

Immersion Heaters

WATROD and FIREBAR ANSI Flange Immersion Heaters

Watlow flange heaters are easy to install and maintain. Designed for heating liquids and gases in tanks and pressure vessels, flange immersion heaters are ideal for applications requiring higher kilowatts.

Watlow flange heaters are made with WATROD or FIREBAR tubular elements brazed or welded to a flange. Stock flange heaters are equipped with a general purpose terminal enclosure.

Flange heaters, with FIREBAR elements, also answer the need for liquid immersion applications requiring high kilowatts in small tanks. The FIREBAR element's unique flat surface geometry packs more power in a smaller bundle, with lower watt density, making it especially well-suited for petroleum-based liquid heating applications.

Performance Capabilities

- Watt densities up to 100 W/in² (15.5 W/cm²)
- Wattages up to three megawatts
- UL[®] and CSA component recognition up to 600VAC
- Alloy 800/840 sheath temperatures up to 1600°F (870°C)
- Passivated 316 stainless steel sheath temperatures up to 1200°F (650°C)
- 304 stainless steel sheath temperatures up to 1200°F (650°C)
- Steel sheath temperatures up to 750°F (400°C)
- FIREBAR flange heaters deliver more kilowatts in smaller bundles
- A conventional round tubular 10-inch ANSI flange can be replaced by a 6-inch ANSI FIREBAR flange with same immersed length

Features and Benefits

ANSI and ANSI compatible 2, 2 1/2, 3 thru 48 inch flanges

- Provides appropriate heater size-to-application and fit

Element sheath and flange materials

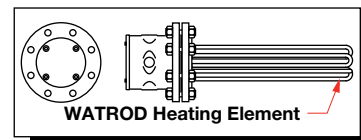
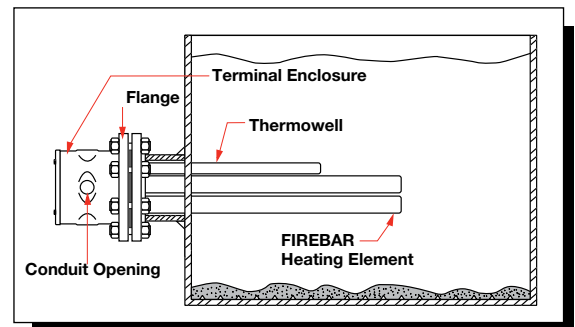
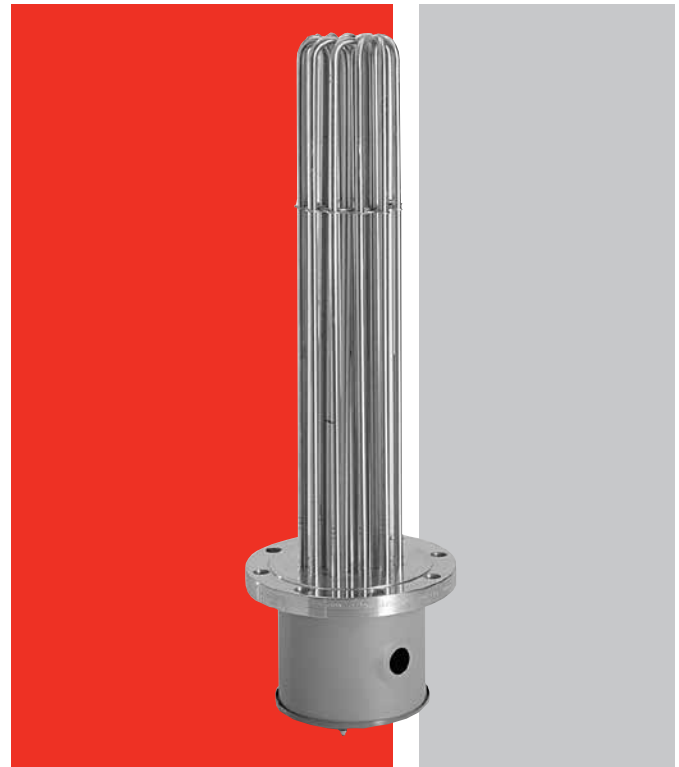
- Meets your application needs

Integral thermowells

- Provides convenient temperature sensor insertion and replacement without draining the fluid being heated

Standard, general purpose terminal enclosure

- Offers easy access to wiring



Element support(s)

- Provides proper element spacing to maximize heater performance and life

All units are inspected and/or tested

- Ensures element-to-flange pressure seals do not leak

Drilled and tapped eyebolt holes or lift lugs for eye bolts on 10 inch and larger flange heaters

- Facilitates lifting during installation

WATROD hairpins are repressed (recompacted)

- Provides improved heater life, insulation resistance and heat transfer

Immersion Heaters

WATROD and FIREBAR ANSI Flange Immersion Heaters

Features and Benefits *(Continued)*

FIREBAR flange heaters pack more kilowatts into a smaller bundle

- Includes a conventional round tubular 10 in. (254 mm) ANSI flange which can be replaced by a 6 in. (152 mm) ANSI FIREBAR flange with the same immersed length

Branch circuits are designed for 48 amperes per circuit maximum

- Reduces risk of failure due to excessive temperatures generated by high amperage

UL® and CSA component recognition under file numbers E52951 and 31388 respectively

- Simplifies obtaining third-party recognition for assembly

Typical Applications

- Water:
 - Deionized
 - Demineralized
 - Clean
 - Potable
 - Process
- Industrial water rinse tanks
- Vapor degreasers
- Hydraulic oil, crude, asphalt
- Lubricating oils at API specified watt densities
- Air and gas flow
- Caustic solutions
- Chemical baths
- Process air equipment
- Boiler equipment
- Freeze protection of any fluid
- Anti-freeze (glycol) solutions
- Paraffin

Options

Terminal Enclosures

General purpose terminal enclosures, without thermostats, are standard on all flange immersion heaters. Optional terminal enclosures include:

- General purpose with a single or double pole thermostat.
- Moisture resistant. Available with or without a single or double pole thermostat.
- Corrosion resistant. Available with or without a single or double pole thermostat.
- Explosion resistant Class 1, Div. 1 and 2, Groups B, C, D, T1 - T6. Available with or without a single or double pole thermostat.
- Explosion/moisture resistant combinations. Available with or without a single or double pole thermostat.

Prior to ordering, refer to the terminal enclosure dimensions on page 243. Order by adding the appropriate suffix letter(s) to the base flange heater part number, as shown on the Ordering information chart. Heater part numbers and suffix letters are depicted on the charts, pages 244 to 305. Specify class and group, if applicable.



Caution

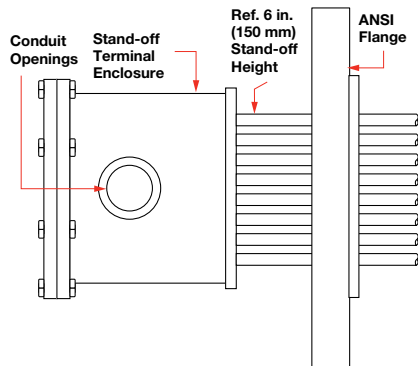
Explosion-resistant terminal enclosures are intended to provide explosion containment in the electrical termination/wiring enclosure only. No portion of the assembly outside of this enclosure is covered under this rating. Rating effectiveness may be compromised by abuse or misapplication.

Immersion Heaters

WATROD and FIREBAR ANSI Flange Immersion Heaters

Options (Continued)

Stand-off Terminal Enclosures



Stand-off terminal enclosures provide an air-insulating barrier between the flange and terminal enclosure by mounting the terminations and wiring away from the flange. Stand-off terminal enclosures are recommended whenever a process operating temperature exceeds 210°F (100°C). This helps minimize terminal enclosure temperatures.

To order, specify **stand-off terminal enclosure**.

Certified Enclosures

CSA, ATEX or IECEx certified enclosures protect wiring in hazardous gas environments. These terminal enclosures, covered under CSA file number 61707, ATEX certificate # SIRA 10ATEX1155X or IECEx certificate # IECEx CSA 09.0010X are available on WATROD flange heaters. For additional information, see page 567 and 568 or contact your Watlow representative.

For products that will be installed in hazardous locations, please provide the following information:

- Operating conditions
- Minimum and maximum ambient temperatures for the installation location
- Mounting orientation

Watlow must understand this information so that an appropriate design can be provided.

ASME Pressure Vessel Code Welding

Flange assemblies can be provided with an ASME Section VIII, Div. I pressure vessel stamp upon request.

Thermostats

To provide process temperature control, Watlow offers optional single pole, single throw (SPST) and double pole, single throw (DPST) thermostats.

Unless otherwise specified, thermostats are mounted inside the terminal enclosure. For details and ordering information, refer to *Thermostats* on pages 534 to 537. Please verify that the thermostat's sensing bulb O.D. is compatible with the flange heater's thermowell I.D.

Thermocouples

ASTM Type J or K thermocouples offer more accurate sensing of process and/or sheath temperatures. A thermocouple may be inserted into the thermowell or attached to the heater's sheath.

Thermocouples are supplied with 120 in. (3050 mm) leads (longer lead lengths available). Unless otherwise specified, thermocouples are supplied with temperature ranges detailed on the *Thermocouple Types* chart.

Using a thermocouple requires an appropriate temperature and power controller. These must be purchased separately. Watlow offers a wide variety of temperature and power controllers to meet virtually all applications. Temperature controllers can be configured to accept process variable inputs, too. Contact your Watlow representative for details.

To order, specify **Type J** or **K** thermocouple and lead length. Indicate if the thermocouple is for **process temperature sensing** or heater sheath **high-limit protection**. Please specify if the flange heater will be mounted **vertical** or **horizontal** in the tank. **If vertical, specify if the housing is on top or bottom.**

If the flange heater is part of an in-line circulation heating application, indicate flow direction relative to the heater's enclosure.

Thermocouple Types

ASTM Type	Conductor Characteristics		Recommended ^① Temperature Range	
	Positive	Negative	°F	(°C)
J	Iron (Magnetic)	Constantan (Non-magnetic)	0 to 1000	(-20 to 540)
K	Chromel® (Non-magnetic)	Alumel® (Magnetic)	0 to 2000	(-20 to 1100)

① Type J and Type K thermocouples are rated 32 to 1382°F and 32 to 2282°F (0-750°C and 0-1250°C), respectively. Watlow does not recommend exceeding temperature ranges shown on this chart for the tubular product line.

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Options (Continued)

Wattages and Voltages

Watlow routinely supplies flange immersion heaters with 240 to 480VAC as well as wattages from 150 watts to one megawatt.

Sheath Materials

The following sheath materials are available on WATROD and FIREBAR flange heaters:

Standard Sheath Materials

WATROD	Alloy 800, 840 316 SS Steel
FIREBAR	Alloy 800

Exotic Sheath Materials

Contact your Watlow representative for details and availability.

External Finishing

Passivation

During the manufacturing process, particles of iron or tool steel may become embedded in the stainless steel or alloy sheath. If not removed, these particles may corrode, produce rust spots and/or contaminate the process. For critical sheath applications, passivation will remove free iron from the sheath. To order, specify **passivation**.

Other Finishes

Bright annealing available to meet cosmetic demands.

Flanges

Flange Sizes and Styles

Standard: 2^①, 2^{1/2}^①, 3 to 48 inch ANSI raised face/blind flanges.

Made-to-Order: 16, 18, 20 and 24 inch in any recognized configuration, as well as customer specified. Over 48 inch ANSI flange, contact your Watlow representative.

Flange Materials

Standard	Carbon steel 316 SS 304 SS
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Pressure Classes

Standard	150 lb 300 lb 600 lb
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① ANSI bolt pattern only

Gaskets

Rubber, asbestos-free and spiral wound gaskets are available for all flange sizes. Order by specifying gasket type, flange size/rating, process operating temperature and pressure.

To make the correct selection, see the *Gasket Selection* chart. It provides a recommended gasket type and effective temperature rating.

To use this chart, multiply operating temperature by the operating pressure to arrive at "Maximum PSIG x °F." This is listed in the chart's first column.

Gasket Selection

Maximum PSIG x °F	Gasket Temperature °F	Gasket Type
Up to 15,000	300	Rubber
Over 250,000	700	Asbestos-Free
Over 250,000	③	Spiral Wound

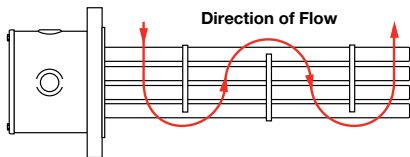
③ Depends on metal gasket material.

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Options (Continued)

Baffles



For forced circulation applications, 316 stainless steel baffles can be arranged on the heating element bundle to enhance and/or modify fluid or gas flow for better heat transfer.

For open tank or convection heating applications, standard element supports will be supplied.

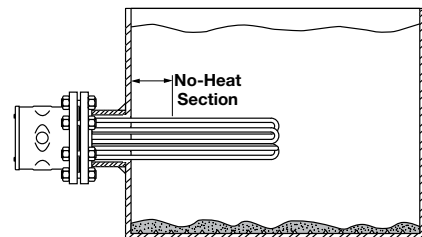
To order, specify **baffles**.

ANSI Raised Face Blind Flange, 150# Class Dimensions

Pipe Size	Outside Diameter	Flange Thickness	Diameter of Bolt Circle	Diameter of Bolt Holes	Number of Bolt Holes
3	7.50	0.94	6.00	0.75	4
4	9.00	0.94	7.50	0.75	8
5	10.00	0.94	8.50	0.88	8
6	11.00	1.00	9.50	0.88	8
8	13.50	1.12	11.75	0.88	8
10	16.00	1.19	14.25	1.00	12
12	19.00	1.25	17.00	1.00	12
14	21.00	1.38	18.75	1.12	12
16	23.50	1.44	21.25	1.12	16
18	25.00	1.56	22.75	1.25	16
20	27.50	1.69	25.00	1.25	20
24	32.00	1.88	29.50	1.38	20

Application Hints

- Select the recommended heating element sheath material and watt density for the substance being heated. Use the *Supplemental Applications Chart* on pages 555 to 560. If unable to determine the correct heating element sheath material and type, contact your Watlow representative.
- Extend the element no-heat section completely into the fluid being heated to help prevent premature heater failure. See accompanying illustration for proper no-heat section placement.
- Locate flange heater low in the tank, but above the sludge level.
- Choose a FIREBAR element when your application requires a smaller system package or lower watt density.
- Ensure wiring integrity by keeping terminal enclosure temperature below 400°F (205°C).
- Size power feeder wires in accordance with National Electrical Code guidelines and other applicable codes.
- Keep electrical connections clean, dry and tight.
- Minimize problems associated with low liquid level conditions by using low liquid level sensor or sheath temperature high-limit control.



- Periodically remove the flange assembly to inspect and clean the heating element(s). This preventive maintenance will reduce premature failure and optimize heater performance.
- Refer to the *Installation and Maintenance Instructions* for correct orientation of FIREBAR elements. This is important in air applications with customer-supplied circulation tanks. Correct element orientation to flow minimizes pressure drop and increases buoyancy force and heater performance.

Extended Capabilities For WATROD and FIREBAR ANSI Flange Immersion Heaters

Options

Enclosure Enhancements

- Enclosure heater to solve condensation and freeze problems.
- Power distribution blocks to facilitate power feed line wiring.

RTDs

If the process requires greater temperature sensing accuracy than is possible with thermocouples, Watlow can also supply RTDs in DIN or JIS calibrations. Contact your Watlow representative for details.

Wattages and Voltages

If required, Watlow will make heaters with voltage up to 600VAC and wattage beyond one megawatt. For more information on special voltage and wattage configurations, contact your Watlow representative.

Sheath Materials

The following sheath materials are available on WATROD and FIREBAR flange heaters:

Extended Sheath Materials

WATROD	Titanium 304 and 321 SS Hastelloy C276 Alloy 400 and 600
FIREBAR	304 SS

Flanges

Flange Materials

Extended	Exotic materials to meet specific application needs ①
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Pressure Classes

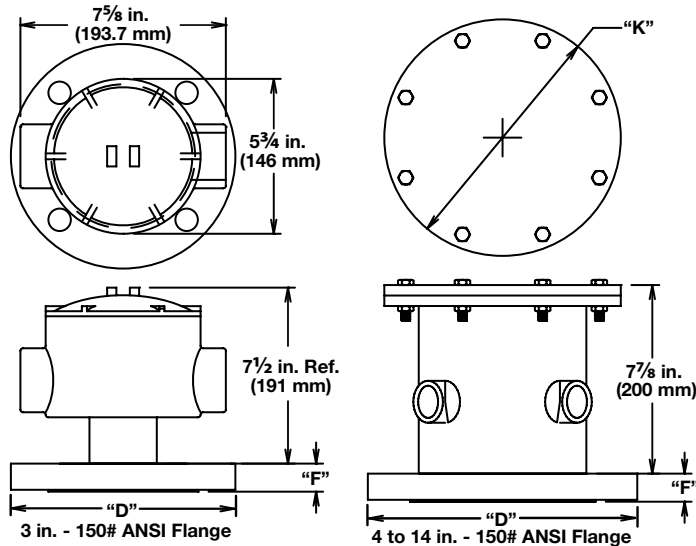
Extended	Over 600 lb ①
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① Contact your Watlow representative

Immersion Heaters

WATROD and FIREBAR ANSI Flange Immersion Heaters

Optional Moisture/Explosion Resistant Enclosure Without Thermostat



Terminal Enclosure Dimensions

General Purpose & Moisture Resistant Enclosures

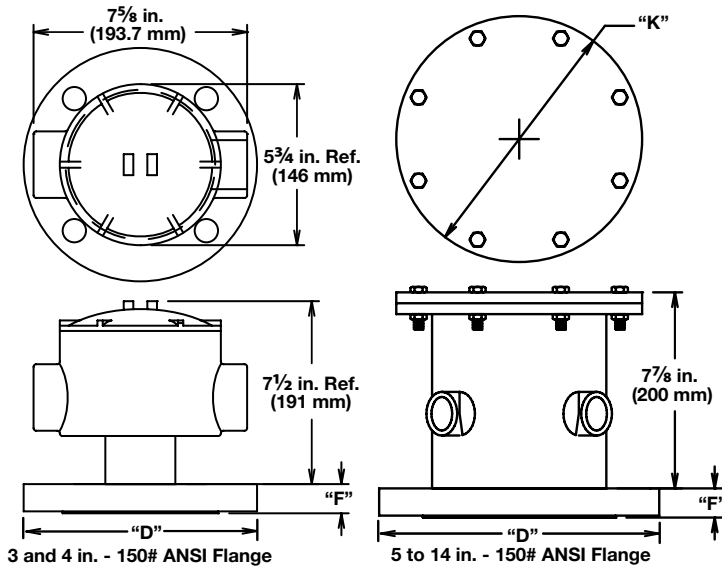
ANSI Flange Size in.	"F" Thickness in. (mm)	"K" With Thermostat	"K" Without Thermostat	"D" in. (mm)
3	15/16 (23.8)	5 3/4 (146)	See heater dwg.	7 1/2 (191)
4	15/16 (23.8)	5 3/4 (146)	See heater dwg.	9 (229)

Note: 5 thru 12 in. (127 thru 305 mm) flange dimensions are on catalog heater drawings.

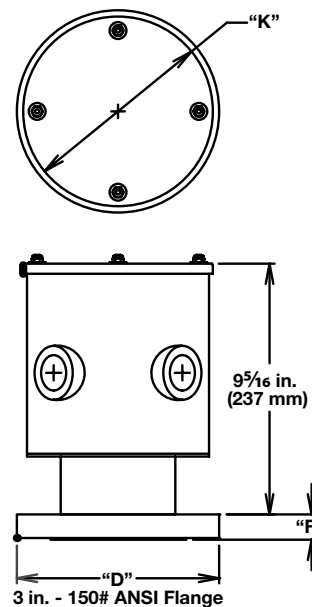
Moisture/Explosion Resistant Enclosures

ANSI Flange Size in.	"F" Thickness in. (mm)	"K" With Thermostat	"K" Without Thermostat	"D" in. (mm)
3	15/16 (23.8)	N/A	N/A	7 1/2 (191)
4	15/16 (23.8)	N/A	7 7/8 (200.0)	9 (229)
5	15/16 (23.8)	8 7/8 (225.4)	8 7/8 (225.4)	10 (254)
6	1 (25.0)	9 7/8 (250.8)	9 7/8 (250.8)	11 (280)
8	1 1/8 (28.6)	12 1/8 (308.0)	12 1/8 (308.0)	13 1/2 (343)
10	1 3/16 (30.2)	14 5/8 (371.5)	14 5/8 (371.5)	16 (407)
12	1 1/4 (32.0)	17 1/4 (438.0)	17 1/4 (438.0)	19 (483)
14	1 3/8 (34.9)	19 3/8 (492.1)	19 3/8 (492.1)	21 (534)

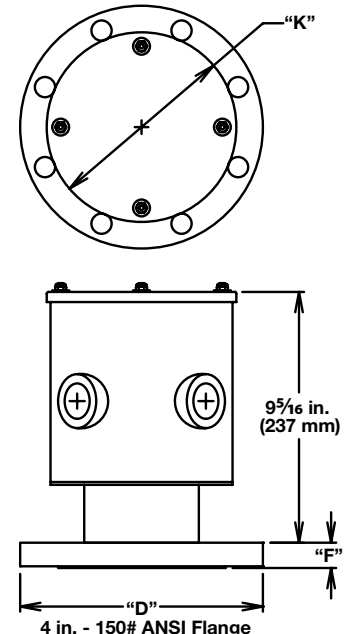
Optional Moisture/Explosion Resistant Enclosure With Thermostat



Optional General Purpose/Moisture Resistant Enclosure With Thermostat



Optional Moisture Resistant Enclosure With Thermostat



To order: Reference the *Ordering Information* on page 306

Note: Dimensions for all 5 to 14 in. flange heaters with General Purpose or Moisture Resistant Enclosure with thermostats are identical to units supplied without thermostats.

Immersion Heaters

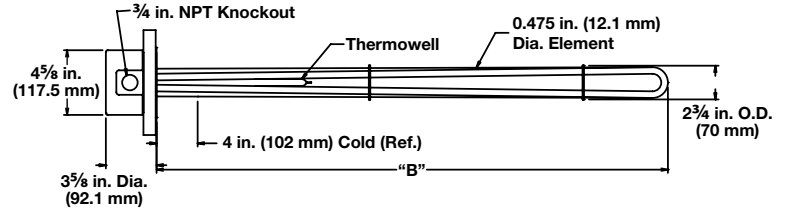
WATROD and FIREBAR ANSI Flange Immersion Heaters



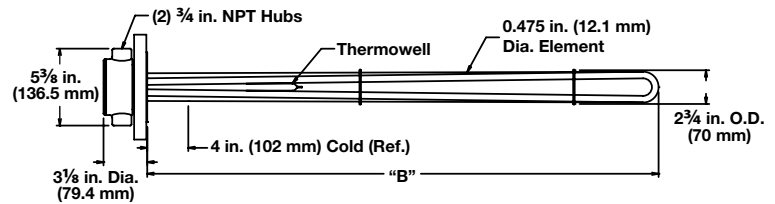
Application: Clean Water

- 3 inch - 150 lb ANSI flange.
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures
- Single circuit

General Purpose



Moisture Resistant



Description	Volts	kW	Ph	"B" Dim. (mm)		Ship Wt. (kg)		Part Number	Del.	Part Number	Del.
								General Purpose Enclosure		Moisture-Resistant Enclosure	
60 W/in ² Steel Flange 3-Alloy 800 Elements (9.3 W/cm ²)	120	6.0	1	15 1/2	(394)	22	(10)	FMN715J10S	RS	FMN715J10W	RS
	240	6.0	3	15 1/2	(394)	22	(10)	FMN715J3S	RS	FMN715J3W	RS
	480	6.0	1	15 1/2	(394)	22	(10)	FMN715J11S	RS	FMN715J11W	RS
	480	6.0	3	15 1/2	(394)	22	(10)	FMN715J5S	RS	FMN715J5W	RS
	120	9.0	1	21 1/2	(546)	25	(12)	FMN721J10S	RS	FMN721J10W	RS
	240	9.0	3	21 1/2	(546)	25	(12)	FMN721J3S	RS	FMN721J3W	RS
	480	9.0	1	21 1/2	(546)	25	(12)	FMN721J11S	RS	FMN721J11W	RS
	480	9.0	3	21 1/2	(546)	25	(12)	FMN721J5S	RS	FMN721J5W	RS
	240	12.0	3	27	(686)	27	(13)	FMN727A3S	RS	FMN727A3W	RS
	480	12.0	1	27	(686)	27	(13)	FMN727A11S	RS	FMN727A11W	RS
	480	12.0	3	27	(686)	27	(13)	FMN727A5S	RS	FMN727A5W	RS
	240	15.0	3	32 1/2	(826)	28	(13)	FMN732J3S	RS	FMN732J3W	RS
	480	15.0	1	32 1/2	(826)	28	(13)	FMN732J11S	RS	FMN732J11W	RS
	480	15.0	3	32 1/2	(826)	28	(13)	FMN732J5S	RS	FMN732J5W	RS
	240	18.0	3	38	(965)	30	(14)	FMN738A3S	RS	FMN738A3W	RS
	480	18.0	1	38	(965)	30	(14)	FMN738A11S	RS	FMN738A11W	RS
	480	18.0	3	38	(965)	30	(14)	FMN738A5S	RS	FMN738A5W	RS
	480	25.0	1	51	(1295)	34	(16)	FMN751A11S	RS	FMN751A11W	RS
	480	25.0	3	51	(1295)	34	(16)	FMN751A5S	RS	FMN751A5W	RS
	480	30.0	1	60 1/2	(1537)	36	(17)	FMN760J11S	M	FMN760J11W	RS
480	30.0	3	60 1/2	(1537)	36	(17)	FMN760J5S	M	FMN760J5W	RS	

RAPID SHIP

- **RS** - Next day shipment up to 5 pieces
- **M** - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

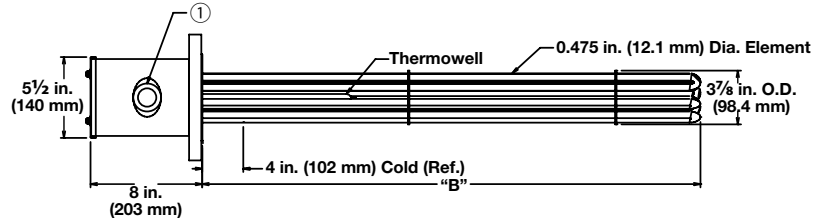
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Clean Water

- 4 inch - 150 lb ANSI flange
- WATROD element
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part		Part	
							Number	Del.	Number	Del.
60 W/in ² Steel Flange 6-Alloy 800 Elements (9.3 W/cm ²)	240	12.0	1	2	15 1/2 (394)	31 (14)	General Purpose Enclosure		Moisture-Resistant Enclosure	
							FON715J10S	RS	FON715J10W	RS
	240	12.0	3	1	15 1/2 (394)	31 (14)	FON715J3S	RS	FON715J3W	RS
	480	12.0	1	1	15 1/2 (394)	31 (14)	FON715J11S	RS	FON715J11W	RS
	480	12.0	3	1	15 1/2 (394)	31 (14)	FON715J5S	RS	FON715J5W	RS
	240	18.0	1	2	21 1/2 (546)	34 (16)	FON721J10S	RS	FON721J10W	RS
	240	18.0	3	1	21 1/2 (546)	34 (16)	FON721J3S	RS	FON721J3W	RS
	480	18.0	1	1	21 1/2 (546)	34 (16)	FON721J11S	RS	FON721J11W	RS
	480	18.0	3	1	21 1/2 (546)	34 (16)	FON721J5S	RS	FON721J5W	RS
	240	24.0	1	2	27 (686)	36 (17)	FON727A10S	RS	FON727A10W	RS
	240	24.0	3	2	27 (686)	36 (17)	FON727A3S	RS	FON727A3W	RS
	480	24.0	1	1	27 (686)	36 (17)	FON727A11S	RS	FON727A11W	RS
	480	24.0	3	1	27 (686)	36 (17)	FON727A5S	RS	FON727A5W	RS
	240	30.0	3	2	32 1/2 (826)	39 (18)	FON732J3S	RS	FON732J3W	RS
	480	30.0	1	2	32 1/2 (826)	39 (18)	FON732J11S	RS	FON732J11W	RS
	480	30.0	3	1	32 1/2 (826)	39 (18)	FON732J5S	RS	FON732J5W	RS
	240	36.0	3	2	38 (965)	43 (20)	FON738A3S	RS	FON738A3W	RS
	480	36.0	1	2	38 (965)	43 (20)	FON738A11S	RS	FON738A11W	RS
	480	36.0	3	1	38 (965)	43 (20)	FON738A5S	RS	FON738A5W	RS
	480	50.0	3	2	51 (1295)	48 (22)	FON751A5S	RS	FON751A5W	RS
480	60.0	3	2	60 1/2 (1537)	52 (24)	FON760J5S	M	FON760J5W	M	

RAPID SHIP

- **RS** - Next day shipment up to 5 pieces
- **M** - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

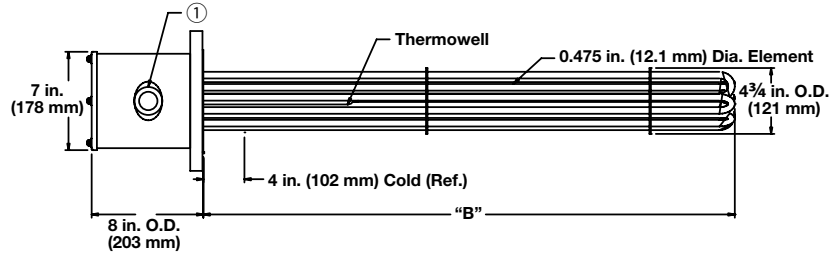
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Clean Water

