



COMPREHENSIVE
PERISTALTIC
PUMPS
PORTFOLIO

biopulsesolutions.com

We are **BioPulse**

As your trusted partner we collaborate with you in critical application areas in bioprocessing and Life Sciences to enable you to be your best. We do this by leveraging our experience in applications and our expertise in innovative technologies and customized solutions backed by Quality manufacturing and professional logistics.

We understand Biopharma production and Life Science challenges and pain areas. Our portfolio comprises of exceptional Products & Technologies that helps you get an edge today's quality-centric and highly competitive market.

Vision

"Enabling Solutions for a Better Tomorrow"

We want to become a key player in India's Biopharma Industry, offering customized bioprocessing solutions to enhance the customer experience. Our unique Hybrid and Open Architecture address customer needs.

Mission

"To Partner with the Biopharma Customers, Focusing on Innovative Bioprocessing Solutions, Transforming Their Pain Areas"

Our mission is to provide Indian Biopharma customers with unique Hybrid Solutions combining stainless steel and single-use technologies, offering flexibility, choice, and local integration capabilities.

Power your process with **OPEN ARCHITECTURE**

Flexible, scalable, Plug-N-Play systems

Stay ahead of the curve by integrating a combination of World-class Technologies and Brands with custom designs for your unique processes

With our open architecture approach - we empower our customer with the choice to use a product that would best suit their application and process economics. We do not dictate what has to be used. Instead, we take a collaborative approach with component selection and evolve multiple options in order to achieve the best outcomes for our customers both from performance and cost perspectives.

“

We empower Biopharma customers through our OPEN ARCHITECTURE approach, ensuring they have choices! We combine world-class brands and technologies with customization to bring agility and performance to our customers unique processes and applications.

”

STATE-OF-THE-ART CLEANROOM FACILITY

BioPulse Solutions operates world-class cleanroom facilities for manufacturing custom single-use solutions. Our two CGMP-compliant Class 7 and Class 8 cleanrooms ensure minimal contamination risk and consistent environmental conditions. Supported by a dedicated team committed to quality and reliability, we deliver tailored single-use solutions to meet the unique needs of our customers. Our flexible operations allow us to adjust production schedules to fulfill customer requirements with speed and accuracy.

6000
sq ft

World-class
Cleanroom



9001:2015



ISO Class 7
Cleanroom



Flexible
Operations

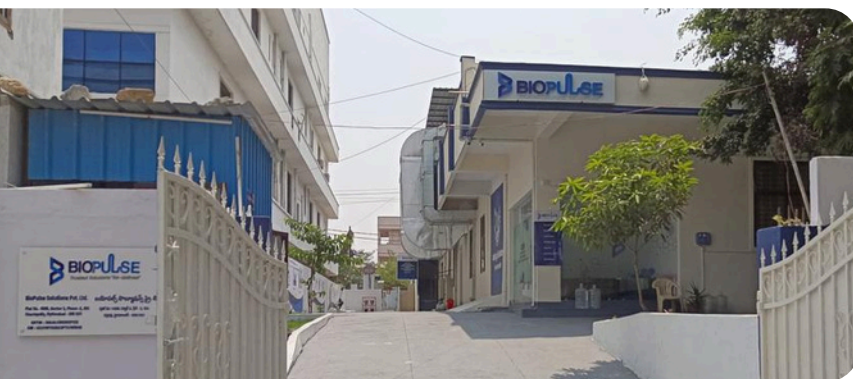


Quality &
Compliance

Assured Quality

Quality Management System

Our products are ISO-9001 Certified for Quality Management System ensuring careful selection of raw materials, validated production and testing processes. We adhere to International standards ensuring built-in quality, and consistency, of our products.



We ensure quality from design to end product, with end-to-end traceability and continuous monitoring for precise, reproducible results.

Our Single-Use Components and Systems are manufactured and integrated by trained personnel in validated ISO class 7 facilities using validated production processes. Stringent Process implementations include employee hygiene, gowning and continuous monitoring of clean room environment.

Each lot can be traced back to batch manufacturing records that ensure complete transparency, and traceability of raw materials, machines, in-process controls, personnel and quality control test data.

We love being audited by Customers, get in touch.



Contact Us

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PORTFOLIO

With a focus on delivering tailored and hybrid bioprocessing solutions, BioPulse stands out as a pioneer in the field. Our in-house integration and customisation facility, particularly for Stainless Steel Process Systems and Single Use Bioprocessing, ensures that every customer's unique needs are met with precision. Our strategic collaboration with world-class product and technology partners, enables our open architecture approach through informed choices.



Single-use Bioprocessing Solutions

Our single-use bioprocessing solutions & systems excel in flexibility, quality, customization, and performance. Our in-house design team equipped with advanced engineering software engage with customers to provide custom drawings; and make changes based on customer feedback very quickly. We add value thru our experience and knowledge of components by enabling smart choices. Our state-of-art Clean room assembly facilities and capacities ensure fastest turn-around times and deliveries.



Engineering & Hybrid Solutions

We specialize in designing, manufacturing, and implementing stainless steel process systems for pharmaceutical and bioprocessing industries. Adhering to cGMP and ASME BPE guidelines, we offer end-to-end project management, customized solutions, and process automation with AI technology. We focus on delivering quality assured, validated, and comprehensive fluid handling technologies and products, ensuring the reliability and safety of our customers products.



Applied Industry Solutions

Applied Industry Solutions division caters to diverse sectors, offering cleanroom consumables, specialized fluid path components, and industrial & lab solutions. These industry-specific offerings ensure safety, efficiency, and quality across biopharmaceutical, medical devices, chemicals, paints, and food and beverages, meeting the distinct requirements of each sector.

