

MP²-S

micro peristaltic pump with manual speed control

The MP²-S is a stand alone micro peristaltic pump with push button control, less pulsation in sample delivery, smaller relative standard deviations in signal, and consequently improved detection limits.

The speed controlled MP²-S micro peristaltic pump offers advantages over standard peristaltic pumps due to precision machining and a roller configuration that minimizes the gaps between rollers, resulting in more even pressure points along the pump tubing.

BENEFITS:

- Stand Alone Operation (no computer required)
- Push Button Variable Speed Control
 - 100 increments (.15 to 153 RPM)
- Pump Design Extends Tubing Lifetime
- High Precision
- Low Pulsation
 - 12 closely-spaced rollers improve signal stability
- Chemically Resistant
 - Ceramic pins and PTFE-coated metal components are resistant to acids and organic solvents
- Optimized for Low Flow Rates
 - Accurate pumping across a wide range of rates from low 0.2µL/min to 10 mL/min

SPECIFICATIONS:

Dimensions / Weight:

12.5 cm (H) x 5.8 cm (W) x 6.4 cm (D) / 2.15 kg

Power:

24 VDC Power supply

Channels:

1-4 Channels

Flow Rates:

0.2 µL/min to 10 mL/min per channel

Tubing:

Tubing available from 0.13 mm i.d. to 3.17 mm i.d.



Part Number	Number of Channels
MP2-1-S	1 channel speed controlled MP ² precision micro peristaltic pump
MP2-2-S	2 channel speed controlled MP ² precision micro peristaltic pump
MP2-3-S	3 channel speed controlled MP ² precision micro peristaltic pump
MP2-4-S	4 channel speed controlled MP ² precision micro peristaltic pump

Flow Rate Calibration for Peripump Tubing Based on RPM

i.d.	Stop Colors	Calibration Slope (mL/min per RPM)	Calibration Slope (µL/min per RPM)
0.13mm	orange black	0.00060	0.60
0.19mm	orange red	0.00129	1.29
0.27mm	orange blue	0.00266	2.66
0.38mm	orange green	0.00468	4.68
0.44mm	green yellow	0.00763	7.63
0.51mm	orange yellow	0.00948	9.48
0.57mm	white yellow	0.01144	11.44
0.64mm	orange white	0.01395	13.95
0.76mm	black black	0.01871	18.71
0.89mm	orange orange	0.02423	24.23
0.95mm	white black	0.02809	28.09
1.02mm	white white	0.03052	30.52
1.09mm	white red	0.03320	33.20
1.14mm	red red	0.03538	35.38
1.22mm	red grey	0.04608	46.08
1.30mm	grey grey	0.04714	47.14
1.42mm	yellow yellow	0.05034	50.34
1.52mm	yellow blue	0.05125	51.25
1.65mm	blue blue	0.05500	55.00
1.75mm	blue green	0.05776	57.76
1.85mm	green green	0.06116	61.16
2.06mm	purple purple	0.06356	63.56
2.20mm	purple black	0.06480	64.80
2.54mm	purple orange	0.06680	66.80
2.79mm	purple white	0.06860	68.60
3.17mm	black white	0.06964	69.64



Tubing for MP² Micro Peristaltic Pumps (Packs of 12) 

Tubing

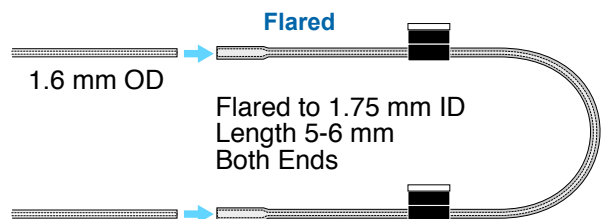
Our products are used for a wide range of applications for fairly high concentrations of mineral acids, organic solvents and biological fluids. The pump tubing is the limiting factor. We currently offer PVC, Solvent Resistant (e.g. kerosene/oil applications) and Santoprene.

Pumping viscous fluids is limited by the elasticity of the pump tubing and tubing dimensions leading into and out of the pump. We also have a syringe pump for pumping extremely viscous materials.