- 5 inch - 150 lb ANSI flange
- WATROD element
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
60 W/in² Steel Flange 6-Alloy 800 Elements (9.3 W/cm²)	240	12.0	1	2	15 ¹ / ₂ (394)	35 (16)	FNN715J10S	RS	FNN715J10W	RS
	240	12.0	3	1	15 ¹ / ₂ (394)	35 (16)	FNN715J3S	RS	FNN715J3W	RS
	480	12.0	1	1	15 ¹ / ₂ (394)	35 (16)	FNN715J11S	RS	FNN715J11W	RS
	480	12.0	3	1	15 ¹ / ₂ (394)	35 (16)	FNN715J5S	RS	FNN715J5W	RS
	240	18.0	1	2	21 ¹ / ₂ (546)	38 (18)	FNN721J10S	RS	FNN721J10W	RS
	240	18.0	3	1	21 ¹ / ₂ (546)	38 (18)	FNN721J3S	RS	FNN721J3W	RS
	480	18.0	1	1	21 ¹ / ₂ (546)	38 (18)	FNN721J11S	RS	FNN721J11W	RS
	480	18.0	3	1	21 ¹ / ₂ (546)	38 (18)	FNN721J5S	RS	FNN721J5W	RS
	240	24.0	1	3	27 (686)	40 (19)	FNN727A10S	RS	FNN727A10W	RS
	240	24.0	3	2	27 (686)	40 (19)	FNN727A3S	RS	FNN727A3W	RS
	480	24.0	1	3	27 (686)	40 (19)	FNN727A11S	RS	FNN727A11W	RS
	480	24.0	3	1	27 (686)	40 (19)	FNN727A5S	RS	FNN727A5W	RS
	240	30.0	3	2	32 ¹ / ₂ (826)	43 (20)	FNN732J3S	RS	FNN732J3W	RS
	480	30.0	1	2	32 ¹ / ₂ (826)	43 (20)	FNN732J11S	RS	FNN732J11W	RS
	480	30.0	3	1	32 ¹ / ₂ (826)	43 (20)	FNN732J5S	RS	FNN732J5W	RS
	240	36.0	3	2	38 (965)	47 (22)	FNN738A3S	RS	FNN738A3W	RS
	480	36.0	1	2	38 (965)	47 (22)	FNN738A11S	RS	FNN738A11W	RS
	480	36.0	3	1	38 (965)	47 (22)	FNN738A5S	RS	FNN738A5W	RS
	480	50.0	3	2	51 (1295)	52 (24)	FNN751A5S	RS	FNN751A5W	RS
	480	60.0	3	2	60 ¹ / ₂ (1537)	56 (26)	FNN760J5S	M	FNN760J5W	M

RAPID SHIP

- **RS** - Next day shipment up to 5 pieces
- **M** - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

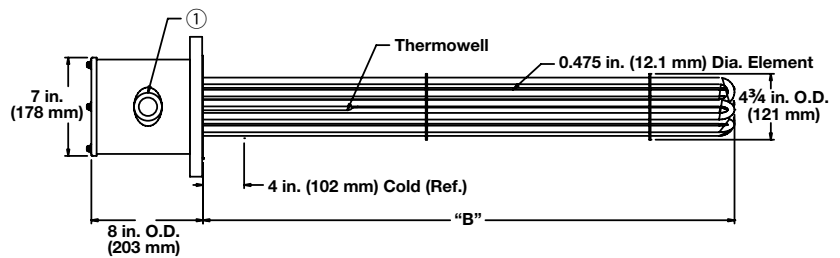
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Clean Water

- 5 inch - 150 lb ANSI flange
- WATROD element
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim.		Ship Wt.		Part Number		Part Number	
					in.	(mm)	lbs	(kg)	General Purpose Enclosure	Del.	Moisture-Resistant Enclosure	Del.
60 W/in ² Steel Flange 9-Alloy 800 Elements (9.3 W/cm ²)	240	18.0	1	3	15 ¹ / ₂	(394)	38	(18)	FNN715J10XS	RS	FNN715J10XW	RS
	240	18.0	3	1	15 ¹ / ₂	(394)	38	(18)	FNN715J3XS	RS	FNN715J3XW	RS
	480	18.0	1	1	15 ¹ / ₂	(394)	38	(18)	FNN715J11XS	RS	FNN715J11XW	RS
	480	18.0	3	1	15 ¹ / ₂	(394)	38	(18)	FNN715J5XS	RS	FNN715J5XW	RS
	240	27.0	1	3	21 ¹ / ₂	(546)	42	(19)	FNN721J10XS	RS	FNN721J10XW	RS
	240	27.0	3	3	21 ¹ / ₂	(546)	42	(19)	FNN721J3XS	RS	FNN721J3XW	RS
	480	27.0	1	3	21 ¹ / ₂	(546)	42	(19)	FNN721J11XS	RS	FNN721J11XW	RS
	480	27.0	3	1	21 ¹ / ₂	(546)	42	(19)	FNN721J5XS	RS	FNN721J5XW	RS
	240	36.0	3	3	27	(686)	45	(21)	FNN727A3XS	RS	FNN727A3XW	RS
	480	36.0	1	3	27	(686)	45	(21)	FNN727A11XS	RS	FNN727A11XW	RS
	480	36.0	3	1	27	(686)	45	(21)	FNN727A5XS	RS	FNN727A5XW	RS
	240	45.0	3	3	32 ¹ / ₂	(826)	48	(22)	FNN732J3XS	RS	FNN732J3XW	RS
	480	45.0	1	3	32 ¹ / ₂	(826)	48	(22)	FNN732J11XS	RS	FNN732J11XW	RS
	480	45.0	3	3	32 ¹ / ₂	(826)	48	(22)	FNN732J5XS	RS	FNN732J5XW	RS
	240	54.0	3	3	38	(965)	53	(24)	FNN738A3XS	RS	FNN738A3XW	RS
	480	54.0	1	3	38	(965)	53	(24)	FNN738A11XS	RS	FNN738A11XW	RS
	480	54.0	3	3	38	(965)	53	(24)	FNN738A5XS	RS	FNN738A5XW	RS
	480	75.0	3	3	51	(1295)	60	(28)	FNN751A5XS	RS	FNN751A5XW	RS
	480	90.0	3	3	60 ¹ / ₂	(1537)	66	(30)	FNN760J5XS	M	FNN760J5XW	M

RAPID SHIP

- **RS** - Next day shipment up to 5 pieces
- **M** - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

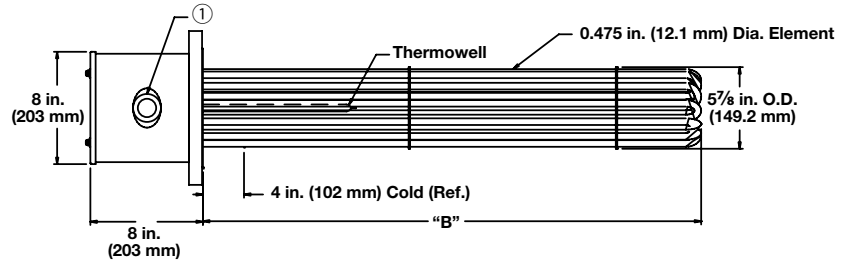
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Clean Water

- 6 inch - 150 lb ANSI flange
- WATROD element
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
60 W/in ² Steel Flange 12-Alloy 800 Elements (9.3 W/cm ²)	240	24.0	1	3	15 ³ / ₈ (390.5)	73 (33)	FPN715G10S	RS	FPN715G10W	RS
	240	24.0	3	2	15 ³ / ₈ (390.5)	73 (33)	FPN715G3S	RS	FPN715G3W	RS
	480	24.0	1	2	15 ³ / ₈ (390.5)	73 (33)	FPN715G11S	RS	FPN715G11W	RS
	480	24.0	3	1	15 ³ / ₈ (390.5)	73 (33)	FPN715G5S	RS	FPN715G5W	RS
	240	36.0	1	4	21 ³ / ₈ (542.9)	78 (36)	FPN721G10S	M	FPN721G10W	M
	240	36.0	3	2	21 ³ / ₈ (542.9)	78 (36)	FPN721G3S	M	FPN721G3W	M
	480	36.0	1	2	21 ³ / ₈ (542.9)	78 (36)	FPN721G11S	M	FPN721G11W	M
	480	36.0	3	1	21 ³ / ₈ (542.9)	78 (36)	FPN721G5S	M	FPN721G5W	M
	240	48.0	3	4	26 ⁷ / ₈ (682.6)	81 (37)	FPN726R3S	M	FPN726R3W	M
	480	48.0	1	3	26 ⁷ / ₈ (682.6)	81 (37)	FPN726R11S	M	FPN726R11W	M
	480	48.0	3	2	26 ⁷ / ₈ (682.6)	81 (37)	FPN726R5S	M	FPN726R5W	M
	240	60.0	3	4	32 ³ / ₈ (822.3)	85 (39)	FPN732G3S	M	FPN732G3W	M
	480	60.0	1	3	32 ³ / ₈ (822.3)	85 (39)	FPN732G11S	M	FPN732G11W	M
	480	60.0	3	2	32 ³ / ₈ (822.3)	85 (39)	FPN732G5S	M	FPN732G5W	M
	240	72.0	3	4	37 ⁷ / ₈ (962.0)	92 (42)	FPN737R3S	M	FPN737R3W	M
	480	72.0	3	2	37 ⁷ / ₈ (962.0)	92 (42)	FPN737R5S	M	FPN737R5W	M
	480	100.0	3	4	50 ⁷ / ₈ (1292.2)	100 (45)	FPN750R5S	M	FPN750R5W	M
	480	120.0	3	4	60 ³ / ₈ (1533.5)	110 (50)	FPN760G5S	M	FPN760G5W	M

RAPID SHIP

- RS - Next day shipment up to 2 pieces
- M - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
- Truck Shipment only

Immersion Heaters

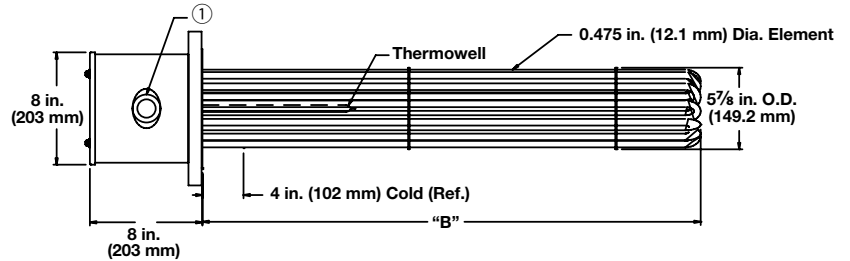
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Clean Water

- 6 inch - 150 lb ANSI flange
- WATROD element
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	Part Number		Del.
							General Purpose Enclosure	Moisture-Resistant Enclosure		Moisture-Resistant Enclosure	Del.	
60 W/in ² Steel Flange 15-Alloy 800 Elements (9.3 W/cm ²)	240	30.0	1	3	15 ³ / ₈ (390.5)	76 (35)	FPN715G10XS	M	FPN715G10XW	M		
	240	30.0	3	5	15 ³ / ₈ (390.5)	76 (35)	FPN715G3XS	M	FPN715G3XW	M		
	480	30.0	1	3	15 ³ / ₈ (390.5)	76 (35)	FPN715G11XS	M	FPN715G11XW	M		
	480	30.0	3	1	15 ³ / ₈ (390.5)	76 (35)	FPN715G5XS	M	FPN715G5XW	M		
	240	45.0	1	5	21 ³ / ₈ (542.9)	82 (38)	FPN721G10XS	M	FPN721G10XW	M		
	240	45.0	3	5	21 ³ / ₈ (542.9)	82 (38)	FPN721G3XS	M	FPN721G3XW	M		
	480	45.0	1	3	21 ³ / ₈ (542.9)	82 (38)	FPN721G11XS	M	FPN721G11XW	M		
	480	45.0	3	5	21 ³ / ₈ (542.9)	82 (38)	FPN721G5XS	M	FPN721G5XW	M		
	240	60.0	3	5	26 ⁷ / ₈ (682.6)	85 (39)	FPN726R3XS	M	FPN726R3XW	M		
	480	60.0	1	3	26 ⁷ / ₈ (682.6)	85 (39)	FPN726R11XS	M	FPN726R11XW	M		
	480	60.0	3	5	26 ⁷ / ₈ (682.6)	85 (39)	FPN726R5XS	M	FPN726R5XW	M		
	240	75.0	3	5	32 ³ / ₈ (822.3)	90 (41)	FPN732G3XS	M	FPN732G3XW	M		
	480	75.0	1	5	32 ³ / ₈ (822.3)	90 (41)	FPN732G11XS	M	FPN732G11XW	M		
	480	75.0	3	5	32 ³ / ₈ (822.3)	90 (41)	FPN732G5XS	M	FPN732G5XW	M		
	240	90.0	3	5	37 ⁷ / ₈ (962.0)	98 (45)	FPN737R3XS	M	FPN737R3XW	M		
	480	90.0	3	5	37 ⁷ / ₈ (962.0)	98 (45)	FPN737R5XS	M	FPN737R5XW	M		
480	125.0	3	5	50 ⁷ / ₈ (1292.2)	108 (49)	FPN750R5XS	M	FPN750R5XW	M			
480	150.0	3	5	60 ³ / ₈ (1533.5)	120 (55)	FPN760G5XS	M	FPN760G5XW	M			

• M - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
- Truck Shipment only

Immersion Heaters

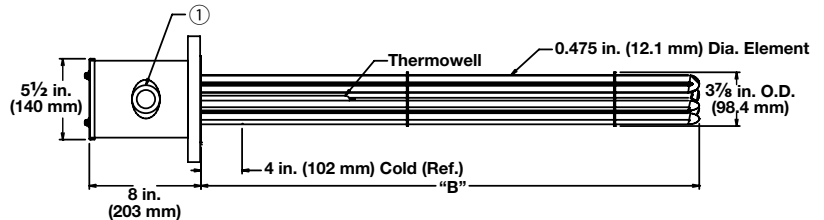
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Deionized or Demineralized Water

- 4 inch - 150 lb ANSI flange
- WATROD element
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in.	(mm)	Ship Wt. lbs	(kg)	Part Number	Del.	Part Number	Del.
60 W/in² 316 SS Flange 6-316 SS Elements (9.3 W/cm²) Passivated	240	12.0	1	2	16	(406)	31	(14)	FOR716A10S	RS	FOR716A10W	RS
	240	12.0	3	1	16	(406)	31	(14)	FOR716A3S	RS	FOR716A3W	RS
	480	12.0	1	1	16	(406)	31	(14)	FOR716A11S	RS	FOR716A11W	RS
	480	12.0	3	1	16	(406)	31	(14)	FOR716A5S	RS	FOR716A5W	RS
	240	18.0	1	2	22	(559)	34	(16)	FOR722A10S	RS	FOR722A10W	RS
	240	18.0	3	1	22	(559)	34	(16)	FOR722A3S	RS	FOR722A3W	RS
	480	18.0	1	1	22	(559)	34	(16)	FOR722A11S	RS	FOR722A11W	RS
	480	18.0	3	1	22	(559)	34	(16)	FOR722A5S	RS	FOR722A5W	RS
	240	24.0	1	2	27 ^{1/2}	(699)	36	(17)	FOR727J10S	RS	FOR727J10W	RS
	240	24.0	3	2	27 ^{1/2}	(699)	36	(17)	FOR727J3S	RS	FOR727J3W	RS
	480	24.0	1	1	27 ^{1/2}	(699)	36	(17)	FOR727J11S	RS	FOR727J11W	RS
	480	24.0	3	1	27 ^{1/2}	(699)	36	(17)	FOR727J5S	RS	FOR727J5W	RS
	240	30.0	3	2	33	(838)	39	(18)	FOR733A3S	RS	FOR733A3W	RS
	480	30.0	1	2	33	(838)	39	(18)	FOR733A11S	RS	FOR733A11W	RS
	480	30.0	3	1	33	(838)	39	(18)	FOR733A5S	RS	FOR733A5W	RS
	240	36.0	3	2	38 ^{1/2}	(978)	43	(20)	FOR738J3S	RS	FOR738J3W	RS
	480	36.0	1	2	38 ^{1/2}	(978)	43	(20)	FOR738J11S	RS	FOR738J11W	RS
	480	36.0	3	1	38 ^{1/2}	(978)	43	(20)	FOR738J5S	RS	FOR738J5W	RS
	480	50.0	3	2	51 ^{1/2}	(1308)	48	(22)	FOR751J5S	RS	FOR751J5W	RS
	480	60.0	3	2	61	(1549)	52	(24)	FOR761A5S	RS	FOR761A5W	RS

RAPID SHIP

- RS - Next day shipment up to 5 pieces

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

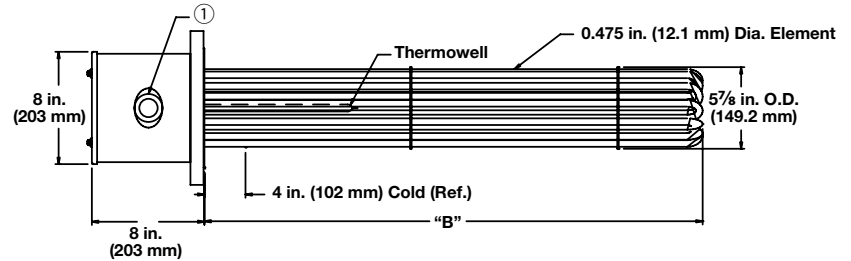
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Deionized or Demineralized Water

- 6 inch - 150 lb ANSI flange
- WATROD element
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
60 W/in ² 316 SS Flange 12-316 SS Elements (9.3 W/cm ²) (Passivated)	240	24.0	1	3	15 ³ / ₄ (400)	73 (33)	General Purpose Enclosure		Moisture-Resistant Enclosure	
							FPR715N10S	RS	FPR715N10W	RS
							FPR715N3S	RS	FPR715N3W	RS
							FPR715N11S	RS	FPR715N11W	RS
							FPR715N5S	RS	FPR715N5W	RS
							FPR721N10S	M	FPR721N10W	M
							FPR721N3S	M	FPR721N3W	M
							FPR721N11S	M	FPR721N11W	M
							FPR721N5S	M	FPR721N5W	M
							FPR727E3S	M	FPR727E3W	M
							FPR727E11S	M	FPR727E11W	M
							FPR727E5S	M	FPR727E5W	M
							FPR732N3S	M	FPR732N3W	M
							FPR732N11S	M	FPR732N11W	M
							FPR732N5S	M	FPR732N5W	M
							FPR738E3S	M	FPR738E3W	M
						FPR738E5S	M	FPR738E5W	M	
						FPR751E5S	M	FPR751E5W	M	
						FPR760N5S	M	FPR760N5W	M	

RAPID SHIP

- RS - Next day shipment up to 2 pieces
- M - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
 - Truck Shipment only

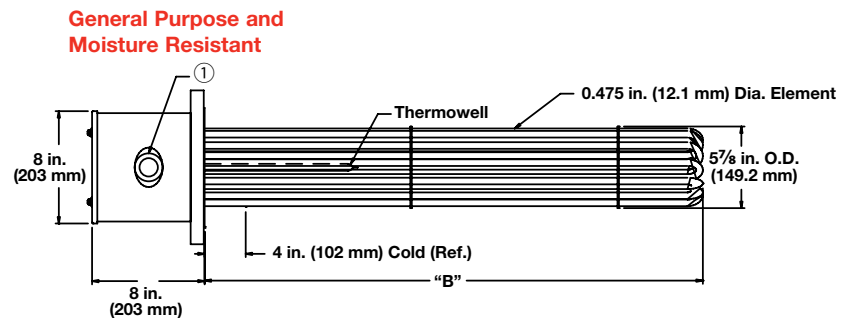
Immersion Heaters

WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Deionized or Demineralized Water

- 6 inch - 150 lb ANSI flange
- WATROD element
- Without thermostat
- General purpose or moisture-resistant enclosures



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	General Purpose Enclosure		Moisture-Resistant Enclosure	
							Part Number	Del.	Part Number	Del.
60 W/in ² 316 SS Flange 15-316 SS Elements (9.3 W/cm ²) (Passivated)	240	30.0	1	3	15 ³ / ₄ (400)	76 (35)	FPR715N10XS	M	FPR715N10XW	M
	240	30.0	3	5	15 ³ / ₄ (400)	76 (35)	FPR715N3XS	M	FPR715N3XW	M
	480	30.0	1	3	15 ³ / ₄ (400)	76 (35)	FPR715N11XS	M	FPR715N11XW	M
	480	30.0	3	1	15 ³ / ₄ (400)	76 (35)	FPR715N5XS	M	FPR715N5XW	M
	240	45.0	1	5	21 ³ / ₄ (552)	82 (38)	FPR721N10XS	M	FPR721N10XW	M
	240	45.0	3	5	21 ³ / ₄ (552)	82 (38)	FPR721N3XS	M	FPR721N3XW	M
	480	45.0	1	3	21 ³ / ₄ (552)	82 (38)	FPR721N11XS	M	FPR721N11XW	M
	480	45.0	3	5	21 ³ / ₄ (552)	82 (38)	FPR721N5XS	M	FPR721N5XW	M
	240	60.0	3	5	27 ¹ / ₄ (692)	85 (39)	FPR727E3XS	M	FPR727E3XW	M
	480	60.0	1	3	27 ¹ / ₄ (692)	85 (39)	FPR727E11XS	M	FPR727E11XW	M
	480	60.0	3	5	27 ¹ / ₄ (692)	85 (39)	FPR727E5XS	M	FPR727E5XW	M
	240	75.0	3	5	32 ³ / ₄ (832)	90 (41)	FPR732N3XS	M	FPR732N3XW	M
	480	75.0	1	5	32 ³ / ₄ (832)	90 (41)	FPR732N11XS	M	FPR732N11XW	M
	480	75.0	3	5	32 ³ / ₄ (832)	90 (41)	FPR732N5XS	M	FPR732N5XW	M
	240	90.0	3	5	38 ¹ / ₄ (972)	98 (45)	FPR738E3XS	M	FPR738E3XW	M
	480	90.0	3	5	38 ¹ / ₄ (972)	98 (45)	FPR738E5XS	M	FPR738E5XW	M
	480	125.0	3	5	51 ¹ / ₄ (1302)	108 (49)	FPR751E5XS	M	FPR751E5XW	M
	480	150.0	3	5	60 ³ / ₄ (1543)	120 (55)	FPR760N5XS	M	FPR760N5XW	M

• M - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

■ Truck Shipment only

Immersion Heaters

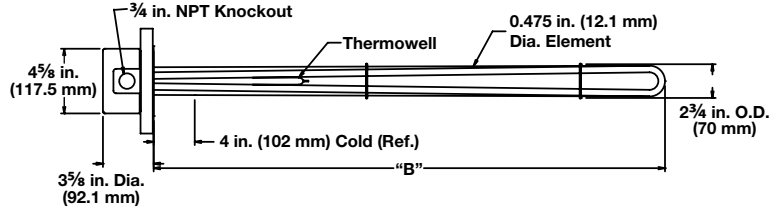
WATROD and FIREBAR ANSI Flange Immersion Heaters



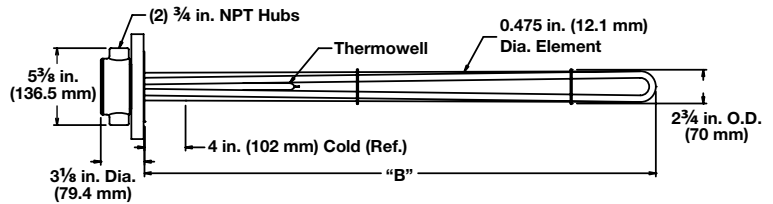
Application: Process Water

- 3 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures
- Single circuit

General Purpose



Moisture Resistant



Description	Volts	kW	Ph	"B" Dim.		Ship Wt.		Part Number	Del.	Part Number		Del.
				in.	(mm)	lbs	(kg)			Moisture-Resistant Enclosure		
48 W/in² © Steel Flange 3-Alloy 800 Elements (7.5 W/cm²)	General Purpose Enclosure											
	240	4.5	1	13 ¹ / ₂	(343)	22	(10)	FMN713J10S	RS	Moisture-Resistant Enclosure		RS
	240	4.5	3	13 ¹ / ₂	(343)	22	(10)	FMN713J3S	RS	FMN713J10W		RS
	480	4.5	1	13 ¹ / ₂	(343)	22	(10)	FMN713J11S	RS	FMN713J3W		RS
	480	4.5	3	13 ¹ / ₂	(343)	22	(10)	FMN713J5S	RS	FMN713J11W		RS
	240	6.0	1	18	(457)	23	(11)	FMN718A10S	RS	FMN713J5W		RS
	240	6.0	3	18	(457)	23	(11)	FMN718A3S	RS	FMN718A10W		RS
	480	6.0	1	18	(457)	23	(11)	FMN718A11S	RS	FMN718A3W		RS
	480	6.0	3	18	(457)	23	(11)	FMN718A5S	RS	FMN718A11W		RS
	240	7.5	1	20 ¹ / ₂	(521)	25	(12)	FMN720J10S	RS	FMN718A5W		RS
	240	7.5	3	20 ¹ / ₂	(521)	25	(12)	FMN720J3S	RS	FMN720J10W		RS
	480	7.5	1	20 ¹ / ₂	(521)	25	(12)	FMN720J11S	RS	FMN720J3W		RS
	480	7.5	3	20 ¹ / ₂	(521)	25	(12)	FMN720J5S	RS	FMN720J11W		RS
	240	9.0	1	25 ¹ / ₂	(648)	27	(13)	FMN725J10S	RS	FMN720J5W		RS
	240	9.0	3	25 ¹ / ₂	(648)	27	(13)	FMN725J3S	RS	FMN725J10W		RS
	480	9.0	1	25 ¹ / ₂	(648)	27	(13)	FMN725J11S	RS	FMN725J3W		RS
	480	9.0	3	25 ¹ / ₂	(648)	27	(13)	FMN725J5S	RS	FMN725J11W		RS
	240	12.0	3	33	(838)	28	(13)	FMN733A3S	RS	FMN725J5W		RS
	480	12.0	1	33	(838)	28	(13)	FMN733A11S	RS	FMN733A3W		RS
	480	12.0	3	33	(838)	28	(13)	FMN733A5S	RS	FMN733A11W		RS
	240	15.0	3	40 ¹ / ₂	(1029)	30	(14)	FMN740J3S	RS	FMN733A5W		RS
	480	15.0	1	40 ¹ / ₂	(1029)	30	(14)	FMN740J11S	RS	FMN740J3W		RS
	480	15.0	3	40 ¹ / ₂	(1029)	30	(14)	FMN740J5S	RS	FMN740J11W		RS
	240	18.0	3	48	(1219)	32	(15)	FMN748A3S	RS	FMN740J5W		RS
	480	18.0	1	48	(1219)	32	(15)	FMN748A11S	RS	FMN748A3W		RS
	480	18.0	3	48	(1219)	32	(15)	FMN748A5S	RS	FMN748A11W		RS

RAPID SHIP

- RS - Next day shipment up to 5 pieces

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 • For ANSI flange dimensions, reference chart on page 241

© Can be rewired wye to produce 1/3 of the original kW and watt density (3-phase only)

Immersion Heaters

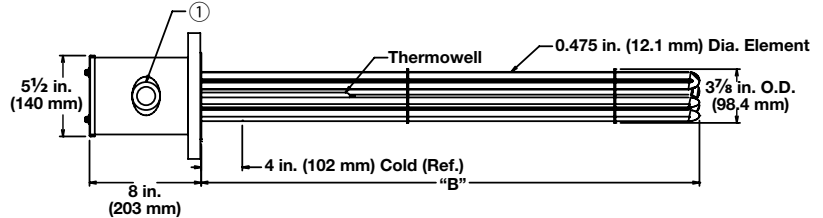
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Process Water

- 4 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
48 W/in ² © Steel Flange 6-Alloy 800 Elements (7.5 W/cm ²)	240	9.0	1	1	13 1/2 (343)	29 (14)	FON713J10S	RS	FON713J10W	RS
	240	9.0	3	1	13 1/2 (343)	29 (14)	FON713J3S	RS	FON713J3W	RS
	480	9.0	1	1	13 1/2 (343)	29 (14)	FON713J11S	RS	FON713J11W	RS
	480	9.0	3	1	13 1/2 (343)	29 (14)	FON713J5S	RS	FON713J5W	RS
	240	12.0	1	2	18 (457)	32 (15)	FON718A10S	RS	FON718A10W	RS
	240	12.0	3	1	18 (457)	32 (15)	FON718A3S	RS	FON718A3W	RS
	480	12.0	1	1	18 (457)	32 (15)	FON718A11S	RS	FON718A11W	RS
	480	12.0	3	1	18 (457)	32 (15)	FON718A5S	RS	FON718A5W	RS
	240	15.0	1	2	20 1/2 (521)	34 (16)	FON720J10S	RS	FON720J10W	RS
	240	15.0	3	1	20 1/2 (521)	34 (16)	FON720J3S	RS	FON720J3W	RS
	480	15.0	1	1	20 1/2 (521)	34 (16)	FON720J11S	RS	FON720J11W	RS
	480	15.0	3	1	20 1/2 (521)	34 (16)	FON720J5S	RS	FON720J5W	RS
	240	18.0	1	2	25 1/2 (648)	36 (17)	FON725J10S	RS	FON725J10W	RS
	240	18.0	3	1	25 1/2 (648)	36 (17)	FON725J3S	RS	FON725J3W	RS
	480	18.0	1	1	25 1/2 (648)	36 (17)	FON725J11S	RS	FON725J11W	RS
	480	18.0	3	1	25 1/2 (648)	36 (17)	FON725J5S	RS	FON725J5W	RS
	240	24.0	1	2	33 (838)	39 (18)	FON733A10S	RS	FON733A10W	RS
	240	24.0	3	2	33 (838)	39 (18)	FON733A3S	RS	FON733A3W	RS
	480	24.0	1	1	33 (838)	39 (18)	FON733A11S	RS	FON733A11W	RS
	480	24.0	3	1	33 (838)	39 (18)	FON733A5S	RS	FON733A5W	RS
	240	30.0	3	2	40 1/2 (1029)	43 (20)	FON740J3S	RS	FON740J3W	RS
	480	30.0	1	2	40 1/2 (1029)	43 (20)	FON740J11S	RS	FON740J11W	RS
	480	30.0	3	1	40 1/2 (1029)	43 (20)	FON740J5S	RS	FON740J5W	RS
	240	36.0	3	2	48 (1219)	48 (22)	FON748A3S	RS	FON748A3W	RS
480	36.0	1	2	48 (1219)	48 (22)	FON748A11S	RS	FON748A11W	RS	
480	36.0	3	1	48 (1219)	48 (22)	FON748A5S	RS	FON748A5W	RS	