**Achieve more with
BioPulse Solutions
TODAY!**



Value Added Services

Testing Services

Involves specific testing to evaluate safety, durability, sterility, functionality, and regulatory compliance

WE FOCUS ON

FANTASTIC CUSTOMER EXPERIENCE

Meaning our services and capabilities enable our customers on what is most important

MANUFACTURING LIFE-SAVING DRUGS

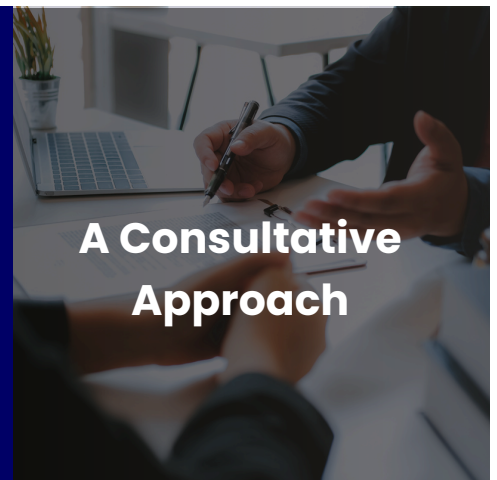
Complete Documentation

Ensures traceability, compliance with regulations, and consistent quality throughout the product's lifecycle.

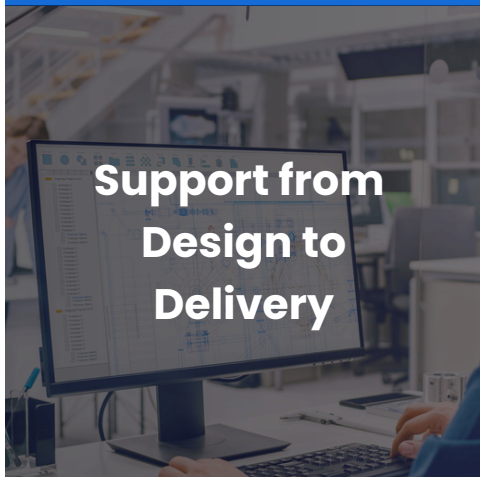
Consultation

Providing you expert guidance on creating solutions to create efficient, scalable, & compliant biomanufacturing processes.

A Consultative Approach



Support from Design to Delivery



Supply Chain Management

We ensures timely delivery of critical solutions, enhancing our customers overall operational success.

Technical Support & Training

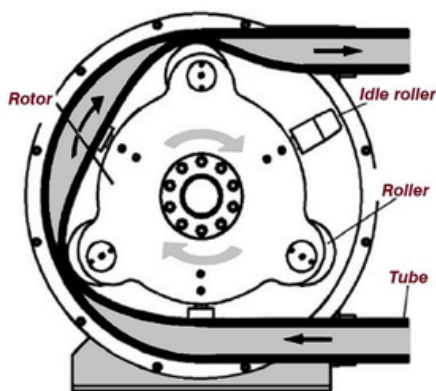
We empower our customers with the knowledge and assistance necessary to optimize their processes and ensure product quality and compliance.

Peristaltic Pump Systems

Versatile applications ranging from laboratory to manufacturing and more

The pump systems comprise of a modular design (Pump Head + Tubing + Drive) that offers versatility and cost-effectiveness across various applications. Easy-loading pump heads and a range of specialty and general-use tubing formulations make these systems an excellent choice for all fluid handling needs.

How does the Pump System work?



A peristaltic pump is a unique type of positive displacement pump that utilizes the biological principle of peristalsis, the alternating contraction and relaxation of the digestive system that propels contents forward, to move fluids. In peristaltic pumps, an isolated tube or hose in the pump body is continuously compressed by a series of rotating rollers. This unique design ensures precise fluid flow and dosing of chemicals and contamination-free operation that is vital for industries like pharmaceuticals, food and beverage, water treatment, and more.

Advantages Peristaltic Pumps

Prevent contamination by ensuring the process fluid only contacts the tubing, maintaining fluid integrity and purity. The tubing, available in various materials, offers options for chemical compatibility and abrasion resistance.

Can handle a wide range of fluids — from abrasive mixtures and corrosive chemicals to high-viscosity liquids and shear-sensitive materials.

Enable precise metering of materials and fluid flow Control This is achieved by the pumping operation where pressure is constantly applied to the fluid by a series of rollers, in tandem with the strong suction capability of peristaltic pumps on the downstream side of the rollers.

Can operate in reverse, unlike other pumps enabling enhanced user flexibility. This feature is particularly useful when purging process lines for maintenance.

Easy Maintenance as the pumped fluid does not come in contact with pump components other than the tubing in the pump housing. Maintenance is straightforward, Replacing a tubing is a simple process, and regular inspection and replacement of worn tubes helps to ensure prolonged pump life.

Deliver constant flow rates against varying back pressures at the outlet of the pump. The Back pressure can fluctuate due to changes in the system or external factors. As peristaltic pumps create a check valve effect, they ensure unidirectional flow.

About FLOPulse Peristaltic Pumps

FLOPulse peristaltic pumps are a cutting-edge series designed for precision, reliability, and low-pulse operation in fluid handling. Engineered to be non-contaminating and noninvasive, these pumps are ideal for pharmaceutical, biotech, and cosmetic applications. With versatile pump heads, customizable drives, and a wide range of compliant tubing options, FLOPulse pumps deliver smooth, consistent flow while maintaining the highest standards of purity and safety across various processes.

FLOPulse Peristaltic Pump Application



Pharmaceutical & Biotech

FLOPULSE pumps are engineered to be non-contaminating and noninvasive, making them the preferred choice in the pharmaceutical industry. With adaptable pump heads and a variety of drives, they suit a wide range of applications, from pumping nutrients or pH adjusters for fermentation to dispensing cosmetics into small containers. The available tubing complies with USP Class VI, FDA, and EP standards and can be easily sterilized.

Applications

Harvesting cell media, Manufacturing IV bag dispensing
Spiral ultrafiltration, Fermentation control, Dissolution testers, Cosmetic dispensing



Research & Development

Ideal for research and development, FLOPulse pumps are very easy to load and extremely versatile for use in the laboratory or process scale-up areas. Repeatability is excellent for low-volume dispensing and metering applications, and, under most conditions, the valveless design eliminates clogging and siphoning of fluid. These modular systems allow you to use one pump drive for many applications.

