

Reliability in Every Delivery

Reliable fluid control, taking every experiment one step further.

Laboratory Pump Series

From microlitre dosing to process-scale circulation,
reliable pumping power for every experiment.

[Explore the Catalogue](#)



Product Series

Find the right pump for every laboratory requirement.

Precision Metering · General Transfer · Parallel Multi-channel · Process Circulation

01 Company & Reliability

[03–05](#)

02 Laboratory Applications

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03 Eight Core Products

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04 Product Selection

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01



M1-KPVP

Precision Ceramic Piston Dosing Pump

[P15–16](#)

02



M2-KK360

Dual-Tube Low-Pulsation Peristaltic Pump

[P17–18](#)

03

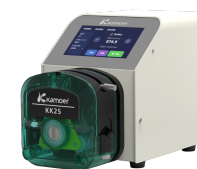


UIP-KK2600

High-Flow Process Circulation Pump

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04



UIP-KK25

Smart Peristaltic Transfer Pump

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NP04-KK360

Multi-channel Volumetric Dispensing System

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NP04-KK2600

Four-channel Process Transfer System

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M4-KK2600

Smart Multi-channel Peristaltic Pump

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M5-KK6000

Smart High-Flow Peristaltic Pump

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Through Reliability, Enabling Customer Success.

Since 2005, we have focused on the R&D, manufacture, and sale of miniature pumps, providing reliable and precise core fluid-control components for life sciences and smart living.

About Us



20+

Years

Years of Market-Proven Miniature Pumps

Reliable · Precise · Global



Company Overview

World-Class Reliability

A Leader in Miniature Pumps

Kamoer Fluid Tech (Shanghai) Co., Ltd. is a nationally certified high-tech enterprise and a national-level Specialized and Innovative “Little Giant.” We take a long-term approach to technology, manufacturing, and quality, embedding reliability throughout the product life cycle.

20+ Years Years of Market-Proven Miniature Pumps	10,000+ Business Customers
100+ Countries & Regions Served	550+ Patents
15,000 m ² Smart Manufacturing Base	1,200 m ² Dedicated R&D Centre
Kamoer - Enabling Customer Success Through Reliability	

Reliability Capabilities

Reliability at Every Step.

From R&D and manufacturing to testing and service, our integrated capabilities ensure the stability, consistency, and long-term performance of every miniature pump.

Reliable by DNA

01

Rooted in the rigorous standards of the medical sector, we make precision, stability, and safety the foundations of product development and quality control.

Reliable Technology

02

Sustained R&D investment and a portfolio of 550+ patents drive miniature-pump technology from acquired expertise to original breakthroughs.

Reliable Manufacturing

03

Automated production lines, experienced technicians, and end-to-end MES traceability work together to ensure batch consistency and dependable delivery.

Reliable Testing

04

Service-life, environmental, noise, and compatibility testing uses real data to verify long-term performance under customer operating conditions.

Reliable Service

05

Our service network spans 100+ countries and regions, providing professional selection guidance, rapid response, and full-life-cycle support.

Reliable Commitment

06

Long-term thinking, continuous improvement, and practical accountability ensure every product promise is backed by a stable team and sustained action.

Inside Kamoer

Visible capability. Evidence-based reliability.

Our Facilities



Reception



Awards Display



Production Workshop



Assembly



Manufacturing Floor



Production Equipment



Warehousing & Logistics



Office Environment

Certifications & Qualifications



高新技术企业



ISO 13485 认证



ISO 9001 认证



CE & RoHS 认证



专精特新 “小巨人”

Qualification & Certification Documents



Patent Certificates



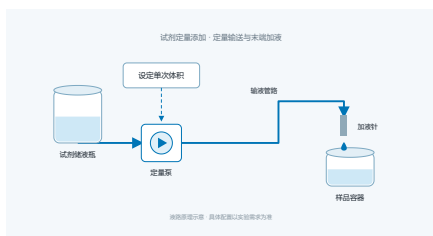
Laboratory Applications

Find the right pumping solution for every laboratory scenario.

Select an application to view the fluid path, key requirements, and recommended products.