MP² Pump Tubing Sizes

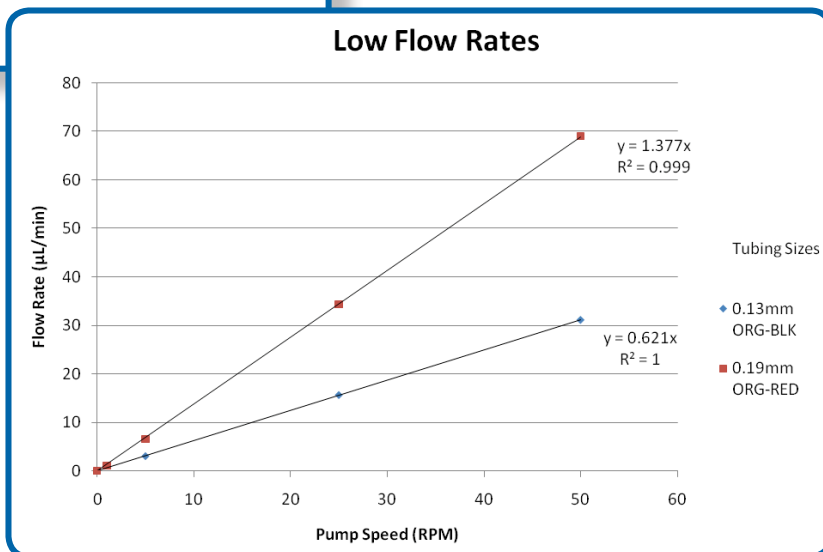
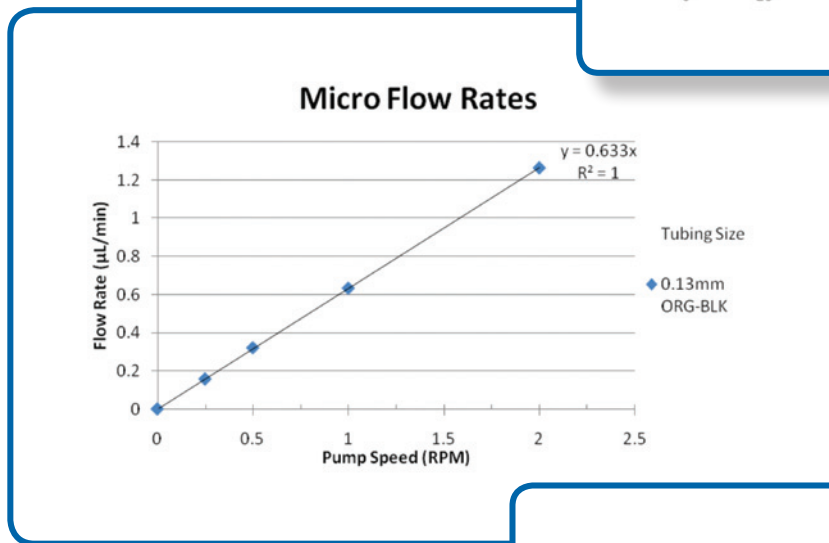
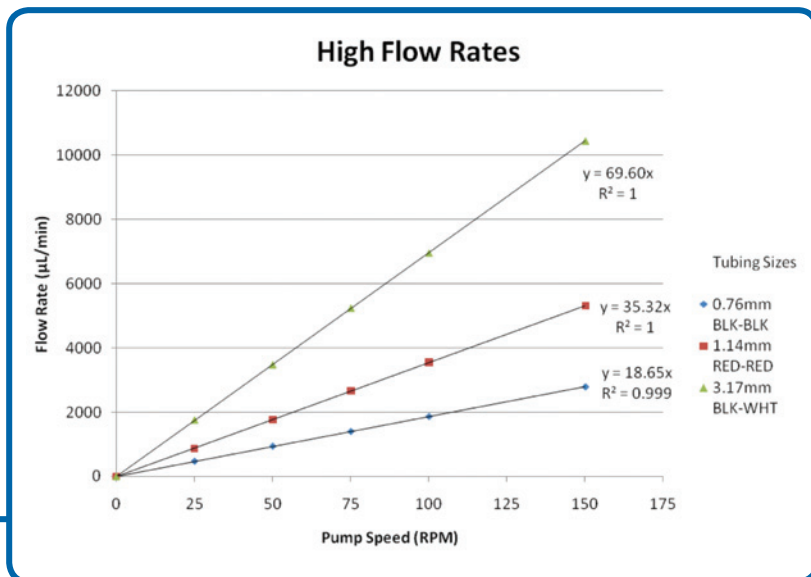
i.d.	Stop Colors		Calibration Slope ($\mu\text{L}/\text{min}$ per RPM)	Non-Flared			Flared*	
				PVC 2-stop	Santoprene 2-stop	Solva 2-stop	PVC 2-stop	SOLVA 2-stop
0.13 mm	Orange	Black	0.6	MPP-013-PVC			MPP-013-F-PVC	MPP-013-F-S
0.19 mm	Orange	Red	1.3	MPP-019-PVC			MPP-019-F-PVC	MPP-019-F-S
0.27 mm	Orange	Blue	2.7	MPP-027-PVC			MPP-027-F-PVC	MPP-027-F-S
0.38 mm	Orange	Green	4.7	MPP-038-PVC	MPP-038-PHR		MPP-038-F-PVC	MPP-038-F-S
0.44 mm	Green	Yellow	7.6	MPP-044-PVC			MPP-044-F-PVC	MPP-044-F-S
0.51 mm	Orange	Yellow	9.5	MPP-051-PVC			MPP-051-F-PVC	MPP-051-F-S
0.57 mm	White	Yellow	11	MPP-057-PVC			MPP-057-F-PVC	MPP-057-F-S
0.64 mm	Orange	White	14	MPP-064-PVC			MPP-064-F-PVC	MPP-064-F-S
0.76 mm	Black	Black	19	MPP-076-PVC	MPP-076-PHR	MPP-076-S	MPP-076-F-PVC	MPP-076-F-S
0.89 mm	Orange	Orange	24	MPP-089-PVC		MPP-089-S	MPP-089-F-PVC	MPP-089-F-S
0.95 mm	White	Black	28	MPP-095-PVC		MPP-095-S	MPP-095-F-PVC	MPP-095-F-S
1.02 mm	White	White	31	MPP-102-PVC		MPP-102-S	MPP-102-F-PVC	MPP-102-F-S
