

BF200	Dispensing Pump Speed: 0.1-200 rpm	<ul style="list-style-type: none"> Flow rate (BF-DG2) 0.003-82 ml/min Flow rate (BF-KZ15) 0.012-562 ml/min Dispensing, auto-running after switch on Portable design for easy-clean and corrosion-resistant More economical than using other high performance pumps 	DG2	KZ15	
BL100	Flow Rate Display Pump Speed: 0-100 rpm Speed accuracy 1% 0.1 rpm a step	<ul style="list-style-type: none"> Flow rate (BL100-DG4) 0.021-21.2 ml/min (single channel) Flow rate (BL100-KZ15) 0.12-281 ml/min Stepping Motor guarantees a stable accurate running Special corrosion resistant coating on pump house Tubing ID selection function and flow rate calibration function Memory saving function 	DG4	KZ15	
BT600L	Variable Speed Pump Speed: 0-600 rpm Speed accuracy 1% 0.1 rpm a step	<ul style="list-style-type: none"> Flow rate (BT600L-DG1) 0.021-127.2 ml/min (single channel) Flow rate (BT600L-KZ15) 0.12-1686 ml/min Stepping Motor guarantees a stable accurate running Special corrosion resistant coating on pump house Tubing ID selection function and flow rate calibration function Memory saving function Applications including Chromatograph and Spectroscopy analysis 	DG4	KZ15	
SL360	Large Volume Fluid Transfer Pump Speed: 60-360 rpm 0.1 rpm a step	<ul style="list-style-type: none"> Flow rate (SL360-XC45) 3.1-32400 ml/min Flow rate (SL360TH-TH35) 2.5-18000 ml/min Current flow rate display. Capable of batch transfer AC Servo Motor allows pump to transfer fluid with high accuracy XC45 Planetary Gear Pump Head will extend tubing life greatly Capable of transferring viscous fluid with high suction head Good for large volume and high accuracy chemical fluid transfer 	SL360	XC45	
WL600	Flow Rate Calculation Pump Speed: 0.1-600 rpm Accuracy 2%	<ul style="list-style-type: none"> Flow rate (WL600-KZ15) 0.012-1680 ml/min Large LED digital display of operation manual High protection rating (IP54). Total volume calculation. Memodose enabled Maintenance-free DC brushless motor drive. Noise-free One drive can take 2 KZ25 or 4 KZ15 pump heads at one time Special corrosion resistant coating on pump house 	KZ15	KZ25	
WL600b	Flow Rate Calculation Pump Speed: 0.1-600 rpm	<ul style="list-style-type: none"> Flow rate (WL600b-KZ15) 0.14-1686 ml/min Flow rate (WL600b-KZ25) 3.03-7572 ml/min High protection rating (IP54). Maintenance-free DC brushless motor drive. Noise-free Metal molding housing with streamlined design Current flow rate display, tubing ID selection and flow calibration Housing is covered with sp 	KZ15	KZ25	
WF600	Dosing Pump Speed: 0.1-600 rpm	<ul style="list-style-type: none"> Maintenance-free DC brushless motor drive. Noise-free Setup of volume, time, suction angle, parameter calibration and auto-emptying. Dispensing mode can be saved automatically Can be controlled by remote control equipment 	WF600	TH16	
WF350	Dispensing Pump Speed: 0.1-350 rpm	<ul style="list-style-type: none"> Maintenance-free DC brushless motor drive. Noise-free Designed with keypad lock control. Accuracy $\leq \pm 0.5\%$ Setup of volume, time, suction angle, parameter calibration and auto-emptying. Dispensing mode can be saved automatically Can be controlled by remote control equipment 	WF350	PF246	
WF600G	Dispensing Pump Max speed: 600 rpm	<ul style="list-style-type: none"> Maintenance-free DC brushless motor drive. Noise-free Designed with keypad lock control. Accuracy $\leq \pm 0.5\%$ Setup of volume, time, suction angle, parameter calibration and auto-emptying. Dispensing mode can be saved automatically Can be controlled by remote control equipment Recommended tubing wall thickness 3.3mm, 2 IDs for you selection. 	WF600G	YZ35	
LP240	Linear Pump Speed: 0.1-3000 rpm Dispensing accuracy $\leq \pm 0.2\%$ Dosing time: 0.1-10s	<ul style="list-style-type: none"> Dosing range (LP244) 0.1-1.1ml (LP242) 0.1-42ml longest advancing distance 180mm Four Channels dispensing support Dry contact signal for start, no-bottle signal for stop, feedback signal 			

