

Sizes up to 14" flange available, consult factory.

3" 150 LBS. SS FLANGE 3 STAINLESS STEEL ELEMENTS					
WATTS	VOLTS	OVERALL	MODEL	SHIP	
		LENGTH	NUMBER	WGHT.	
		In./(mm)		Lbs./(kg)	
3000	240	9	3FLS3209-**	14	
	480	(230)	3FLS3409-**	(6.5)	
4500	240	13	3FLS4.5213-**	15	
	480	(330)	3FLS4.5413-**	(7)	
6000	240	19	3FLS6219-**	16	
	480	(485)	3FLS6419-**	(7.5)	
9000	240	26	3FLS9226-**	17	
	480	(660)	3FLS9426-**	(8)	
12000	240	33	3FLS12233-**	18	
	480	(840)	3FLS12433-**	(8.5)	
15000	240	41	3FLS15241-**	20	
	480	(1040)	3FLS15441-**	(9)	
18000	240	49	3FLS18249-**	21	
	480	(1245)	3FLS18449-**	(10)	

5" 150 LBS. SS FLANGE 6 STAINLESS STEEL ELEMENTS					
WATTS	VOLTS	OVERALL	MODEL	SHIP	
		LENGTH	NUMBER	WGHT.	
		In./(mm)		Lbs./(kg)	
6000	240	9	5FLS6209-**	25	
	480	(230)	5FLS6409-**	(11.5)	
9000	240	13	5FLS9213-**	28	
	480	(330)	5FLS9413-**	(13)	
12000	240	19	5FLS12219-**	30	
	480	(485)	5FLS12419-**	(14)	
18000	240	26	5FLS18226-**	33	
	480	(660)	5FLS18426-**	(15)	
24000	240	33	5FLS24233-**	37	
	480	(840)	5FLS24433-**	(17)	
30000	240	41	5FLS30241-**	40	
	480	(1040)	5FLS30441-**	(18)	
36000	240	49	5FLS36249-**	43	
	480	(1245)	5FLS36449-**	(19.5)	

6" 150 LBS. SS FLANGE 12 STAINLESS STEEL ELEMENTS					
WATTS	VOLTS	OVERALL	MODEL	SHIP	
		LENGTH	NUMBER	WGHT.	
		In./(mm)		Lbs./(kg)	
12000	240	9	6FLS12209-**	48	
	480	(230)	6FLS12409-**	(22)	
18000	240	13	6FLS18213-**	54	
	480	(330)	6FLS18413-**	(24.5)	
24000	240	19	6FLS24219-**	60	
	480	(485)	6FLS24419-**	(27)	
36000	240	26	6FLS36226-**	67	
	480	(660)	6FLS36426-**	(30.5)	
48000	240	33	6FLS48233-**	76	
	480	(840)	6FLS48433-**	(34.5)	
60000	240	41	6FLS60241-**	84	
	480	(1040)	6FLS60441-**	(38)	
72000	240	49	6FLS72249-**	111	
	480	(1245)	6FLS72449-**	(50.5)	