01

P7 ↗

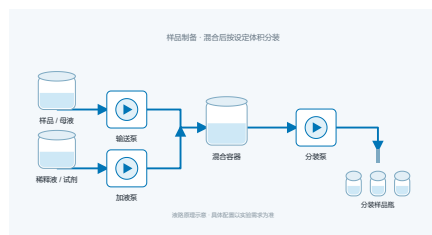


Reagent Dosing

Micro-reagents & Precision Dispensing

02

P8 ↗

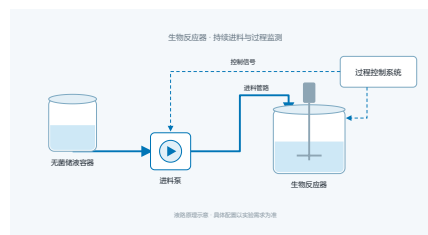


Sample Preparation & Automated Dispensing

Sample Dilution, Mixing & Volumetric Dispensing

03

P9 ↗

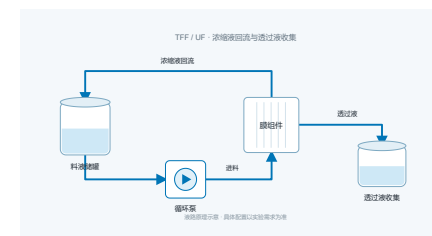


Continuous Bioreactor Feeding

Stable Feeding During Culture

04

P10 ↗

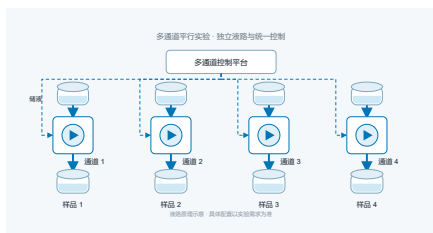


TFF / UF Filtration Circulation

Membrane Filtration & Feed Circulation

05

P11 ↗

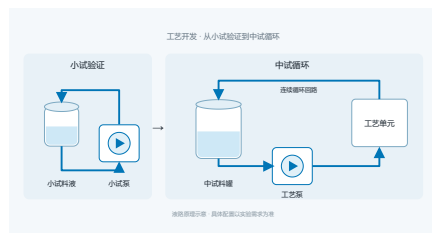


Parallel Multi-channel Experiments

Parallel Multi-sample, Multi-path Processing

06

P12 ↗

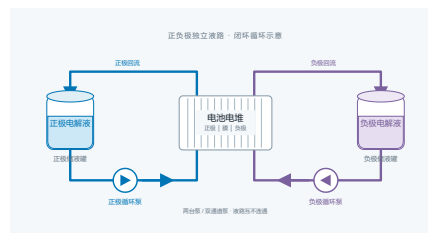


Process Development & Scale-up

From Lab Validation to Process Scale-up

07

P13 ↗

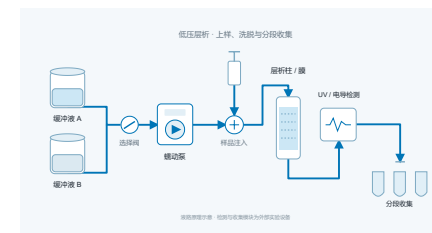


Flow-Battery Electrolyte Circulation

Independent Positive/Negative Loops

08

P14 ↗



Chromatography Fluid Delivery

Low-pressure Chromatography & Condition Screening

Precision Dispensing

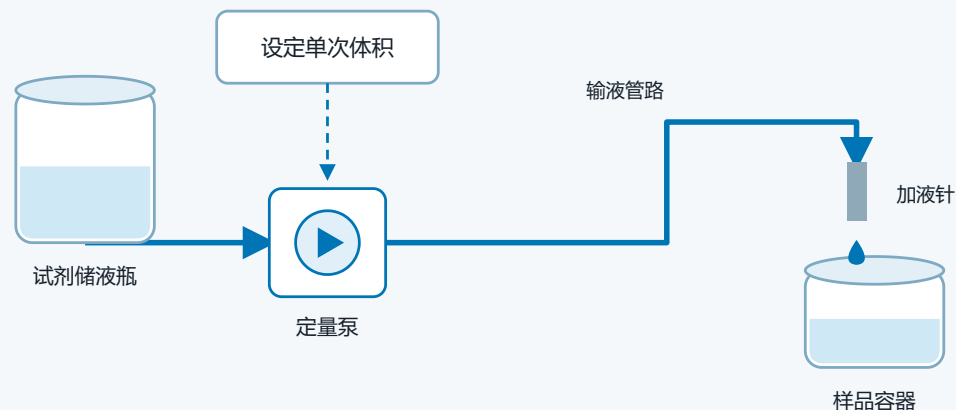
01

Reagent Dosing

Keep every dispense within the specified range.