RAPID SHIP

- RS - Next day shipment up to 5 pieces

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
• For ANSI flange dimensions, reference chart on page 241

⑥ Can be rewired wye to produce 1/3 of the original kW and watt density (3-phase only)

Immersion Heaters

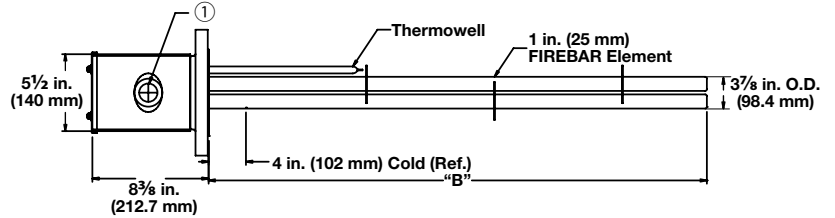
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Process Water

- 4 inch - 150 lb ANSI flange
- FIREBAR elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part		Part	
							Number	Del.	Number	Del.
45 W/in ² 304 SS Flange 6-Alloy 800 Elements (7 W/cm ²)	240	12.0	3	1	13 ³ / ₈ (339.7)	32 (15)	FONF13G27S	RS	FONF13G27W	RS
	240	15.0	3	1	16 (406.0)	35 (16)	FONF16A27S	RS	FONF16A27W	RS
	240	18.0	3	1	18 ³ / ₈ (466.7)	38 (17)	FONF18G27S	RS	FONF18G27W	RS
	240	24.0	3	2	22 ⁷ / ₈ (581.0)	41 (19)	FONF22R27S	RS	FONF22R27W	RS
	480	24.0	3	1	22 ⁷ / ₈ (581.0)	41 (19)	FONF22R28S	RS	FONF22R28W	RS
	240	30.0	3	2	27 ⁷ / ₈ (708.0)	44 (20)	FONF27R27S	RS	FONF27R27W	RS
	480	30.0	3	1	27 ⁷ / ₈ (708.0)	44 (20)	FONF27R28S	RS	FONF27R28W	RS
	240	36.0	3	2	32 ⁷ / ₈ (835.0)	46 (21)	FONF32R27S	RS	FONF32R27W	RS
	480	36.0	3	1	32 ⁷ / ₈ (835.0)	46 (21)	FONF32R28S	RS	FONF32R28W	RS
	480	48.0	3	2	42 ³ / ₈ (1076.3)	50 (23)	FONF42G28S	RS	FONF42G28W	RS
	480	60.0	3	2	51 ⁷ / ₈ (1317.6)	54 (25)	FONF51R28S	RS	FONF51R28W	RS

RAPID SHIP

- RS - Next day shipment up to 5 pieces

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

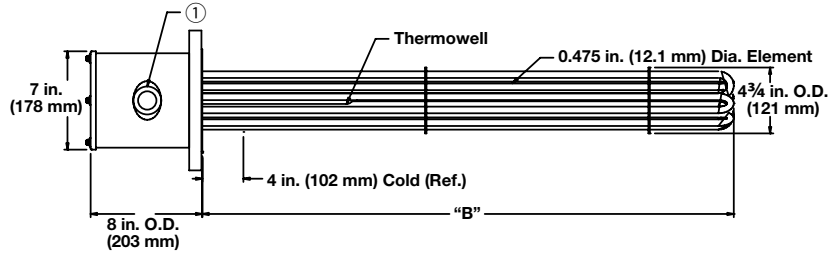
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Process Water

- 5 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim.		Ship Wt.		General Purpose Enclosure		Moisture-Resistant Enclosure	
					in.	(mm)	lbs	(kg)	Part Number	Del.	Part Number	Del.
48 W/in ² Steel Flange 6-Alloy 800 Elements (7.5 W/cm ²)	240	9.0	1	1	13 ¹ / ₂	(343)	33	(15)	FNN713J10S	RS	FNN713J10W	RS
	240	9.0	3	1	13 ¹ / ₂	(343)	33	(15)	FNN713J3S	RS	FNN713J3W	RS
	480	9.0	1	1	13 ¹ / ₂	(343)	33	(15)	FNN713J11S	RS	FNN713J11W	RS
	480	9.0	3	1	13 ¹ / ₂	(343)	33	(15)	FNN713J5S	RS	FNN713J5W	RS
	240	12.0	1	2	18	(457)	36	(17)	FNN718A10S	RS	FNN718A10W	RS
	240	12.0	3	1	18	(457)	36	(17)	FNN718A3S	RS	FNN718A3W	RS
	480	12.0	1	1	18	(457)	36	(17)	FNN718A11S	RS	FNN718A11W	RS
	480	12.0	3	1	18	(457)	36	(17)	FNN718A5S	RS	FNN718A5W	RS
	240	15.0	1	2	20 ¹ / ₂	(521)	38	(18)	FNN720J10S	RS	FNN720J10W	RS
	240	15.0	3	1	20 ¹ / ₂	(521)	38	(18)	FNN720J3S	RS	FNN720J3W	RS
	480	15.0	1	1	20 ¹ / ₂	(521)	38	(18)	FNN720J11S	RS	FNN720J11W	RS
	480	15.0	3	1	20 ¹ / ₂	(521)	38	(18)	FNN720J5S	RS	FNN720J5W	RS
	240	18.0	1	2	25 ¹ / ₂	(648)	40	(19)	FNN725J10S	RS	FNN725J10W	RS
	240	18.0	3	1	25 ¹ / ₂	(648)	40	(19)	FNN725J3S	RS	FNN725J3W	RS
	480	18.0	1	1	25 ¹ / ₂	(648)	40	(19)	FNN725J11S	RS	FNN725J11W	RS
	480	18.0	3	1	25 ¹ / ₂	(648)	40	(19)	FNN725J5S	RS	FNN725J5W	RS
	240	24.0	1	3	33	(838)	43	(20)	FNN733A10S	RS	FNN733A10W	RS
	240	24.0	3	2	33	(838)	43	(20)	FNN733A3S	RS	FNN733A3W	RS
	480	24.0	1	1	33	(838)	43	(20)	FNN733A11S	RS	FNN733A11W	RS
	480	24.0	3	1	33	(838)	43	(20)	FNN733A5S	RS	FNN733A5W	RS
	240	30.0	3	2	40 ¹ / ₂	(1029)	47	(22)	FNN740J3S	RS	FNN740J3W	RS
	480	30.0	1	2	40 ¹ / ₂	(1029)	47	(22)	FNN740J11S	RS	FNN740J11W	RS
	480	30.0	3	1	40 ¹ / ₂	(1029)	47	(22)	FNN740J5S	RS	FNN740J5W	RS
	240	36.0	3	2	48	(1219)	52	(24)	FNN748A3S	RS	FNN748A3W	RS
480	36.0	1	2	48	(1219)	52	(24)	FNN748A11S	RS	FNN748A11W	RS	
480	36.0	3	1	48	(1219)	52	(24)	FNN748A5S	RS	FNN748A5W	RS	

RAPID SHIP

- RS - Next day shipment up to 5 pieces

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

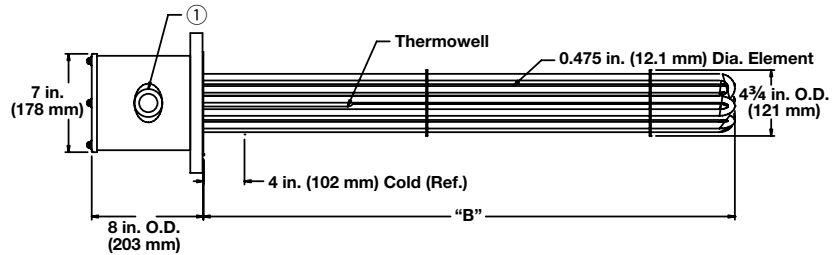
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Process Water

- 5 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim.		Ship Wt.	Part Number		Part Number	
					in.	(mm)		lbs	(kg)	Del.	Del.
48 W/in ² Steel Flange 9-Alloy 800 Elements (7.5 W/cm ²)	240	14.0	1	3	13 ¹ / ₂	(343)	35 (16)	General Purpose Enclosure		Moisture-Resistant Enclosure	
								FNN713J10XS	RS	FNN713J10XW	RS
	240	14.0	3	1	13 ¹ / ₂	(343)	35 (16)	FNN713J3XS	RS	FNN713J3XW	RS
	480	14.0	1	1	13 ¹ / ₂	(343)	35 (16)	FNN713J11XS	RS	FNN713J11XW	RS
	480	14.0	3	1	13 ¹ / ₂	(343)	35 (16)	FNN713J5XS	RS	FNN713J5XW	RS
	240	18.0	1	3	18	(457)	39 (18)	FNN718A10XS	RS	FNN718A10XW	RS
	240	18.0	3	1	18	(457)	39 (18)	FNN718A3XS	RS	FNN718A3XW	RS
	480	18.0	1	1	18	(457)	39 (18)	FNN718A11XS	RS	FNN718A11XW	RS
	480	18.0	3	1	18	(457)	39 (18)	FNN718A5XS	RS	FNN718A5XW	RS
	240	23.0	1	3	20 ¹ / ₂	(521)	42 (19)	FNN720J10XS	RS	FNN720J10XW	RS
	240	23.0	3	3	20 ¹ / ₂	(521)	42 (19)	FNN720J3XS	RS	FNN720J3XW	RS
	480	23.0	1	1	20 ¹ / ₂	(521)	42 (19)	FNN720J11XS	RS	FNN720J11XW	RS
	480	23.0	3	1	20 ¹ / ₂	(521)	42 (19)	FNN720J5XS	RS	FNN720J5XW	RS
	240	27.0	1	3	25 ¹ / ₂	(648)	45 (21)	FNN725J10XS	RS	FNN725J10XW	RS
	240	27.0	3	3	25 ¹ / ₂	(648)	45 (21)	FNN725J3XS	RS	FNN725J3XW	RS
	480	27.0	1	3	25 ¹ / ₂	(648)	45 (21)	FNN725J11XS	RS	FNN725J11XW	RS
	480	27.0	3	1	25 ¹ / ₂	(648)	45 (21)	FNN725J5XS	RS	FNN725J5XW	RS
	240	36.0	3	3	33	(838)	48 (22)	FNN733A3XS	RS	FNN733A3XW	RS
	480	36.0	1	3	33	(838)	48 (22)	FNN733A11XS	RS	FNN733A11XW	RS
	480	36.0	3	1	33	(838)	48 (22)	FNN733A5XS	RS	FNN733A5XW	RS
	240	45.0	3	3	40 ¹ / ₂	(1029)	53 (24)	FNN740J3XS	RS	FNN740J3XW	RS
	480	45.0	1	3	40 ¹ / ₂	(1029)	53 (24)	FNN740J11XS	RS	FNN740J11XW	RS
	480	45.0	3	3	40 ¹ / ₂	(1029)	53 (24)	FNN740J5XS	RS	FNN740J5XW	RS
	240	54.0	3	3	48	(1219)	60 (28)	FNN748A3XS	RS	FNN748A3XW	RS
480	54.0	1	3	48	(1219)	60 (28)	FNN748A11XS	RS	FNN748A11XW	RS	
480	54.0	3	3	48	(1219)	60 (28)	FNN748A5XS	RS	FNN748A5XW	RS	

RAPID SHIP

- RS - Next day shipment up to 5 pieces

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

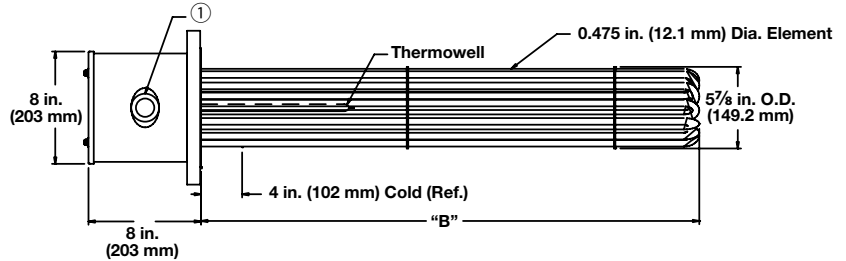
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Process Water

- 6 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim.		Ship Wt.		Part Number	Del.	Part Number	Del.
					in.	(mm)	lbs	(kg)	General Purpose Enclosure	Moisture-Resistant Enclosure		
48 W/in ² Steel Flange 12-Alloy 800 Elements (7.5 W/cm ²)	240	18.0	1	2	13 ³ / ₈	(339.7)	73	(33)	FPN713G10S	RS	FPN713G10W	RS
	240	18.0	3	1	13 ³ / ₈	(339.7)	73	(33)	FPN713G3S	RS	FPN713G3W	RS
	480	18.0	1	1	13 ³ / ₈	(339.7)	73	(33)	FPN713G11S	RS	FPN713G11W	RS
	480	18.0	3	1	13 ³ / ₈	(339.7)	73	(33)	FPN713G5S	RS	FPN713G5W	RS
	240	24.0	1	3	17 ⁷ / ₈	(454.0)	75	(34)	FPN717R10S	M	FPN717R10W	M
	240	24.0	3	2	17 ⁷ / ₈	(454.0)	75	(34)	FPN717R3S	M	FPN717R3W	M
	480	24.0	1	2	17 ⁷ / ₈	(454.0)	75	(34)	FPN717R11S	M	FPN717R11W	M
	480	24.0	3	1	17 ⁷ / ₈	(454.0)	75	(34)	FPN717R5S	M	FPN717R5W	M
	240	30.0	1	3	20 ³ / ₈	(517.5)	78	(36)	FPN720G10S	M	FPN720G10W	M
	240	30.0	3	2	20 ³ / ₈	(517.5)	78	(36)	FPN720G3S	M	FPN720G3W	M
	480	30.0	1	2	20 ³ / ₈	(517.5)	78	(36)	FPN720G11S	M	FPN720G11W	M
	480	30.0	3	1	20 ³ / ₈	(517.5)	78	(36)	FPN720G5S	M	FPN720G5W	M
	240	36.0	1	4	25 ³ / ₈	(644.5)	81	(37)	FPN725G10S	M	FPN725G10W	M
	240	36.0	3	2	25 ³ / ₈	(644.5)	81	(37)	FPN725G3S	M	FPN725G3W	M
	480	36.0	1	2	25 ³ / ₈	(644.5)	81	(37)	FPN725G11S	M	FPN725G11W	M
	480	36.0	3	1	25 ³ / ₈	(644.5)	81	(37)	FPN725G5S	M	FPN725G5W	M
	240	48.0	3	4	32 ⁷ / ₈	(835.0)	85	(39)	FPN732R3S	M	FPN732R3W	M
	480	48.0	1	3	32 ⁷ / ₈	(835.0)	85	(39)	FPN732R11S	M	FPN732R11W	M
	480	48.0	3	2	32 ⁷ / ₈	(835.0)	85	(39)	FPN732R5S	M	FPN732R5W	M
	240	60.0	3	4	40 ³ / ₈	(1025.5)	92	(42)	FPN740G3S	M	FPN740G3W	M
480	60.0	1	3	40 ³ / ₈	(1025.5)	92	(42)	FPN740G11S	M	FPN740G11W	M	
480	60.0	3	2	40 ³ / ₈	(1025.5)	92	(42)	FPN740G5S	M	FPN740G5W	M	
240	72.0	3	4	47 ⁷ / ₈	(1216.0)	100	(46)	FPN747R3S	M	FPN747R3W	M	
480	72.0	3	2	47 ⁷ / ₈	(1216.0)	100	(46)	FPN747R5S	M	FPN747R5W	M	

RAPID SHIP

- **RS** - Next day shipment up to 2 pieces
- **M** - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
 - Truck Shipment only

Immersion Heaters

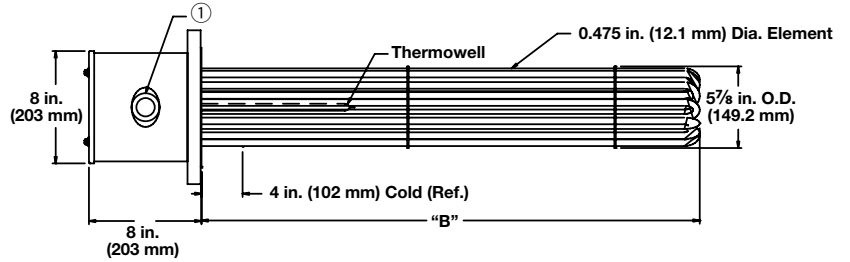
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Process Water

- 6 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)		Ship Wt. lbs (kg)		Part Number		Part Number	
									Del.	Del.	Del.	Del.
48 W/in ² Steel Flange 15-Alloy 800 Elements (7.5 W/cm ²)	240	23.0	1	3	13 ³ / ₈	(339.7)	76	(35)	General Purpose Enclosure		Moisture-Resistant Enclosure	
									FPN713G10XS	M	FPN713G10XW	M
	240	23.0	3	5	13 ³ / ₈	(339.7)	76	(35)	FPN713G3XS	M	FPN713G3XW	M
	480	23.0	1	1	13 ³ / ₈	(339.7)	76	(35)	FPN713G11XS	M	FPN713G11XW	M
	480	23.0	3	1	13 ³ / ₈	(339.7)	76	(35)	FPN713G5XS	M	FPN713G5XW	M
	240	30.0	1	3	17 ⁷ / ₈	(441.3)	78	(36)	FPN717R10XS	M	FPN717R10XW	M
	240	30.0	3	5	17 ⁷ / ₈	(441.3)	78	(36)	FPN717R3XS	M	FPN717R3XW	M
	480	30.0	1	3	17 ⁷ / ₈	(441.3)	78	(36)	FPN717R11XS	M	FPN717R11XW	M
	480	30.0	3	1	17 ⁷ / ₈	(441.3)	78	(36)	FPN717R5XS	M	FPN717R5XW	M
	240	38.0	1	5	20 ³ / ₈	(517.5)	82	(38)	FPN720G10XS	M	FPN720G10XW	M
	240	38.0	3	5	20 ³ / ₈	(517.5)	82	(38)	FPN720G3XS	M	FPN720G3XW	M
	480	38.0	1	3	20 ³ / ₈	(517.5)	82	(38)	FPN720G11XS	M	FPN720G11XW	M
	480	38.0	3	1	20 ³ / ₈	(517.5)	82	(38)	FPN720G5XS	M	FPN720G5XW	M
	240	45.0	1	5	25 ³ / ₈	(644.5)	85	(39)	FPN725G10XS	M	FPN725G10XW	M
	240	45.0	3	5	25 ³ / ₈	(644.5)	85	(39)	FPN725G3XS	M	FPN725G3XW	M
	480	45.0	1	3	25 ³ / ₈	(644.5)	85	(39)	FPN725G11XS	M	FPN725G11XW	M
	480	45.0	3	5	25 ³ / ₈	(644.5)	85	(39)	FPN725G5XS	M	FPN725G5XW	M
	240	60.0	3	5	32 ⁷ / ₈	(835.0)	90	(41)	FPN732R3XS	M	FPN732R3XW	M
	480	60.0	1	3	32 ⁷ / ₈	(835.0)	90	(41)	FPN732R11XS	M	FPN732R11XW	M
	480	60.0	3	5	32 ⁷ / ₈	(835.0)	90	(41)	FPN732R5XS	M	FPN732R5XW	M
	240	75.0	3	5	40 ³ / ₈	(1025.5)	98	(45)	FPN740G3XS	M	FPN740G3XW	M
	480	75.0	1	5	40 ³ / ₈	(1025.5)	98	(45)	FPN740G11XS	M	FPN740G11XW	M
	480	75.0	3	5	40 ³ / ₈	(1025.5)	98	(45)	FPN740G5XS	M	FPN740G5XW	M
	240	90.0	3	5	47 ⁷ / ₈	(1216.0)	108	(49)	FPN747R3XS	M	FPN747R3XW	M
	480	90.0	3	5	47 ⁷ / ₈	(1216.0)	108	(49)	FPN747R5XS	M	FPN747R5XW	M

• M - Manufacturing lead times

- Notes:
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
 - Truck Shipment only

Immersion Heaters

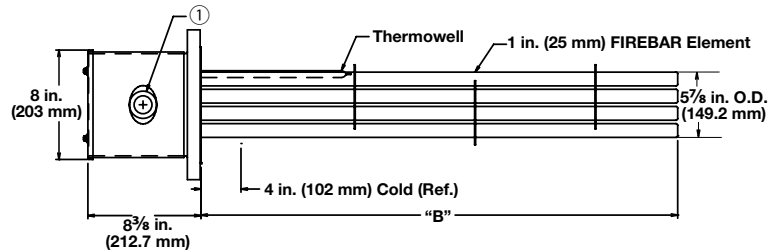
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Process Water

- 6 inch - 150 lb ANSI flange
- FIREBAR elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure		
45 W/in ² 304 SS Flange 15-Alloy 800 Elements (7 W/cm ²)	240	30.0	3	5	13 ³ / ₈ (339.7)	78 (36)	FPNF13G27S	M	FPNF13G27W	M
	240	37.5	3	5	16 (406.0)	81 (37)	FPNF16A27S	M	FPNF16A27W	M
	240	45.0	3	5	18 ³ / ₈ (466.7)	84 (38)	FPNF18G27S	M	FPNF18G27W	M
	240	60.0	3	5	22 ⁷ / ₈ (581.0)	87 (40)	FPNF22R27S	M	FPNF22R27W	M
	480	60.0	3	5	22 ⁷ / ₈ (581.0)	87 (40)	FPNF22R28S	M	FPNF22R28W	M
	240	75.0	3	5	27 ⁷ / ₈ (708.0)	91 (42)	FPNF27R27S	M	FPNF27R27W	M
	480	75.0	3	5	27 ⁷ / ₈ (708.0)	91 (42)	FPNF27R28S	M	FPNF27R28W	M
	240	90.0	3	5	32 ⁷ / ₈ (835.0)	95 (43)	FPNF32R27S	M	FPNF32R27W	M
	480	90.0	3	5	32 ⁷ / ₈ (835.0)	95 (43)	FPNF32R28S	M	FPNF32R28W	M
	480	120.0	3	5	42 ³ / ₈ (1076.3)	106 (48)	FPNF42G28S	M	FPNF42G28W	M
	480	150.0	3	5	51 ⁷ / ₈ (1317.6)	116 (53)	FPNF51R28S	M	FPNF51R28W	M

• M - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
- Truck Shipment only

Immersion Heaters

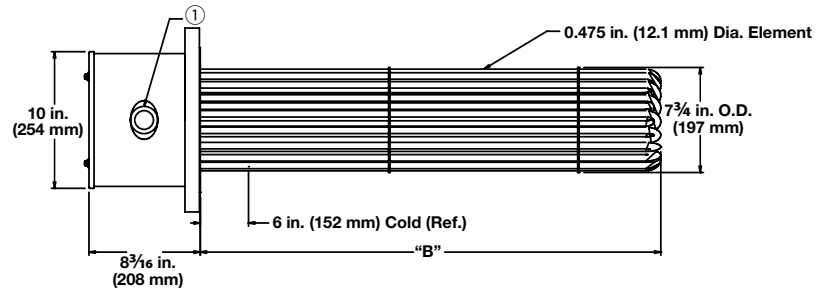
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Process Water

- 8 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
48 W/in ² Steel Flange 18-Alloy 800 Elements (7.5 W/cm ²)	240	50.0	3	3	25 ³ / ₄ (654.0)	121 (55)	FRN725N3S	M	FRN725N3W	M
	480	50.0	1	3	25 ³ / ₄ (654.0)	121 (55)	FRN725N11S	M	FRN725N11W	M
	480	50.0	3	2	25 ³ / ₄ (654.0)	121 (55)	FRN725N5S	M	FRN725N5W	M
	240	75.0	3	6	35 ³ / ₄ (908.0)	130 (59)	FRN735N3S	M	FRN735N3W	M
	480	75.0	3	2	35 ³ / ₄ (908.0)	130 (59)	FRN735N5S	M	FRN735N5W	M
	240	100.0	3	6	44 ¹ / ₄ (1124.0)	132 (60)	FRN744E3S	M	FRN744E3W	M
	480	100.0	3	3	44 ¹ / ₄ (1124.0)	132 (60)	FRN744E5S	M	FRN744E5W	M
	240	125.0	3	6	54 ¹¹ / ₁₆ (1389.1)	140 (64)	FRN754M3S	M	FRN754M3W	M
	480	125.0	3	6	54 ¹¹ / ₁₆ (1389.1)	140 (64)	FRN754M5S	M	FRN754M5W	M
	480	150.0	3	6	63 ¹¹ / ₁₆ (1617.6)	145 (66)	FRN763M5S	M	FRN763M5W	M
	480	175.0	3	6	73 ³ / ₁₆ (1859.0)	151 (69)	FRN773D5S	M	FRN773D5W	M
	480	200.0	3	6	82 ¹¹ / ₁₆ (2100.3)	157 (72)	FRN782M5S	M	FRN782M5W	M
48 W/in ² Steel Flange 24-Alloy 800 Elements (7.5 W/cm ²)	240	67.0	3	4	26 ³ / ₁₆ (665.2)	129 (59)	FRN726D3XS	M	FRN726D3XW	M
	480	67.0	1	3	26 ³ / ₁₆ (665.2)	129 (59)	FRN726D11XS	M	FRN726D11XW	M
	480	67.0	3	2	26 ³ / ₁₆ (665.2)	129 (59)	FRN726D5XS	M	FRN726D5XW	M
	240	100.0	3	8	36 ³ / ₁₆ (919.2)	142 (65)	FRN736D3XS	M	FRN736D3XW	M
	480	100.0	3	4	36 ³ / ₁₆ (919.2)	142 (65)	FRN736D5XS	M	FRN736D5XW	M
	240	133.0	3	8	44 ¹¹ / ₁₆ (1135.1)	147 (67)	FRN744M3XS	M	FRN744M3XW	M
	480	133.0	3	4	44 ¹¹ / ₁₆ (1135.1)	147 (67)	FRN744M5XS	M	FRN744M5XW	M
	240	167.0	3	8	54 ¹¹ / ₁₆ (1389.1)	158 (72)	FRN754M3XS	M	FRN754M3XW	M
	480	167.0	3	8	54 ¹¹ / ₁₆ (1389.1)	158 (72)	FRN754M5XS	M	FRN754M5XW	M
	480	200.0	3	8	63 ¹¹ / ₁₆ (1617.6)	166 (76)	FRN763M5XS	M	FRN763M5XW	M
	480	233.0	3	8	73 ³ / ₁₆ (1859.0)	175 (80)	FRN773D5XS	M	FRN773D5XW	M
	480	267.0	3	8	82 ¹¹ / ₁₆ (2100.3)	184 (84)	FRN782M5XS	M	FRN782M5XW	M

• M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

■ Truck Shipment only

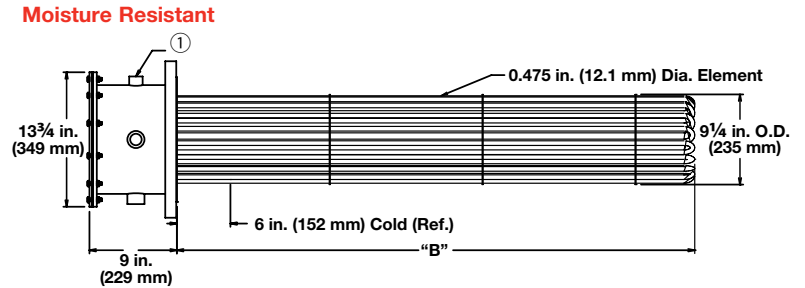
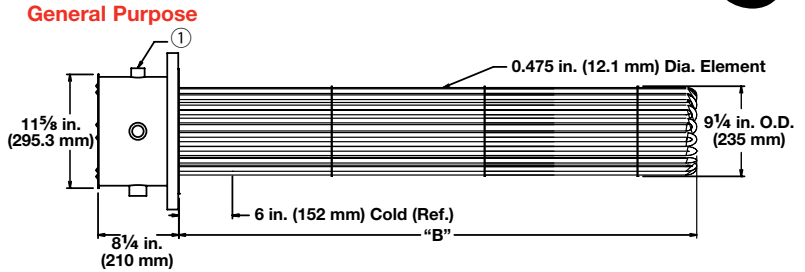
Immersion Heaters

WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Process Water

- 10 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

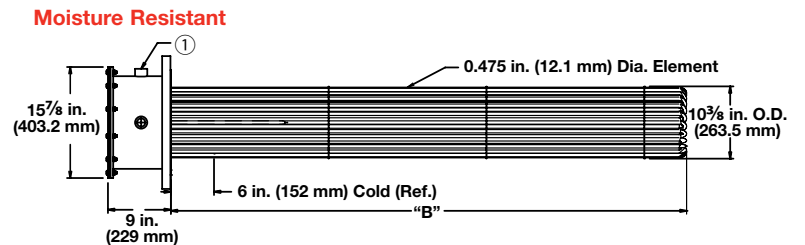
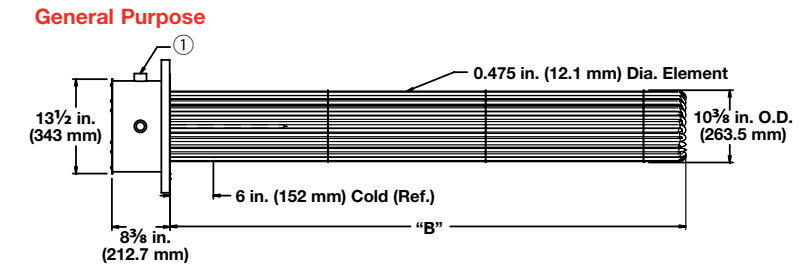


