



Submittal Data

FL Series Panel Mount Pressurized Flow Center - 1 or 2 pumps
 FL1L-PKT/FL1L-PKB/FL2M-PKT/FL2M-PKB



Project Name:	Representative:	
Contractor:	Engineer:	
Ref/P.O. #:	Date:	
Submitted by:	Date:	
Qty:	Part #:	Description:

Technical Data

Flow Center:	Circulators: Grundfos UPS26-99 (3-speed) & Grundfos UPMXL 25-124 (vari. speed), cast iron volute Cabinet: High Impact Polystyrene plastic Insulation: CFC-free, polyurethane foam Valves: 1" Full-port, 3-Way, 4-Position flushing and isolation/service valve, Brass body and spool, NBR seals, stainless steel retaining ring.	Max. Fluid Temperature: 140°F [60°C] Min. Fluid Temperature: 20°F [-7°C] Max. Oper. Press.: 145 psi [1 Mpa] Min. Operating Press.: 1.3 psi [9 kPa] Max. Ambient Air Temp: 104°F [40°C]
Controller:	Universal Pump Controller, UPC-GEO	
Interface:	24 VAC, 4-position terminal strip (ACC, Y2, C, R) to heat pump	

Electrical Data

UPS26-99 motor: 208-230V, 60 Hz, single phase, 2-pole UL and CSA approved, internal thermal overload protection, insulation class F, three speed
 UPMXL 25-124 motor: ECM, 208-230V, 50/60 Hz, single phase, 2-pole, ETL_{C/US} approved (meets UL and CSA requirements), electronically protected, insulation class F, 0.04 to 1.5 Amps, variable speed, PWM controlled via external signal

Pump Motor	Speed	Nominal HP	Volts	Amps @ 230V*	Watts @ 230V*	Capacitor	Pump Housing (Volute)
UPS26-99	High	1/6	208-230	0.9	196	5µF/400V	Cast Iron
	Medium			0.8	179		
	Low			0.7	150		
UPMXL 25-124	Variable	N/A	208-230	0.04-1.5	3-180	N/A	Cast Iron

*Data is maximum for UPS26-99. UPMXL 25-124 varies with RPM.

UPC-GEO Controller:

Parameter	Rating	Tolerance (+/-)
Input Voltage	24 VAC, 200 mA Max	10%
Input Frequency	60 Hz	20%
PWM Input Frequency	75 Hz	10%
PWM Input Voltage	Open Collector	n/a
PWM Output Frequency	3.9 kHz	10%
PWM Output Voltage	12 VDC	10%
Thermistor Input	NTC 10k	N/A
HP IN1	24VAC or dry contact across terminals	10% (for 24VAC Input)
HP IN2	24VAC or dry contact across terminals	10% (for 24VAC Input)
1-10 VDC input	Not currently used	N/A
GND	Earth Ground Connection	N/A
L1/N1 (input for second pump)	120/208-230 VAC	10%
L2/N2 (output for second pump)	120/208-230 VAC	10%
Relay for L1/N1 to L2/N2	4A Max	N/A
Display	128x64 pixels	N/A
DB9 connector (serial communication)	N/A	
Nominal power consumption	3.5VA	N/A

**NOTE: Single pump flow center uses one UPMXL 25-124 variable speed pump; two pump flow center uses one UPMXL 25-124 and one UPS26-99 3-speed pump.

Approved Antifreeze

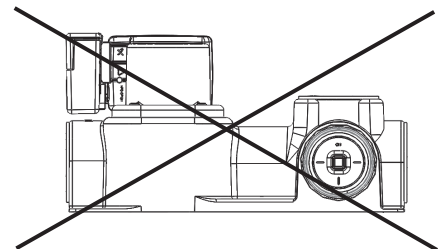
Propylene Glycol
 Ethanol
 Methanol

Mounting

Flow Center is designed for indoor installation only.

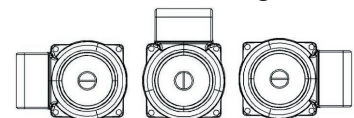
Flow Center must be installed with the pump's motor shaft horizontal.

Do not install flow center with the pump's motor shaft vertical.