Designed for small-volume reagent addition in analytical experiments, formulation development, and instrument fluid paths. Select a dosing solution based on shot volume, fluid properties, and repetition frequency to reduce variation from manual pipetting.

试剂定量添加 · 定量输送与末端加液



液路原理示意 · 具体配置以实验需求为准

Typical Workflow

01

Set Shot Volume



02

Run Volumetric Delivery



03

Retract and Start Next Cycle

Key Fluid-Control Requirements

01

Dose Repeatability

Focus on shot volume, calibration conditions, and consistency over repeated cycles

02

Wetted-Material Compatibility

Select materials based on pH, corrosiveness, and cleanliness requirements

03

Drip Control

Use retraction and fluid-path design to reduce dripping and cross-contamination

Recommended Products



M1-KPVP

Microlitre Ceramic-Piston Dosing



M2-KK360

Volume Mode & Flow Calibration

Selection Note Final selection should consider the fluid, flow rate, pressure, tubing, duty cycle, and equipment interfaces.

Sample Preparation

02

Sample Preparation & Automated Dispensing

Build a repeatable workflow from preparation to dispensing.

Common laboratory steps such as sample dilution, buffer addition, and container dispensing can be linked through programmable pumping. Flow range, start/stop response, and control interfaces

Typical Workflow

01

Deliver Sample or Stock Solution



02

Add Reagent and Mix



03

Dispense Set Volume

Key Fluid-Control Requirements

01

Dispensing Consistency

Calibrate for the target volume, cycle time, and tubing condition

02

Fluid Changeover Efficiency

Easy-to-change pump heads and tubing shorten experiment changeovers

03

Automation Control

Connect to a dispensing workstation via foot switch or communication interface

Recommended Products



M2-KK360

Continuous addition and automated dispensing



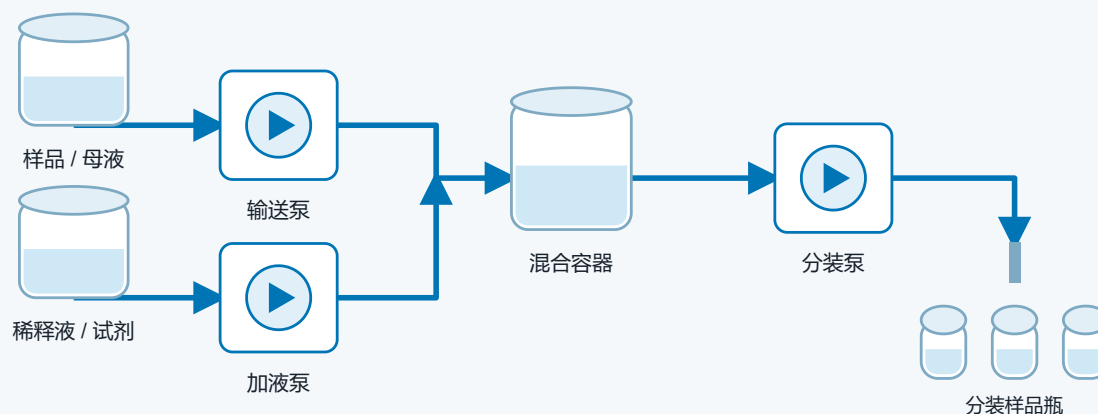
NP04-KK360

Parallel Multi-sample Dispensing



Selection Note Final selection should consider the fluid, flow rate, pressure, tubing, duty cycle, and equipment interfaces.