① The number and size of the conduit opening will comply with the National Electrical Code standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
48 W/in ² Steel Flange 27-Alloy 800 Elements (7.5 W/cm ²)	480	190.0	3	9	54 ³ / ₄ (1391)	240 (109)	General Purpose Enclosure FSN754N5S	M	Moisture-Resistant Enclosure FSN754N5W	M
	480	262.0	3	9	73 ¹ / ₄ (1861)	260 (118)	FSN773E5S	M	FSN773E5W	M

Application: Process Water

- 12 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures



① The number and size of the conduit opening will comply with the National Electrical Code standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
48 W/in ² Steel Flange 36-Alloy 800 Elements (7.5 W/cm ²)	480	250.0	3	6	54 ⁵ / ₈ (1387.5)	280 (127)	General Purpose Enclosure FTN754L5S	M	Moisture-Resistant Enclosure FTN754L5W	M
	480	350.0	3	12	73 ¹ / ₈ (1857.4)	291 (132)	FTN773C5S	M	FTN773C5W	M

• M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

■ Truck Shipment only

Immersion Heaters

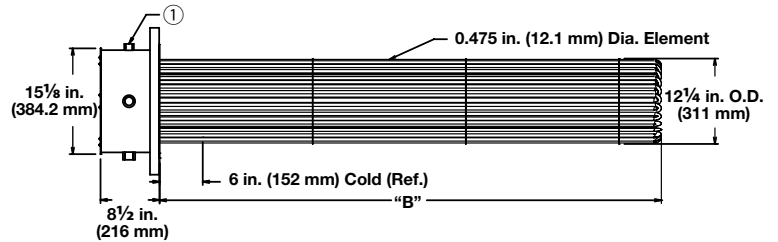
WATROD and FIREBAR ANSI Flange Immersion Heaters



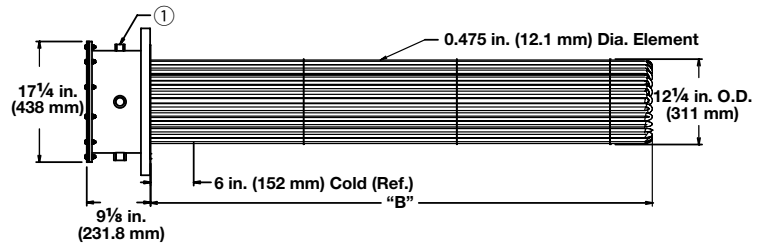
Application: Process Water

- 14 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
48 W/in ² Steel Flange 45-Alloy 800 Elements (7.5 W/cm ²)	480	315.0	3	15	54 1/2 (1384)	300 (136)	FWN754J5S	M	FWN754J5W	M
	480	375.0	3	15	63 1/2 (1613)	310 (141)	FWN763J5S	M	FWN763J5W	M

- **M** - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
- Truck Shipment only

Immersion Heaters

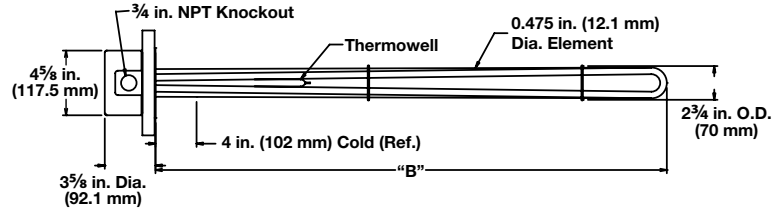
WATROD and FIREBAR ANSI Flange Immersion Heaters



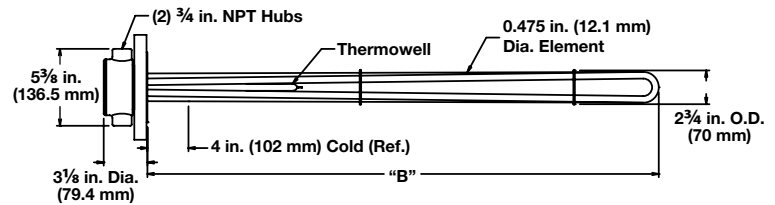
Application: Forced Air and Caustic Solutions

- 3 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures
- Single circuit

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	"B" Dim.		Ship Wt.		General Purpose Enclosure		Moisture-Resistant Enclosure	
				in.	(mm)	lbs	(kg)	Part Number	Del.	Part Number	Del.
23 W/in² ® Steel Flange 3-Alloy 800 Elements (3.6 W/cm²)	240	3.0	1	18	(457)	23	(11)	FMNA18A10S	RS	FMNA18A10W	RS
	240	3.0	3	18	(457)	23	(11)	FMNA18A3S	RS	FMNA18A3W	RS
	480	3.0	1	18	(457)	23	(11)	FMNA18A11S	RS	FMNA18A11W	RS
	480	3.0	3	18	(457)	23	(11)	FMNA18A5S	RS	FMNA18A5W	RS
	240	4.5	1	25½	(648)	27	(13)	FMNA25J10S	RS	FMNA25J10W	RS
	240	4.5	3	25½	(648)	27	(13)	FMNA25J3S	RS	FMNA25J3W	RS
	480	4.5	1	25½	(648)	27	(13)	FMNA25J11S	RS	FMNA25J11W	RS
	480	4.5	3	25½	(648)	27	(13)	FMNA25J5S	RS	FMNA25J5W	RS
	240	6.0	1	33	(838)	28	(13)	FMNA33A10S	RS	FMNA33A10W	RS
	240	6.0	3	33	(838)	28	(13)	FMNA33A3S	RS	FMNA33A3W	RS
	480	6.0	1	33	(838)	28	(13)	FMNA33A11S	RS	FMNA33A11W	RS
	480	6.0	3	33	(838)	28	(13)	FMNA33A5S	RS	FMNA33A5W	RS
	240	7.5	1	40½	(1029)	30	(14)	FMNA40J10S	RS	FMNA40J10W	RS
	240	7.5	3	40½	(1029)	30	(14)	FMNA40J3S	RS	FMNA40J3W	RS
	480	7.5	1	40½	(1029)	30	(14)	FMNA40J11S	RS	FMNA40J11W	RS
	480	7.5	3	40½	(1029)	30	(14)	FMNA40J5S	RS	FMNA40J5W	RS
	240	9.0	1	48	(1219)	32	(15)	FMNA48A10S	RS	FMNA48A10W	RS
	240	9.0	3	48	(1219)	32	(15)	FMNA48A3S	RS	FMNA48A3W	RS
	480	9.0	1	48	(1219)	32	(15)	FMNA48A11S	RS	FMNA48A11W	RS
	480	9.0	3	48	(1219)	32	(15)	FMNA48A5S	RS	FMNA48A5W	RS
	240	12.5	3	64½	(1638)	37	(17)	FMNA64J3S	RS	FMNA64J3W	RS
	480	12.5	1	64½	(1638)	37	(17)	FMNA64J11S	RS	FMNA64J11W	RS
	480	12.5	3	64½	(1638)	37	(17)	FMNA64J5S	RS	FMNA64J5W	RS
	240	15.0	3	77	(1956)	42	(19)	FMNA77A3S	RS	FMNA77A3W	RS
480	15.0	1	77	(1956)	42	(19)	FMNA77A11S	RS	FMNA77A11W	RS	
480	15.0	3	77	(1956)	42	(19)	FMNA77A5S	RS	FMNA77A5W	RS	

RAPID SHIP

- RS - Next day shipment up to 5 pieces

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
• For ANSI flange dimensions, reference chart on page 241

⑥ Can be rewired wye to produce 1/3 of the original kW and watt density (3-phase only)

Immersion Heaters

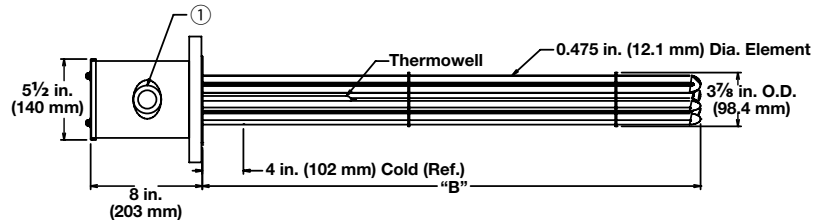
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Forced Air and Caustic Solutions

- 4 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in.	(mm)	Ship Wt. lbs	(kg)	Part Number		Del.	
									General Purpose Enclosure	Moisture-Resistant Enclosure		
23 W/in² © Steel Flange 6-Alloy 800 Elements (3.6 W/cm²)	240	6.0	1	1	18	(457)	32	(15)	FONA18A10S	RS	FONA18A10W	RS
	240	6.0	3	1	18	(457)	32	(15)	FONA18A3S	RS	FONA18A3W	RS
	480	6.0	1	1	18	(457)	32	(15)	FONA18A11S	RS	FONA18A11W	RS
	480	6.0	3	1	18	(457)	32	(15)	FONA18A5S	RS	FONA18A5W	RS
	240	9.0	1	1	25 ^{1/2}	(648)	36	(17)	FONA25J10S	RS	FONA25J10W	RS
	240	9.0	3	1	25 ^{1/2}	(648)	36	(17)	FONA25J3S	RS	FONA25J3W	RS
	480	9.0	1	1	25 ^{1/2}	(648)	36	(17)	FONA25J11S	RS	FONA25J11W	RS
	480	9.0	3	1	25 ^{1/2}	(648)	36	(17)	FONA25J5S	RS	FONA25J5W	RS
	240	12.0	1	2	33	(838)	39	(18)	FONA33A10S	RS	FONA33A10W	RS
	240	12.0	3	1	33	(838)	39	(18)	FONA33A3S	RS	FONA33A3W	RS
	480	12.0	1	1	33	(838)	39	(18)	FONA33A11S	RS	FONA33A11W	RS
	480	12.0	3	1	33	(838)	39	(18)	FONA33A5S	RS	FONA33A5W	RS
	240	15.0	1	2	40 ^{1/2}	(1029)	43	(20)	FONA40J10S	RS	FONA40J10W	RS
	240	15.0	3	1	40 ^{1/2}	(1029)	43	(20)	FONA40J3S	RS	FONA40J3W	RS
	480	15.0	1	1	40 ^{1/2}	(1029)	43	(20)	FONA40J11S	RS	FONA40J11W	RS
	480	15.0	3	1	40 ^{1/2}	(1029)	43	(20)	FONA40J5S	RS	FONA40J5W	RS
	240	18.0	1	2	48	(1219)	48	(22)	FONA48A10S	RS	FONA48A10W	RS
	240	18.0	3	1	48	(1219)	48	(22)	FONA48A3S	RS	FONA48A3W	RS
	480	18.0	1	1	48	(1219)	48	(22)	FONA48A11S	RS	FONA48A11W	RS
	480	18.0	3	1	48	(1219)	48	(22)	FONA48A5S	RS	FONA48A5W	RS
	240	25.0	3	2	64 ^{1/2}	(1638)	53	(24)	FONA64J3S	RS	FONA64J3W	RS
	480	25.0	1	2	64 ^{1/2}	(1638)	53	(24)	FONA64J11S	RS	FONA64J11W	RS
	480	25.0	3	1	64 ^{1/2}	(1638)	53	(24)	FONA64J5S	RS	FONA64J5W	RS
	240	30.0	3	2	77	(1956)	61	(28)	FONA77A3S	RS	FONA77A3W	RS
480	30.0	1	2	77	(1956)	61	(28)	FONA77A11S	RS	FONA77A11W	RS	
480	30.0	3	1	77	(1956)	61	(28)	FONA77A5S	RS	FONA77A5W	RS	

RAPID SHIP

- RS - Next day shipment up to 5 pieces

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
• For ANSI flange dimensions, reference chart on page 241

⑥ Can be rewired wye to produce 1/3 of the original kW and watt density (3-phase only)

Immersion Heaters

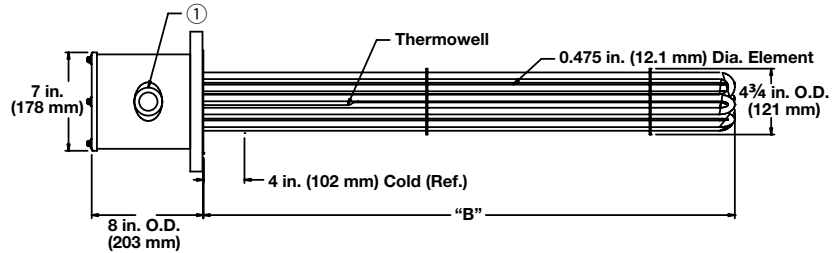
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Forced Air and Caustic Solutions

- 5 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
23 W/in² ⑥ Steel Flange 6-Alloy 800 Elements (3.6 W/cm²)	240	6.0	1	1	18 (457)	36 (17)	FNNA18A10S	RS	FNNA18A10W	RS
	240	6.0	3	1	18 (457)	36 (17)	FNNA18A3S	RS	FNNA18A3W	RS
	480	6.0	1	1	18 (457)	36 (17)	FNNA18A11S	RS	FNNA18A11W	RS
	480	6.0	3	1	18 (457)	36 (17)	FNNA18A5S	RS	FNNA18A5W	RS
	240	9.0	1	1	25 1/2 (648)	40 (19)	FNNA25J10S	RS	FNNA25J10W	RS
	240	9.0	3	1	25 1/2 (648)	40 (19)	FNNA25J3S	RS	FNNA25J3W	RS
	480	9.0	1	1	25 1/2 (648)	40 (19)	FNNA25J11S	RS	FNNA25J11W	RS
	480	9.0	3	1	25 1/2 (648)	40 (19)	FNNA25J5S	RS	FNNA25J5W	RS
	240	12.0	1	2	33 (838)	43 (20)	FNNA33A10S	RS	FNNA33A10W	RS
	240	12.0	3	1	33 (838)	43 (20)	FNNA33A3S	RS	FNNA33A3W	RS
	480	12.0	1	1	33 (838)	43 (20)	FNNA33A11S	RS	FNNA33A11W	RS
	480	12.0	3	1	33 (838)	43 (20)	FNNA33A5S	RS	FNNA33A5W	RS
	240	15.0	1	2	40 1/2 (1029)	47 (22)	FNNA40J10S	RS	FNNA40J10W	RS
	240	15.0	3	1	40 1/2 (1029)	47 (22)	FNNA40J3S	RS	FNNA40J3W	RS
	480	15.0	1	1	40 1/2 (1029)	47 (22)	FNNA40J11S	RS	FNNA40J11W	RS
	480	15.0	3	1	40 1/2 (1029)	47 (22)	FNNA40J5S	RS	FNNA40J5W	RS
	240	18.0	1	2	48 (1219)	52 (24)	FNNA48A10S	RS	FNNA48A10W	RS
	240	18.0	3	1	48 (1219)	52 (24)	FNNA48A3S	RS	FNNA48A3W	RS
	480	18.0	1	1	48 (1219)	52 (24)	FNNA48A11S	RS	FNNA48A11W	RS
	480	18.0	3	1	48 (1219)	52 (24)	FNNA48A5S	RS	FNNA48A5W	RS
	240	25.0	3	2	64 1/2 (1638)	57 (26)	FNNA64J3S	RS	FNNA64J3W	RS
	480	25.0	1	2	64 1/2 (1638)	57 (26)	FNNA64J11S	RS	FNNA64J11W	RS
	480	25.0	3	1	64 1/2 (1638)	57 (26)	FNNA64J5S	RS	FNNA64J5W	RS
	240	30.0	3	2	77 (1956)	65 (30)	FNNA77A3S	RS	FNNA77A3W	RS
480	30.0	1	2	77 (1956)	65 (30)	FNNA77A11S	RS	FNNA77A11W	RS	
480	30.0	3	1	77 (1956)	65 (30)	FNNA77A5S	RS	FNNA77A5W	RS	

RAPID SHIP

- RS - Next day shipment up to 5 pieces

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 • For ANSI flange dimensions, reference chart on page 241

⑥ Can be rewired wye to produce 1/3 of the original kW and watt density (3-phase only)

Immersion Heaters

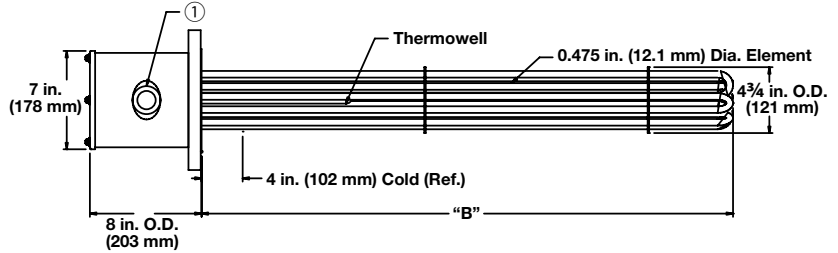
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Forced Air and Caustic Solutions

- 5 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in.	(mm)	Ship Wt. lbs	(kg)	General Purpose Enclosure		Moisture-Resistant Enclosure	
									Part Number	Del.	Part Number	Del.
23 W/in² © Steel Flange 9-Alloy 800 Elements (3.6 W/cm²)	240	9.0	1	1	18	(457)	39	(18)	FNNA18A10XS	RS	FNNA18A10XW	RS
	240	9.0	3	1	18	(457)	39	(18)	FNNA18A3XS	RS	FNNA18A3XW	RS
	480	9.0	1	1	18	(457)	39	(18)	FNNA18A11XS	RS	FNNA18A11XW	RS
	480	9.0	3	1	18	(457)	39	(18)	FNNA18A5XS	RS	FNNA18A5XW	RS
	240	14.0	1	3	25 ^{1/2}	(648)	45	(21)	FNNA25J10XS	RS	FNNA25J10XW	RS
	240	14.0	3	1	25 ^{1/2}	(648)	45	(21)	FNNA25J3XS	RS	FNNA25J3XW	RS
	480	14.0	1	1	25 ^{1/2}	(648)	45	(21)	FNNA25J11XS	RS	FNNA25J11XW	RS
	480	14.0	3	1	25 ^{1/2}	(648)	45	(21)	FNNA25J5XS	RS	FNNA25J5XW	RS
	240	18.0	1	3	33	(838)	48	(22)	FNNA33A10XS	RS	FNNA33A10XW	RS
	240	18.0	3	1	33	(838)	48	(22)	FNNA33A3XS	RS	FNNA33A3XW	RS
	480	18.0	1	1	33	(838)	48	(22)	FNNA33A11XS	RS	FNNA33A11XW	RS
	480	18.0	3	1	33	(838)	48	(22)	FNNA33A5XS	RS	FNNA33A5XW	RS
	240	23.0	1	3	40 ^{1/2}	(1029)	53	(24)	FNNA40J10XS	RS	FNNA40J10XW	RS
	240	23.0	3	3	40 ^{1/2}	(1029)	53	(24)	FNNA40J3XS	RS	FNNA40J3XW	RS
	480	23.0	1	1	40 ^{1/2}	(1029)	53	(24)	FNNA40J11XS	RS	FNNA40J11XW	RS
	480	23.0	3	1	40 ^{1/2}	(1029)	53	(24)	FNNA40J5XS	RS	FNNA40J5XW	RS
	240	27.0	1	3	48	(1219)	60	(28)	FNNA48A10XS	RS	FNNA48A10XW	RS
	240	27.0	3	3	48	(1219)	60	(28)	FNNA48A3XS	RS	FNNA48A3XW	RS
	480	27.0	1	3	48	(1219)	60	(28)	FNNA48A11XS	RS	FNNA48A11XW	RS
	480	27.0	3	1	48	(1219)	60	(28)	FNNA48A5XS	RS	FNNA48A5XW	RS
	240	38.0	3	3	64 ^{1/2}	(1638)	68	(31)	FNNA64J3XS	RS	FNNA64J3XW	RS
	480	38.0	1	3	64 ^{1/2}	(1638)	68	(31)	FNNA64J11XS	RS	FNNA64J11XW	RS
	480	38.0	3	1	64 ^{1/2}	(1638)	68	(31)	FNNA64J5XS	RS	FNNA64J5XW	RS
	240	45.0	3	3	77	(1956)	78	(36)	FNNA77A3XS	M	FNNA77A3XW	M
	480	45.0	1	3	77	(1956)	78	(36)	FNNA77A11XS	M	FNNA77A11XW	M
	480	45.0	3	3	77	(1956)	78	(36)	FNNA77A5XS	M	FNNA77A5XW	M

RAPID SHIP
 • RS - Next day shipment up to 5 pieces
 • M - Manufacturing lead times

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 • For ANSI flange dimensions, reference chart on page 241

⑥ Can be rewired wye to produce 1/3 of the original kW and watt density (3-phase only)

■ Truck Shipment only

Immersion Heaters

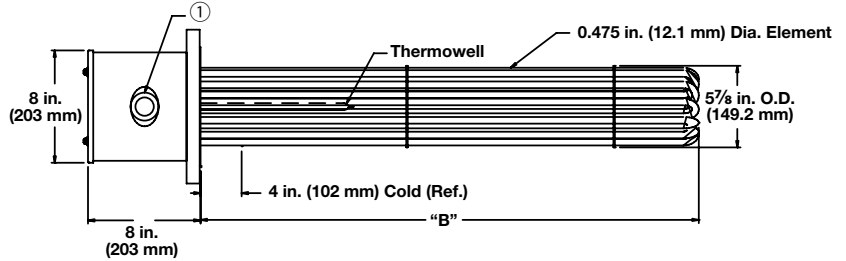
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Forced Air and Caustic Solutions

- 6 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure		
23 W/in² ⑥ Steel Flange 12-Alloy 800 Elements (3.6 W/cm²)	240	12.0	1	2	17 ⁷ / ₈ (454.0)	75 (34)	FPNA17R10S	M	FPNA17R10W	M
	240	12.0	3	1	17 ⁷ / ₈ (454.0)	75 (34)	FPNA17R3S	M	FPNA17R3W	M
	480	12.0	1	1	17 ⁷ / ₈ (454.0)	75 (34)	FPNA17R11S	M	FPNA17R11W	M
	480	12.0	3	1	17 ⁷ / ₈ (454.0)	75 (34)	FPNA17R5S	M	FPNA17R5W	M
	240	18.0	1	2	25 ³ / ₈ (644.5)	81 (37)	FPNA25G10S	M	FPNA25G10W	M
	240	18.0	3	1	25 ³ / ₈ (644.5)	81 (37)	FPNA25G3S	M	FPNA25G3W	M
	480	18.0	1	1	25 ³ / ₈ (644.5)	81 (37)	FPNA25G11S	M	FPNA25G11W	M
	480	18.0	3	1	25 ³ / ₈ (644.5)	81 (37)	FPNA25G5S	M	FPNA25G5W	M
	240	24.0	1	3	32 ⁷ / ₈ (835.0)	85 (39)	FPNA32R10S	M	FPNA32R10W	M
	240	24.0	3	2	32 ⁷ / ₈ (835.0)	85 (39)	FPNA32R3S	M	FPNA32R3W	M
	480	24.0	1	2	32 ⁷ / ₈ (835.0)	85 (39)	FPNA32R11S	M	FPNA32R11W	M
	480	24.0	3	1	32 ⁷ / ₈ (835.0)	85 (39)	FPNA32R5S	M	FPNA32R5W	M
	240	30.0	1	3	40 ³ / ₈ (1025.5)	92 (42)	FPNA40G10S	M	FPNA40G10W	M
	240	30.0	3	2	40 ³ / ₈ (1025.5)	92 (42)	FPNA40G3S	M	FPNA40G3W	M
	480	30.0	1	2	40 ³ / ₈ (1025.5)	92 (42)	FPNA40G11S	M	FPNA40G11W	M
	480	30.0	3	1	40 ³ / ₈ (1025.5)	92 (42)	FPNA40G5S	M	FPNA40G5W	M
	240	36.0	1	4	47 ⁷ / ₈ (1216.0)	100 (46)	FPNA47R10S	M	FPNA47R10W	M
	240	36.0	3	2	47 ⁷ / ₈ (1216.0)	100 (46)	FPNA47R3S	M	FPNA47R3W	M
	480	36.0	1	2	47 ⁷ / ₈ (1216.0)	100 (46)	FPNA47R11S	M	FPNA47R11W	M
	480	36.0	3	1	47 ⁷ / ₈ (1216.0)	100 (46)	FPNA47R5S	M	FPNA47R5W	M
	240	50.0	3	4	64 ³ / ₈ (1635.1)	110 (50)	FPNA64G3S	M	FPNA64G3W	M
	480	50.0	1	3	64 ³ / ₈ (1635.1)	110 (50)	FPNA64G11S	M	FPNA64G11W	M
	480	50.0	3	2	64 ³ / ₈ (1635.1)	110 (50)	FPNA64G5S	M	FPNA64G5W	M
	240	60.0	3	4	76 ⁷ / ₈ (1952.4)	118 (54)	FPNA76R3S	M	FPNA76R3W	M
480	60.0	1	3	76 ⁷ / ₈ (1952.4)	118 (54)	FPNA76R11S	M	FPNA76R11W	M	
480	60.0	3	2	76 ⁷ / ₈ (1952.4)	118 (54)	FPNA76R5S	M	FPNA76R5W	M	

• M - Manufacturing lead times

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 • For ANSI flange dimensions, reference chart on page 241

⑥ Can be rewired wye to produce 1/3 of the original kW and watt density (3-phase only)

■ Truck Shipment only

Immersion Heaters

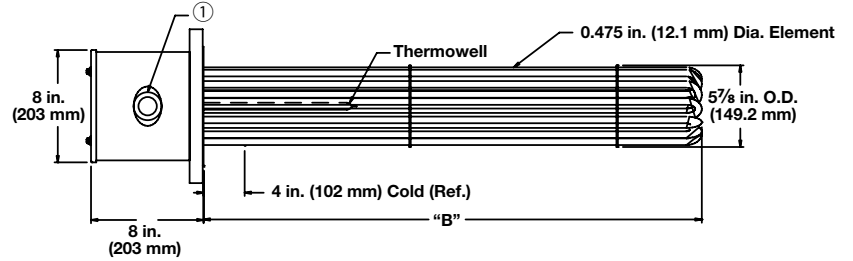
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Forced Air and Caustic Solutions

- 6 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure		
23 W/in² ⑥ Steel Flange 15-Alloy 800 Elements (3.6 W/cm²)	240	15.0	1	3	17 ⁷ / ₈ (454.0)	78 (36)	FPNA17R10XS	M	FPNA17R10XW	M
	240	15.0	3	1	17 ⁷ / ₈ (454.0)	78 (36)	FPNA17R3XS	M	FPNA17R3XW	M
	480	15.0	1	1	17 ⁷ / ₈ (454.0)	78 (36)	FPNA17R11XS	M	FPNA17R11XW	M
	480	15.0	3	1	17 ⁷ / ₈ (454.0)	78 (36)	FPNA17R5XS	M	FPNA17R5XW	M
	240	23.0	1	3	25 ³ / ₈ (644.5)	85 (39)	FPNA25G10XS	M	FPNA25G10XW	M
	240	23.0	3	5	25 ³ / ₈ (644.5)	85 (39)	FPNA25G3XS	M	FPNA25G3XW	M
	480	23.0	1	1	25 ³ / ₈ (644.5)	85 (39)	FPNA25G11XS	M	FPNA25G11XW	M
	480	23.0	3	1	25 ³ / ₈ (644.5)	85 (39)	FPNA25G5XS	M	FPNA25G5XW	M
	240	30.0	1	3	32 ⁷ / ₈ (835.0)	90 (41)	FPNA32R10XS	M	FPNA32R10XW	M
	240	30.0	3	5	32 ⁷ / ₈ (835.0)	90 (41)	FPNA32R3XS	M	FPNA32R3XW	M
	480	30.0	1	3	32 ⁷ / ₈ (835.0)	90 (41)	FPNA32R11XS	M	FPNA32R11XW	M
	480	30.0	3	1	32 ⁷ / ₈ (835.0)	90 (41)	FPNA32R5XS	M	FPNA32R5XW	M
	240	38.0	1	5	40 ³ / ₈ (1025.5)	98 (45)	FPNA40G10XS	M	FPNA40G10XW	M
	240	38.0	3	5	40 ³ / ₈ (1025.5)	98 (45)	FPNA40G3XS	M	FPNA40G3XW	M
	480	38.0	1	3	40 ³ / ₈ (1025.5)	98 (45)	FPNA40G11XS	M	FPNA40G11XW	M
	480	38.0	3	1	40 ³ / ₈ (1025.5)	98 (45)	FPNA40G5XS	M	FPNA40G5XW	M
	240	45.0	1	5	47 ⁷ / ₈ (1216.0)	108 (49)	FPNA47R10XS	M	FPNA47R10XW	M
	240	45.0	3	5	47 ⁷ / ₈ (1216.0)	108 (49)	FPNA47R3XS	M	FPNA47R3XW	M
	480	45.0	1	3	47 ⁷ / ₈ (1216.0)	108 (49)	FPNA47R11XS	M	FPNA47R11XW	M
	480	45.0	3	5	47 ⁷ / ₈ (1216.0)	108 (49)	FPNA47R5XS	M	FPNA47R5XW	M
	240	63.0	3	5	64 ³ / ₈ (1635.1)	120 (55)	FPNA64G3XS	M	FPNA64G3XW	M
	480	63.0	1	3	64 ³ / ₈ (1635.1)	120 (55)	FPNA64G11XS	M	FPNA64G11XW	M
	480	63.0	3	5	64 ³ / ₈ (1635.1)	120 (55)	FPNA64G5XS	M	FPNA64G5XW	M
	240	75.0	3	5	76 ⁷ / ₈ (1952.4)	131 (60)	FPNA76R3XS	M	FPNA76R3XW	M
480	75.0	1	5	76 ⁷ / ₈ (1952.4)	131 (60)	FPNA76R11XS	M	FPNA76R11XW	M	
480	75.0	3	5	76 ⁷ / ₈ (1952.4)	131 (60)	FPNA76R5XS	M	FPNA76R5XW	M	