Applications

Acid/base dispensing, Aspiration of tissue culture media, Circulation of cell suspension in fermentation, Coolant circulation in low temp baths, Dispensing agar into petri dishes, Filtration pumps, Nutrient supply for cultures, Sterilized media dispensing



Industrial & Manufacturing

For everyday transferring and metering applications in the laboratory or plant, FLOPulse Pumps are the answer. They offer predictable service in continuous-duty areas, while solving many tough pumping applications. Use these pumps to handle wastewater, suspended solids, harsh chemicals and more).The pumps are easy to use and maintain, and the drives are designed to handle the rugged environment of any plant.

Applications

pH control of effluent, Plating chemicals, Pulp quality monitoring, Microfilm developing machine, Lubricator for ball bearings, Tank transfer pumps, Web printing inks

Engineered for Precision and Flexibility

The FLOPulse Peristaltic Pump System lets you customize each component to meet your unique requirements, with the flexibility to swap out parts as your needs evolve. Precise, versatile, and user-friendly, FLOPulse peristaltic pump technology is the preferred solution for a wide range of applications, from lab to process.

Gear Pump V/s FLOPulse Peristaltic Pumps

A biopharma customer requires a pump system to draw a consistent 800 mL/min flow of particulate-laden water. The solution must offer variable speed control, with the fluid being monitored through a particle sensor, to ensure precise and reliable performance for critical applications.

Particulars	Gear Pumps	FLOPulse Peristaltic Pump
Handles Particulates	No	Yes
Dry Running	No	Yes
Ease of Cleaning	Difficult to clean internal parts	Easy. Change tubing and clean
Sterility of Fluid	No. Fluid comes in contact with internal parts	Maintained. Fluid is in contact only with tubing

Syringe Pump V/s FLOPulse Peristaltic Pumps

A institutional research lab needs to pump a fixative (formaldehyde and glutaraldehyde in a phosphate buffer) to preserve brain tissue for research. They require solutions that enable pumping at low flow rates (20 to 40 m/min) and more than one process at one time.

Particulars	Syringe Pump	FLOPulse Peristaltic Pump
Viscous Fluid Handling	Does not handle viscosity well	High viscosities handled with ease
Priming	No Self-Priming feature	Excellent Self-Priming capabilities
Setup & Automation	Elaborate and Difficult. Automated options are expensive at the lower flowrates.	Easy to set up. User-friendly CD/Touchscreen interface makes setup easy
Cost Efficiency	Expensive	Cost Efficient and sustainable
Pumping Particulates	No	Yes
Operations	Longer Cleaning and operation cycle	Easy to change out tubing and clean/sterilize tubing
Multi-channel Capabilities	No	Yes
Necessary Accessories	Need special pumps and syringes	Do not require special Accessories

Rotary Lobe Pump V/s FLOPulse Peristaltic Pumps

A Biotech R&D facility needs to pump cell media into a system containing cells (the cells are living off of the media in the system). There is a need for a system that can simulate a human circulatory system for research purposes. To achieve this research teams need constant flow rate needs to be maintained.

Particulars	Rotary Lobe Pump	FLOPulse Peristaltic Pump
Precise Flow rates	Difficult to maintain	Easily maintains
Self-Priming	No	Yes
Particulate Pumping	No	Yes including shear-sensitive particles/Fluids
Cleaning	Difficult	Easy to change tubing & clean/sterilize pump
Multi-channel capabilities	No	Available. By stacking heads

Centrifugal Pump V/s FLOPulse Peristaltic Pumps

Food manufacturers need to pump a glue (6000 to 9000 cp) into labeler machines. The pump solution needs to be food-grade compatible. The glue is placed on a roller and then onto a palette, which places a thin layer of glue onto a bottle. The label is then placed onto the bottle by a separate machine.

Particulars	Centrifugal Pump	FLOPulse Peristaltic Pump
Handling High Viscosity Fluids	No	Yes
Cleaning	Difficult due to different internal components	Easy. Change tubing and clean pump. Washdown models allow for quick and easy cleaning
Maintenance & Operations	Requires maintenance	Minimal
Automation Capabilities	Limited	Has automated capabilities
Food-grade compatibility	Require a lot of parts to be approved for contact with food products, such as stainless steel or certain FDA-approved plastics.	Only tubing needs to be food-grade



MiniT

COMPACT & POWERFUL

Engineered for a modern laboratory space the pumping system is Small, Compact, and Easy-to-Operate pumping system that enables efficiency and convenience in a laboratory maximizing your bench space without compromising performance.

Features

Compact

Ergonomically designed for for small spaces and modern laboratory configurations

ABS Housing

Enables easy to wipe down & gives it an anti-corrosion protection

Flow Range

326 ml/min
(depending on tubing sizes)

External Control

Supports standard Modbus communication protocol with external devices including computers

Power down memory

Users operational settings remain intact even if there is a sudden loss of power.

Stable Flow Rate

Designed for seamless continuous transfer applications.

Hi-Def OLED Display

Offers precise control and easy monitoring of all operations

Flip Top Pump Head

Design accepts 4 different tubing sizes to meet versatile flowrate requirements.

Specifications



Pump Model	MiniT	Part No.	BP902011-001
Flow Rate	0.003 - 326.5 ml/min	Control	Mechanical keypad & single turn knob
Number of Channels	1	Housing Enclosure	ABS Plastic
Motor Speed	0.1- 350 rpm	IP Rating	IP31
Speed Resolution	0.1 rpm	Dimensions (xWxH)	180 x 115 x 125 mm
Reversible (CW/CCW)	Yes	Power	100-240 VAC, 50/60 Hz
External Control	Start/Stop, Direction, 0-5V, 4-20 mA	Weight	1.1 kg
Display	OLED display		

For more details on flowrate please refer to pg. no. 43



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MiniQ

VERSATILE | COMPACT | ULTRA SILENT

Introducing the ultimate compact solution for laboratory applications. Designed for efficiency and ease of use, this ultra-silent pump system is perfectly suited for versatile and demanding conditions and applications required by modern laboratories.

