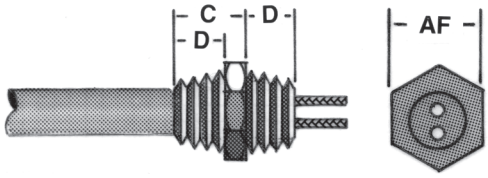
Available Bushings: Must be specified after catalog number.

Brass Bushings

SF25A: Single

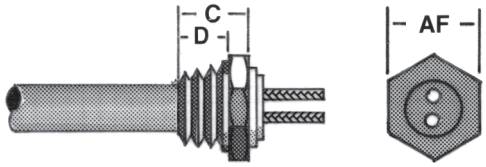


SF25B: Coupling Head

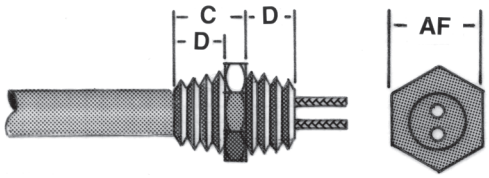


Stainless Steel Bushings

SF25C: Single



SF25D: Coupling Head



▼ Manfactured Items ▼

¼" Diameter

NPT Size: ⅛"
Standard Termination: 6" Leads (SF1-6)
Maximum Amperage: 3.5
AF: 7/16"
C: ½"
D: ⅜"

Length A	Catalog Number	Maximum Wattage in Water
2"	EM25-2	115
3"	EM25-3	185
4"	EM25-4	255
5"	EM25-5	325
6"	EM25-6	395
7"	EM25-7	465

⅜" Diameter

NPT Size: ¼"
Standard Termination: 6" Leads (SF1-6)
Maximum Amperage: 6.0
AF: ⅝"
C: 9/16"
D: 7/16"

Length A	Catalog Number	Maximum Wattage in Water
2"	EM37-2	130
3"	EM37-3	240
4"	EM37-4	345
5"	EM37-5	450
6"	EM37-6	555
7"	EM37-7	660

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▼ Manfactured Items ▼

½" Diameter

NPT Size: ⅜"
Standard Termination: 6" Leads (SF1-6)
Maximum Amperage: 10
AF: 11⁄16" **C:** ⅝" **D:** 7⁄16"

Length A	Catalog Number	Maximum Wattage in Water
3"	EM50-3	360
4"	EM50-4	505
5"	EM50-5	635
6"	EM50-6	765
7"	EM50-7	895
8"	EM50-8	1030

⅝" Diameter

NPT Size: ½"
Standard Termination: 6" Leads (SF1-6)
Maximum Amperage: 10
AF: ⅞" **C:** ¾" **D:** 9⁄16"

Length A	Catalog Number	Maximum Wattage in Water
3"	EM62-3	430
4"	EM62-4	605
5"	EM62-5	785
6"	EM62-6	1060
7"	EM62-7	1135
8"	EM62-8	1310

¾" Diameter

NPT Size: ¾"
Standard Termination: 6" Leads (SF1-6)
Maximum Amperage: 15
AF: 1⅛" **C:** ⅞" **D:** ⅝"

Length A	Catalog Number	Maximum Wattage in Water
4"	EM75-4	705
5"	EM75-5	915
6"	EM75-6	1130
7"	EM75-7	1340
8"	EM75-8	1555
9"	EM75-9	1765

1" Diameter

NPT Size: 1"
Standard Termination: 8-32 Screw and Nut (SF3)
Maximum Amperage: 25
AF: 1⅜" **C:** 15⁄16" **D:** 11⁄16"

Length A	Catalog Number	Maximum Wattage in Water
5"	EM1.0-5	1195
6"	EM1.0-6	1495
7"	EM1.0-7	1795
8"	EM1.0-8	2095
9"	EM1.0-9	2395
10"	EM1.0-10	2695

1¼" Diameter

NPT Size: 1¼"
Standard Termination: 8-32 Screw and Nut (SF3)
Maximum Amperage: 30
AF: 1¾" **C:** 1 1⁄32" **D:** 23⁄32"

Length A	Catalog Number	Maximum Wattage in Water
6"	EM1.2-6	1690
7"	EM1.2-7	2145
8"	EM1.2-8	2600
10"	EM1.2-10	3055
12"	EM1.2-12	3505
14"	EM1.2-14	3960