• M - Manufacturing lead times

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
• For ANSI flange dimensions, reference chart on page 241

⑥ Can be rewired wye to produce 1/3 of the original kW and watt density (3-phase only)

■ Truck Shipment only

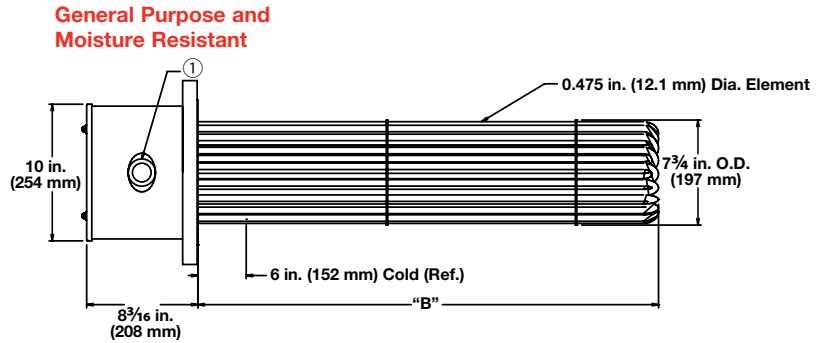
Immersion Heaters

WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Forced Air and Caustic Solutions

- 8 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)		Ship Wt. lbs (kg)	General Purpose Enclosure		Moisture-Resistant Enclosure	
								Part Number	Del.	Part Number	Del.
23 W/in² ® Steel Flange 18-Alloy 800 Elements (3.6 W/cm²)	240	30.0	1	3	32 ³ / ₄	(832.0)	130 (59)	FRNA32N10S	M	FRNA32N10W	M
	240	30.0	3	2	32 ³ / ₄	(832.0)	130 (59)	FRNA32N3S	M	FRNA32N3W	M
	480	30.0	1	2	32 ³ / ₄	(832.0)	130 (59)	FRNA32N11S	M	FRNA32N11W	M
	480	30.0	3	1	32 ³ / ₄	(832.0)	130 (59)	FRNA32N5S	M	FRNA32N5W	M
	240	40.0	3	3	43 ¹ / ₄	(1099.0)	132 (60)	FRNA43E3S	M	FRNA43E3W	M
	480	40.0	1	2	43 ¹ / ₄	(1099.0)	132 (60)	FRNA43E11S	M	FRNA43E11W	M
	480	40.0	3	3	43 ¹ / ₄	(1099.0)	132 (60)	FRNA43E5S	M	FRNA43E5W	M
	240	50.0	3	3	51 ¹¹ / ₁₆	(1312.9)	137 (63)	FRNA51M3S	M	FRNA51M3W	M
	480	50.0	1	3	51 ¹¹ / ₁₆	(1312.9)	137 (63)	FRNA51M11S	M	FRNA51M11W	M
	480	50.0	3	2	51 ¹¹ / ₁₆	(1312.9)	137 (63)	FRNA51M5S	M	FRNA51M5W	M
23 W/in² ® Steel Flange 24-Alloy 800 Elements (3.6 W/cm²)	240	40.0	1	4	33 ³ / ₁₆	(843.0)	142 (65)	FRNA33D10XS	M	FRNA33D10XW	M
	240	40.0	3	4	33 ³ / ₁₆	(843.0)	142 (65)	FRNA33D3XS	M	FRNA33D3XW	M
	480	40.0	1	2	33 ³ / ₁₆	(843.0)	142 (65)	FRNA33D11XS	M	FRNA33D11XW	M
	480	40.0	3	2	33 ³ / ₁₆	(843.0)	142 (65)	FRNA33D5XS	M	FRNA33D5XW	M
	240	53.0	3	4	43 ¹¹ / ₁₆	(1109.7)	147 (67)	FRNA43M3XS	M	FRNA43M3XW	M
	480	53.0	1	3	43 ¹¹ / ₁₆	(1109.7)	147 (67)	FRNA43M11XS	M	FRNA43M11XW	M
	480	53.0	3	2	43 ¹¹ / ₁₆	(1109.7)	147 (67)	FRNA43M5XS	M	FRNA43M5XW	M
	240	67.0	3	4	51 ¹¹ / ₁₆	(1312.9)	154 (70)	FRNA51M3XS	M	FRNA51M3XW	M
	480	67.0	1	3	51 ¹¹ / ₁₆	(1312.9)	154 (70)	FRNA51M11XS	M	FRNA51M11XW	M
	480	67.0	3	2	51 ¹¹ / ₁₆	(1312.9)	154 (70)	FRNA51M5XS	M	FRNA51M5XW	M

• M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

⑥ Can be rewired wye to produce 1/3 of the original kW and watt density (3-phase only)

■ Truck Shipment only

Immersion Heaters

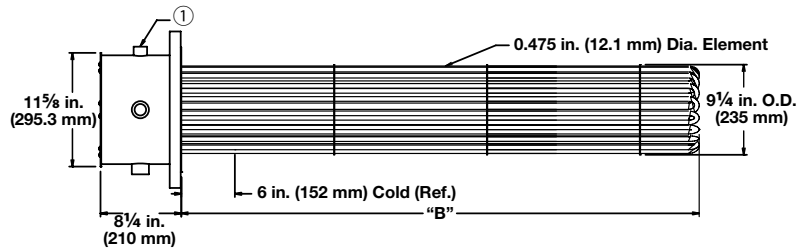
WATROD and FIREBAR ANSI Flange Immersion Heaters



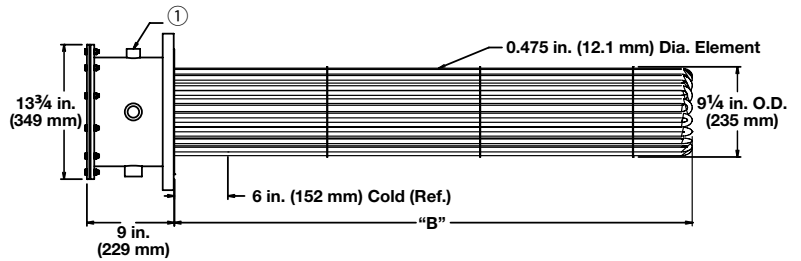
Application: Forced Air and Caustic Solutions

- 10 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	General Purpose Enclosure		Moisture-Resistant Enclosure	
							Part Number	Del.	Part Number	Del.
23 W/in ² Steel Flange 27-Alloy 800 Elements (3.6 W/cm ²)	240	45.0	3	3	33 ¹ / ₄ (845)	165 (75)	FSNA33E3S	M	FSNA33E3W	M
	480	45.0	3	3	33 ¹ / ₄ (845)	165 (75)	FSNA33E5S	M	FSNA33E5W	M
	240	60.0	3	3	43 ³ / ₄ (1111)	195 (89)	FSNA43N3S	M	FSNA43N3W	M
	480	60.0	3	3	43 ³ / ₄ (1111)	195 (89)	FSNA43N5S	M	FSNA43N5W	M
	240	75.0	3	9	51 ³ / ₄ (1314)	230 (105)	FSNA51N3S	M	FSNA51N3W	M
	480	75.0	3	3	51 ³ / ₄ (1314)	230 (105)	FSNA51N5S	M	FSNA51N5W	M

• M - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

■ Truck Shipment only

Immersion Heaters

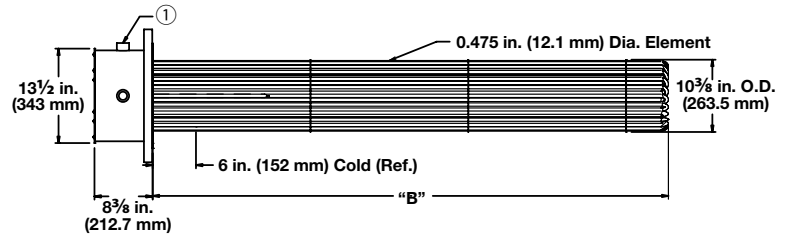
WATROD and FIREBAR ANSI Flange Immersion Heaters



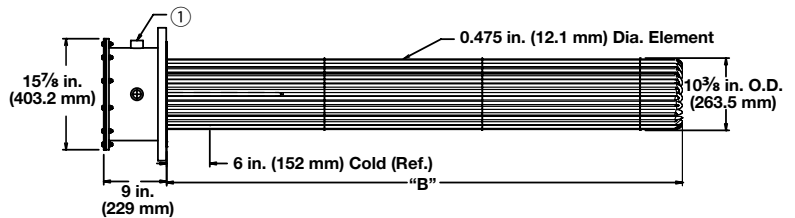
Application: Forced Air and Caustic Solutions

- 12 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
23 W/in ² Steel Flange 36-Alloy 800 Elements (3.6 W/cm ²)	480	60.0	3	3	33 ¹ / ₈ (841.4)	205 (93)	FTNA33C5S	M	FTNA33C5W	M
	480	80.0	3	3	43 ⁵ / ₈ (1108.1)	240 (109)	FTNA43L5S	M	FTNA43L5W	M
	480	100.0	3	3	51 ⁵ / ₈ (1311.3)	280 (127)	FTNA51L5S	M	FTNA51L5W	M

• M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

■ Truck Shipment only

Immersion Heaters

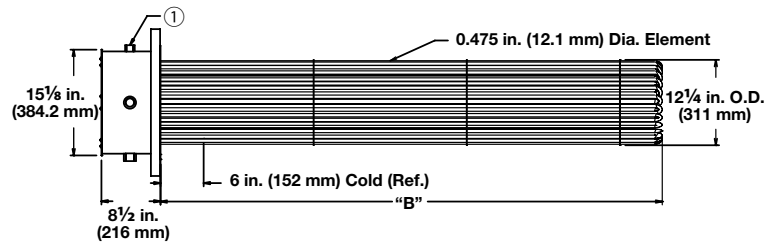
WATROD and FIREBAR ANSI Flange Immersion Heaters



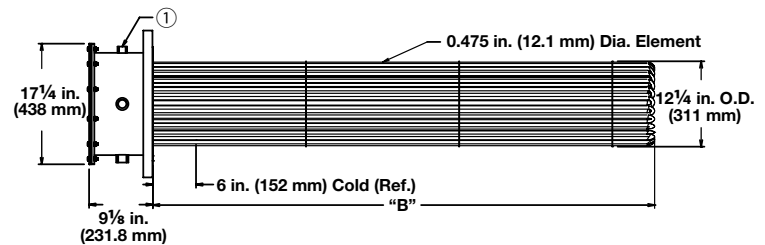
Application: Forced Air and Caustic Solutions

- 14 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
23 W/in ² Steel Flange 45-Alloy 800 Elements (3.6 W/cm ²)	480	75.0	3	3	33 (838)	225 (102)	FWNA33A5S	M	FWNA33A5W	M
	480	100.0	3	3	43 1/2 (1105)	255 (116)	FWNA43J5S	M	FWNA43J5W	M
	480	125.0	3	5	51 1/2 (1308)	300 (136)	FWNA51J5S	M	FWNA51J5W	M

- M - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
- Truck Shipment only

Immersion Heaters

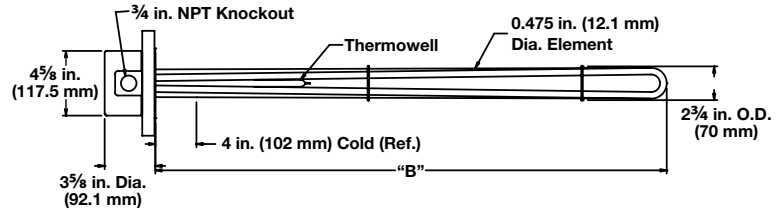
WATROD and FIREBAR ANSI Flange Immersion Heaters



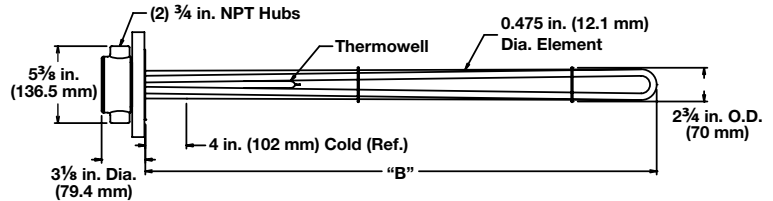
Application: Lightweight Oils and Heat Transfer Oils

- 3 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures
- Single circuit

General Purpose



Moisture Resistant



Description	Volts	kW	Ph	"B" Dim.		Ship Wt.		Part Number	Del.	Part Number	Del.
				in.	(mm)	lbs	(kg)	General Purpose Enclosure		Moisture-Resistant Enclosure	
23 W/in ² Steel Flange 3-Steel Elements (3.6 W/cm ²)	240	3.0	1	18	(457)	23	(11)	FMS718A10S	RS	FMS718A10W	RS
	240	3.0	3	18	(457)	23	(11)	FMS718A3S	RS	FMS718A3W	RS
	480	3.0	1	18	(457)	23	(11)	FMS718A11S	RS	FMS718A11W	RS
	480	3.0	3	18	(457)	23	(11)	FMS718A5S	RS	FMS718A5W	RS
	240	4.5	1	25 ¹ / ₂	(648)	27	(13)	FMS725J10S	RS	FMS725J10W	RS
	240	4.5	3	25 ¹ / ₂	(648)	27	(13)	FMS725J3S	RS	FMS725J3W	RS
	480	4.5	1	25 ¹ / ₂	(648)	27	(13)	FMS725J11S	RS	FMS725J11W	RS
	480	4.5	3	25 ¹ / ₂	(648)	27	(13)	FMS725J5S	RS	FMS725J5W	RS
	240	6.0	1	33	(838)	28	(13)	FMS733A10S	RS	FMS733A10W	RS
	240	6.0	3	33	(838)	28	(13)	FMS733A3S	RS	FMS733A3W	RS
	480	6.0	1	33	(838)	28	(13)	FMS733A11S	RS	FMS733A11W	RS
	480	6.0	3	33	(838)	28	(13)	FMS733A5S	RS	FMS733A5W	RS
	240	7.5	1	40 ¹ / ₂	(1029)	30	(14)	FMS740J10S	RS	FMS740J10W	RS
	240	7.5	3	40 ¹ / ₂	(1029)	30	(14)	FMS740J3S	RS	FMS740J3W	RS
	480	7.5	1	40 ¹ / ₂	(1029)	30	(14)	FMS740J11S	RS	FMS740J11W	RS
	480	7.5	3	40 ¹ / ₂	(1029)	30	(14)	FMS740J5S	RS	FMS740J5W	RS
	240	9.0	1	48	(1219)	32	(15)	FMS748A10S	RS	FMS748A10W	RS
	240	9.0	3	48	(1219)	32	(15)	FMS748A3S	RS	FMS748A3W	RS
	480	9.0	1	48	(1219)	32	(15)	FMS748A11S	RS	FMS748A11W	RS
	480	9.0	3	48	(1219)	32	(15)	FMS748A5S	RS	FMS748A5W	RS
	240	12.5	3	64 ¹ / ₂	(1638)	37	(17)	FMS764J3S	RS	FMS764J3W	RS
	480	12.5	1	64 ¹ / ₂	(1638)	37	(17)	FMS764J11S	RS	FMS764J11W	RS
	480	12.5	3	64 ¹ / ₂	(1638)	37	(17)	FMS764J5S	RS	FMS764J5W	RS
	240	15.0	3	77	(1956)	42	(19)	FMS777A3S	RS	FMS777A3W	RS
	480	15.0	1	77	(1956)	42	(19)	FMS777A11S	RS	FMS777A11W	RS
	480	15.0	3	77	(1956)	42	(19)	FMS777A5S	RS	FMS777A5W	RS

RAPID SHIP

- RS - Next day shipment up to 5 pieces

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

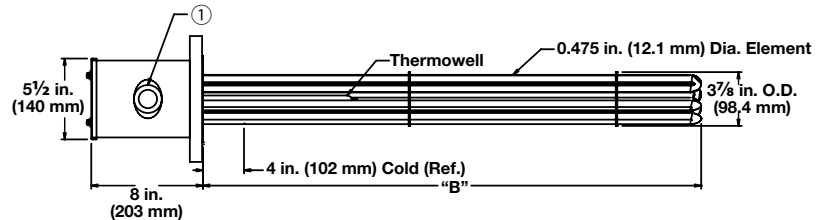
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Lightweight Oils and Heat Transfer Oils

- 4 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
23 W/in ² Steel Flange 6-Steel Elements (3.6 W/cm ²)	240	6.0	1	1	18 (457)	32 (15)	FOS718A10S	RS	FOS718A10W	RS
	240	6.0	3	1	18 (457)	32 (15)	FOS718A3S	RS	FOS718A3W	RS
	480	6.0	1	1	18 (457)	32 (15)	FOS718A11S	RS	FOS718A11W	RS
	480	6.0	3	1	18 (457)	32 (15)	FOS718A5S	RS	FOS718A5W	RS
	240	9.0	1	1	25 1/2 (648)	36 (17)	FOS725J10S	RS	FOS725J10W	RS
	240	9.0	3	1	25 1/2 (648)	36 (17)	FOS725J3S	RS	FOS725J3W	RS
	480	9.0	1	1	25 1/2 (648)	36 (17)	FOS725J11S	RS	FOS725J11W	RS
	480	9.0	3	1	25 1/2 (648)	36 (17)	FOS725J5S	RS	FOS725J5W	RS
	240	12.0	1	2	33 (838)	39 (18)	FOS733A10S	RS	FOS733A10W	RS
	240	12.0	3	1	33 (838)	39 (18)	FOS733A3S	RS	FOS733A3W	RS
	480	12.0	1	1	33 (838)	39 (18)	FOS733A11S	RS	FOS733A11W	RS
	480	12.0	3	1	33 (838)	39 (18)	FOS733A5S	RS	FOS733A5W	RS
	240	15.0	1	2	40 1/2 (1029)	43 (20)	FOS740J10S	RS	FOS740J10W	RS
	240	15.0	3	1	40 1/2 (1029)	43 (20)	FOS740J3S	RS	FOS740J3W	RS
	480	15.0	1	1	40 1/2 (1029)	43 (20)	FOS740J11S	RS	FOS740J11W	RS
	480	15.0	3	1	40 1/2 (1029)	43 (20)	FOS740J5S	RS	FOS740J5W	RS
	240	18.0	1	2	48 (1219)	48 (22)	FOS748A10S	RS	FOS748A10W	RS
	240	18.0	3	1	48 (1219)	48 (22)	FOS748A3S	RS	FOS748A3W	RS
	480	18.0	1	1	48 (1219)	48 (22)	FOS748A11S	RS	FOS748A11W	RS
	480	18.0	3	1	48 (1219)	48 (22)	FOS748A5S	RS	FOS748A5W	RS
	240	25.0	3	2	64 1/2 (1638)	53 (24)	FOS764J3S	RS	FOS764J3W	RS
	480	25.0	1	2	64 1/2 (1638)	53 (24)	FOS764J11S	RS	FOS764J11W	RS
	480	25.0	3	1	64 1/2 (1638)	53 (24)	FOS764J5S	RS	FOS764J5W	RS
	240	30.0	3	2	77 (1956)	61 (28)	FOS777A3S	RS	FOS777A3W	RS
480	30.0	1	2	77 (1956)	61 (28)	FOS777A11S	RS	FOS777A11W	RS	
480	30.0	3	1	77 (1956)	61 (28)	FOS777A5S	RS	FOS777A5W	RS	

RAPID SHIP

- RS - Next day shipment up to 5 pieces

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

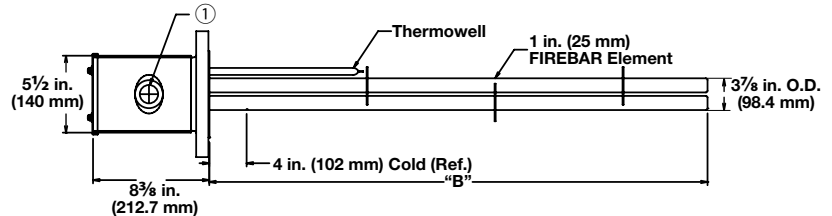
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Lightweight Oils and Heat Transfer Oils

- 4 inch - 150 lb ANSI flange
- FIREBAR elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in.	(mm)	Ship Wt. lbs	(kg)	Part Number		Del.	
									General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
30 W/in ² ③ 304 SS Flange 6-Alloy 800 Elements (4.7 W/cm ²)	240	10.0	3	1	16 1/2	(420)	35	(16)	FONF16J12S	RS	FONF16J12W	RS
	480	10.0	3	1	16 1/2	(420)	35	(16)	FONF16J13S	RS	FONF16J13W	RS
	240	13.0	3	1	19 1/2	(495)	38	(17)	FONF19J12S	RS	FONF19J12W	RS
	480	13.0	3	1	19 1/2	(495)	38	(17)	FONF19J13S	RS	FONF19J13W	RS
	240	17.0	3	1	24 1/2	(622)	41	(19)	FONF24J12S	RS	FONF24J12W	RS
	480	17.0	3	1	24 1/2	(622)	41	(19)	FONF24J13S	RS	FONF24J13W	RS
	240	21.0	3	2	30	(762)	44	(20)	FONF30A12S	RS	FONF30A12W	RS
	480	21.0	3	1	30	(762)	44	(20)	FONF30A13S	RS	FONF30A13W	RS
	240	25.5	3	2	35	(889)	46	(21)	FONF35A12S	RS	FONF35A12W	RS
	480	25.5	3	1	35	(889)	46	(21)	FONF35A13S	RS	FONF35A13W	RS
	240	34.0	3	2	45 1/2	(1156)	50	(23)	FONF45J12S	RS	FONF45J12W	RS
	480	34.0	3	1	45 1/2	(1156)	50	(23)	FONF45J13S	RS	FONF45J13W	RS
	480	43.0	3	2	56	(1422)	54	(25)	FONF56A13S	RS	FONF56A13W	RS
23 W/in ² ③ 304 SS Flange 6-Alloy 800 Elements (3.6 W/cm ²)	240	7.5	3	1	16 1/2	(420)	35	(16)	FONF16J20S	RS	FONF16J20W	RS
	240	10.0	3	1	19 1/2	(495)	38	(17)	FONF19J20S	RS	FONF19J20W	RS
	240	12.8	3	1	24 1/2	(622)	41	(19)	FONF24J20S	RS	FONF24J20W	RS
	480	12.8	3	1	24 1/2	(622)	41	(19)	FONF24J19S	RS	FONF24J19W	RS
	240	15.8	3	1	30	(762)	44	(20)	FONF30A20S	RS	FONF30A20W	RS
	480	15.8	3	1	30	(762)	44	(20)	FONF30A19S	RS	FONF30A19W	RS
	240	19.0	3	1	35	(889)	46	(21)	FONF35A20S	RS	FONF35A20W	RS
	480	19.0	3	1	35	(889)	46	(21)	FONF35A19S	RS	FONF35A19W	RS
	240	25.0	3	2	45 1/2	(1156)	50	(23)	FONF45J20S	RS	FONF45J20W	RS
	480	25.0	3	1	45 1/2	(1156)	50	(23)	FONF45J19S	RS	FONF45J19W	RS
	240	32.3	3	2	56	(1422)	54	(25)	FONF56A20S	RS	FONF56A20W	RS
	480	32.3	3	1	56	(1422)	54	(25)	FONF56A19S	RS	FONF56A19W	RS

RAPID SHIP

- RS - Next day shipment up to 5 pieces

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
• For ANSI flange dimensions, reference chart on page 241

- ③ Wired for 3-phase operation only
- ⑧ Can be rewired for 1-phase

Immersion Heaters

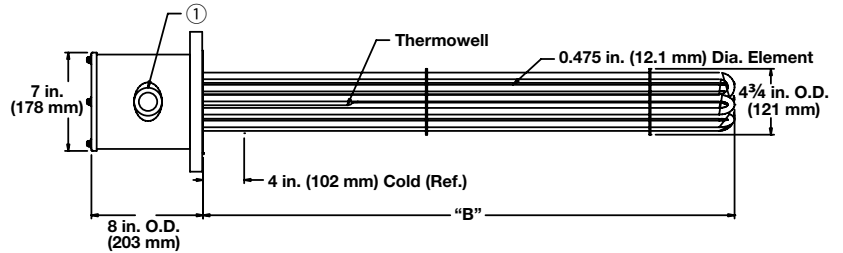
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Lightweight Oils and Heat Transfer Oils

- 5 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim.		Ship Wt.		Part Number		Part Number		
					in.	(mm)	lbs	(kg)	Del.	Del.			
23 W/in ² Steel Flange 6-Steel Elements (3.6 W/cm ²)	240	6.0	1	1	18	(457)	36	(17)	General Purpose Enclosure		Moisture-Resistant Enclosure		
									FNS718A10S	RS	FNS718A10W	RS	
		240	6.0	3	1	18	(457)	36	(17)	FNS718A3S	RS	FNS718A3W	RS
		480	6.0	1	1	18	(457)	36	(17)	FNS718A11S	RS	FNS718A11W	RS
		480	6.0	3	1	18	(457)	36	(17)	FNS718A5S	RS	FNS718A5W	RS
		240	9.0	1	1	25 ¹ / ₂	(648)	40	(19)	FNS725J10S	RS	FNS725J10W	RS
		240	9.0	3	1	25 ¹ / ₂	(648)	40	(19)	FNS725J3S	RS	FNS725J3W	RS
		480	9.0	1	1	25 ¹ / ₂	(648)	40	(19)	FNS725J11S	RS	FNS725J11W	RS
		480	9.0	3	1	25 ¹ / ₂	(648)	40	(19)	FNS725J5S	RS	FNS725J5W	RS
		240	12.0	1	2	33	(838)	43	(20)	FNS733A10S	RS	FNS733A10W	RS
		240	12.0	3	1	33	(838)	43	(20)	FNS733A3S	RS	FNS733A3W	RS
		480	12.0	1	1	33	(838)	43	(20)	FNS733A11S	RS	FNS733A11W	RS
		480	12.0	3	1	33	(838)	43	(20)	FNS733A5S	RS	FNS733A5W	RS
		240	15.0	1	2	40 ¹ / ₂	(1029)	47	(22)	FNS740J10S	RS	FNS740J10W	RS
		240	15.0	3	1	40 ¹ / ₂	(1029)	47	(22)	FNS740J3S	RS	FNS740J3W	RS
		480	15.0	1	1	40 ¹ / ₂	(1029)	47	(22)	FNS740J11S	RS	FNS740J11W	RS
		480	15.0	3	1	40 ¹ / ₂	(1029)	47	(22)	FNS740J5S	RS	FNS740J5W	RS
		240	18.0	1	2	48	(1219)	52	(24)	FNS748A10S	RS	FNS748A10W	RS
		240	18.0	3	1	48	(1219)	52	(24)	FNS748A3S	RS	FNS748A3W	RS
		480	18.0	1	1	48	(1219)	52	(24)	FNS748A11S	RS	FNS748A11W	RS
		480	18.0	3	1	48	(1219)	52	(24)	FNS748A5S	RS	FNS748A5W	RS
		240	25.0	3	2	64 ¹ / ₂	(1638)	57	(26)	FNS764J3S	RS	FNS764J3W	RS
		480	25.0	1	2	64 ¹ / ₂	(1638)	57	(26)	FNS764J11S	RS	FNS764J11W	RS
		480	25.0	3	1	64 ¹ / ₂	(1638)	57	(26)	FNS764J5S	RS	FNS764J5W	RS
		240	30.0	3	2	77	(1956)	65	(30)	FNS777A3S	RS	FNS777A3W	RS
		480	30.0	1	2	77	(1956)	65	(30)	FNS777A11S	RS	FNS777A11W	RS
		480	30.0	3	1	77	(1956)	65	(30)	FNS777A5S	RS	FNS777A5W	RS

RAPID SHIP

- RS - Next day shipment up to 5 pieces

- Notes:
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

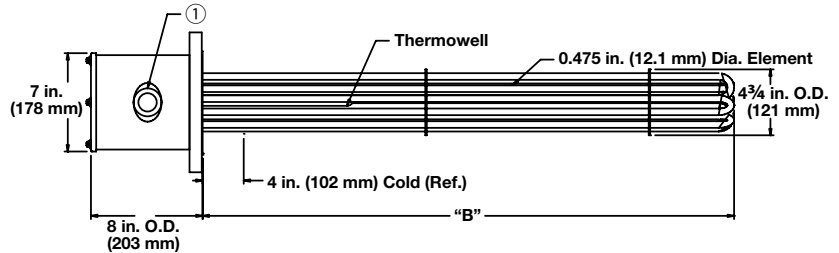
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Lightweight Oils and Heat Transfer Oils