Features

Compact

Ergonomically designed for for small spaces and modern laboratory configurations

External Control

Supports various external controls: 0-5V, 0-10V, 4-20mA analogue speed control signal

Mechanical Keypad

Controls all the menu interfaces, making it convenient for users to set parameters

Ultra Silent

Low power consumption and Ultra-Silent operation, perfect for laboratory environments.

Power down memory

Users operational settings remain intact even if there is a sudden loss of power.

Anti-Jamming

Design Features, a wide voltage range, making it suitable for a complex working environment.

Quick Load Pump Head

Design makes operations simple, enabling quick tubing replacement reducing tubing wear

Durable ABS Housing

The ABS Housing design comes with UV Spray coating enabling greater durability

Specifications



Pump Model	MiniQ	Part No.	BP902012-001
Flow Rate	0.003 - 326.5 ml/min	Control	Mechanical Keypad & Single Turn Knob
Number of Channels	1	Housing Enclosure	ABS Plastic
Motor Speed	0.1 - 350 rpm	IP rating	IP31
Speed Resolution	0.1 rpm	Dimensions (xWxH)	188 x 128 x 135 mm
Reversible (CW/CCW)	Yes	Power	100-240 VAC, 50/60 Hz
External Control	0-5V, 0-10V, 4-20 mA	Weight	1.1 kg
Display	LCD display		

For more details on flowrate please refer to pg. no. 43



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SIMPLE SPEED CONTROL

ECONOMICAL VARIABLE SPEED PUMP

Unparalleled efficiency, accuracy and convenience for your laboratory operations with the next-Gen series of basic peristaltic pump, featuring a digital display, variable speed flow rate designed, and more.

Features

3-Digit LED Display

Displays motor speed (RPM) at a glance

Timer Function

Simple dispense function with time range of 0.5 - 999 sec

Pump-head Design

Patented design makes operations easy & practical

Robust ABS Housing

Comes with UV spray coating for anti-corrosion & anti-static function

Surge Protection

Enables Soft starts without power surges

Bi-Directional Motor

Provides operational convenience in your process

2 way Control

Use Keypad or remote to start/stop, direction, & speed

Stacking Options

Increase productivity by stacking 2 pump heads on the same drive.

Specifications



Pump Model	Lab-I	Lab-II
Part No.	BP902011-005	BP902011-006
Flow Rate	0.005 - 2580 ml/min	0.18 - 3100 ml/min
Motor Speed	0.1 - 600 rpm	Control Mechanical Keypad
Speed Resolution	0.1 rpm @ 100 rpm ; 1 rpm from 100-600	Housing Enclosure ABS Plastic
Pump Head Stack	2	IP Rating IP31
Reversible (CW/CCW)	Yes	Dimensions (xWxH) 259 x 157 x 237 mm
External Control	0-5V, 0-10V, 4-20 mA	Power 230 VAC, 50/60 Hz
Display	3 digit LED	Weight 4.40 kg

For more details on flowrate please refer to pg. no. 43



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Smart & Versatile

ABS-DIGITAL PUMP

Unparalleled efficiency, accuracy and convenience for your laboratory operations with the next-Gen series of basic peristaltic pump, featuring a digital display, variable speed flow rate designed, and more.

Features

Touch-LCD Display

Industrial grade True color CD display with Touch screen

Operational Modes

Continuous flow, Fixed time & volume, Time based start/ stop

Robust Motor

A Maintenance free motor enables high speed, control & accuracy.

Circuit-board Protection

Ensures protection against dust, moisture, static & Corrosion

Dynamic Display

View data on one screen: Flow rate, parameters, config, etc.

Smart Calibration

Functionality offsets flow to eliminate any errors

Back Angle Suction

Enables high accuracy level in volumetric dispensing.

Communication Interface

Comes with Analog signal, RS232, RS485 MODBUS protocol

Specifications



Pump Model	Lab-D I	Lab-D II
Part No.	BP902012-005	BP902012-006
Flow Rate	0.005 - 2580 ml/min	0.18 - 3100 ml/min
Weight	4.40 kg	
Motor Speed	0.1 - 600 rpm	Display 4.3" Industrial grade True color LCD Control Touch screen & Mechanical Keypad
Speed Resolution	0.01 rpm	
Pump-Head Stack	2	Reversible (CW/CCW) Yes External Control 0-5V, 0-10V, 4-20 mA
Suction Back Angle	0-360 °	
Housing Enclosure	ABS Plastic	IP Rating IP31 Power 230 VAC, 50/60 Hz
Dimensions (xWxH)	259 x 157 x 237 mm	

For more details on flowrate please refer to pg. no. 43



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Smart-Dispense Digital Pump

SMART, PRECISE, & PROGRAMMABLE

A new-generation of Smart dispensing peristaltic pump that enables you to pre-set dispensing volume, time & pause time and more.

Features

Custom Filling Programs

Store 60 Customizable Filling Modes as per your application

Operational Modes

Continuous flow, Fixed time & volume, Time based start/ stop

Robust Motor

A Maintenance free motor enables high speed, control & accuracy.

Weighted Dispensing

Integrated with the balance for accurate dispensing

Dynamic Display

View data on one screen: Flow rate, parameters, config, etc.

Smart Calibration

Functionality offsets flow to eliminate any errors

Back Angle Suction

Enables high accuracy level in volumetric dispensing.

Communication Interface

Comes with Analog signal, RS232, RS485 MODBUS protocol

Specifications



Pump Model	LabiD-I	LabiD-II
Part No.	BP902013-005	BP902013-006
Flow Rate	0.0053 - 2580 ml/min	0.18 - 3100 ml/min
Motor Speed	0.1 - 600 rpm	Suction Back Angle 0-360 °
Speed Resolution	0.01 rpm	Display 4.3" Industrial grade True color LCD
Dispensing Volume Range	0.1-9999.99 ml	Control Touch screen & Mechanical Keypad
Dispensing Accuracy*	±0.5%	Housing Enclosure ABS plastic
Pause Time	0.1-9999.99 sec	IP Rating IP31
Reversible (CW/CCW)	Yes	Dimensions (xWxH) 259 x 157 x 237 mm
External Control	0-5V, 0-10V, 4-20 mA, RS232, RS485	Power 230 VAC, 50/60 Hz
		Weight 4.40 kg

*Note: Actual performance of dispensing accuracy may vary depending on certain conditions

For more details on flowrate please refer to pg. no. 43



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Smart-Dispense Digital Pump

SMART, PRECISE, & PROGRAMMABLE

Ideal for applications, that require very precise dispensing. Introducing a new-generation of Smart dispensing peristaltic pump that enables you to pre-set dispensing volume, time & pause time and more.