PreFluid pump control optional module features

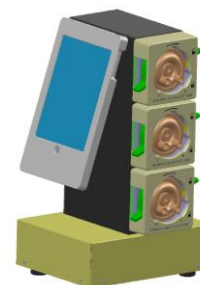
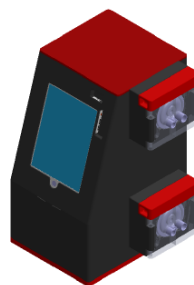
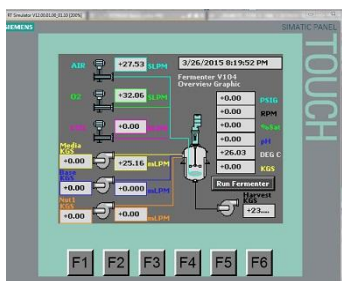
Optimum Processing Inc. is pleased to offer several options for the control of PreFluid pumps. PreFluid pumps are capable of variable speed operation. These pumps are network capable using RS-485, however, the communication protocol used is not an industry standard. OPI in conjunction with Marin Scientific Development Company has developed an intelligent network-able add-on for the entire PreFluid pump line. This optional module allows a user to communicate with PreFluid pumps over Ethernet using MODBUS TCP protocol. This is a widely accepted Internet protocol used extensively in the control industry. Virtually every control vendor product line supports this protocol on Ethernet. This includes manufacturers such as: Siemens, Allen Bradley, Modicon, Emerson, and Asea-Brown-Boveri (ABB).

This communication module allows the user:

- To create a network of pumps on Ethernet or an RS-485 network of pumps on a single Ethernet Network module.
- full control over starting and stopping the pump(S) over the network
- full control over the speed of the pump(S) over the network
- provides automatic flow calculations based on selected tubing size and pump head for individual pumps
- to integrate high precision scales directly with the pump(s) and command totalizer targets with either mass or volume basis.
- Totalizer operation is intelligent and controls the pump directly on the module once the target is identified and a maximum flow rate. The module will calculate an estimated time to target and slow the pump down on approach to achieve the best accuracy for totalizer target delivery.
- The ability to communicate with several pumps with one Ethernet connection
- The ability to customize the communication and tasks for the pumps.

Please contact Optimum Processing Inc. for further information and pricing.

Universal, Flexible and Affordable Interface or Development Platform to Control Pumps. Control and talk to Balances, Scales. Enables control via single use or reusable pH, DO₂, Cond., Temp., Gas Mix sensors. Monitor and Control via Pressure in filter systems or bag(s). Automation is user driven, Configurable and Programmable. Open Source Based Controller is Expandable Via the Internet or Network. Talks To Central PC, Siemens, Allen Bradley Delta-V, Modicon, G.E. et.al. Integrated Communication Protocols 16GB On Board Data Logging. Integrate into existing box on pump or stand alone PC.



Description	The first fully flexible and affordable controller for single use end users.
Materials	cGMP Compliant ULD. Polyethylene, single material no tie layers
Sterilization	Gamma Irradiateable, E-Beam compatible
Sizes	1L, 2L, 14L, 50L
Temperature range	20°C to +40°C

Applications:

Use in the laboratory, pilot plant or production to automate basic processes. A reliable automation tool for run development for Chromatography, buffer mfg., UF/DF and micro filtration, media mixing, reagent mfg., and cell culture. All single use components come pre-sterile and ready to use i.e. Tubing and bag assemblies and manifolds for fermentation and cell culture, media and buffers, additives and antifoams.