- 5 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
23 W/in ² Steel Flange 9-Steel Elements (3.6 W/cm ²)	240	9.0	1	1	18 (457)	39 (18)	FNS718A10XS	RS	FNS718A10XW	RS
	240	9.0	3	1	18 (457)	39 (18)	FNS718A3XS	RS	FNS718A3XW	RS
	480	9.0	1	1	18 (457)	39 (18)	FNS718A11XS	RS	FNS718A11XW	RS
	480	9.0	3	1	18 (457)	39 (18)	FNS718A5XS	RS	FNS718A5XW	RS
	240	14.0	1	3	25 ^{1/2} (648)	45 (21)	FNS725J10XS	RS	FNS725J10XW	RS
	240	14.0	3	1	25 ^{1/2} (648)	45 (21)	FNS725J3XS	RS	FNS725J3XW	RS
	480	14.0	1	1	25 ^{1/2} (648)	45 (21)	FNS725J11XS	RS	FNS725J11XW	RS
	480	14.0	3	1	25 ^{1/2} (648)	45 (21)	FNS725J5XS	RS	FNS725J5XW	RS
	240	18.0	1	3	33 (838)	48 (22)	FNS733A10XS	RS	FNS733A10XW	RS
	240	18.0	3	1	33 (838)	48 (22)	FNS733A3XS	RS	FNS733A3XW	RS
	480	18.0	1	1	33 (838)	48 (22)	FNS733A11XS	RS	FNS733A11XW	RS
	480	18.0	3	1	33 (838)	48 (22)	FNS733A5XS	RS	FNS733A5XW	RS
	240	23.0	1	3	40 ^{1/2} (1029)	53 (24)	FNS740J10XS	RS	FNS740J10XW	RS
	240	23.0	3	3	40 ^{1/2} (1029)	53 (24)	FNS740J3XS	RS	FNS740J3XW	RS
	480	23.0	1	1	40 ^{1/2} (1029)	53 (24)	FNS740J11XS	RS	FNS740J11XW	RS
	480	23.0	3	1	40 ^{1/2} (1029)	53 (24)	FNS740J5XS	RS	FNS740J5XW	RS
	240	27.0	1	3	48 (1219)	60 (28)	FNS748A10XS	RS	FNS748A10XW	RS
	240	27.0	3	3	48 (1219)	60 (28)	FNS748A3XS	RS	FNS748A3XW	RS
	480	27.0	1	3	48 (1219)	60 (28)	FNS748A11XS	RS	FNS748A11XW	RS
	480	27.0	3	1	48 (1219)	60 (28)	FNS748A5XS	RS	FNS748A5XW	RS
	240	38.0	3	3	64 ^{1/2} (1638)	68 (31)	FNS764J3XS	RS	FNS764J3XW	RS
	480	38.0	1	3	64 ^{1/2} (1638)	68 (31)	FNS764J11XS	RS	FNS764J11XW	RS
	480	38.0	3	1	64 ^{1/2} (1638)	68 (31)	FNS764J5XS	RS	FNS764J5XW	RS
	240	45.0	3	3	77 (1956)	78 (36)	FNS777A3XS	M	FNS777A3XW	M
480	45.0	1	3	77 (1956)	78 (36)	FNS777A11XS	M	FNS777A11XW	M	
480	45.0	3	3	77 (1956)	78 (36)	FNS777A5XS	M	FNS777A5XW	M	

RAPID SHIP

- **RS** - Next day shipment up to 5 pieces
- **M** - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
- Truck Shipment only

Immersion Heaters

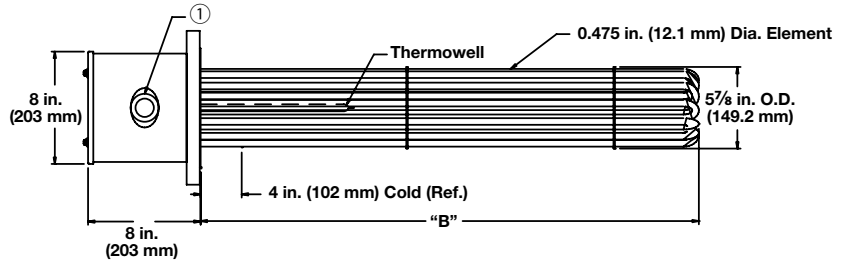
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Lightweight Oils and Heat Transfer Oils

- 6 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
23 W/in ² Steel Flange 12-Steel Elements (3.6 W/cm ²)	240	12.0	1	2	17 ⁷ / ₈ (454.0)	75 (34)	FPS717R10S	M	FPS717R10W	M
	240	12.0	3	1	17 ⁷ / ₈ (454.0)	75 (34)	FPS717R3S	M	FPS717R3W	M
	480	12.0	1	1	17 ⁷ / ₈ (454.0)	75 (34)	FPS717R11S	M	FPS717R11W	M
	480	12.0	3	1	17 ⁷ / ₈ (454.0)	75 (34)	FPS717R5S	M	FPS717R5W	M
	240	18.0	1	2	25 ³ / ₈ (644.5)	81 (37)	FPS725G10S	M	FPS725G10W	M
	240	18.0	3	1	25 ³ / ₈ (644.5)	81 (37)	FPS725G3S	M	FPS725G3W	M
	480	18.0	1	1	25 ³ / ₈ (644.5)	81 (37)	FPS725G11S	M	FPS725G11W	M
	480	18.0	3	1	25 ³ / ₈ (644.5)	81 (37)	FPS725G5S	M	FPS725G5W	M
	240	24.0	1	3	32 ⁷ / ₈ (835.0)	85 (39)	FPS732R10S	M	FPS732R10W	M
	240	24.0	3	2	32 ⁷ / ₈ (835.0)	85 (39)	FPS732R3S	M	FPS732R3W	M
	480	24.0	1	2	32 ⁷ / ₈ (835.0)	85 (39)	FPS732R11S	M	FPS732R11W	M
	480	24.0	3	1	32 ⁷ / ₈ (835.0)	85 (39)	FPS732R5S	M	FPS732R5W	M
	240	30.0	1	3	40 ³ / ₈ (1025.5)	92 (42)	FPS740G10S	M	FPS740G10W	M
	240	30.0	3	2	40 ³ / ₈ (1025.5)	92 (42)	FPS740G3S	M	FPS740G3W	M
	480	30.0	1	2	40 ³ / ₈ (1025.5)	92 (42)	FPS740G11S	M	FPS740G11W	M
	480	30.0	3	1	40 ³ / ₈ (1025.5)	92 (42)	FPS740G5S	M	FPS740G5W	M
	240	36.0	1	4	47 ⁷ / ₈ (1216.0)	100 (46)	FPS747R10S	M	FPS747R10W	M
	240	36.0	3	2	47 ⁷ / ₈ (1216.0)	100 (46)	FPS747R3S	M	FPS747R3W	M
	480	36.0	1	2	47 ⁷ / ₈ (1216.0)	100 (46)	FPS747R11S	M	FPS747R11W	M
	480	36.0	3	1	47 ⁷ / ₈ (1216.0)	100 (46)	FPS747R5S	M	FPS747R5W	M
	240	50.0	3	4	64 ³ / ₈ (1635.1)	110 (50)	FPS764G3S	M	FPS764G3W	M
	480	50.0	1	3	64 ³ / ₈ (1635.1)	110 (50)	FPS764G11S	M	FPS764G11W	M
	480	50.0	3	2	64 ³ / ₈ (1635.1)	110 (50)	FPS764G5S	M	FPS764G5W	M
	240	60.0	3	4	76 ⁷ / ₈ (1952.4)	118 (54)	FPS776R3S	M	FPS776R3W	M
480	60.0	1	3	76 ⁷ / ₈ (1952.4)	118 (54)	FPS776R11S	M	FPS776R11W	M	
480	60.0	3	2	76 ⁷ / ₈ (1952.4)	118 (54)	FPS776R5S	M	FPS776R5W	M	

• M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

■ Truck Shipment only

Immersion Heaters

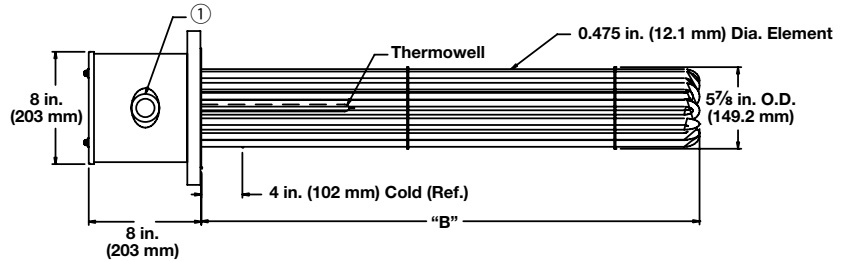
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Lightweight Oils and Heat Transfer Oils

- 6 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
23 W/in ² Steel Flange 15-Steel Elements (3.6 W/cm ²)	240	15.0	1	3	17 ⁷ / ₈ (454.0)	78 (36)	FPS717R10XS	M	FPS717R10XW	M
	240	15.0	3	1	17 ⁷ / ₈ (454.0)	78 (36)	FPS717R3XS	M	FPS717R3XW	M
	480	15.0	1	1	17 ⁷ / ₈ (454.0)	78 (36)	FPS717R11XS	M	FPS717R11XW	M
	480	15.0	3	1	17 ⁷ / ₈ (454.0)	78 (36)	FPS717R5XS	M	FPS717R5XW	M
	240	23.0	1	3	25 ³ / ₈ (644.5)	85 (39)	FPS725G10XS	M	FPS725G10XW	M
	240	23.0	3	5	25 ³ / ₈ (644.5)	85 (39)	FPS725G3XS	M	FPS725G3XW	M
	480	23.0	1	1	25 ³ / ₈ (644.5)	85 (39)	FPS725G11XS	M	FPS725G11XW	M
	480	23.0	3	1	25 ³ / ₈ (644.5)	85 (39)	FPS725G5XS	M	FPS725G5XW	M
	240	30.0	1	3	32 ⁷ / ₈ (835.0)	90 (41)	FPS732R10XS	M	FPS732R10XW	M
	240	30.0	3	5	32 ⁷ / ₈ (835.0)	90 (41)	FPS732R3XS	M	FPS732R3XW	M
	480	30.0	1	3	32 ⁷ / ₈ (835.0)	90 (41)	FPS732R11XS	M	FPS732R11XW	M
	480	30.0	3	1	32 ⁷ / ₈ (835.0)	90 (41)	FPS732R5XS	M	FPS732R5XW	M
	240	38.0	1	5	40 ³ / ₈ (1025.5)	98 (45)	FPS740G10XS	M	FPS740G10XW	M
	240	38.0	3	5	40 ³ / ₈ (1025.5)	98 (45)	FPS740G3XS	M	FPS740G3XW	M
	480	38.0	1	3	40 ³ / ₈ (1025.5)	98 (45)	FPS740G11XS	M	FPS740G11XW	M
	480	38.0	3	1	40 ³ / ₈ (1025.5)	98 (45)	FPS740G5XS	M	FPS740G5XW	M
	240	45.0	1	5	47 ⁷ / ₈ (1216.0)	108 (49)	FPS747R10XS	M	FPS747R10XW	M
	240	45.0	3	5	47 ⁷ / ₈ (1216.0)	108 (49)	FPS747R3XS	M	FPS747R3XW	M
	480	45.0	1	3	47 ⁷ / ₈ (1216.0)	108 (49)	FPS747R11XS	M	FPS747R11XW	M
	480	45.0	3	5	47 ⁷ / ₈ (1216.0)	108 (49)	FPS747R5XS	M	FPS747R5XW	M
240	63.0	3	5	64 ³ / ₈ (1635.1)	120 (55)	FPS764G3XS	M	FPS764G3XW	M	
480	63.0	1	3	64 ³ / ₈ (1635.1)	120 (55)	FPS764G11XS	M	FPS764G11XW	M	
480	63.0	3	5	64 ³ / ₈ (1635.1)	120 (55)	FPS764G5XS	M	FPS764G5XW	M	
240	75.0	3	5	76 ⁷ / ₈ (1952.4)	131 (60)	FPS776R3XS	M	FPS776R3XW	M	
480	75.0	1	5	76 ⁷ / ₈ (1952.4)	131 (60)	FPS776R11XS	M	FPS776R11XW	M	
480	75.0	3	5	76 ⁷ / ₈ (1952.4)	131 (60)	FPS776R5XS	M	FPS776R5XW	M	

• M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241
- Truck Shipment only

Immersion Heaters

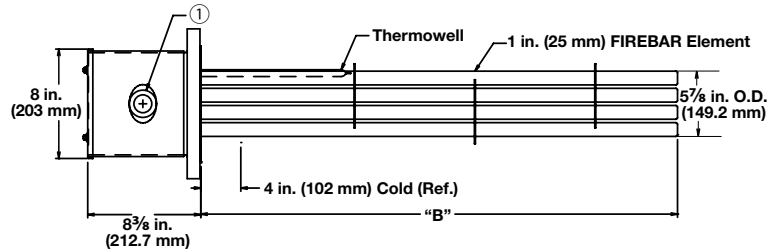
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Lightweight Oils and Heat Transfer Oils

- 6 inch - 150 lb ANSI flange
- FIREBAR elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
30 W/in ² ③ 304 SS Flange 15-Alloy 800 Elements (4.7 W/cm ²)	240	25.0	3	5	16 ¹ / ₂ (419)	81 (37)	FPNF16J12S	M	FPNF16J12W	M
	480	25.0	3	5	16 ¹ / ₂ (419)	81 (37)	FPNF16J13S	M	FPNF16J13W	M
	240	32.0	3	5	19 ¹ / ₂ (495)	84 (38)	FPNF19J12S	M	FPNF19J12W	M
	480	32.0	3	5	19 ¹ / ₂ (495)	84 (38)	FPNF19J13S	M	FPNF19J13W	M
	240	42.0	3	5	24 ¹ / ₂ (622)	87 (40)	FPNF24J12S	M	FPNF24J12W	M
	480	42.0	3	5	24 ¹ / ₂ (622)	87 (40)	FPNF24J13S	M	FPNF24J13W	M
	240	52.0	3	5	30 (762)	91 (42)	FPNF30A12S	M	FPNF30A12W	M
	480	52.0	3	5	30 (762)	91 (42)	FPNF30A13S	M	FPNF30A13W	M
	240	64.0	3	5	35 (889)	95 (43)	FPNF35A12S	M	FPNF35A12W	M
	480	64.0	3	5	35 (889)	95 (43)	FPNF35A13S	M	FPNF35A13W	M
	240	85.0	3	5	45 ¹ / ₂ (1156)	106 (48)	FPNF45J12S	M	FPNF45J12W	M
	480	85.0	3	5	45 ¹ / ₂ (1156)	106 (48)	FPNF45J13S	M	FPNF45J13W	M
	480	110.0	3	5	56 (1422)	116 (53)	FPNF56A13S	M	FPNF56A13W	M
23 W/in ² 304 SS Flange 15-Alloy 800 Elements (3.6 W/cm ²)	240	19.0	3	5	16 ¹ / ₂ (419)	81 (37)	FPNF16J20S	M	FPNF16J20W	M
	240	24.0	3	5	19 ¹ / ₂ (495)	84 (38)	FPNF19J20S	M	FPNF19J20W	M
	240	32.0	3	5	24 ¹ / ₂ (622)	87 (40)	FPNF24J20S	M	FPNF24J20W	M
	480	32.0	3	5	24 ¹ / ₂ (622)	87 (40)	FPNF24J19S	M	FPNF24J19W	M
	240	40.0	3	5	30 (762)	91 (42)	FPNF30A20S	M	FPNF30A20W	M
	480	40.0	3	5	30 (762)	91 (42)	FPNF30A19S	M	FPNF30A19W	M
	240	48.0	3	5	35 (889)	95 (43)	FPNF35A20S	M	FPNF35A20W	M
	480	48.0	3	5	35 (889)	95 (43)	FPNF35A19S	M	FPNF35A19W	M
	240	64.0	3	5	45 ¹ / ₂ (1156)	106 (48)	FPNF45J20S	M	FPNF45J20W	M
	480	64.0	3	5	45 ¹ / ₂ (1156)	106 (48)	FPNF45J19S	M	FPNF45J19W	M
	240	80.0	3	5	56 (1422)	116 (53)	FPNF56A20S	M	FPNF56A20W	M
	480	80.0	3	5	56 (1422)	116 (53)	FPNF56A19S	M	FPNF56A19W	M

• M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

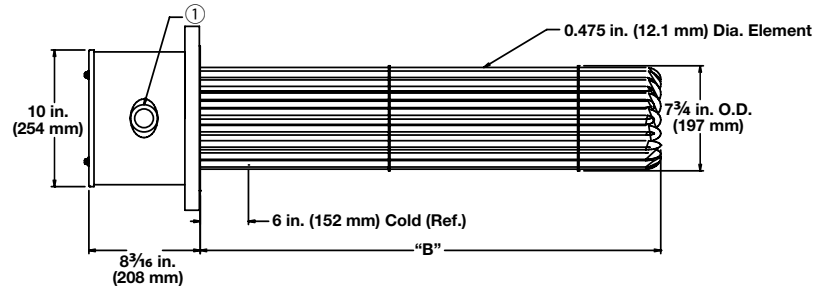
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Lightweight Oils and Heat Transfer Oils

- 8 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	General Purpose Enclosure		Moisture-Resistant Enclosure	
							Part Number	Del.	Part Number	Del.
23 W/in ² Steel Flange 18-Steel Elements (3.6 W/cm ²)	240	30.0	1	3	32 ³ / ₄ (832.0)	130 (59)	FRS732N10S	M	FRS732N10W	M
	240	30.0	3	2	32 ³ / ₄ (832.0)	130 (59)	FRS732N3S	M	FRS732N3W	M
	480	30.0	1	2	32 ³ / ₄ (832.0)	130 (59)	FRS732N11S	M	FRS732N11W	M
	480	30.0	3	1	32 ³ / ₄ (832.0)	130 (59)	FRS732N5S	M	FRS732N5W	M
	240	40.0	3	3	43 ¹ / ₄ (1099.0)	132 (60)	FRS743E3S	M	FRS743E3W	M
	480	40.0	1	2	43 ¹ / ₄ (1099.0)	132 (60)	FRS743E11S	M	FRS743E11W	M
	480	40.0	3	2	43 ¹ / ₄ (1099.0)	132 (60)	FRS743E5S	M	FRS743E5W	M
	240	50.0	3	3	51 ¹¹ / ₁₆ (1312.9)	137 (63)	FRS751M3S	M	FRS751M3W	M
	480	50.0	1	3	51 ¹¹ / ₁₆ (1312.9)	137 (63)	FRS751M11S	M	FRS751M11W	M
	480	50.0	3	2	51 ¹¹ / ₁₆ (1312.9)	137 (63)	FRS751M5S	M	FRS751M5W	M
	240	60.0	3	6	62 ³ / ₁₆ (1579.6)	154 (70)	FRS762D3S	M	FRS762D3W	M
	480	60.0	1	3	62 ³ / ₁₆ (1579.6)	154 (70)	FRS762D11S	M	FRS762D11W	M
	480	60.0	3	2	62 ³ / ₁₆ (1579.6)	154 (70)	FRS762D5S	M	FRS762D5W	M
	240	70.0	3	6	70 ¹¹ / ₁₆ (1795.5)	160 (73)	FRS770M3S	M	FRS770M3W	M
	480	70.0	1	6	70 ¹¹ / ₁₆ (1795.5)	160 (73)	FRS770M11S	M	FRS770M11W	M
	480	70.0	3	2	70 ¹¹ / ₁₆ (1795.5)	160 (73)	FRS770M5S	M	FRS770M5W	M
240	80.0	3	6	79 ¹¹ / ₁₆ (2024.1)	172 (78)	FRS779M3S	M	FRS779M3W	M	
480	80.0	3	3	79 ¹¹ / ₁₆ (2024.1)	172 (78)	FRS779M5S	M	FRS779M5W	M	
23 W/in ² Steel Flange 24-Steel Elements (3.6 W/cm ²)	240	40.0	1	4	33 ³ / ₁₆ (843.0)	142 (65)	FRS733D10XS	M	FRS733D10XW	M
	240	40.0	3	4	33 ³ / ₁₆ (843.0)	142 (65)	FRS733D3XS	M	FRS733D3XW	M
	480	40.0	1	2	33 ³ / ₁₆ (843.0)	142 (65)	FRS733D11XS	M	FRS733D11XW	M
	480	40.0	3	2	33 ³ / ₁₆ (843.0)	142 (65)	FRS733D5XS	M	FRS733D5XW	M
	240	53.0	3	4	43 ¹¹ / ₁₆ (1109.7)	147 (67)	FRS743M3XS	M	FRS743M3XW	M
	480	53.0	1	3	43 ¹¹ / ₁₆ (1109.7)	147 (67)	FRS743M11XS	M	FRS743M11XW	M
	480	53.0	3	2	43 ¹¹ / ₁₆ (1109.7)	147 (67)	FRS743M5XS	M	FRS743M5XW	M
	240	67.0	3	4	51 ¹¹ / ₁₆ (1312.9)	154 (70)	FRS751M3XS	M	FRS751M3XW	M
	480	67.0	1	3	51 ¹¹ / ₁₆ (1312.9)	154 (70)	FRS751M11XS	M	FRS751M11XW	M
	480	67.0	3	2	51 ¹¹ / ₁₆ (1312.9)	154 (70)	FRS751M5XS	M	FRS751M5XW	M
	240	80.0	3	8	62 ³ / ₁₆ (1579.6)	166 (76)	FRS762D3XS	M	FRS762D3XW	M
	480	80.0	1	4	62 ³ / ₁₆ (1579.6)	166 (76)	FRS762D11XS	M	FRS762D11XW	M
	480	80.0	3	4	62 ³ / ₁₆ (1579.6)	166 (76)	FRS762D5XS	M	FRS762D5XW	M
	240	93.0	3	8	70 ¹¹ / ₁₆ (1795.5)	175 (80)	FRS770M3XS	M	FRS770M3XW	M
	480	93.0	1	6	70 ¹¹ / ₁₆ (1795.5)	175 (80)	FRS770M11XS	M	FRS770M11XW	M
	480	93.0	3	4	70 ¹¹ / ₁₆ (1795.5)	175 (80)	FRS770M5XS	M	FRS770M5XW	M
	240	107.0	3	8	79 ¹¹ / ₁₆ (2024.1)	181 (82)	FRS779M3XS	M	FRS779M3XW	M
	480	107.0	3	4	79 ¹¹ / ₁₆ (2024.1)	181 (82)	FRS779M5XS	M	FRS779M5XW	M

• M - Manufacturing lead times Truck Shipment only

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe

• For ANSI flange dimensions, reference chart on page 241

Immersion Heaters

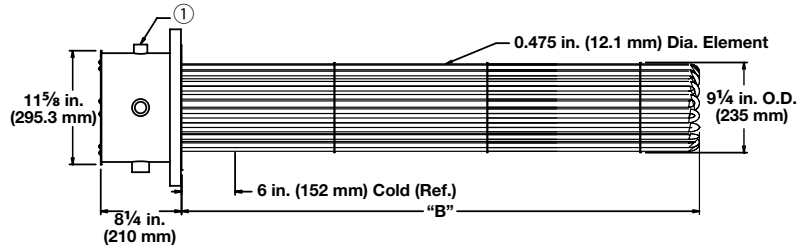
WATROD and FIREBAR ANSI Flange Immersion Heaters



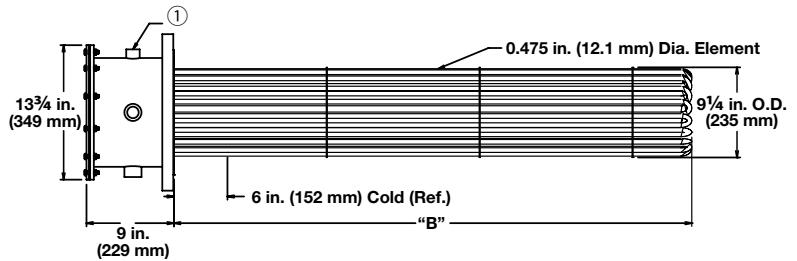
Application: Light Weight Oils and Heat Transfer Oils

- 10 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in.	Dim. (mm)	Ship Wt. lbs	Ship Wt. (kg)	Part Number	Del.	Part Number	Del.
23 W/in ² Steel Flange 27-Steel Elements (3.6 W/cm ²)	240	45.0	3	3	33 ³ / ₄	(845)	165	(75)	FSS733E3S	M	FSS733E3W	M
	480	45.0	3	3	33 ³ / ₄	(845)	165	(75)	FSS733E5S	M	FSS733E5W	M
	240	60.0	3	3	43 ³ / ₄	(1111)	195	(89)	FSS743N3S	M	FSS743N3W	M
	480	60.0	3	3	43 ³ / ₄	(1111)	195	(89)	FSS743N5S	M	FSS743N5W	M
	240	75.0	3	9	51 ³ / ₄	(1314)	230	(105)	FSS751N3S	M	FSS751N3W	M
	480	75.0	3	3	51 ³ / ₄	(1314)	230	(105)	FSS751N5S	M	FSS751N5W	M
	480	90.0	3	3	62 ¹ / ₄	(1581)	250	(114)	FSS762E5S	M	FSS762E5W	M
	480	105.0	3	3	70 ³ / ₄	(1797)	258	(117)	FSS770N5S	M	FSS770N5W	M
	480	120.0	3	3	78 ³ / ₄	(2000)	265	(121)	FSS778N5S	M	FSS778N5W	M

• M - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
- Truck Shipment only

Immersion Heaters

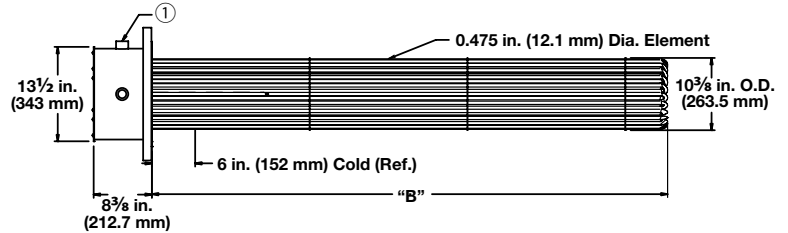
WATROD and FIREBAR ANSI Flange Immersion Heaters



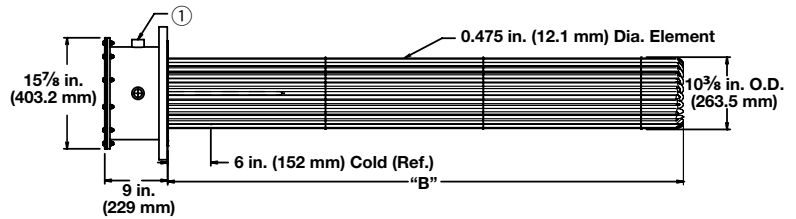
Application: Light Weight Oils and Heat Transfer Oils

- 12 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	General Purpose Enclosure		Moisture-Resistant Enclosure	
							Part Number	Del.	Part Number	Del.
23 W/in ² Steel Flange 36-Steel Elements (3.6 W/cm ²)	480	60.0	3	3	33 ¹ / ₈ (841.4)	205 (93)	FTS733C5S	M	FTS733C5W	M
	480	80.0	3	3	43 ⁵ / ₈ (1108.1)	240 (109)	FTS743L5S	M	FTS743L5W	M
	480	100.0	3	3	51 ⁵ / ₈ (1311.3)	280 (127)	FTS751L5S	M	FTS751L5W	M
	480	120.0	3	3	62 ¹ / ₈ (1578.0)	285 (130)	FTS762C5S	M	FTS762C5W	M
	480	140.0	3	4	70 ⁵ / ₈ (1793.9)	290 (132)	FTS770L5S	M	FTS770L5W	M
	480	160.0	3	4	78 ⁵ / ₈ (1997.1)	300 (136)	FTS778L5S	M	FTS778L5W	M

• M - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

■ Truck Shipment only

Immersion Heaters

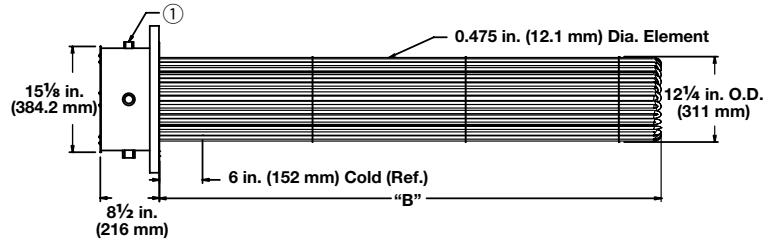
WATROD and FIREBAR ANSI Flange Immersion Heaters



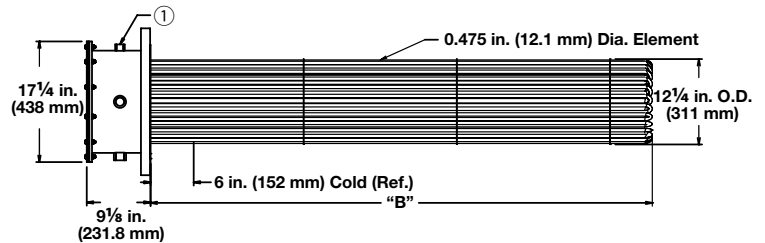
Application: Light Weight Oils and Heat Transfer Oils

- 14 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
23 W/in ² Steel Flange 45-Steel Elements (3.6 W/cm ²)	480	75.0	3	3	33 (838)	225 (102)	FWS733A5S	M	FWS733A5W	M
	480	100.0	3	3	43 1/2 (1105)	255 (116)	FWS743J5S	M	FWS743J5W	M
	480	125.0	3	5	51 1/2 (1308)	300 (136)	FWS751J5S	M	FWS751J5W	M
	480	150.0	3	5	62 (1575)	310 (141)	FWS762A5S	M	FWS762A5W	M
	480	175.0	3	5	70 1/2 (1791)	318 (145)	FWS770J5S	M	FWS770J5W	M
	480	200.0	3	5	78 1/2 (1994)	330 (150)	FWS778J5S	M	FWS778J5W	M

- M - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
 - Truck Shipment only

Immersion Heaters

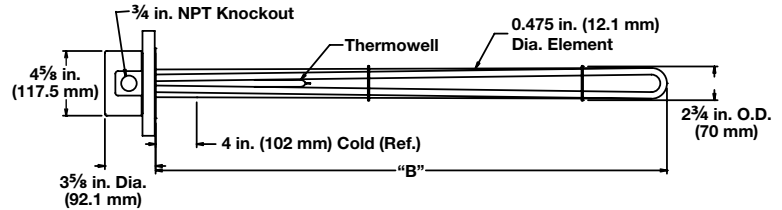
WATROD and FIREBAR ANSI Flange Immersion Heaters



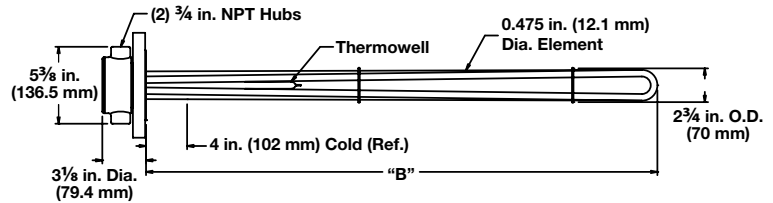
Application: Medium Weight Oils and Heat Transfer Oils