1.9" Diameter

NPT Size: 2"
Standard Termination: 6" Leads (SF1-6)
Maximum Amperage: 40
AF: 2½" **C:** 1 1⁄16" **D:** 11⁄16"

Length A	Catalog Number	Maximum Wattage in Water
10"	EM1.9-10	4200
12"	EM1.9-12	5000
16"	EM1.9-16	6700
20"	EM1.9-20	8400
24"	EM1.9-24	10000
30"	EM1.9-30	12600

2.3" Diameter

NPT Size: 2½"
Standard Termination: 6" Leads (SF1-6)
Maximum Amperage: 50
AF: 3" **C:** 1¾" **D:** ⅞"

Length A	Catalog Number	Maximum Wattage in Water
12"	EM2.3-12	6000
18"	EM2.3-18	9000
24"	EM2.3-24	12000
30"	EM2.3-30	15000
36"	EM2.3-36	18000
42"	EM2.3-42	21000

- Above wattages are based on a unit operating immersed in water. For heating other materials, see table for recommended maximum watt densities.
- Lengths between and longer than those listed may be ordered.
- **See page 148 for Suggested Watt Density and see page 152-155 for Sheath Materials.**
- See next page for stock items

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▼ IN STOCK ITEMS ▼

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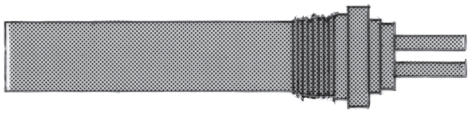
Supplied with: Type SF1 leads, Type SF3S terminals
U.L. Recognized — E56973 C.S.A. Certified — LR-16386



Length	Cat. No.	Dia.	Wattage	Voltage	Watts/in²	Weight	Lead Const.	Fittings
6"	EM62-6/SF25C	⅝"	100	120	9	.40	12" w/epoxy seal	½"NPT
6"	EM62-6/SF25C	⅝"	400	120	37	.40	12" w/epoxy seal	½"NPT
6"	EM62-6/SF25C	⅝"	400	240	37	.40	12" w/epoxy seal	½"NPT
6"	EM75-6/SF25C	¾"	125	120	9	.50	12" w/epoxy seal	¾"NPT
6"	EM75-6/SF25C	¾"	500	120	38	.50	12" w/epoxy seal	¾"NPT
6"	EM75-6/SF25C	¾"	500	240	38	.50	12" w/epoxy seal	¾"NPT
11"	EM1.2-11/SF25C	1¼"	250	120	6	2.75	S&N w/box & epoxy seal	1¼"NPT
11″	EM1.2-11/SF25C	1¼"	1000	120	24	2.75	S&N w/box & epoxy seal	1¼"NPT
11"	EM1.2-11/SF25C	1¼"	1000	240	24	2.75	S&N w/box & epoxy seal	1¼"NPT

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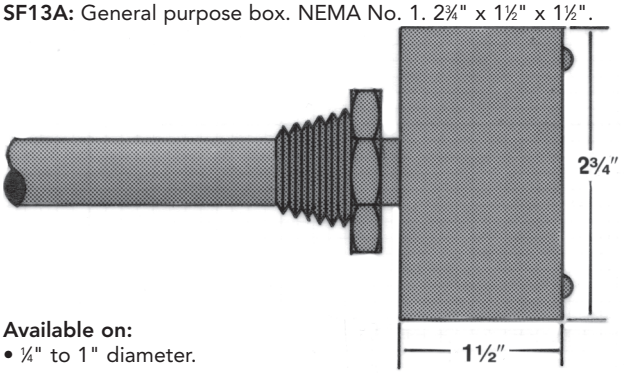
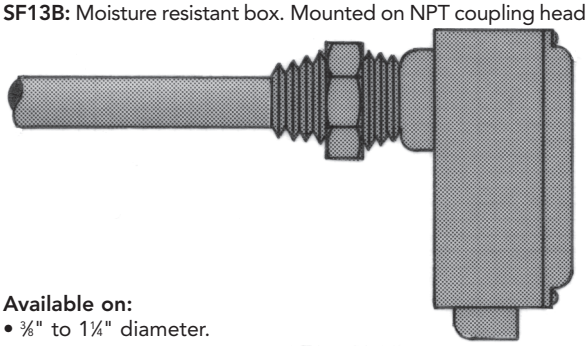
Terminal Enclosure Options

SF13A: General purpose box. NEMA No. 1. 2¾" x 1½" x 1½".