Prefluid	Flow rate (ml/min)
WL600-KZ15	0.12-1680
WL600b-KZ15	0.14-1686
WL600b-KZ25	3.03-7572
BF200-TH15	0.043-526
BF200-KZ15	0.012-562
BF200-DG2	0.0021-42.4 (single channel)
BL100-DG2	0.0021-21.2 (single channel)
BT600L-KZ15	0.12-1686
BT600L-YZ15	0.247-1662
BT600L-YZ25	1.5-1596
QT300-KZ15	7.2-828
SL360-XC45	3.1-32760
SL360TH-TH35	2.5-18000
WF350-PF246	0.016-3899
WF600-TH16	3.8-5190
WF600-YZ15	1.5-1680
WF600-KZ15	1.2-1680
WF600-YZ25	15-2736
WF600-KZ25	3.03-7572
WF600G-YZ35	130-11400

Equivalent to

Watson Marlow	Flow rate (ml/min)
100	Up to 190
200	0.00026-22
300	0.81-2000
400	0.006-610.082
500	0.004-4794.86
600	1.14-18170
700	3.79-66623
800	Up to 132489
SPX	37.85-1514164.71
OEM	0.00001-1135623.54
Flexicon	0.5-5000
MasoSine	Up to 1514164.71

WL600 Digital Flow-rate & Total Volume Display Pump Speed: 0.1-600rpm. Speed accuracy 0.1 rpm
Tubing size referenced flow rate range (ml/min)
 WL600-KZ15 13#14#19#16#25#17# 0.012-1680 (Watson Marlow 300)

WL600b Digital Flow-rate Display Pump Speed: 0.1-600rpm. Speed accuracy 0.1 rpm
Tubing size referenced flow rate range (ml/min)
 WL600b-KZ25 15#24#35#36# 0.295 -6168 (Watson Marlow 600)

BF200 Simple Dispensing Peristaltic Pump Speed: 0.1-200 rpm. Speed accuracy 0.1 rpm
Tubing size referenced flow rate range (ml/min)
 BF200-TH15 19#16#25#17# 0.043-526 (Watson Marlow 400)
 BF200-KZ15 13#14#19#16#25#17# 0.012-562 (Watson Marlow 400)
 BF200-DG2 1x1 2x1 2.4x0.8 0.5x0.86 (single channel) 0.0021-42.4 (Watson Marlow 200)
 0.91x0.86 0.86x0.86

BL100 Digital Flow-rate Display Pump Speed: 0.1-100 rpm. Speed accuracy 0.1 rpm
Tubing size referenced flow rate range (ml/min)
 BL100-DG2 1x1 2x1 2.4x0.8 0.5x0.86 (single channel) 0.0021-21.2 (Watson Marlow 200)
 0.91x0.86 0.86x0.86

BT600L	Variable Speed Pump	Speed: 1-600 rpm.	Speed accuracy 1 rpm
	Tubing size	referenced flow rate range (ml/min)	
BT600L-KZ15	13#14#19#16#25#17#	0.12-1686 (Watson Marlow 300)	
BT600L-YZ15	13#14#19#16#25#17#	0.247-1662 (Watson Marlow 300)	
BT600L-YZ25	15#24#	1.5-1596(single channel) (Watson Marlow 500)	

QT300	Variable Speed Pump	Speed: 60-300 rpm.	Speed accuracy 1 rpm
	Tubing size	referenced flow rate range (ml/min)	
QT300-KZ15	13#14#19#16#25#17#	7.2-838 (Watson Marlow 300)	

SL360	Heavy-duty Hose Pump	Speed: 0.1-360rpm	Speed accuracy 0.1 rpm
	Tubing size	referenced flow rate range (ml/min)	
SL360-XC45	88#90#92#	3.1-32760 (Watson Marlow 700)	

SL360TH	Heavy-duty Hose Pump	Speed: 0.1-360rpm	Speed accuracy 0.1 rpm
	Tubing size	referenced flow rate range (ml/min)	
SL360TH-TH35	73#82#184#	2.5-18000 (Watson Marlow 600)	

WF350	High Accuracy Dispensing Pump	Speed: 0.1-350 rpm	Speed accuracy 0.1 rpm
Recommended dosing volume: 0.5ml, 1ml, 2ml, 2.5ml, 5ml, 10ml and 20ml			

Filling vol.	Suitable speed	Suitable tubing	Filling time	Accuracy
0.5ml	135rpm	0.8x2.4	0.4s	± 2%
1ml	167rpm	0.8x2.4	0.4s	± 1%
2ml	281rpm	1.6x2.4	0.4s	± 0.5%
5ml	255rpm	2.4x2.4	1s	± 0.5%
10ml	257rpm	4.8x2.4	1.2s	± 0.5%