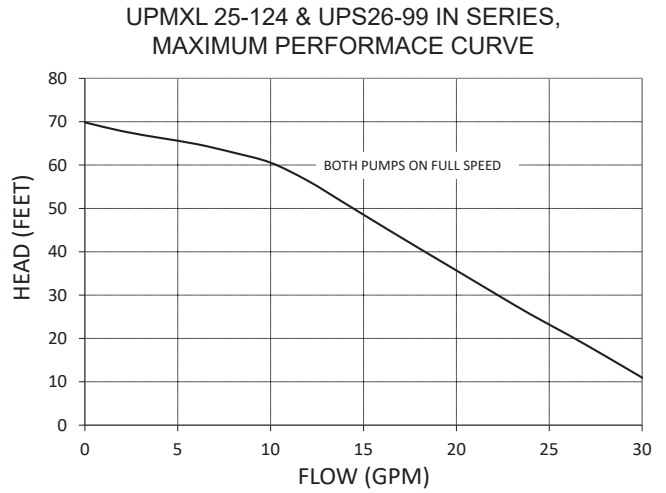
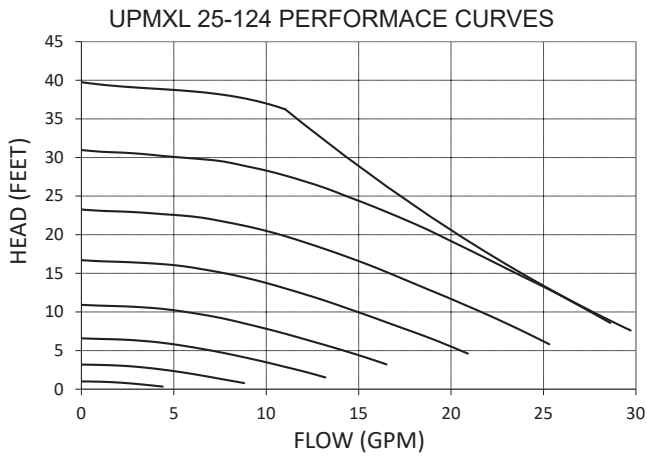
A condensation weep hole on the pump's motor must be located at the 6 o'clock position.

The UPS26-99 terminal box should be located in one of the following orientations:



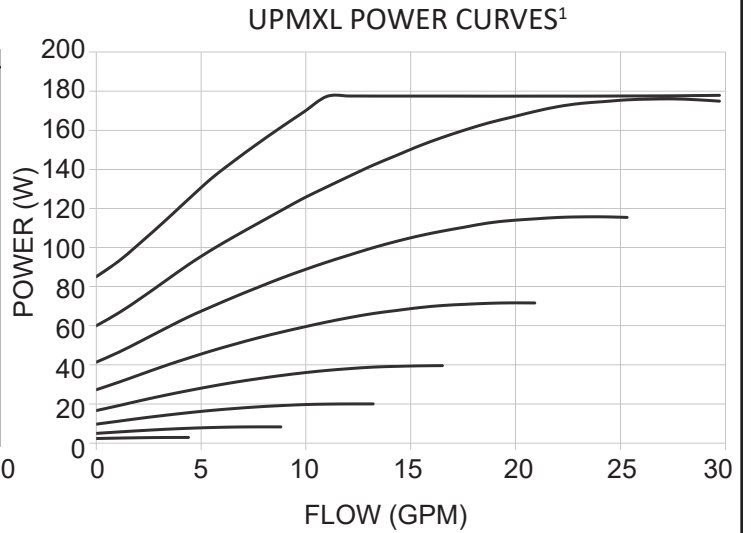
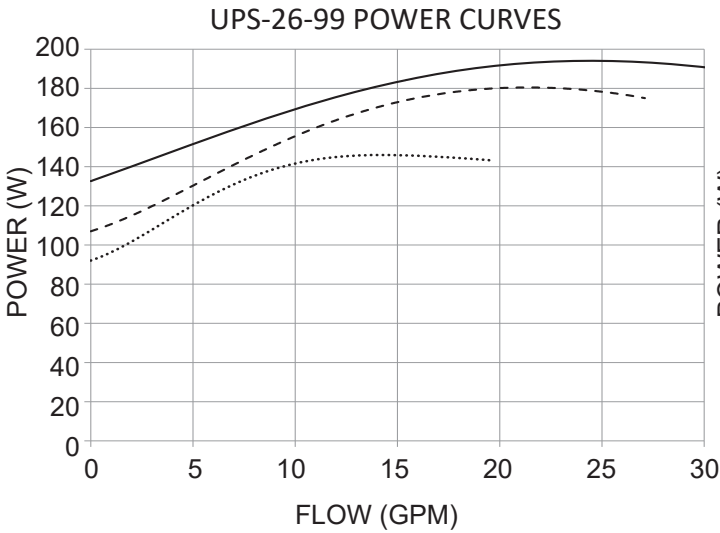
GEO-FLO CORPORATION
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 Bedford, IN 47421
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 www.geo-flo.com

Pump Performance Curves¹



Curves are manufacturer's reported averages using water at 68°F [20°C].

