PACIFIC DESIGN TECHNOLOGIES, INC.

Thermal Management Solutions

Reservoir Datasheet







Pacific Design Technologies

PDT

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Reservior



Description

PDT's bootstrap reservoirs provide fluid storage volume, expansion capability, fluid level sensing/ leak detection and inlet pressurization for Liquid Cooling Systems on Commercial Aircraft. Vari-ous displacements are available with single or dual channel Linear Variable Differential Transducers (LVDT). Boot-strap reservoirs offer an advantage to aircraft cooling systems in that when the systems are not energized there is no quiescent pressure on the fluid circuit, minimizing the potential for leakage and resulting maintenance activities. Oper-ating pressure is pro-vided by the LCS pump.

Specification

Pump Parameters

Fluid:	Propylene glycol/ water (60/ 40% mixture)
Fluid Capacity:	0.85 to 2.28 gal, depending upon model
Temperature:	Operating: -40°F to 185°F
Low Pressure Chamber:	Operating: 30 psig Proof: 138 psig Burst: 165 psig
High Pressure Chamber:	Operating: 230 psig Proof: 356 psig Burst: 575 psig
Position Transducer:	Excitation: 7.00 ± 0.30 vrms, 3000 ± 50 Hz Output: -0.50 v/v min position, +0.50 v/v max position
Dry Weight:	12 to 19.4 lbs max (dry), depending upon model

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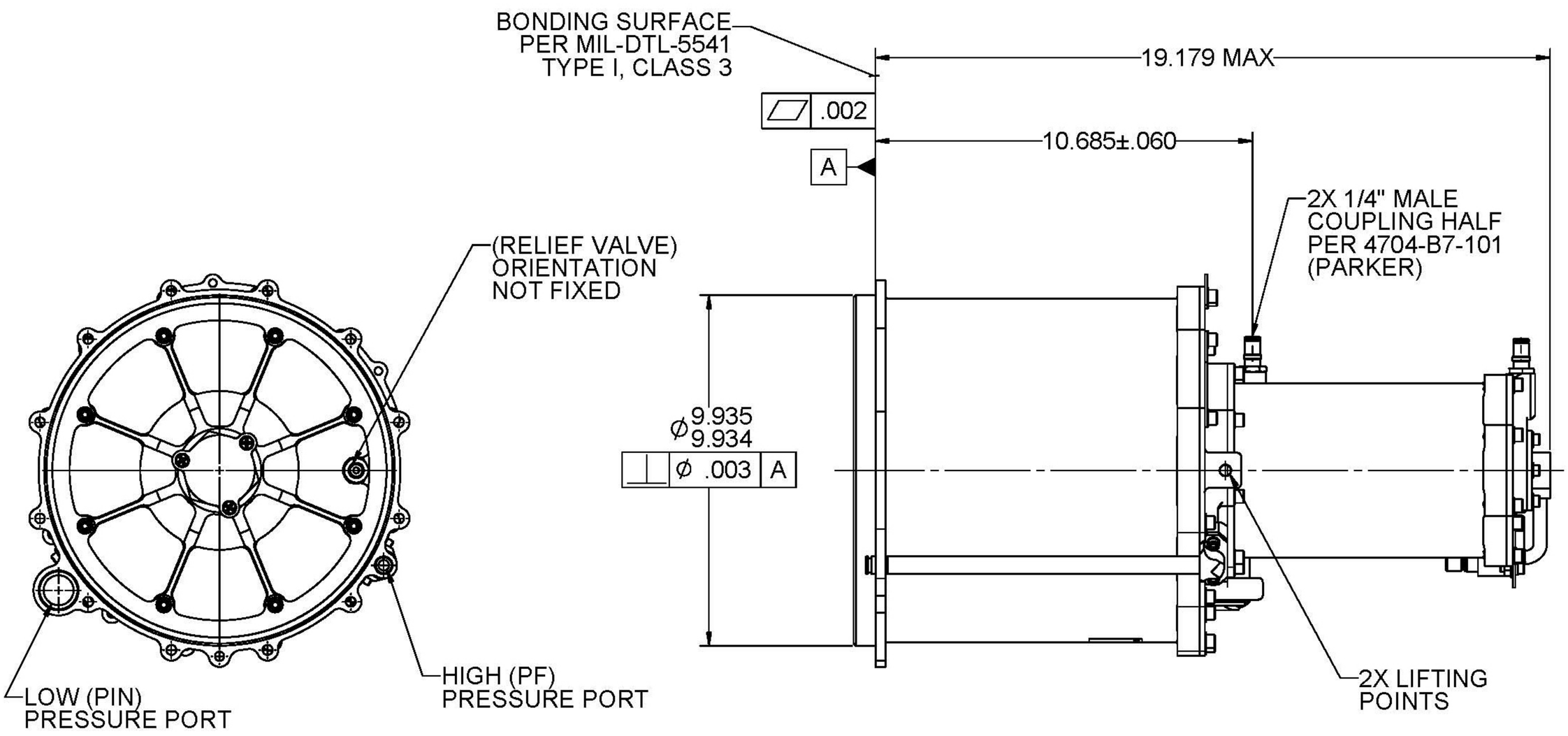
Reservior

Performance Parameters by Model Number

Reservoir Model No.	Displaceable Fluid Volume	Dynamic Performance			Area Ratio, LP/ HP
		Flow Rate	Stroke Time	*Activation Pressure	
5778	2.28 gal	2 gpm	68 sec	4.5 psid	4.9 : 1
5779	0.85 gal	2 gpm	25 sec	4.5 psid	9.0 : 1
5894	1.91 gal	6 gpm	19 sec	4.5 psid	7.8 : 1
*Activation Pressure = HP Fluid Pressure – LP Fluid Pressure					

Envelope

PDT Model 5778 shown, other Models similar









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Our people are part of our product.

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