

BioDuo Combo (Micro + 2L) with Dual Pump Head and Rotor with 3 Rollers & 2 Rollers suitable for 1.6 mm wall thickness tubing.

With *Communication Interface –

a) Serial (RS232)

b) Analog i2V (4-20mA)

- **BioDuo Pump:** 2 independent pumps in 1 body are comparable to 2 pumps of another make
- Body made up of Carbon Composite material



FEATURES

- **Completely corrosive free pump.**
- The 4.3" capacitive IPS Touch Screen makes navigating the functions and configuration of pump settings effortless.
- Pump Heads are placed such that tube loading becomes convenient where the inlet and outlet of tubing comes in front.
- On-screen indicators provide clear visibility of pump running direction while LED indicator provided on top allows to quickly assess the pumps operational status at a glance from distance.
- The pump also indicates errors using the LED lights and on-screen display.
- Screen Lock feature avoids accidental control changes enhancing security of operations.
- Designed as per CE rating and IP31 ingress protection.
- Touch screen guides the user to enable anti-slip feature before start of pump.
- Unit setting: a) Volume: μ L, mL, Ltr b) Weight: mg, g, kg.
- Calibration: a) Advanced Dose, b) Quick Dose & c) Quick Flow. Individual calibration for both the pump heads.
- Dosing / Filling & Flow volume input for both the pump heads are individual.
- Batch size can be programmed maximum up to 9999 with time interval in (mm:ss) (minutes:seconds).
- Recipe storage up to maximum 100 for individual pump heads.
- Inbuilt Timer.
- Date & Time setting.
- Pump maintains up to 2 Bar pressure across the continuous tubing.
- Contamination free/aseptic liquid transfer.
- Significant space advantage which is crucial in every industry.
- **With two independent heads, even if one head fails or requires maintenance, the other pump can take over the entire pumping cycle without interruption.**
- **Our pump comes with two pump heads in one unit with a common power supply but can be operated individually.**

TUBE SIZES COMPATIBLE WITH BIODUO PERISTALTIC PUMP

BioDuo Micro

Tubing Sizes (Number)		13#	14#	19#	16#
Wall Thickness	mm	1.6			
	inch	1/16			
Inside Diameter	mm	0.8	1.6	2.4	3.2
	inch	1/32	1/16	3/32	1/8
Outer Diameter	mm	4	4.8	5.6	6.4
	inch	5/32	3/16	7/32	1/4
RPM Range		0.1 ~ 200			
Flow Rate mL./Min. (Min. ~ Max.)		0.005 ~ 20	0.08 ~ 45	0.15 ~ 105	0.3 ~ 120

BioDuo 2L

16#	25#	17#	18#	-
1.6				
1/16				
3.2	4.8	6.4	7.9	9.5
1/8	3/16	1/4	5/16	3/8
6.4	8	9.6	11.1	12.7
1/4	5/16	3/8	7/16	1/2
0.1 ~ 200				
0.5 ~ 310	0.5 ~ 625	0.6 ~ 1050	0.8 ~ 1600	1.5 ~ 2000

TECHNICAL SPECIFICATIONS

Body of Pump	Made up of Carbon Composite material, acrylic and aluminum
Display	4.3" capacitive IPS Touch Screen
Pump Head	Made of Carbon Composite material
Rotor Assembly	Micro Flow: Made of SS316L and pinch rollers are made of Delrin. 2L: Made of Carbon Composite material and pinch rollers are made of Delrin.
Motor	BLDC stepper motor of 20 kg/cm ² torque – 2 Nos
Power Supply DC Input	24V, 3A
RPM Range	0.1 ~ 200
Tubing Size:	Micro Flow: ID: 0.8 mm up to 3.2 mm with tube wall thickness of 1.6 mm. 2L: ID: 3.2mm up to 9.5 mm with tube wall thickness of 1.6 mm.
Flow Rate Range:	Micro Flow: 0.005mL./min. up to 120 mL./min. 2L: 0.5 mL./min. up to 2000 mL./min.
Dosing / Filling Range	Micro Flow: Suggested from 1 ml. & upwards. 2L: Suggested from 5 ml. & upwards.
Operating Temperature	5°C to 40°C
Pressure	up to 2 Bar
Noise Level	< 60dB(A)

STANDARD ACCESSORIES:

- a) Operating Manual b) Power Adapter 24V, 3A.

VALIDATION DOCUMENT:

- IQ/OQ Documents for BioDuo pumps.

SUITABLE TUBE SIZES:

Silicone Tube - ID: 0.8 mm X OD: 4 mm - (13#) – Micro
 Silicone Tube - ID: 1.6 mm X OD: 4.8 mm - (14#) – Micro
 Silicone Tube - ID: 2.4 mm X OD: 5.6 mm - (19#) – Micro
 Silicone Tube - ID: 3.2 mm X OD: 6.4 mm - (16#) – Micro & 2L
 Silicone Tube - ID: 4.8 mm X OD: 8 mm - (25#) – 2L
 Silicone Tube - ID: 6.4 mm X OD: 9.6 mm - (17#) – 2L
 Silicone Tube - ID: 7.9 mm X OD: 11.1 mm - (18#) – 2L
 Silicone Tube - ID: 9.5 mm X OD: 12.7 mm – 2L

OPTIONAL:

GMP Compliant Software with;

- 3 Level Security: 1) Admin 2) Supervisor 3) Operator.
- Accounts: a) User Name b) Role c) Printable Logs (In total 30 Users can be mapped).
- 2" Bluetooth Thermal Printer with custom software integration.
- Foot Pedal (Set of 2) with 1.5 meters cable length.
- SS316L Filling Handy Gun (Set of 2) with 1.5 meters cable length.
- Custom SS316L Fixed Stand for Filling.



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