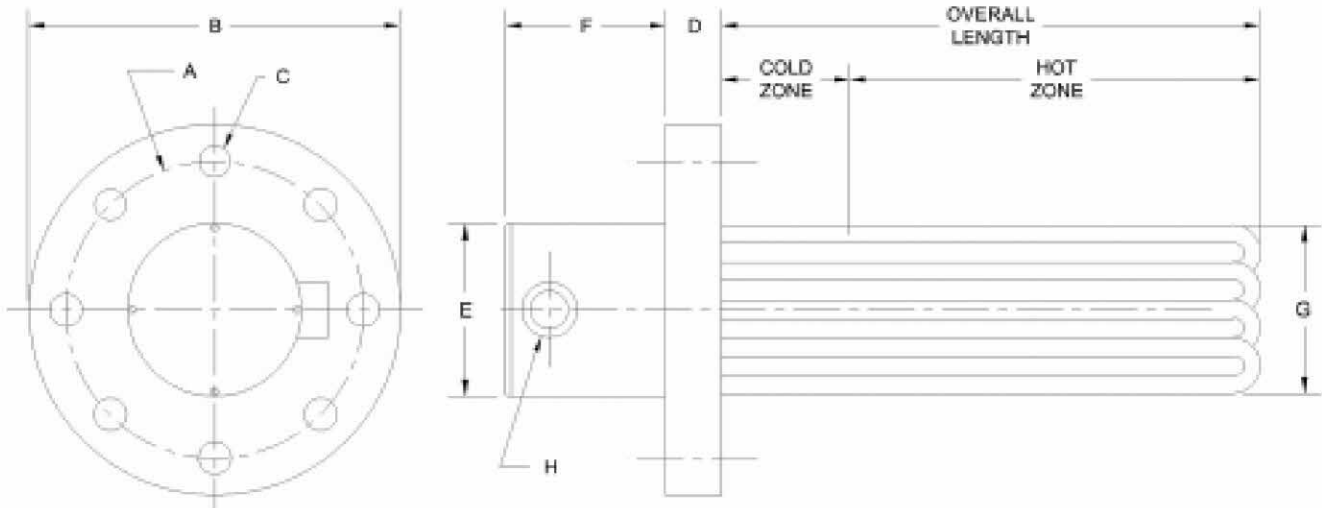
8" 150 LBS. SS FLANGE 18 STAINLESS STEEL ELEMENTS					
WATTS	VOLTS	OVERALL	MODEL	SHIP	
		LENGTH	NUMBER	WGHT.	
		In./(mm)		Lbs./(kg)	
18000	240	9	8FLS18209-**	84	
	480	(230)	8FLS18409-**	(38)	
27000	240	13	8FLS27213-**	92	
	480	(330)	8FLS27413-**	(42)	
36000	240	19	8FLS36219-**	100	
	480	(485)	8FLS36419-**	(45.5)	
54000	240	26	8FLS54226-**	110	
	480	(660)	8FLS54426-**	(50)	
72000	240	33	8FLS72233-**	120	
	480	(840)	8FLS72433-**	(54.5)	
90000	240	41	8FLS90241-**	126	
	480	(1040)	8FLS90441-**	(57)	
108000	240	49	8FLS108249-**	130	
	480	(1245)	8FLS108449-**	(59)	

10" 150 LBS. SS FLANGE 27 STAINLESS STEEL ELEMENTS					
WATTS	VOLTS	OVERALL	MODEL	SHIP	
		LENGTH	NUMBER	WGHT.	
		In./(mm)		Lbs./(kg)	
27000	240	9	10FLS27209-**	91	
	480	(230)	10FLS27409-**	(41.5)	
40500	240	13	10FLS40.5213-**	99	
	480	(330)	10FLS40.5413-**	(45)	
54000	240	19	10FLS54219-**	108	
	480	(485)	10FLS54419-**	(49)	
81000	240	26	10FLS81226-**	120	
	480	(660)	10FLS81426-**	(54.5)	
108000	240	33	10FLS108233-**	135	
	480	(840)	10FLS108433-**	(61)	
135000	240	41	10FLS135241-**	165	
	480	(1040)	10FLS135441-**	(75)	
162000	240	49	10FLS162249-**	200	
	480	(1245)	10FLS162449-**	(91)	

Product Features and Benefits:

- ◆ **SUPERIOR CHEMICAL RESISTANCE:** For use in most aqueous alkaline, plating solutions and rinse tanks. Check solution recommendation chart or with your chemical supplier for proper sheath material selection.
 - ◆ **RUGGED CONSTRUCTION:** Heavy wall metal sheaths and flanges in:
 - 316 stainless steel
 - Carbon steel
 - Incoloy
 - Titanium
 - ◆ **OUTSTANDING PERFORMANCE:** Watt densities of 40 watts per square inch (6.2 w/cm²) ensure long service life.
 - ◆ **CORROSION RESISTANT HEAD:** Vapor tight, painted metal enclosures.
 - ◆ **SAFETY FEATURES:**
 - Grounded construction.
 - Thermal protection built in. Replaceable PI fuse standard for solutions up to 180 °F (82 °C).
 - ◆ **CERTIFICATIONS:** CE.
 - ◆ **SIZES:**
 - 3,000 watts to 270,000 watts.
 - 150# ASA flanges from 3-inch through 14-inch sizes.
 - ◆ **VOLTAGES:** 240 or 480 volts. 208, 380, 415, 600 and other voltages available. Three phase standard, single phase available.
 - ◆ **OPTIONS AVAILABLE (consult factory):**
 - Replaceable thermal protectors:
 - PIM: for solutions from 180 °F (82 °C) to 230 °F (110 °C).
 - PIH: for solutions from 230 °F (110 °C) to 300 °F (150 °C).
 - Resettable thermal protectors:
 - PII: for solutions up to 180 °F (82 °C).
 - PIIM: for solutions from 180 °F (82 °C) to 230 °F (110 °C).
 - PIIH: for solutions from 230 °F (110 °C) to 300 °F (150 °C).
 - Special configurations and lengths.
 - Additional thermowells.
 - Explosion resistant enclosures.
 - Integral thermostats.
 - Metric flanges.
 - 300# ASA flanges.
 - Lower watt densities for highly viscous solutions.
 - Temperature and level controls sized to match the heater.
 - 3-inch and 6-inch fluoropolymer (PTFE) flanged heaters.
- NOTE:** Gasket and bolts not provided. Intended for horizontal installation only.

DIMENSIONS



FLANGE SIZE	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H
3" 150 lb.	6.00	7.50	0.75 (4)	0.94	4.00	3.00	2.75	0.75
5" 150 lb.	8.50	10.00	0.88 (8)	0.94	6.00	4.00	5.00	1.00
6" 150 lb.	9.50	11.00	0.88 (8)	1.00	5.38	4.00	6.00	1.00
8" 150 lb.	11.75	13.50	0.88 (8)	1.12	9.81	5.38	7.94	1.00
10" 150 lb.	14.25	16.00	1.00 (12)	1.19	11.19	6.56	9.75	1.50
12" 150 lb.	17.00	19.00	1.00 (12)	1.25	13.19	6.56	11.75	1.50
14" 150 lb.	18.75	21.00	1.12 (12)	1.38	15.19	6.56	12.75	2.00

FLANGED HEATER ORDERING INFORMATION

Flange Size	Series	Wattage	Voltage	Length (in.)	Options	Type of Fuse																		
3 = 3" 5 = 5" 6 = 6" 8 = 8" 10 = 10" 12 = 12" 14 = 14"		3,000 through 270,000	1 = 120 2 = 240 4 = 480 -208- = 208 -380- = 380 -415- = 415 -600- = 600		no designator = three phase power (standard) -1 = single phase power -M2 = explosion/moisture resistant housing -W = thermowell -T2 = integral thermostat -X = any special configuration not called out in the part number (specify in clear text)																			
FLS = 316 stainless steel FLT = titanium FLI = incoloy FLP = steel			consult front page for standard lengths (custom lengths available)		<table border="1"> <thead> <tr> <th colspan="2">Replaceable Fuse</th> </tr> </thead> <tbody> <tr> <td>-PI (std)</td> <td>for solutions up to 180°F</td> </tr> <tr> <td>-PIM</td> <td>for 180° - 230°F solutions</td> </tr> <tr> <td>-PIH</td> <td>for 230° - 300°F solutions</td> </tr> <tr> <th colspan="2">Resettable Fuse</th> </tr> <tr> <td colspan="2">(additional control components required)</td> </tr> <tr> <td>-PII</td> <td>for solutions up to 180°F</td> </tr> <tr> <td>-PIIM</td> <td>for 180° - 230°F solutions</td> </tr> <tr> <td>-PIIH</td> <td>for 230° - 300°F solutions</td> </tr> </tbody> </table>	Replaceable Fuse		-PI (std)	for solutions up to 180°F	-PIM	for 180° - 230°F solutions	-PIH	for 230° - 300°F solutions	Resettable Fuse		(additional control components required)		-PII	for solutions up to 180°F	-PIIM	for 180° - 230°F solutions	-PIIH	for 230° - 300°F solutions	
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ORDERING EXAMPLE:

3FLS6219-PI-M2

3" flange heater, type 316 stainless steel, 6 kW, 240 volts, 19" overall length, PI fuse, explosion/moisture resistant housing.

**PROCESS
TECHNOLOGY**

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