Features

Custom Filling Programs

Store 60 Customizable Filling Modes as per your application

Operational Modes

Continuous flow, Fixed time & volume, Time based start/ stop

Robust Motor

A Maintenance free motor enables high speed, control & accuracy.

Weighted Dispensing

Integrated with the balance for accurate dispensing

Dynamic Display

View data on one screen: Flow rate, parameters, config, etc.

Smart Calibration

Functionality offsets flow to eliminate any errors

Back Angle Suction

Enables high accuracy level in volumetric dispensing.

Communication Interface

Comes with Analogue signal, RS232, RS485 MODBUS protocol

Specifications



Pump Model	LabiDS-I	LabiDS-II
Part No.	BP902013-105	BP902013-106
Flow Rate	0.0053 - 2580 ml/min	0.18 - 3100 ml/min
Motor Speed	0.1 - 600 rpm	External Control 0-5V, 0-10V, 4-20 mA, RS232, RS485
Speed Resolution	0.01 rpm	
Dispensing Volume Range	0.1-9999.99 ml	Display 4.3" Industrial grade LCD Display
Dispensing Accuracy*	±0.5%	Control Touch screen & Mechanical Keypad
Pause Time	0.1-9999.99 sec	Housing Enclosure Stainless-Steel
Reversible (CW/CCW)	Yes	Dimensions (xWxH) 223 x 152 x 231 mm
Suction Back Angle	0-360 °	Power 230 VAC, 50/60 Hz
IP Rating	IP31	Weight 5.5 kg

For more details on flowrate please refer to pg. no. 43

*Note: Actual performance of dispensing accuracy may vary depending on certain conditions



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Lab Series
Stainless-Steel
Digital Pump

SMART | VERSATILE | PRECISE | DURABLE

Designed for laboratory applications, this pump features 304 stainless steel housing, a dynamic display, versatile modes, smart calibration, and a maintenance-free motor.

Features

304 Stainless-Steel Housing

Seamless welding design conforms to GMP requirements

Back Angle Suction

Enables high accuracy level in volumetric dispensing.

Operational Modes

Continuous flow, Fixed time & volume, Time based start/ stop

Robust Motor

A Maintenance free motor enables high speed, control & accuracy.

Dynamic Display

View data on one screen: Flow rate, parameters, config, etc.

Communication Interface

Comes with Analogue signal, RS232, RS485 MODBUS protocol

Smart Calibration

Functionality offsets flow to eliminate any errors

Circuit-board Protection

Ensures protection against dust, moisture, static & Corrosion

Specifications



Pump Model	LabS-I	LabS-II
Part No.	BP902012-105	BP902012-106
Flow Rate	0.005 - 2580 ml/min	0.18 - 3100 ml/min
Motor Speed	0.1 - 600 rpm	4.3" Industrial-grade True color LCD
Speed Resolution	0.01 rpm	
Pump-Head Stack	2	Touch Screen & Mechanical Keypad
Reversible (CW/CCW)	Yes	
Suction Back Angle	0-360 °	304 Stainless Steel
External Control	0-5V, 0-10V, 4-20 mA	
IP Rating	IP31	223 x 152 x 231 mm
		230 VAC, 50/60 Hz
		5.02 kg

For more details on flowrate please refer to pg. no. 43



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**Lab Series
Stainless-Steel
Digital Pump**

**ENHANCED FLOW RATE FOR
LABORATORY APPLICATIONS**

Engineered for labs, abS-3 & abS-4 pumps feature 304 SS housing, dynamic display, versatile modes, maintenance-free motor, and precise calibration with online adjustment.

Features

304 Stainless-Steel Housing

Seamless welding design conforms to GMP requirements

Operational Modes

Continuous flow, Fixed time & volume, Time based start/ stop

Robust Motor

A Maintenance free motor enables high speed, control & accuracy.

Circuit-board Protection

Ensures protection against dust, moisture, static & Corrosion

Dynamic Display

View data on one screen: Flow rate, parameters, config, etc.

Smart Calibration

Functionality offsets flow to eliminate any errors

Back Angle Suction

Enables high accuracy level in volumetric dispensing.

Communication Interface

Comes with Analogue signal, RS232, RS485 MODBUS protocol

Specifications



Pump Model	LabS-3	LabS-4
Part No.	BP902012-107	BP902012-109
Flow Rate	0.21l - 3600 ml/min	0.3 - 6000 ml/min
Weight	5.02 kg	7.85 kg
Dimensions (xWxH)	223 x 152 x 200 mm	283 x 192 x 218 mm
Motor Speed	0.1 - 600 rpm	External Control 0-5V, 0-10V, 4-20 mA
Speed Resolution	0.01 rpm	Display 4.3" Industrial-Grade True color LCD
Pump-Head Stack	1	Control Touch Screen & Mechanical Keypad
Reversible (CW/CCW)	Yes	Housing Enclosure 304 Stainless Steel
Suction Back Angle	0-360 °	IP Rating IP31
External Control	0-5V, 0-10V, 4-20 mA	Power 230 VAC, 50/60 Hz

For more details on flowrate please refer to pg. no. 43



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Washdown Series Digital Pump

ENHANCED FLOW RATE FOR
LABORATORY APPLICATIONS



An Intelligent pump with digital control & robust connectivity. Features a washdown IP67 protection aluminum alloy housing; dynamic display, versatile modes, and smart calibration.

