

3" 150 LBS. SS FLANGE 3 STAINLESS STEEL ELEMENTS				
WATTS	VOLTS	OVERALL	MODEL	SHIP
		LENGTH In./(mm)	NUMBER	WGT. 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 In./(mm)	NUMBER	WGT. 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)

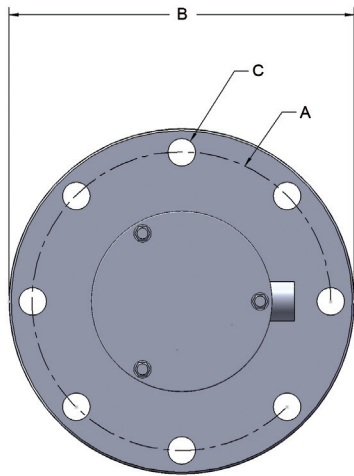
6" 150 LBS. SS FLANGE 12 STAINLESS STEEL ELEMENTS				
WATTS	VOLTS	OVERALL	MODEL	SHIP
		LENGTH In./(mm)	NUMBER	WGT. Lbs./(kg)
12000	240	9	6FLS12209-**	48
		480 (230)	6FLS12409-**	(22)
18000	240	13	6FLS18213-**	54
		480 (330)	6FLS18413-**	(24.5)
24000	240	19	6FLS24219-**	60
		480 (485)	6FLS24419-**	(27)
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)

Product Features and Benefits:

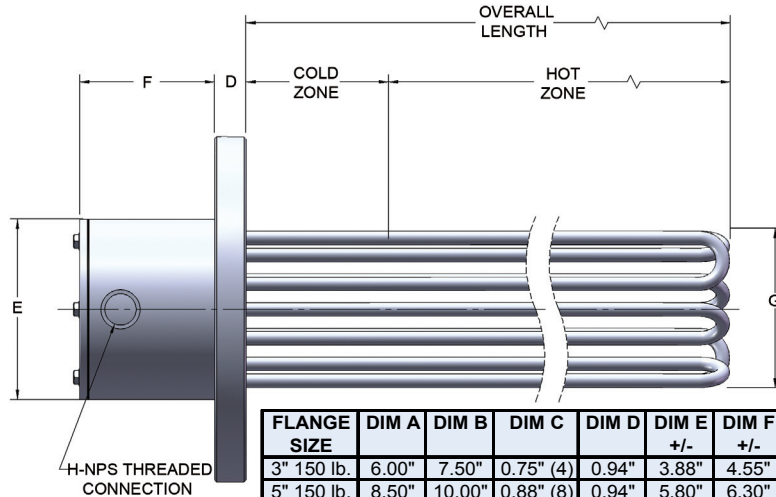
- ◆ **SUPERIOR CHEMICAL RESISTANCE:** For use in most aqueous alkaline, plating solutions and rinse tanks. Check solution recommendation chart or with your chemical supplier for proper sheath material selection.
- ◆ **RUGGED CONSTRUCTION:** Heavy wall metal sheaths and flanges in:
 - 316 stainless steel
 - 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 resistant, painted metal enclosures.
- ◆ **SAFETY FEATURES:**
 - Grounded construction.
 - Thermal protection built in. Replaceable P1 protector standard for solutions up to 180°F (82°C).
- ◆ **CERTIFICATIONS:** CE.
- ◆ **SIZES:**
 - 3,000 watts to 72,000 watts.
 - 150 lbs. ASA flanges from 3-inch through 6-inch sizes.
- ◆ **VOLTAGES:** 240 to 600 volts. Three phase standard, single phase available.
- ◆ **OPTIONS AVAILABLE (consult factory):**
 - Replaceable thermal protectors:
 - P4: for solutions from 180°F (82°C) to 230°F (110°C).
 - P5: for solutions from 230°F (110°C) to 300°F (150°C).
 - Resettable thermal protectors:
 - P2: for solutions up to 180°F (82°C).
 - P6: for solutions from 180°F (82°C) to 230°F (110°C).
 - P7 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 5-inch fluoropolymer (PTFE) flanged heaters.