	Tubing size	referenced flow rate range (ml/min)
WF350-PF246	0.8x2.4 1.6x2.4 2.4x2.4 4.8x2.4	0.016-3899 (Watson Marlow 500)

WF600	High Accuracy Dispensing Pump	Speed: 0-600 rpm	Speed accuracy 0.1 rpm
Recommended dosing volume: 5ml, 7ml, 10ml 25ml. 50ml and 100ml			

	Tubing size	referenced flow rate range (ml/min)
WF600-TH16	14#19#16#25#17#18#	3.8-5190 (Watson Marlow 500)
WF600-YZ15	14#19#16#25#17#	1.5-1680 (Watson Marlow 300)
WF600-KZ15	13#14#19#16#25#17#	1.2-1686 (Watson Marlow 300)
WF600-YZ25	15#24#35#36#	15-2736 (Watson Marlow 500)
WF600-KZ25	15#24#35#36	3.03-7572 (Watson Marlow 600)

WF600G	High Accuracy Dispensing Pump	Speed: 10-600rpm	Speed accuracy 0.1 rpm
Recommended dosing volume: 100ml, 300ml, 500ml, 1000ml and 2000ml			

Filling vol.	Suitable speed	Suitable tubing	Filling time	Accuracy
100ml	177rpm	73#	1.5s	±0.5%
250ml	288rpm	73#	2s	±0.5%
500ml	532rpm	73#	≥4s	±0.5%

	Tubing size	referenced flow rate range (ml/min)
WF600G-YZ35	73#82#	130-11400 (Watson Marlow 600)

LP244

Line Pump

Dosing time: 0.1-10s Product code: L24210 Dispensing accuracy: $\leq \pm 0.2\%$

Dose range: 0.1ml-1.1ml Speed range of main drive: 0.1-3000rpm

Longest advancing distance 180mm Tubing options: 15#, 1.6x2.4, 2.4x2.4, 3.1x2.4 Four channels dispensing support

Dispensing accuracy $\leq \pm 0.2\%$ Display & adjustment: Touch-screen, User-friendly interface

External control: Dry contact signal for start, no-bottle signal for stop, feedback signal

Communication protocol: RS485 RS232

Power: AC110V/230V convert to DC36V/12V

Drive dimensions 590mmx110mmx260mm

Tube No.(bore mm)	Whole 180 mm Distance	Disp Vol	Operating time	Accuracy	Dose Vol
Single 1.6x2.4	0.3ml		< ± 0.5 s	$\leq \pm 2\%$	0.1-0.2ml
Single 2.4x2.4	0.6ml		< ± 0.5 s	$\leq \pm 2\%$	0.2-0.5ml
Single 3.1x2.4	1.1ml		< ± 0.5 s	$\leq \pm 1.5\%$	0.5-1.0ml

LP242

Line Pump

Dosing time: 0.1-10s Product code: L24210 Dispensing accuracy: $\leq \pm 0.2\%$

Dose range: 0.1ml-42ml Speed range of main drive: 0.1-3000rpm

Longest advancing distance 180mm Tubing options: 15#, 24#, 35#, 36#, 3.2x2.4, Dual channels dispensing support

Dispensing accuracy $\leq \pm 0.2\%$ Display & adjustment: Touch-screen, User-friendly interface

External control: Dry contact signal for start, no-bottle signal for stop, feedback signal

Communication protocol: RS485 RS232

Power: AC110V/230V convert to DC36V/12V

Drive dimensions: 590mmx110mmx260mm

Tube No.(bore mm)	Whole 180 mm Distance	Disp Vol	Operating time	Accuracy	Dose Vol
Single24# (6.4x2.4)	5ml		< ± 0.5	$\leq \pm 0.2\%$	0.5, 1, 2ml...
Single35# (7.9x2.4)	7.38ml		< ± 0.5	$\leq \pm 0.2\%$	3, 5, 7ml...
Single36# (9.7x2.4)	11.08ml		< ± 0.5	$\leq \pm 0.2\%$	5, 7, 10ml...
Single (12.7x2.4)	MAX21ml		< ± 0.88	$\leq \pm 0.2\%$	10, 15, 20ml...
Twin (12.7x2.4)	MAX42ml		< ± 0.88	$\leq \pm 0.3\%$	20, 30, 40ml...