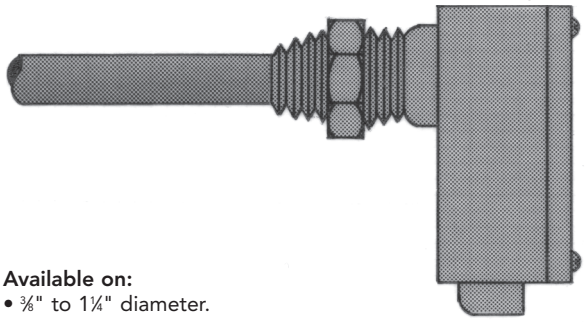
Available on:
• ¼" to 1" diameter.

SF13B: Moisture resistant box. Mounted on NPT coupling head fitting.



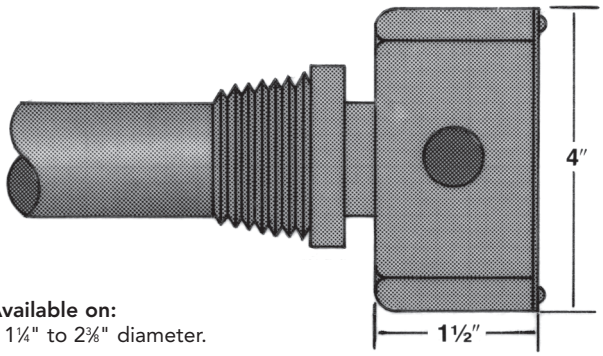
Available on:
• ⅜" to 1¼" diameter.

SF13C: Explosion resistant box. Mounted on NPT coupling head fitting.



Available on:
• ⅜" to 1¼" diameter.

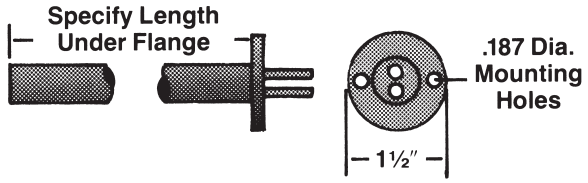
SF13D: General purpose box. NEMA No. 1. Rust resistant steel 4" octagonal.



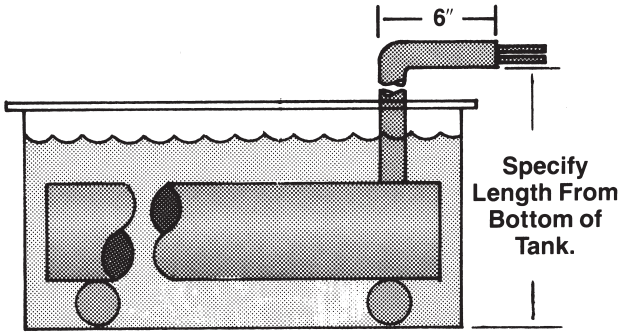
Available on:
• 1¼" to 2⅜" diameter.

Installation Options

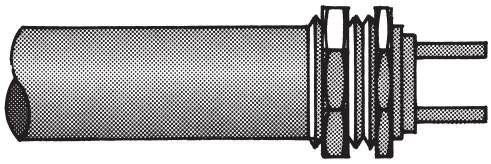
SF26: Stainless steel flange. Mounting hole centers for ¼" to ⅝" diameters is 1⅛" and for ¾" diameter is 1⅝". Special flange sizes available upon request.



SF27: Stainless steel riser and support feet for over the side immersion heaters. Consult factory for availability.



XS76: Straight thread with nut. Specify thread size and if bushing is to be standard (hex outside vessel) or inverted (hex inside vessel).



Voltage

Standard voltages are either 120V or 240V. Other voltages are available.

Tolerances

Wattage tolerance is +5%, -10% at rated voltage.

Length tolerances are ±2% with a ±1/16" minimum.

How to Order

After determining the wattage required and the line voltage available, determine the physical space available for heaters and the numbers of heaters required.

Review page 31 for stock items.

Review other special features, see page 22-27.

Specify: catalog number, wattage, voltage, lead type, bushing type, and special features required.

Example: EM62-6/700W240V/SF1-12/SF13A/SF25B.