NOTE: Gasket and bolts not provided. Intended for horizontal installation only.

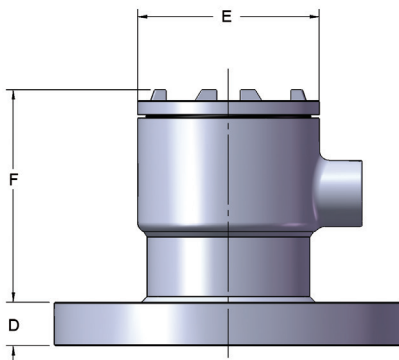
DIMENSIONS



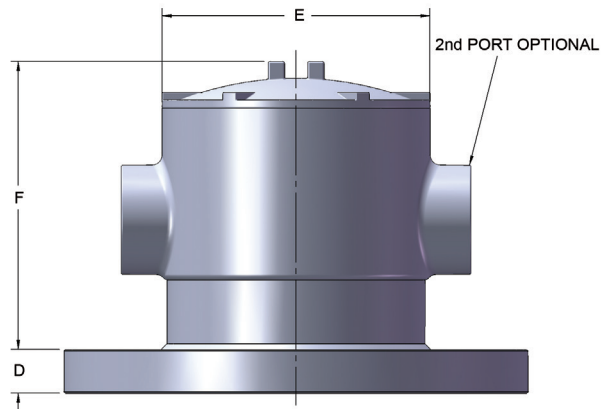
6 inch flange shown



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"	3.88" +/-	4.55" +/-	2.48" +/-	0.75"
5" 150 lb.	8.50"	10.00"	0.88" (8)	0.94"	5.80"	6.30"	4.70"	1.50"
6" 150 lb.	9.50"	11.00"	0.88" (8)	1.00"	6.63"	5.63"	5.70"	1.00"



3 inch flange



5 and 6 inch flange

FLANGED HEATER ORDERING INFORMATION

Flange Size	Series	Wattage	Voltage	Length (in.)	Options	Type of Protector																		
3 = 3" 5 = 5" 6 = 6"		3,000 through 72,000	2 = 240 3 = 380 4 = 480 5 = 415 6 = 600		no designator = three phase power (standard) -1 = single phase power -M2 = explosion/moisture resistant housing -W = thermowell -T = integral thermostat																			
FLS = 316 stainless steel FLT = titanium FLI = incoloy FLP = steel		consult front page for standard lengths (custom lengths available)			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Replaceable Protector</th> </tr> </thead> <tbody> <tr> <td style="width: 20%;">-P1(std)</td> <td>for solutions up to 180°F</td> </tr> <tr> <td>-P4</td> <td>for 180° - 230°F solutions</td> </tr> <tr> <td>-P5</td> <td>for 230° - 300°F solutions</td> </tr> <tr> <th colspan="2" style="text-align: center;">Resettable Protector</th> </tr> <tr> <td colspan="2" style="text-align: center;">(additional control components required)</td> </tr> <tr> <td>-P2</td> <td>for solutions up to 180°F</td> </tr> <tr> <td>-P6</td> <td>for 180° - 230°F solutions</td> </tr> <tr> <td>-P7</td> <td>for 230° - 300°F solutions</td> </tr> </tbody> </table>	Replaceable Protector		-P1(std)	for solutions up to 180°F	-P4	for 180° - 230°F solutions	-P5	for 230° - 300°F solutions	Resettable Protector		(additional control components required)		-P2	for solutions up to 180°F	-P6	for 180° - 230°F solutions	-P7	for 230° - 300°F solutions	
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1 inch = 25.4mm

ORDERING EXAMPLE:

3FLS6219-P1-M2

3" flange heater, 316 stainless steel, 6 kW, 240 volts, 19" length, P1 protector, explosion/moisture resistant housing.