- 3 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures
- Single circuit

General Purpose



Moisture Resistant



Description	Volts	kW	Ph	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
16 W/in ² ③ Steel Flange 3-Alloy 800 Elements (2.5 W/cm ²)	240	1.5	3	13 1/2 (343)	22 (10)	General Purpose Enclosure FMN713J12S	RS	Moisture-Resistant Enclosure FMN713J12W	RS
	480	1.5	3	13 1/2 (343)	22 (10)	FMN713J13S	RS	FMN713J13W	RS
	240	2.0	3	18 (457)	23 (11)	FMN718A12S	RS	FMN718A12W	RS
	480	2.0	3	18 (457)	23 (11)	FMN718A13S	RS	FMN718A13W	RS
	240	2.5	3	20 1/2 (521)	25 (12)	FMN720J12S	RS	FMN720J12W	RS
	480	2.5	3	20 1/2 (521)	25 (12)	FMN720J13S	RS	FMN720J13W	RS
	240	3.0	3	25 1/2 (648)	27 (13)	FMN725J12S	RS	FMN725J12W	RS
	480	3.0	3	25 1/2 (648)	27 (13)	FMN725J13S	RS	FMN725J13W	RS
	240	4.0	3	33 (838)	28 (13)	FMN733A12S	RS	FMN733A12W	RS
	480	4.0	3	33 (838)	28 (13)	FMN733A13S	RS	FMN733A13W	RS
	240	5.0	3	40 1/2 (1029)	30 (14)	FMN740J12S	RS	FMN740J12W	RS
	480	5.0	3	40 1/2 (1029)	30 (14)	FMN740J13S	RS	FMN740J13W	RS
	240	6.0	3	48 (1219)	32 (15)	FMN748A12S	RS	FMN748A12W	RS
	480	6.0	3	48 (1219)	32 (15)	FMN748A13S	RS	FMN748A13W	RS

RAPID SHIP

- RS - Next day shipment up to 5 pieces

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

Immersion Heaters

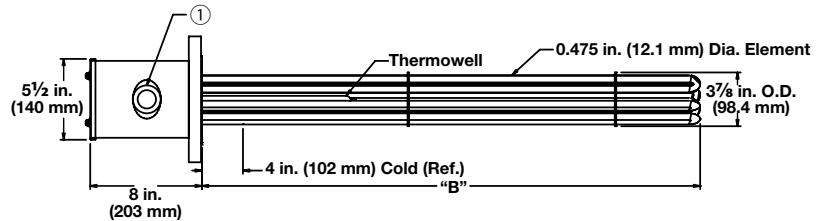
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Medium Weight Oils and Heat Transfer Oils

- 4 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim.		Ship Wt.		Part		Part	
					in.	(mm)	lbs	(kg)	Number	Del.	Number	Del.
16 W/in ² ③ Steel Flange 6-Alloy 800 Elements (2.5 W/cm ²)	240	3.0	3	1	13 ¹ / ₂	(343)	29	(14)	General Purpose Enclosure		Moisture-Resistant Enclosure	
	480	3.0	3	1	13 ¹ / ₂	(343)	29	(14)	FON713J12S	RS	FON713J12W	RS
	480	3.0	3	1	13 ¹ / ₂	(343)	29	(14)	FON713J13S	RS	FON713J13W	RS
	240	4.0	3	1	18	(457)	32	(15)	FON718A12S	RS	FON718A12W	RS
	480	4.0	3	1	18	(457)	32	(15)	FON718A13S	RS	FON718A13W	RS
	240	5.0	3	1	20 ¹ / ₂	(521)	34	(16)	FON720J12S	RS	FON720J12W	RS
	480	5.0	3	1	20 ¹ / ₂	(521)	34	(16)	FON720J13S	RS	FON720J13W	RS
	240	6.0	3	1	25 ¹ / ₂	(648)	36	(17)	FON725J12S	RS	FON725J12W	RS
	480	6.0	3	1	25 ¹ / ₂	(648)	36	(17)	FON725J13S	RS	FON725J13W	RS
	240	8.0	3	1	33	(838)	39	(18)	FON733A12S	RS	FON733A12W	RS
	480	8.0	3	1	33	(838)	39	(18)	FON733A13S	RS	FON733A13W	RS
	240	10.0	3	1	40 ¹ / ₂	(1029)	43	(20)	FON740J12S	RS	FON740J12W	RS
	480	10.0	3	1	40 ¹ / ₂	(1029)	43	(20)	FON740J13S	RS	FON740J13W	RS
	240	12.0	3	1	48	(1219)	48	(22)	FON748A12S	RS	FON748A12W	RS
480	12.0	3	1	48	(1219)	48	(22)	FON748A13S	RS	FON748A13W	RS	

RAPID SHIP

- RS - Next day shipment up to 5 pieces

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241
- ③ Wired for 3-phase operation only

Immersion Heaters

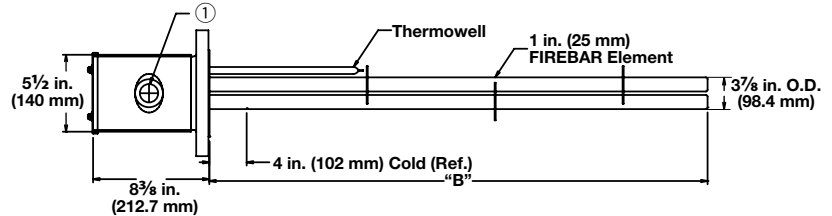
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Medium Weight Oils and Heat Transfer Oils

- 4 inch - 150 lb ANSI flange
- FIREBAR elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure		
15 W/in ² ③ 304 SS Flange 6-Alloy 800 Elements (2.3 W/cm ²)	240	4.0	3	1	13 ³ / ₈ (339.7)	32 (15)	FONF13G29S	RS	FONF13G29W	RS
	240	5.0	3	1	16 (406.0)	35 (16)	FONF16A29S	RS	FONF16A29W	RS
	240	6.0	3	1	18 ³ / ₈ (466.7)	38 (17)	FONF18G29S	RS	FONF18G29W	RS
	240	8.0	3	1	22 ⁷ / ₈ (581.0)	41 (19)	FONF22R29S	RS	FONF22R29W	RS
	480	8.0	3	1	22 ⁷ / ₈ (581.0)	41 (19)	FONF22R30S	RS	FONF22R30W	RS
	240	10.0	3	1	27 ⁷ / ₈ (708.0)	44 (20)	FONF27R29S	RS	FONF27R29W	RS
	480	10.0	3	1	27 ⁷ / ₈ (708.0)	44 (20)	FONF27R30S	RS	FONF27R30W	RS
	240	12.0	3	1	32 ⁷ / ₈ (835.0)	46 (21)	FONF32R29S	RS	FONF32R29W	RS
	480	12.0	3	1	32 ⁷ / ₈ (835.0)	46 (21)	FONF32R30S	RS	FONF32R30W	RS
	240	16.0	3	1	42 ³ / ₈ (1076.3)	50 (23)	FONF42G29S	RS	FONF42G29W	RS
	480	16.0	3	1	42 ³ / ₈ (1076.3)	50 (23)	FONF42G30S	RS	FONF42G30W	RS
	240	20.0	3	1	51 ⁷ / ₈ (1317.6)	54 (25)	FONF51R29S	RS	FONF51R29W	RS
	480	20.0	3	1	51 ⁷ / ₈ (1317.6)	54 (25)	FONF51R30S	RS	FONF51R30W	RS

RAPID SHIP

- RS - Next day shipment up to 5 pieces

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

Immersion Heaters

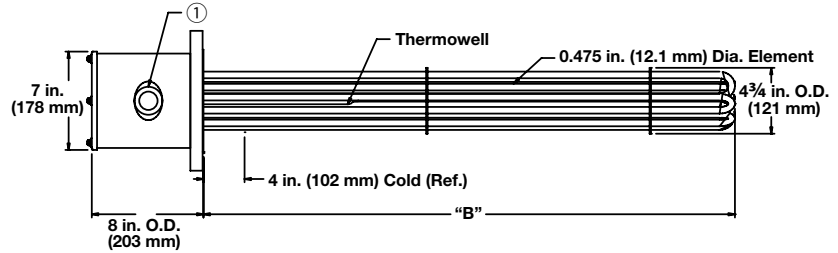
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Medium Weight Oils and Heat Transfer Oils

- 5 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in.	(mm)	Ship Wt. lbs	(kg)	Part Number	Del.	Part Number	Del.
									General Purpose Enclosure		Moisture-Resistant Enclosure	
16 W/in ² ③ Steel Flange 6-Alloy 800 Elements (2.5 W/cm ²)	240	3.0	3	1	13 ¹ / ₂	(343)	36	(17)	FNN713J12S	RS	FNN713J12W	RS
	480	3.0	3	1	13 ¹ / ₂	(343)	36	(17)	FNN713J13S	RS	FNN713J13W	RS
	240	4.0	3	1	18	(457)	40	(19)	FNN718A12S	RS	FNN718A12W	RS
	480	4.0	3	1	18	(457)	40	(19)	FNN718A13S	RS	FNN718A13W	RS
	240	5.0	3	1	20 ¹ / ₂	(521)	43	(20)	FNN720J12S	RS	FNN720J12W	RS
	480	5.0	3	1	20 ¹ / ₂	(521)	43	(20)	FNN720J13S	RS	FNN720J13W	RS
	240	6.0	3	1	25 ¹ / ₂	(648)	47	(22)	FNN725J12S	RS	FNN725J12W	RS
	480	6.0	3	1	25 ¹ / ₂	(648)	47	(22)	FNN725J13S	RS	FNN725J13W	RS
	240	8.0	3	1	33	(838)	52	(24)	FNN733A12S	RS	FNN733A12W	RS
	480	8.0	3	1	33	(838)	52	(24)	FNN733A13S	RS	FNN733A13W	RS
	240	10.0	3	1	40 ¹ / ₂	(1029)	57	(26)	FNN740J12S	RS	FNN740J12W	RS
	480	10.0	3	1	40 ¹ / ₂	(1029)	57	(26)	FNN740J13S	RS	FNN740J13W	RS
	240	12.0	3	1	48	(1219)	65	(30)	FNN748A12S	RS	FNN748A12W	RS
	480	12.0	3	1	48	(1219)	65	(30)	FNN748A13S	RS	FNN748A13W	RS
16 W/in ² ③ Steel Flange 9-Alloy 800 Elements (2.5 W/cm ²)	240	4.5	3	1	13 ¹ / ₂	(343)	39	(18)	FNN713J12XS	RS	FNN713J12XW	RS
	480	4.5	3	1	13 ¹ / ₂	(343)	39	(18)	FNN713J13XS	RS	FNN713J13XW	RS
	240	6.0	3	1	18	(457)	45	(21)	FNN718A12XS	RS	FNN718A12XW	RS
	480	6.0	3	1	18	(457)	45	(21)	FNN718A13XS	RS	FNN718A13XW	RS
	240	7.5	3	1	20 ¹ / ₂	(521)	48	(22)	FNN720J12XS	RS	FNN720J12XW	RS
	480	7.5	3	1	20 ¹ / ₂	(521)	48	(22)	FNN720J13XS	RS	FNN720J13XW	RS
	240	9.0	3	1	25 ¹ / ₂	(648)	53	(24)	FNN725J12XS	RS	FNN725J12XW	RS
	480	9.0	3	1	25 ¹ / ₂	(648)	53	(24)	FNN725J13XS	RS	FNN725J13XW	RS
	240	12.0	3	1	33	(838)	60	(28)	FNN733A12XS	RS	FNN733A12XW	RS
	480	12.0	3	1	33	(838)	60	(28)	FNN733A13XS	RS	FNN733A13XW	RS
	240	15.0	3	1	40 ¹ / ₂	(1029)	68	(31)	FNN740J12XS	RS	FNN740J12XW	RS
	480	15.0	3	1	40 ¹ / ₂	(1029)	68	(31)	FNN740J13XS	RS	FNN740J13XW	RS
	240	18.0	3	1	48	(1219)	78	(36)	FNN748A12XS	M	FNN748A12XW	M
	480	18.0	3	1	48	(1219)	78	(36)	FNN748A13XS	M	FNN748A13XW	M

RAPID SHIP

- RS - Next day shipment up to 5 pieces
- M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only
 Truck Shipment only

Immersion Heaters

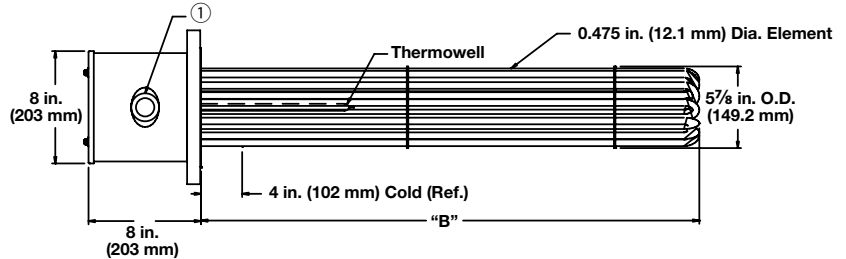
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Medium Weight Oils and Heat Transfer Oils

- 6 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim.		Ship Wt.		Part Number		Part Del.	
					in.	(mm)	lbs	(kg)	General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
16 W/in ² ③ Steel Flange 12-Alloy 800 Elements (2.5 W/cm ²)	240	6.0	3	1	13 ³ / ₈	(339.7)	73	(33)	FPN713G12S	RS	FPN713G12W	RS
	480	6.0	3	1	13 ³ / ₈	(339.7)	73	(33)	FPN713G13S	RS	FPN713G13W	RS
	240	8.0	3	1	17 ⁷ / ₈	(454.0)	75	(34)	FPN717R12S	M	FPN717R12W	M
	480	8.0	3	1	17 ⁷ / ₈	(454.0)	75	(34)	FPN717R13S	M	FPN717R13W	M
	240	10.0	3	1	20 ³ / ₈	(517.5)	78	(36)	FPN720G12S	M	FPN720G12W	M
	480	10.0	3	1	20 ³ / ₈	(517.5)	78	(36)	FPN720G13S	M	FPN720G13W	M
	240	12.0	3	1	25 ³ / ₈	(644.5)	81	(37)	FPN725G12S	M	FPN725G12W	M
	480	12.0	3	1	25 ³ / ₈	(644.5)	81	(37)	FPN725G13S	M	FPN725G13W	M
	240	16.0	3	1	32 ⁷ / ₈	(835.0)	85	(39)	FPN732R12S	M	FPN732R12W	M
	480	16.0	3	1	32 ⁷ / ₈	(835.0)	85	(39)	FPN732R13S	M	FPN732R13W	M
	240	20.0	3	2	40 ³ / ₈	(1025.5)	92	(42)	FPN740G12S	M	FPN740G12W	M
	480	20.0	3	1	40 ³ / ₈	(1025.5)	92	(42)	FPN740G13S	M	FPN740G13W	M
	240	24.0	3	2	47 ⁷ / ₈	(1216.0)	100	(46)	FPN747R12S	M	FPN747R12W	M
	480	24.0	3	1	47 ⁷ / ₈	(1216.0)	100	(46)	FPN747R13S	M	FPN747R13W	M
16 W/in ² ③ Steel Flange 15-Alloy 800 Elements (2.5 W/cm ²)	240	7.5	3	1	13 ³ / ₈	(339.7)	76	(35)	FPN713G12XS	M	FPN713G12XW	M
	480	7.5	3	1	13 ³ / ₈	(339.7)	76	(35)	FPN713G13XS	M	FPN713G13XW	M
	240	10.0	3	1	17 ⁷ / ₈	(454.0)	78	(36)	FPN717R12XS	M	FPN717R12XW	M
	480	10.0	3	1	17 ⁷ / ₈	(454.0)	78	(36)	FPN717R13XS	M	FPN717R13XW	M
	240	12.5	3	1	20 ³ / ₈	(517.5)	82	(38)	FPN720G12XS	M	FPN720G12XW	M
	480	12.5	3	1	20 ³ / ₈	(517.5)	82	(38)	FPN720G13XS	M	FPN720G13XW	M
	240	15.0	3	1	25 ³ / ₈	(644.5)	85	(39)	FPN725G12XS	M	FPN725G12XW	M
	480	15.0	3	1	25 ³ / ₈	(644.5)	85	(39)	FPN725G13XS	M	FPN725G13XW	M
	240	20.0	3	5	32 ⁷ / ₈	(835.0)	90	(41)	FPN732R12XS	M	FPN732R12XW	M
	480	20.0	3	1	32 ⁷ / ₈	(835.0)	90	(41)	FPN732R13XS	M	FPN732R13XW	M
	240	25.0	3	5	40 ³ / ₈	(1025.5)	98	(45)	FPN740G12XS	M	FPN740G12XW	M
	480	25.0	3	1	40 ³ / ₈	(1025.5)	98	(45)	FPN740G13XS	M	FPN740G13XW	M
	240	30.0	3	5	47 ⁷ / ₈	(1216.0)	108	(49)	FPN747R12XS	M	FPN747R12XW	M
	480	30.0	3	1	47 ⁷ / ₈	(1216.0)	108	(49)	FPN747R13XS	M	FPN747R13XW	M

RAPID SHIP
 • RS - Next day shipment up to 2 pieces
 • M - Manufacturing lead times

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 • For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only
 Truck Shipment only

Immersion Heaters

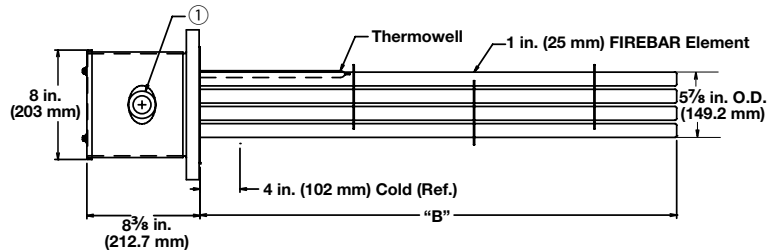
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Medium Weight Oils and Heat Transfer Oils

- 6 inch - 150 lb ANSI flange
- FIREBAR elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
15 W/in ² ③ 304 SS Flange 15-Alloy 800 Elements (2.3 W/cm ²)	240	10.0	3	5	13 ³ / ₈ (339.7)	78 (36)	FPNF13G29S	M	FPNF13G29W	M
	240	12.5	3	5	16 (406.0)	81 (37)	FPNF16A29S	M	FPNF16A29W	M
	240	15.0	3	5	18 ³ / ₈ (466.7)	84 (38)	FPNF18G29S	M	FPNF18G29W	M
	240	20.0	3	5	22 ⁷ / ₈ (581.0)	87 (40)	FPNF22R29S	M	FPNF22R29W	M
	480	20.0	3	5	22 ⁷ / ₈ (581.0)	87 (40)	FPNF22R30S	M	FPNF22R30W	M
	240	25.0	3	5	27 ⁷ / ₈ (708.0)	91 (42)	FPNF27R29S	M	FPNF27R29W	M
	480	25.0	3	5	27 ⁷ / ₈ (708.0)	91 (42)	FPNF27R30S	M	FPNF27R30W	M
	240	30.0	3	5	32 ⁷ / ₈ (835.0)	95 (43)	FPNF32R29S	M	FPNF32R29W	M
	480	30.0	3	5	32 ⁷ / ₈ (835.0)	95 (43)	FPNF32R30S	M	FPNF32R30W	M
	240	40.0	3	5	42 ³ / ₈ (1076.3)	106 (48)	FPNF42G29S	M	FPNF42G29W	M
	480	40.0	3	5	42 ³ / ₈ (1076.3)	106 (48)	FPNF42G30S	M	FPNF42G30W	M
	240	50.0	3	5	51 ⁷ / ₈ (1317.6)	116 (53)	FPNF51R29S	M	FPNF51R29W	M
	480	50.0	3	5	51 ⁷ / ₈ (1317.6)	116 (53)	FPNF51R30S	M	FPNF51R30W	M

• M - Manufacturing lead times

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
• For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

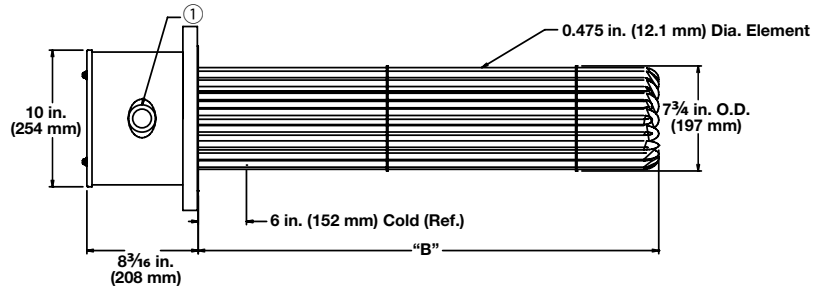
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Medium Weight Oils and Heat Transfer Oils

- 8 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Part Number	
							Del.	Del.	Del.	Del.
16 W/in ² ③ Steel Flange 18-Alloy 800 Elements (2.5 W/cm ²)	240	17.0	3	1	25% (654.0)	121 (55)	General Purpose Enclosure		Moisture-Resistant Enclosure	
	480	17.0	3	1	25% (654.0)	121 (55)	FRN725N12S	M	FRN725N12W	M
	240	25.0	3	2	35% (908.0)	130 (59)	FRN725N13S	M	FRN725N13W	M
	480	25.0	3	1	35% (908.0)	130 (59)	FRN735N12S	M	FRN735N12W	M
	480	25.0	3	1	35% (908.0)	130 (59)	FRN735N13S	M	FRN735N13W	M
	240	33.0	3	2	44% (1124.0)	132 (60)	FRN744E12S	M	FRN744E12W	M
	480	33.0	3	1	44% (1124.0)	132 (60)	FRN744E13S	M	FRN744E13W	M
	240	42.0	3	3	54 1/16 (1389.1)	140 (64)	FRN754M12S	M	FRN754M12W	M
	480	42.0	3	2	54 1/16 (1389.1)	140 (64)	FRN754M13S	M	FRN754M13W	M
	480	50.0	3	2	63 1/16 (1617.6)	145 (66)	FRN763M13S	M	FRN763M13W	M
	480	58.0	3	2	73 3/16 (1859.0)	151 (69)	FRN773D13S	M	FRN773D13W	M
480	67.0	3	2	82 1/16 (2100.3)	157 (72)	FRN782M13S	M	FRN782M13W	M	
16 W/in ² ③ Steel Flange 24-Alloy 800 Elements (2.5 W/cm ²)	240	23.0	3	2	26 3/16 (665.2)	129 (59)	FRN726D12XS	M	FRN726D12XW	M
	480	23.0	3	1	26 3/16 (665.2)	129 (59)	FRN726D13XS	M	FRN726D13XW	M
	240	33.0	3	2	36 3/16 (919.2)	142 (65)	FRN736D12XS	M	FRN736D12XW	M
	480	33.0	3	1	36 3/16 (919.2)	142 (65)	FRN736D13XS	M	FRN736D13XW	M
	240	44.0	3	4	44 1/16 (1135.1)	147 (67)	FRN744M12XS	M	FRN744M12XW	M
	480	44.0	3	2	44 1/16 (1135.1)	147 (67)	FRN744M13XS	M	FRN744M13XW	M
	240	56.0	3	4	54 1/16 (1389.1)	158 (72)	FRN754M12XS	M	FRN754M12XW	M
	480	56.0	3	2	54 1/16 (1389.1)	158 (72)	FRN754M13XS	M	FRN754M13XW	M
	480	67.0	3	2	63 1/16 (1617.6)	166 (76)	FRN763M13XS	M	FRN763M13XW	M
	480	77.0	3	2	73 3/16 (1859.0)	175 (80)	FRN773D13XS	M	FRN773D13XW	M
	480	89.0	3	4	82 1/16 (2100.3)	184 (84)	FRN782M13XS	M	FRN782M13XW	M

• M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

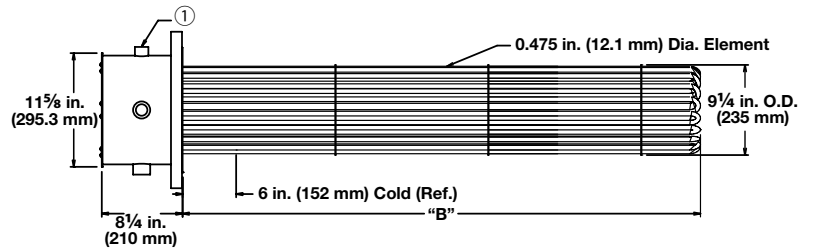
WATROD and FIREBAR ANSI Flange Immersion Heaters



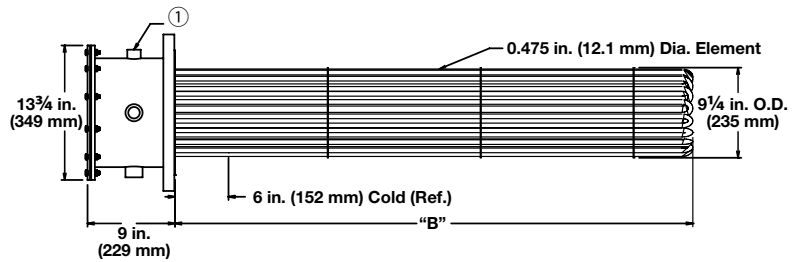
Application: Medium Weight Oils and Heat Transfer Oils

- 10 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
16 W/in ² ③ Steel Flange 27-Alloy 800 Elements (2.5 W/cm ²)	480	63.0	3	3	54 ³ / ₄ (1391)	240 (109)	General Purpose Enclosure FSN754N13S	M	Moisture-Resistant Enclosure FSN754N13W	M
	480	75.0	3	3	63 ³ / ₄ (1619)	250 (114)	FSN763N13S	M	FSN763N13W	M
	480	87.0	3	3	73 ¹ / ₄ (1861)	260 (118)	FSN773E13S	M	FSN773E13W	M

- M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

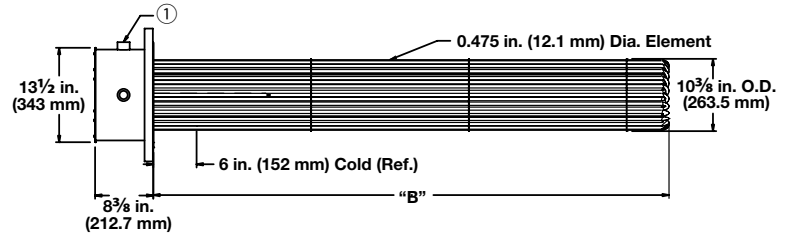
WATROD and FIREBAR ANSI Flange Immersion Heaters



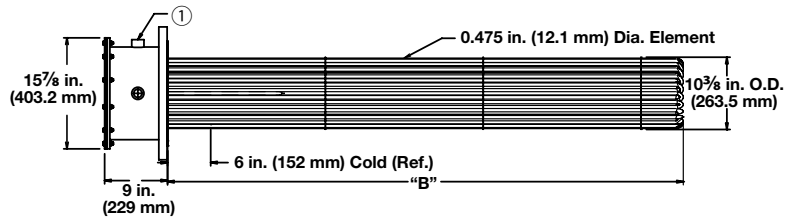
Application: Medium Weight Oils and Heat Transfer Oils

- 12 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
16 W/in ² ③ Steel Flange 36-Alloy 800 Elements (2.5 W/cm ²)	480	83.0	3	3	54 ⁵ / ₈ (1387.5)	280 (127)	FTN754L13S	M	FTN754L13W	M
	480	117.0	3	3	73 ¹ / ₈ (1857.4)	291 (132)	FTN773C13S	M	FTN773C13W	M

- M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

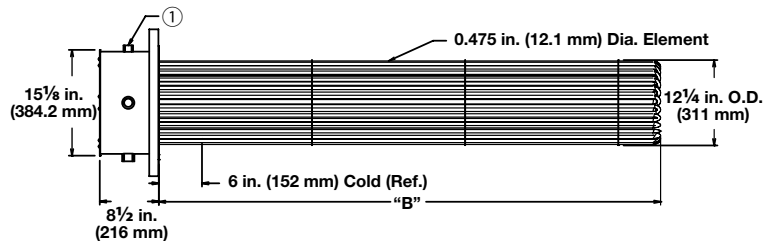
WATROD and FIREBAR ANSI Flange Immersion Heaters



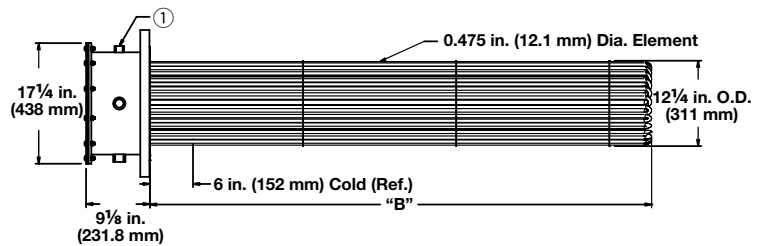
Application: Medium Weight Oils and Heat Transfer Oils

- 14 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number	Del.	Part Number	Del.
							General Purpose Enclosure		Moisture-Resistant Enclosure	
16 Win ² ③ Steel Flange 45-Alloy 800 Elements (2.5 W/cm ²)	480	105.0	3	3	54 1/2 (1384)	300 (136)	FWN754J13S	M	FWN754J13W	M
	480	125.0	3	5	63 1/2 (1613)	310 (141)	FWN763J13S	M	FWN763J13W	M

- M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

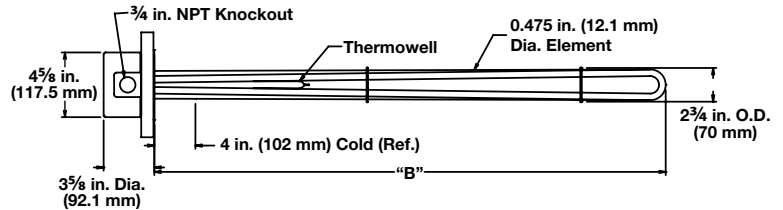
WATROD and FIREBAR ANSI Flange Immersion Heaters