Pump Power Curves

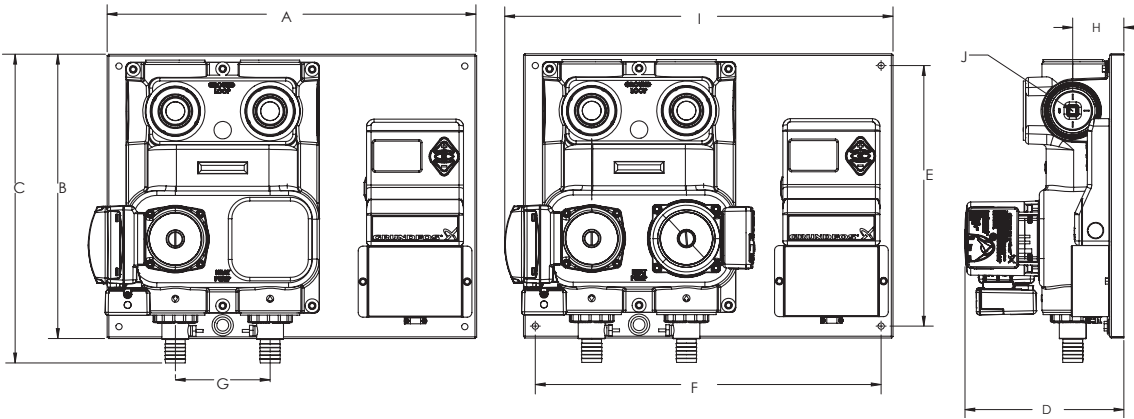


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Dimensional Data²



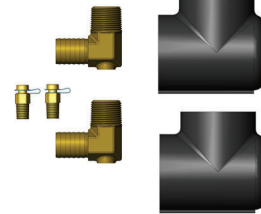
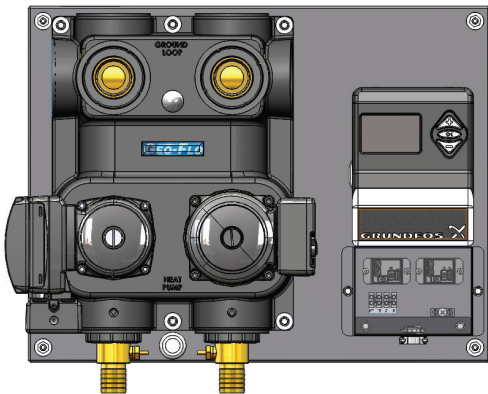
	A	B	C	D	E	F	G	H	I	J	WEIGHT (LBS)	
Inches	19-1/2	15	16-1/4	8-3/8	13-3/4	18-1/4	5	2-3/4	20-1/5	3/8 DRIVE SOCKET	SINGLE	DOUBLE
CM	49.5	38.1	41.3	21.3	34.9	46.4	12.7	6.8	51.3		23	28

Control / Pump Options

Geo-Flo Part Number	Description			U.O.M.	Shipping Weight (lbs)
	Variable Speed Pre-wired Packages (Panel Mounted)				
	Flow Center	Control	Connections		
FL1L-PKT	FL1L - Single pump	3697 - Delta T	Hose kit / PE fusion*	Kit	50
FL1L-PKB	FL1L- Single pump	3698 - Flow & Temperature	Hose kit / PE fusion*	Kit	51
FL2M-PKT	FL2M- Two pump	3697 - Delta T	Hose kit / PE fusion*	Kit	61
FL2M-PKB	FL2M- Two pump	3698 - Flow & Temperature	Hose kit / PE fusion*	Kit	62

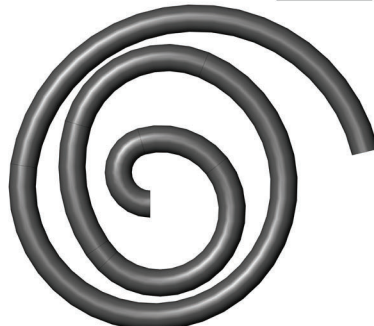
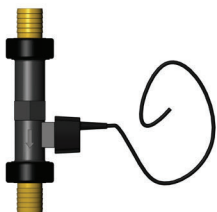


*Kit includes all of the fittings necessary for connecting to the ground loop (1-1/4" PE fusion) and to the heat pump (1" MPT). For heat pumps with double O-ring water connections, add P/N 3326 1" FPT x Flo-Link double O-ring fitting set.



NOTES:

1. Pump operates in between maximum and minimum curves. Intermediate curves are provided for reference.
2. Dimensional data provided for informational purposes and is rounded to nearest 1/16". Metric data is a simple conversion of imperial data and should not be considered more accurate.



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