Features

IP67 Rated Housing

Fully sealed enclosure, designed for dust & water-tight applications

Lock screen & password

Security functionality prevents unauthorized operations

EMC passed

Excellent anti-electromagnetic interference

Circuit-board Protection

Ensures protection against dust, moisture, static & Corrosion

Heat Dissipation

Aluminum alloy housing allows excellent heat dissipation

Intelligent Control

Intelligent control system for programming and operation

High Pressure Sealing Ring

Protects motor shaft enabling Deep water pressure operation

Communication Interface

Analog signal, RS232, RS485 MODBUS protocol

Specifications



Pump Model	LabWD-I	LabWD-II
Part No.	BP902014-205	BP902014-206
Flow Rate	0.18 - 2580 ml/min	0.18 - 3100 ml/min
Motor Speed	0.1 - 600 rpm	Control Touch screen & Mechanical Keypad
Speed Resolution	0.01 rpm	
Pump-Head Stack	2	Housing Enclosure Alluminium Alloy
Reversible (CW/CCW)	Yes	IP Rating IP67
Suction Back Angle	0-360 °	Dimensions (xWxH) 428 x 285 x 335 mm
External Control	0-5V, 0-10V, 4-20 mA	Power 230 VAC, 50/60 Hz
Display	4.3" Industrial grade True color LCD	Weight 21.5 kg

For more details on flowrate please refer to pg. no. 43



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Intelligent Washdown Pumps

PRECISE PUMPING SOLUTION FOR DEMANDING ENVIRONMENTS

An IP67 laboratory washdown pump; features a fully sealed aluminum alloy enclosure, excellent heat dissipation, and EMC compliance. With intelligent controls, robust protection, and versatile connectivity, it is perfect for demanding environments.

Features

IP67 Rated Housing

Fully sealed enclosure, designed for dust & water-tight applications

Lock Screen & Password

Security functionality prevents unauthorized operations

EMC passed

Excellent anti-electromagnetic interference

Circuit-board Protection

Ensures protection against dust, moisture, static & Corrosion

Heat Dissipation

Aluminum alloy housing allows excellent heat dissipation

Intelligent Control

Intelligent control system for programming and operation

High Pressure Sealing Ring

Protects motor shaft enabling Deep water pressure operation

Communication Interface

Analog signal, RS232, RS485 MODBUS protocol

Specifications



Pump Model	LabWD-4	Part No.	BP902014-209
Flow Rate	0.3 - 6000 ml/min	Display	4.3" Industrial-Grade True color LCD
Motor Speed	0.1 - 600 rpm	Control	Touch Screen & Mechanical Keypad
Speed Resolution	0.01 rpm	Housing Enclosure	Aluminum Alloy
Pump-Head Stack	1	IP Rating	IP67
Reversible (CW/CCW)	Yes	Dimensions (xWxH)	428 x 285 x 335 mm
Suction Back Angle	0-360 °	Power	230 VAC, 50/60 Hz
External Control	0-5V, 0-10V, 4-20 mA	Weight	21.5 kg

For more details on flowrate please refer to pg. no. 43



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Industrial Peristaltic Pump

CONSISTENT, ROBUST, RELIABLE FLUID TRANSFER FOR DEMANDING INDUSTRIAL APPLICATIONS

Experience precision and reliability with the Industrial peristaltic pump, featuring a three-digit ED RPM display, maintenance-free motor, stainless steel enclosure, bi-directional speed control, and a patented pump-head design for high-flow, high-precision liquid transfer.

Features

LED Display

Three-digit LED display enables motor speed (RPM) control.

Bi-Directional Motor

Bi-directional motor offers operational convenience.

Speed Control

Simple Speed control enables greater control on speed flow rate.

Steel Housing

Steel Enclosure protects against moisture, chemicals and dust

Maintenance Free Motor

Powerful maintenance-free motor provides protection against hazards

Pump-Head Design

Provides a functional design for quick and practical changeovers

Control Mechanism

Membrane keypad or remote can be used to control operations.

Compact & Powerful

Light enough to carry & powerful enough to drive two pump heads.

Specifications



Pump Model	P-I	Part No.	BP902011-111
Flow Rate	0.69 - 12 PM	Display	3 Digit LED
Motor Speed	0.1 - 600 rpm	Control	Mechanical Keypad & Single Turn Knob
Speed Resolution	0.1 rpm @ 100 rpm ; 1 rpm from 100-600	Housing Enclosure	304 Stainless Steel
Pump-Head Stack	2	IP Rating	IP31
Reversible (CW/CCW)	Yes	Dimensions (xWxH)	283 x 192 x 274 mm
External Control	0-5V, 0-10V, 4-20 mA	Power	230 VAC, 50/60 Hz
		Weight	7.85 kg

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Industrial Digital Peristaltic Pump

SMART | PRECISE | INTUITIVE

Introducing an industrial digital peristaltic pump with 304 stainless steel housing for seamless GMP compliance, featuring a dynamic display, versatile modes, smart calibration, and robust protection, ideal for precise volumetric dispensing in Pharma/Bio-Pharma and Fine Chemicals production.

Features

304 stainless-steel housing

Seamless welding design conforms to GMP requirements

Operational Modes

Continuous flow, Fixed time & volume, Time based start/ stop

Robust Motor

A Maintenance free motor enables high speed, control & accuracy.

Circuit board Protection

Ensures protection against dust, moisture, static & Corrosion

Dynamic Display

View data on one screen: Flow rate, parameters, config, etc.

Smart Calibration

Functionality offsets flow to eliminate any errors

Back Angle Suction

Enables high accuracy level in volumetric dispensing.