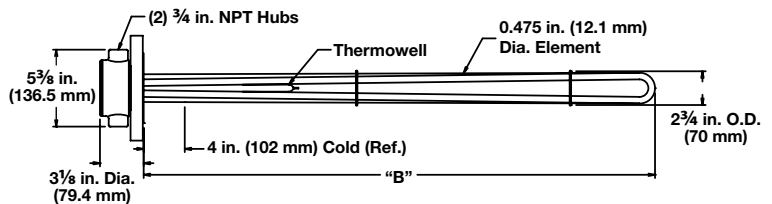
Application: Bunker C, Asphalt and #6 Fuel Oil

- 3 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures
- Single circuit

General Purpose



Moisture Resistant



Description	Volts	kW	Ph	"B" Dim.		Ship Wt.		Part Number		Part Number	
				in.	(mm)	lbs	(kg)	Del.	Del.		
8 W/in² ③ Steel Flange 3-Steel Elements (1.3 W/cm²)	240	2.0	3	33	(838)	28	(13)	General Purpose Enclosure		Moisture-Resistant Enclosure	
	480	2.0	3	33	(838)	28	(13)	FMS733A12S	RS	FMS733A12W	RS
	480	3.0	3	33	(838)	28	(13)	FMS733A13S	RS	FMS733A13W	RS
	240	3.0	3	48	(1219)	32	(15)	FMS748A12S	RS	FMS748A12W	RS
	480	3.0	3	48	(1219)	32	(15)	FMS748A13S	RS	FMS748A13W	RS
	240	4.0	3	64 ^{1/2}	(1638)	37	(17)	FMS764J12S	RS	FMS764J12W	RS
	480	4.0	3	64 ^{1/2}	(1638)	37	(17)	FMS764J13S	RS	FMS764J13W	RS
	240	5.0	3	77	(1956)	42	(19)	FMS777A12S	RS	FMS777A12W	RS
480	5.0	3	77	(1956)	42	(19)	FMS777A13S	RS	FMS777A13W	RS	

RAPID SHIP

- RS - Next day shipment up to 5 pieces

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
• For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

Immersion Heaters

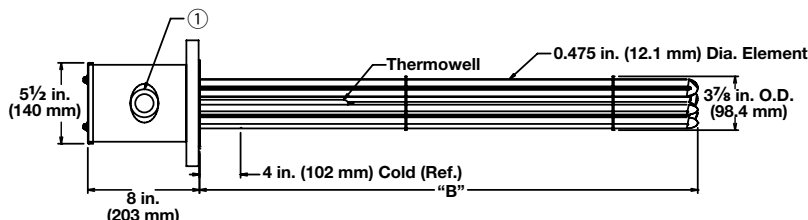
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Bunker C, Asphalt and #6 Fuel Oil

- 4 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure		
8 W/in ² ③ Steel Flange 6-Steel Elements (1.3 W/cm ²)	240	5.0	3	1	40 ¹ / ₂ (1029)	43 (20)	FOS740J12S	RS	FOS740J12W	RS
	480	5.0	3	1	40 ¹ / ₂ (1029)	43 (20)	FOS740J13S	RS	FOS740J13W	RS
	240	6.0	3	1	48 (1219)	48 (22)	FOS748A12S	RS	FOS748A12W	RS
	480	6.0	3	1	48 (1219)	48 (22)	FOS748A13S	RS	FOS748A13W	RS
	240	8.0	3	1	64 ¹ / ₂ (1638)	53 (24)	FOS764J12S	RS	FOS764J12W	RS
	480	8.0	3	1	64 ¹ / ₂ (1638)	53 (24)	FOS764J13S	RS	FOS764J13W	RS
	240	10.0	3	1	77 (1956)	61 (28)	FOS777A12S	RS	FOS777A12W	RS
	480	10.0	3	1	77 (1956)	61 (28)	FOS777A13S	RS	FOS777A13W	RS

RAPID SHIP

- RS - Next day shipment up to 5 pieces

- Notes:
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

Immersion Heaters

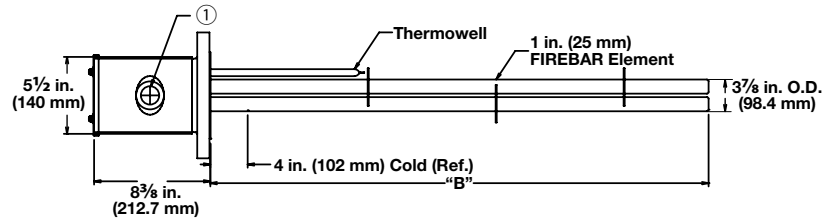
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Bunker C, Asphalt and #6 Fuel Oil

- 4 inch - 150 lb ANSI flange
- FIREBAR elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure		
8 W/in ² ③ 304 SS Flange 6-Alloy 800 Elements (1.3 W/cm ²)	240	2.50	3	1	16 ¹ / ₂ (420)	35 (16)	FONF16J22S	RS	FONF16J22W	RS
	240	3.25	3	1	19 ¹ / ₂ (495)	38 (17)	FONF19J22S	RS	FONF19J22W	RS
	240	4.25	3	1	24 ¹ / ₂ (622)	41 (19)	FONF24J22S	RS	FONF24J22W	RS
	480	4.25	3	1	24 ¹ / ₂ (622)	41 (19)	FONF24J21S	RS	FONF24J21W	RS
	240	5.25	3	1	30 (762)	44 (20)	FONF30A22S	RS	FONF30A22W	RS
	480	5.25	3	1	30 (762)	44 (20)	FONF30A21S	RS	FONF30A21W	RS
	240	6.38	3	1	35 (889)	46 (21)	FONF35A22S	RS	FONF35A22W	RS
	480	6.38	3	1	35 (889)	46 (21)	FONF35A21S	RS	FONF35A21W	RS
	240	8.50	3	1	45 ¹ / ₂ (1156)	50 (23)	FONF45J22S	RS	FONF45J22W	RS
	480	8.50	3	1	45 ¹ / ₂ (1156)	50 (23)	FONF45J21S	RS	FONF45J21W	RS
	240	10.75	3	1	56 (1422)	54 (25)	FONF56A22S	RS	FONF56A22W	RS
	480	10.75	3	1	56 (1422)	54 (25)	FONF56A21S	RS	FONF56A21W	RS

RAPID SHIP

- RS - Next day shipment up to 5 pieces

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
• For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

Immersion Heaters

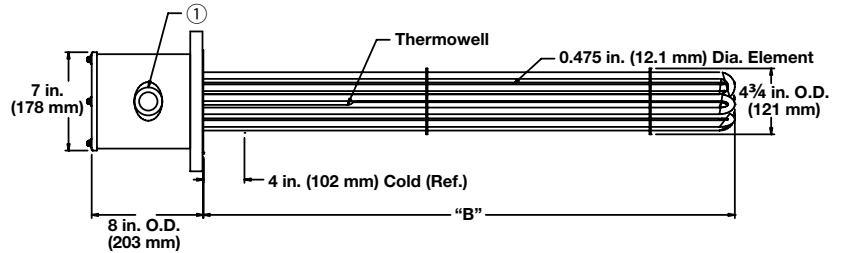
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Bunker C, Asphalt and #6 Fuel Oil

- 5 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure		
8 W/in ² ③ Steel Flange 6-Steel Elements (1.3 W/cm ²)	240	5.0	3	1	40 ¹ / ₂ (1029)	47 (22)	FNS740J12S	RS	FNS740J12W	RS
	480	5.0	3	1	40 ¹ / ₂ (1029)	47 (22)	FNS740J13S	RS	FNS740J13W	RS
	240	6.0	3	1	48 (1219)	52 (24)	FNS748A12S	RS	FNS748A12W	RS
	480	6.0	3	1	48 (1219)	52 (24)	FNS748A13S	RS	FNS748A13W	RS
	240	8.0	3	1	64 ¹ / ₂ (1638)	57 (26)	FNS764J12S	RS	FNS764J12W	RS
	480	8.0	3	1	64 ¹ / ₂ (1638)	57 (26)	FNS764J13S	RS	FNS764J13W	RS
	240	10.0	3	1	77 (1956)	65 (28)	FNS777A12S	RS	FNS777A12W	RS
	480	10.0	3	1	77 (1956)	65 (28)	FNS777A13S	RS	FNS777A13W	RS
8 W/in ² ③ Steel Flange 9-Steel Elements (1.3 W/cm ²)	240	7.5	3	1	40 ¹ / ₂ (1029)	53 (24)	FNS740J12XS	RS	FNS740J12XW	RS
	480	7.5	3	1	40 ¹ / ₂ (1029)	53 (24)	FNS740J13XS	RS	FNS740J13XW	RS
	240	9.0	3	1	48 (1219)	60 (28)	FNS748A12XS	RS	FNS748A12XW	RS
	480	9.0	3	1	48 (1219)	60 (28)	FNS748A13XS	RS	FNS748A13XW	RS
	240	12.0	3	1	64 ¹ / ₂ (1638)	68 (31)	FNS764J12XS	RS	FNS764J12XW	RS
	480	12.0	3	1	64 ¹ / ₂ (1638)	68 (31)	FNS764J13XS	RS	FNS764J13XW	RS
	240	15.0	3	1	77 (1956)	78 (36)	FNS777A12XS	M	FNS777A12XW	M
	480	15.0	3	1	77 (1956)	78 (36)	FNS777A13XS	M	FNS777A13XW	M

RAPID SHIP

- RS - Next day shipment up to 5 pieces
- M - Manufacturing lead times

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
• For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

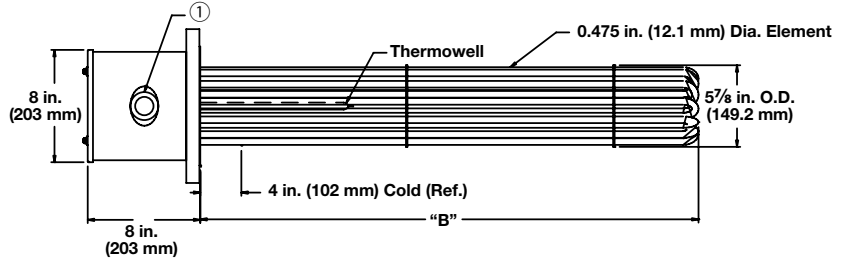
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Bunker C, Asphalt and #6 Fuel Oil

- 6 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)		Ship Wt. lbs (kg)		Part Number		Part Number	
									Del.	Del.	Del.	Del.
8 W/in² ③ Steel Flange 12-Steel Elements (1.3 W/cm²)	240	8.0	3	1	32 ⁷ / ₈	(835.0)	85	(39)	General Purpose Enclosure		Moisture-Resistant Enclosure	
	480	8.0	3	1	32 ⁷ / ₈	(835.0)	85	(39)	FPS732R12S	M	FPS732R12W	M
	480	8.0	3	1	32 ⁷ / ₈	(835.0)	85	(39)	FPS732R13S	M	FPS732R13W	M
	240	10.0	3	1	40 ³ / ₈	(1025.5)	92	(42)	FPS740G12S	M	FPS740G12W	M
	480	10.0	3	1	40 ³ / ₈	(1025.5)	92	(42)	FPS740G13S	M	FPS740G13W	M
	240	12.0	3	1	47 ⁷ / ₈	(1216.0)	100	(46)	FPS747R12S	M	FPS747R12W	M
	480	12.0	3	1	47 ⁷ / ₈	(1216.0)	100	(46)	FPS747R13S	M	FPS747R13W	M
	240	16.5	3	1	64 ³ / ₈	(1635.1)	110	(50)	FPS764G12S	M	FPS764G12W	M
	480	16.5	3	1	64 ³ / ₈	(1635.1)	110	(50)	FPS764G13S	M	FPS764G13W	M
	240	20.0	3	2	76 ⁷ / ₈	(1952.4)	118	(54)	FPS776R12S	M	FPS776R12W	M
480	20.0	3	1	76 ⁷ / ₈	(1952.4)	118	(54)	FPS776R13S	M	FPS776R13W	M	
8 W/in² ③ Steel Flange 15-Steel Elements (1.3 W/cm²)	240	10.0	3	1	32 ⁷ / ₈	(835.0)	90	(41)	FPS732R12XS	M	FPS732R12XW	M
	480	10.0	3	1	32 ⁷ / ₈	(835.0)	90	(41)	FPS732R13XS	M	FPS732R13XW	M
	240	12.5	3	1	40 ³ / ₈	(1025.5)	98	(45)	FPS740G12XS	M	FPS740G12XW	M
	480	12.5	3	1	40 ³ / ₈	(1025.5)	98	(45)	FPS740G13XS	M	FPS740G13XW	M
	240	15.0	3	1	47 ⁷ / ₈	(1216.0)	108	(49)	FPS747R12XS	M	FPS747R12XW	M
	480	15.0	3	1	47 ⁷ / ₈	(1216.0)	108	(49)	FPS747R13XS	M	FPS747R13XW	M
	240	21.0	3	5	64 ³ / ₈	(1635.1)	120	(55)	FPS764G12XS	M	FPS764G12XW	M
	480	21.0	3	1	64 ³ / ₈	(1635.1)	120	(55)	FPS764G13XS	M	FPS764G13XW	M
	240	25.0	3	5	76 ⁷ / ₈	(1952.4)	131	(60)	FPS776R12XS	M	FPS776R12XW	M
	480	25.0	3	1	76 ⁷ / ₈	(1952.4)	131	(60)	FPS776R13XS	M	FPS776R13XW	M

• M - Manufacturing lead times

Notes: • All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
• For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

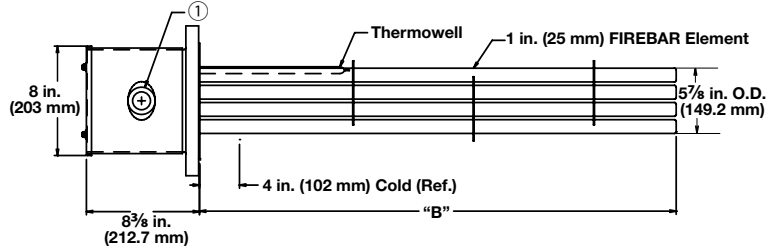
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Bunker C, Asphalt and #6 Fuel Oil

- 6 inch - 150 lb ANSI flange
- FIREBAR elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim.		Ship Wt.		Part Number	Del.	Part Number	Del.
					in.	(mm)	lbs	(kg)	General Purpose Enclosure		Moisture-Resistant Enclosure	
8 W/in ² ③ 304 SS Flange 15-Alloy 800 Elements (1.3 W/cm ²)	240	6.3	3	5	16 ¹ / ₂	(419)	81	(37)	FPNF16J22S	M	FPNF16J22W	M
	240	8.1	3	5	19 ¹ / ₂	(495)	84	(38)	FPNF19J22S	M	FPNF19J22W	M
	240	10.6	3	5	24 ¹ / ₂	(622)	87	(40)	FPNF24J22S	M	FPNF24J22W	M
	480	10.6	3	5	24 ¹ / ₂	(622)	87	(40)	FPNF24J21S	M	FPNF24J21W	M
	240	13.1	3	5	30	(762)	91	(42)	FPNF30A22S	M	FPNF30A22W	M
	480	13.1	3	5	30	(762)	91	(42)	FPNF30A21S	M	FPNF30A21W	M
	240	16.0	3	5	35	(889)	95	(43)	FPNF35A22S	M	FPNF35A22W	M
	480	16.0	3	5	35	(889)	95	(43)	FPNF35A21S	M	FPNF35A21W	M
	240	21.3	3	5	45 ¹ / ₂	(1156)	106	(48)	FPNF45J22S	M	FPNF45J22W	M
	480	21.3	3	5	45 ¹ / ₂	(1156)	106	(48)	FPNF45J21S	M	FPNF45J21W	M
	240	26.0	3	5	56	(1422)	116	(53)	FPNF56A22S	M	FPNF56A22W	M
	480	26.0	3	5	56	(1422)	116	(53)	FPNF56A21S	M	FPNF56A21W	M

• M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

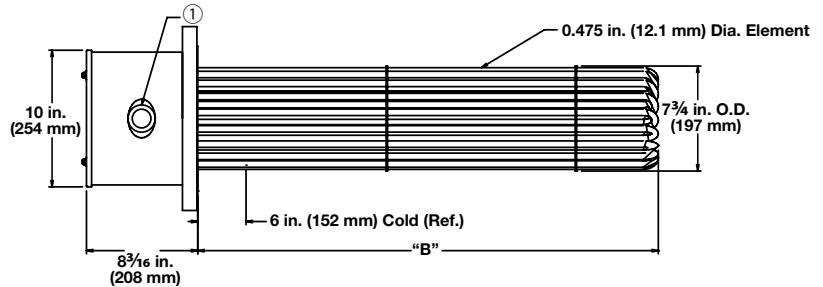
WATROD and FIREBAR ANSI Flange Immersion Heaters



Application: Bunker C, Asphalt and #6 Fuel Oil

- 8 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose and Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure		
8 W/in ² ③ Steel Flange 18-Steel Elements (1.3 W/cm ²)	240	12.5	3	1	43 ¹ / ₄ (1099.0)	132 (60)	FRS743E12S	M	FRS743E12W	M
	480	12.5	3	1	43 ¹ / ₄ (1099.0)	132 (60)	FRS743E13S	M	FRS743E13W	M
	240	16.5	3	1	51 ¹¹ / ₁₆ (1312.9)	137 (63)	FRS751M12S	M	FRS751M12W	M
	480	16.5	3	1	51 ¹¹ / ₁₆ (1312.9)	137 (63)	FRS751M13S	M	FRS751M13W	M
	240	20.0	3	2	62 ³ / ₁₆ (1579.6)	154 (70)	FRS762D12S	M	FRS762D12W	M
	480	20.0	3	1	62 ³ / ₁₆ (1579.6)	154 (70)	FRS762D13S	M	FRS762D13W	M
	240	24.0	3	2	70 ¹¹ / ₁₆ (1795.5)	160 (73)	FRS770M12S	M	FRS770M12W	M
	480	24.0	3	1	70 ¹¹ / ₁₆ (1795.5)	160 (73)	FRS770M13S	M	FRS770M13W	M
	240	27.0	3	2	79 ¹¹ / ₁₆ (2024.1)	172 (78)	FRS779M12S	M	FRS779M12W	M
	480	27.0	3	1	79 ¹¹ / ₁₆ (2024.1)	172 (78)	FRS779M13S	M	FRS779M13W	M
8 W/in ² ③ Steel Flange 24-Steel Elements (1.3 W/cm ²)	240	17.0	3	1	43 ¹¹ / ₁₆ (1109.7)	147 (67)	FRS743M12XS	M	FRS743M12XW	M
	480	17.0	3	1	43 ¹¹ / ₁₆ (1109.7)	147 (67)	FRS743M13XS	M	FRS743M13XW	M
	240	22.0	3	2	51 ¹¹ / ₁₆ (1312.9)	154 (70)	FRS751M12XS	M	FRS751M12XW	M
	480	22.0	3	1	51 ¹¹ / ₁₆ (1312.9)	154 (70)	FRS751M13XS	M	FRS751M13XW	M
	240	27.0	3	2	62 ³ / ₁₆ (1579.6)	166 (76)	FRS762D12XS	M	FRS762D12XW	M
	480	27.0	3	1	62 ³ / ₁₆ (1579.6)	166 (76)	FRS762D13XS	M	FRS762D13XW	M
	240	32.0	3	2	70 ¹¹ / ₁₆ (1795.5)	175 (80)	FRS770M12XS	M	FRS770M12XW	M
	480	32.0	3	1	70 ¹¹ / ₁₆ (1795.5)	175 (80)	FRS770M13XS	M	FRS770M13XW	M
	240	36.0	3	2	79 ¹¹ / ₁₆ (2024.1)	181 (82)	FRS779M12XS	M	FRS779M12XW	M
	480	36.0	3	1	79 ¹¹ / ₁₆ (2024.1)	181 (82)	FRS779M13XS	M	FRS779M13XW	M

• M - Manufacturing lead times

- Notes:**
- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
 - For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

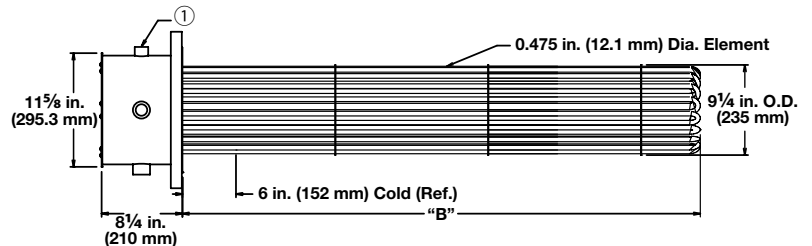
WATROD and FIREBAR ANSI Flange Immersion Heaters



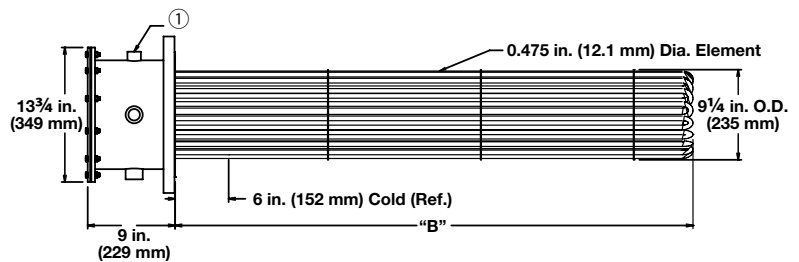
Application: Bunker C, Asphalt and #6 Fuel Oil

- 10 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	General Purpose Enclosure		Moisture-Resistant Enclosure	
							Part Number	Del.	Part Number	Del.
8 W/in ² ③ Steel Flange 27-Steel Elements (1.3 W/cm ²)	240	25.0	3	3	51 ³ / ₄ (1314)	230 (105)	FSS751N12S	M	FSS751N12W	M
	480	25.0	3	1	51 ³ / ₄ (1314)	230 (105)	FSS751N13S	M	FSS751N13W	M
	240	30.0	3	3	62 ¹ / ₄ (1581)	250 (114)	FSS762E12S	M	FSS762E12W	M
	480	30.0	3	1	62 ¹ / ₄ (1581)	250 (114)	FSS762E13S	M	FSS762E13W	M
	240	35.0	3	3	70 ³ / ₄ (1797)	258 (117)	FSS770N12S	M	FSS770N12W	M
	480	35.0	3	1	70 ³ / ₄ (1797)	258 (117)	FSS770N13S	M	FSS770N13W	M
	240	40.0	3	3	78 ³ / ₄ (2000)	265 (121)	FSS778N12S	M	FSS778N12W	M
	480	40.0	3	1	78 ³ / ₄ (2000)	265 (121)	FSS778N13S	M	FSS778N13W	M

• M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

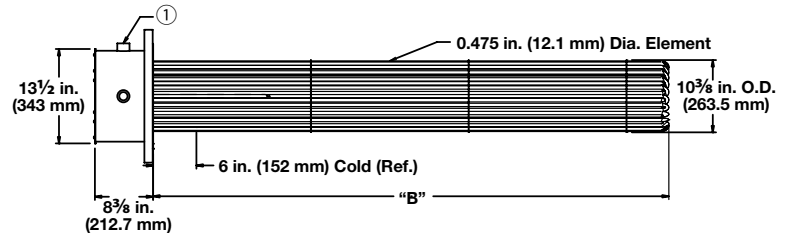
Immersion Heaters

WATROD and FIREBAR ANSI Flange Immersion Heaters

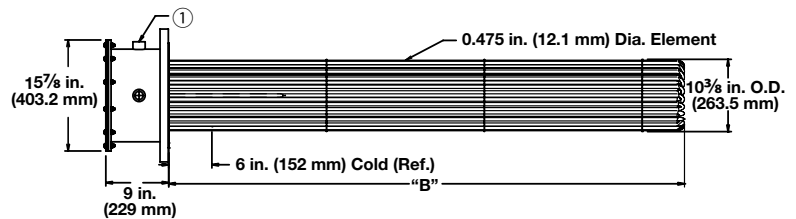
Application: Bunker C, Asphalt and #6 Fuel Oil

- 12 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	Part Number		Del.	
							General Purpose Enclosure	Moisture-Resistant Enclosure	Del.	Del.
8 W/in ² ③ Steel Flange 27-Steel Elements (1.3 W/cm ²)	240	34.0	3	2	51 ⁵ / ₈ (1311.3)	280 (127)	FTS751L12S	M	FTS751L12W	M
	480	34.0	3	1	51 ⁵ / ₈ (1311.3)	280 (127)	FTS751L13S	M	FTS751L13W	M
	240	40.0	3	2	62 ¹ / ₈ (1578.0)	285 (130)	FTS762C12S	M	FTS762C12W	M
	480	40.0	3	1	62 ¹ / ₈ (1578.0)	285 (130)	FTS762C13S	M	FTS762C13W	M
	240	47.0	3	3	70 ⁵ / ₈ (1793.9)	290 (132)	FTS770L12S	M	FTS770L12W	M
	480	47.0	3	2	70 ⁵ / ₈ (1793.9)	290 (132)	FTS770L13S	M	FTS770L13W	M
	240	54.0	3	3	78 ⁵ / ₈ (1997.1)	300 (136)	FTS778L12S	M	FTS778L12W	M
	480	54.0	3	2	78 ⁵ / ₈ (1997.1)	300 (136)	FTS778L13S	M	FTS778L13W	M

- M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

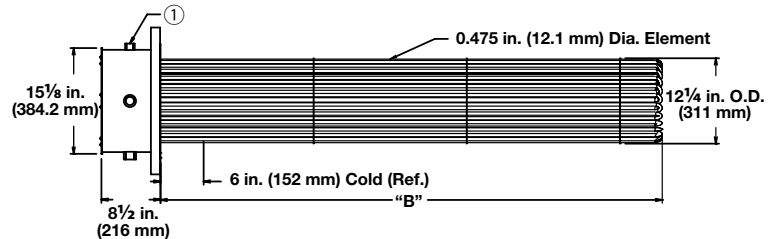
WATROD and FIREBAR ANSI Flange Immersion Heaters



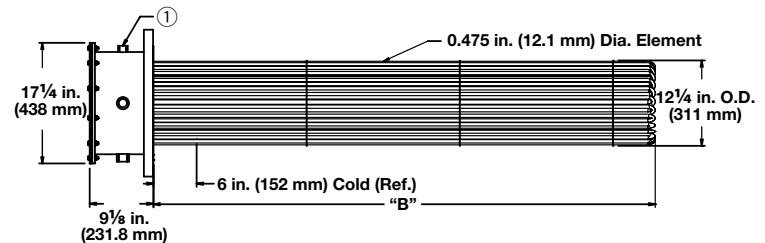
Application: Bunker C, Asphalt and #6 Fuel Oil

- 14 inch - 150 lb ANSI flange
- WATROD elements
- Without thermostat
- General purpose or moisture-resistant enclosures

General Purpose



Moisture Resistant



① The number and size of the conduit opening will comply with the National Electrical Code® standards.

Description	Volts	kW	Ph	# Circ.	"B" Dim. in. (mm)	Ship Wt. lbs (kg)	General Purpose Enclosure		Moisture-Resistant Enclosure	
							Part Number	Del.	Part Number	Del.
8 W/in ² ③ Steel Flange 27-Steel Elements (1.3 W/cm ²)	240	42.0	3	3	51 1/2 (1308)	300 (136)	FWS751J12S	M	FWS751J12W	M
	480	42.0	3	3	51 1/2 (1308)	300 (136)	FWS751J13S	M	FWS751J13W	M
	240	50.0	3	3	62 (1575)	310 (141)	FWS762A12S	M	FWS762A12W	M
	480	50.0	3	3	62 (1575)	310 (141)	FWS762A13S	M	FWS762A13W	M
	240	60.0	3	3	70 1/2 (1791)	318 (145)	FWS770J12S	M	FWS770J12W	M
	480	60.0	3	3	70 1/2 (1791)	318 (145)	FWS770J13S	M	FWS770J13W	M
	240	67.0	3	5	78 1/2 (1994)	330 (150)	FWS778J12S	M	FWS778J12W	M
	480	67.0	3	3	78 1/2 (1994)	330 (150)	FWS778J13S	M	FWS778J13W	M

• M - Manufacturing lead times

Notes:

- All flange bundles are designed to fit the inside diameter of the equivalent standard schedule pipe
- For ANSI flange dimensions, reference chart on page 241

③ Wired for 3-phase operation only

■ Truck Shipment only

Immersion Heaters

WATROD and FIREBAR ANSI Flange Immersion Heaters

Ordering Information

Part Number

Stock ANSI Flange Part Number	Optional Terminal Enclosures	Optional Process Sensors	Sheath Limit Sensors

Stock ANSI Flange Part Number

Note: Catalog part numbers include optional enclosures and process sensors. To order optional enclosures or sensors, substitute the appropriate suffix.

Optional Terminal Enclosures

S =	General purpose enclosure
W =	Moisture-resistant enclosure
E =	Explosion-resistant enclosure
C =	Moisture/explosion-resistant enclosure

Note: Catalog listings include either a general purpose enclosure or moisture/explosion-resistant enclosure. Substitute enclosure options are noted.

Optional Process Sensors

2 =	30 to 250°F, (-1 to 121°C) SPST
3 =	175 to 550°F, (79 to 288°C) SPST
4 =	30 to 110°F, (-1 to 43°C) DPST
5A =	60 to 250°F, (16 to 121°C) DPST (FIREBAR)
7A =	100 to 550°F, (38 to 288°C) DPST (FIREBAR)
PJ =	Type J process thermocouple in thermowell
PK =	Type K process thermocouple in thermowell

Note: Thermostat part numbers are shown in the *Thermostat Chart* on page 537.

Example Part Number: FPS732R12 S 2 HJ

Sheath Limit Sensors

HJ =	Type J high-limit thermocouple, horizontal mount
TJ =	Type J high-limit thermocouple, vertical/housing at top
BJ =	Type J high-limit thermocouple, vertical/housing at bottom
HK =	Type K high-limit thermocouple, horizontal mount
TK =	Type K high-limit thermocouple, vertical/housing at top
BK =	Type K high-limit thermocouple, vertical/housing at bottom

Note: Heater orientation is critical to accurate sensing of limit conditions. Use the appropriate code to indicate heater mounting orientation.