样品制备 · 混合后按设定体积分装



液路原理示意 · 具体配置以实验需求为准

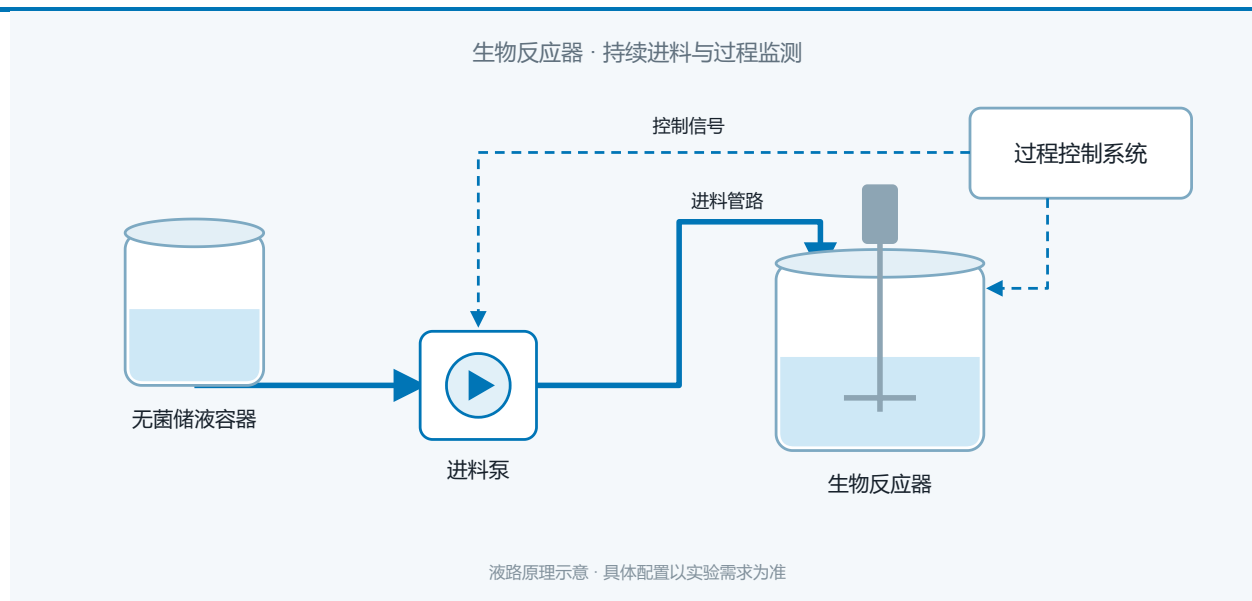
Continuous Feeding

03

Continuous Bioreactor Feeding

Stable feeding for controlled culture processes.

In cell-culture and fermentation experiments, media, feeds, and pH-adjustment solutions must be added continuously or intermittently according to the experimental strategy. Stable delivery helps maintain controlled culture conditions.



Typical Workflow

01

Connect Sterile Reservoir



02

Feed Continuously or on Schedule



03

Record and Adjust Parameters

Key Fluid-Control Requirements

01

Low-Pulsation Delivery

Reduce the effect of transient flow fluctuations on continuous feeding

02

Long-Term Operation

Evaluate motor, tubing, and maintenance intervals for the culture duration

03

System Integration

Coordinate with reactor control logic through a communication interface

Recommended Products



M2-KK360

Combined Dual-Tube Flow with Continuous Low Pulsation



UIP-KK25

Compact Culture-System Integration

Selection Note Final selection should consider the fluid, flow rate, pressure, tubing, duty cycle, and equipment interfaces.

Filtration Circulation

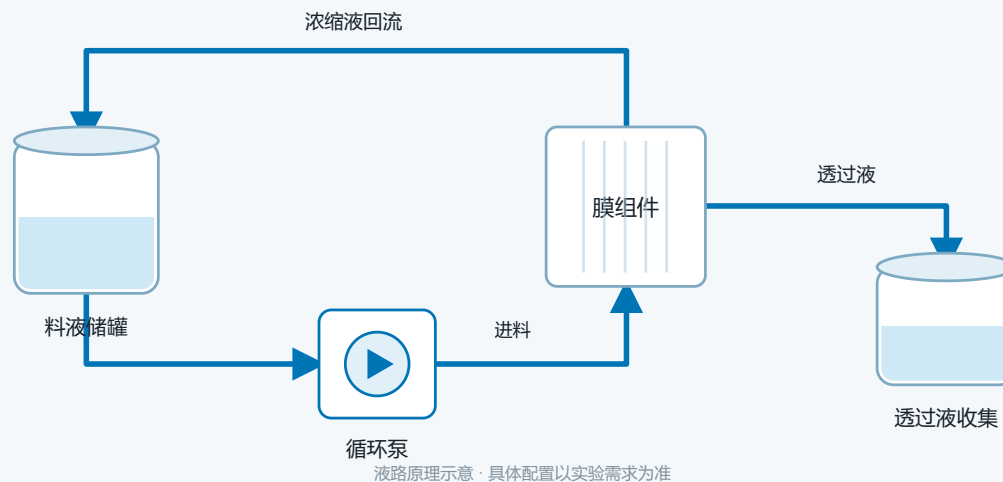
04

TFF / UF Filtration Circulation

Continuous pumping power for filtration loops.