Communication Interface

Comes with Analogue signal, RS232, RS485 MODBUS protocol

Specifications



Pump Model	PD-I	Part No.	BP902012-111
Flow Rate	0.69 - 12 PM	Display	4.3" Color Display
Motor Speed	0.1 - 600 rpm	Control	Touch Screen & Mechanical Keypad
Speed Resolution	0.01	Housing Enclosure	304 Stainless Steel
Pump-Head Stack	2	IP Rating	IP31
Reversible (CW/CCW)	Yes	Dimensions (xWxH)	302 x 222 x 275 mm
External Control	0-5V, 0-10V, 4-20 mA	Power	230 VAC, 50/60 Hz
Weight	13.2 kg		

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Industrial Digital Peristaltic Pump

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Introducing an industrial digital peristaltic pump with 304 stainless steel housing for seamless GMP compliance, featuring a dynamic display, versatile modes, smart calibration, and robust protection, ideal for precise volumetric dispensing in Pharma/Bio-Pharma and Fine Chemicals production.

Features

304 stainless-steel housing

Seamless welding design conforms to GMP requirements

Operational Modes

Continuous flow, Fixed time & volume, Time based start/ stop

Customize your Setup

Store and recall up to 60 customised dispensing programs

Circuit-board Protection

Ensures protection against dust, moisture, static & Corrosion

Dynamic Display

View data on one screen: Flow rate, parameters, config, etc.

Smart Calibration

Functionality offsets flow to eliminate any errors

Back Angle Suction

Enables high accuracy level in volumetric dispensing.

Communication Interface

Comes with Analogue signal, RS232, RS485 MODBUS protocol

Specifications



Pump Model	PiDS-I	Part No.	BP902013-111
Flow Rate	0.69 - 12 PM	Display	4.3" Color Display
Motor Speed	0.1 - 600 rpm	Control	Touch Screen & Mechanical Keypad
Speed Resolution	0.01	Housing Enclosure	304 Stainless Steel
Pump-Head Stack	2	IP Rating	IP31
Reversible (CW/CCW)	Yes	Dimensions (xWxH)	302 x 222 x 275 mm
External Control	0-5V, 0-10V, 4-20 mA	Power	230 VAC, 50/60 Hz
Weight	13.2 kg		

For more details on flowrate please refer to pg. no. 43



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Industrial Digital Peristaltic Pump

SMART | PRECISE | INTUITIVE

IP67 washdown Peristaltic Pumps, designed for demanding industrial environment. Features a fully sealed aluminum alloy enclosure with excellent heat dissipation, EMC compliance, intelligent controls, robust protection, and versatile connectivity for optimal industrial production.

Features

IP67 Rated Housing

fully sealed enclosure, designed for dust & water-tight applications

Lock Screen & Password

Security functionality prevents unauthorized operations

EMC passed

Excellent anti-electromagnetic interference

Circuit-board Protection

Ensures protection against dust, moisture, static & Corrosion

Heat Dissipation

Aluminum alloy housing allows excellent heat dissipation

Intelligent Control

Intelligent control system for programming and operation

Communication Interface

Analog signal, RS232, RS485 MODBUS protocol

High Pressure Sealing Ring

Protects motor shaft enabling Deep water pressure operation

Specifications



Pump Model	PDWD	Part No.	BP902014-211
Flow Rate	0.7 - 12000 ml/min	Display	4.3" Industrial-Grade True Color LCD
Motor Speed	0.1 - 600 rpm	Control	Touch screen & Mechanical Keypad
Speed Resolution	0.01 rpm	Housing Enclosure	Alluminium Alloy
Pump-Head Stack	1	IP Rating	IP67
Reversible (CW/CCW)	Yes	Dimensions (xWxH)	428 x 285 x 335 mm
Suction Back Angle	0-360 °	Power	230 VAC, 50/60 Hz
External Control	0-5V, 0-10V, 4-20 mA	Weight	21.5 kg

For more details on flowrate please refer to pg. no. 43



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Digital Pump System

EFFICIENT BATCH TRANSFER

Designed for high flow rate applications, efficiently transferring viscous liquids. Featuring a powerful motor this pump offers an enhanced and maintenance-free industrial hazard protection.

Features

Enhanced Performance

Enhanced performance for high pressure applications.

Easy Speed Control

Simple single turn potentiometer enables easy speed control

LCD Display

3.2" LCD screen display flowrate as well as motor speed

Max Speed

The Prime key runs the motor at max speed to purge tubing.

Quiet Running

Pump head is engineered to provide quieter & rugged operations

Operational Convenience

Bi-directional motor speed provides convenience in your processes

Unmatched Protection

Stainless Steel enclosure protects against moisture, chemicals & dust

Multi-control interface,

Support RS232/RS485 communication

Specifications



Pump Model	PD-4	Part No.	BP902012-112
Flow Rate	0.6 - 1800 L/H (max 30 LPM)	Display	3.2" LCD
Motor Speed	0.1 - 300 rpm	Control	Mechanical keypad & single turn knob
Speed Resolution	0.1 rpm	Housing Enclosure	304 Stainless Steel
Pump-Head Stack	1	IP Rating	IP31
Reversible (CW/CCW)	Yes	Dimensions (xWxH)	262.4 x 302 x 268 mm
Suction Back Angle	0-360 °	Power	230 VAC, 50/60 Hz
External Control	0-5V, 0-10V, 4-20 mA	Weight	35 kgs

For more details on flowrate please refer to pg. no. 43



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Batch Transfer Washdown Pump

SEALED | DURABLE | COMPLIANT

IP67-rated washdown pumps, engineered for reliable batch transfer operations. Feature a fully sealed aluminum alloy housing, EMC compliant, high-pressure sealing, and robust circuit board protection for durability in harsh environments.

Features

IP67 Rated Housing

fully sealed enclosure, designed for dust & water-tight applications

Lock screen & password

Security functionality prevents unauthorized operations

EMC Passed

Excellent anti-electromagnetic interference

Circuit Board Protection

Ensures protection against dust, moisture, static & Corrosion

Pump-Head Design

Provides quieter & rugged working ensuring longer tubing life

Heat Dissipation

Aluminum alloy housing allows excellent heat dissipation

Intelligent Control

Intelligent control system for programming and operation

Communication Interface

Analog signal, RS232, RS485 MODBUS protocol

High Pressure Sealing Ring

Protects motor shaft enabling Deep water pressure operation

Bi-Directional Motor

Enables operational convenience while prime key runs motor at max speed to purge tubing.