1.09 mm	White	Red	33	MPP-109-PVC		MPP-109-S	MPP-109-F-PVC	MPP-109-F-S
1.14 mm	Red	Red	35	MPP-114-PVC		MPP-114-S	MPP-114-F-PVC	
1.22 mm	Red	Grey	46	MPP-122-PVC		MPP-122-S		
1.30 mm	Grey	Grey	47	MPP-130-PVC	MPP-130-PHR	MPP-130-S		
1.42 mm	Yellow	Yellow	50	MPP-142-PVC		MPP-142-S		
1.52 mm	Yellow	Blue	51	MPP-152-PVC	MPP-152-PHR	MPP-152-S		
1.65 mm	Blue	Blue	55	MPP-165-PVC		MPP-165-S		
1.75 mm	Blue	Green	58	MPP-175-PVC		MPP-175-S		
1.85 mm	Green	Green	61	MPP-185-PVC		MPP-185-S		
2.06 mm	Purple	Purple	64	MPP-206-PVC		MPP-206-S		
2.20 mm	Purple	Black	65	MPP-220-PVC		MPP-220-S		
2.54 mm	Purple	Orange	67	MPP-254-PVC		MPP-254-S		
2.79 mm	Purple	White	69	MPP-279-PVC		MPP-279-S		
3.17 mm	Black	White	70	MPP-317-PVC	MPP-317-PHR	MPP-317-S		
Bridge Length				72 mm	82 mm	72 mm	72 mm	72 mm

*For easy insertion of Teflon® capillaries **MPP-idd** **idd = internal diameter**



Flow Rates

- Precise, Nearly-Pulseless Sample Delivery
- Linear Relationship Between Pump Speed and Flow Rate
- Integrates with *FAST* System
- Micro Chromatography Applications



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