Specifications



Pump Model	PDWD-4	Part No.	BP902014-212
Flow Rate	0.6 - 1800 /H (max 30 PM)	Display	4.3" Industrial grade True color LCD
Motor Speed	0.1 - 300 rpm	Control	Touch Screen & Mechanical Keypad
Speed Resolution	0.1 rpm	Housing Enclosure	Alluminium Alloy
Pump-Head Stack	1	Dimensions (xWxH)	428 x 285 x 335 mm
Reversible (CW/CCW)	Yes	Power	230 VAC, 50/60 Hz
External Control	0-5V, 0-10V, 4-20 mA	Weight	21.5 kg
IP rating	IP67		

For more details on flowrate please refer to pg. no. 43



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EXPLOSION PROOF

Intelligent Washdown Pump

SEALED | DURABLE | COMPLIANT

Integrated casting body with IP66 rating for industrial environments. Features three-proof buttons and knob system: explosion-proof, dustproof, and waterproof. Includes an intelligent operation system and AC servo motor control. Passed EMC test with excellent anti-electromagnetic interference. Laser-engraved logo eliminates static risks from traditional plastic labels.

Features

- Integrated casting body for durability.
- IP66 rating, ideal for industrial environments.
- Three-proof buttons and knobs: explosion-proof, dustproof, and waterproof.
- Intelligent operation system for enhanced control.
- Excellent anti-electromagnetic interference, proven by EMC testing.
- AC servo motor control system for precise operation.
- Laser-engraved logo to prevent static electricity hazards from traditional plastic labels.



Lab eX	Lab eX-4	PD eX	PD eX-4
BP902015-206	BP902015-209	BP902015-211	BP902015-212
FLOW RATE			
0.01-3337ml/min	0.3-6000 ml/min	0.7-12000ml/min	0.0019-28.15L/min

Common Specifications			
Housing material	Aluminum Alloy	IP rate	IP66
Speed range	0.1-350rpm	Communication	RS485
Speed resolution	0.1rpm	Power supply	AC220V±10%, 50Hz
Working Mode	Flow rate mode, Dispensing mode	Display	4.3 inch-Industrial grade-True color LCD screen
Drive dimension (LXWXH)	458X285×335mm	Drive weight	30.1kg
Standard	GB/T3836.1-2021, GB/T3836.2-2021, GB/T3836.31-2021, GB/T 4208-2017, Q/BSC03-2022		

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Tubing Specifications

Pump Model		MiniT	MiniQ	Lab-I	Lab-II	LabS-3	LabS-4	PDWD	PD-4
				LabRS-I	LabRS-II				
ID of the tubing		WT		Lab-D I	Lab-D II	LabS-4	PDWD	PiDS-I	PDWD-4
				LabiD-I	LabiD-II				
ID of the tubing		WT		LabiDS-I	LabiDS-II	LabWD-4	PiDS-I	PDWD-4	
				LabS-I	LabS-II	LabWD-I	LabWD-II		
0.8 mm	1.6	0.003-11.5	0.005 - 32						
1.6 mm	1.6	0.015-54.6	0.027 - 162						
3.1 mm	1.6	0.047-166.9	0.093 - 560						
4.8 mm	1.6	0.093-326.5	0.196 - 1180						
6.4 mm	1.6		0.333 - 2000						
7.9 mm	1.6		0.43 - 2580						
4.8 mm	2.4			0.18 - 1080	0.21 - 1264	0.3 - 1800			
6.4 mm	2.4			0.27 - 1640	0.38 - 2310	0.5 - 3300			
7.9 mm	2.4			0.38 - 2300	0.50 - 3050	0.8 - 4800			
9.6 mm	2.4			0.51 - 3100	0.6 - 3600	1 - 6000'			
6.4 mm	3.2						4.2		
9.5 mm	3.2						7.4		
12.7 mm	3.2						12		
9.6 mm	4.8								5.66
12.7 mm	4.8								10.5
15.9 mm	4.8								13.98
19.4 mm	4.8								18.78
25.4 mm	4.8								28.15



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Tubing Specifications – ATEX Series

ID of the tubing	WT	Lab eX	Lab eX-4	PD eX	PD eX-4
0.8	1.6	0.01-48			
1.6	1.6	0.06-223			
3.2	1.6	0.2-723			
4.8	1.6	0.47-1626			
6.4	1.6	0.64-2230			
7.9	1.6	0.95-3337			
4.8	2.4		0.3-1800		
6.4	2.4		0.55-3300		
7.9	2.4		0.8-4800		
9.6	2.4		1-6000"		
6.4	3.2			0.7-4200	
9.6	3.2			1.23-7400	
12.7	3.2			2-12000	
9.6	4.8				0.0019-5.66
12.7	4.8				0.0035-10.5
15.9	4.8				0.0047-13.98
19.4	4.8				0.0063-18.78
25.4	4.8				0.0104-28.15

Accessories

Pump Head (1.6 mm WT)	BP902017-005
Pump Head (1.6 mm WT) with Sensor	BP902017-305
Pump Head (2.4 mm WT)	BP902017-006
Pump Head (2.4 mm WT) with Sensor	BP902017-306
Mounting Hardware (max. 2 pump heads)	BP902017-105

We also offer end-to-end Fluid management solutions including

Tubing | Fittings | Connectors
and more...

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About BioPulse Solutions

BioPulse Solutions Private limited is India's first open architecture single-use bioprocessing integrator and cleanroom hose assembly manufacturer. We are also a prominent producer of stainless-steel process systems, with expertise in process engineering, automation, and turnkey projects. Our hybrid bioprocessing approach enables Biopharma customers to get access to unique, solutions for their complex applications without being restricted to rigid technology platforms. We manufacture and provide Custom Single-Use Assemblies, Fluid Handling Components, Integrated Systems, Hybrid Customized Solutions & Value-added Services thru our Certified Cleanrooms; also, Stainless Steel Fermenter, Bioreactor & Process Skids for Biopharma, designed & fabricated in house.