TFF and ultrafiltration experiments require circulation among the reservoir, pump, and membrane module. Selection should be based on target flow, tubing diameter, continuous run time, and scale-up pathway.

TFF / UF · 浓缩液回流与透过液收集



Typical Workflow

01

Feed Enters Circulation Loop



02

Separate Through Membrane Module



03

Return Retentate or Continue Process

Key Fluid-Control Requirements

01

Circulation Flow

Determine the required flow range from membrane-module and tubing resistance

02

Continuous Stability

Monitor long-duration operation, temperature rise, and tubing condition

03

Experimental Scale-up

Scale from single-channel validation to parallel or higher-flow operation

Recommended Products



UIP-KK2600

Single-Channel High-Flow Circulation



NP04-KK2600

Parallel Multi-loop Filtration



Selection Note Final selection should consider the fluid, flow rate, pressure, tubing, duty cycle, and equipment interfaces.

Parallel Experiments

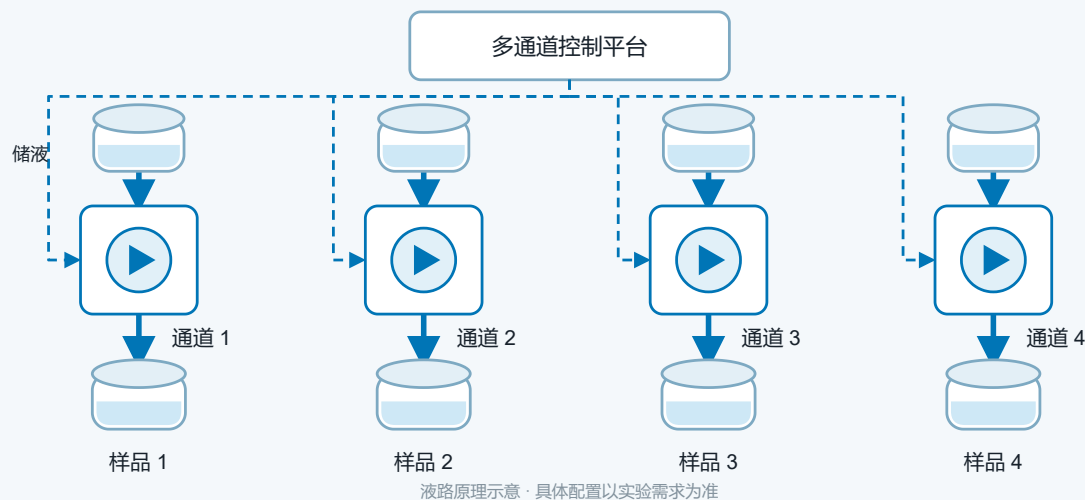
05

Parallel Multi-channel Experiments

Independent multi-channel control for higher experimental throughput.

Ideal for multiple formulations, reaction vessels, or samples processed simultaneously. Each channel can be calibrated and configured independently or run synchronously for parallel comparisons under consistent conditions.

多通道平行实验 · 独立液路与统一控制



Typical Workflow

01

Configure Tubing and Flow by Channel



02

Calibrate Each Channel and Load Method



03

Run Synchronously or Independently

Key Fluid-Control Requirements

01

Channel Consistency

Calibrate each channel independently to control variation between pump tubes

02

Flexible Grouping

Choose synchronous, independent, or grouped operation according to the experimental design

03

In-Process Adjustment

Adjust volume and operating parameters during the experiment as needed

Recommended Products


NP04-KK360

Low-Flow Multi-channel Dosing


NP04-KK2600

High-Flow Multi-loop Transfer

Selection Note Final selection should consider the fluid, flow rate, pressure, tubing, duty cycle, and equipment interfaces.

Process Development

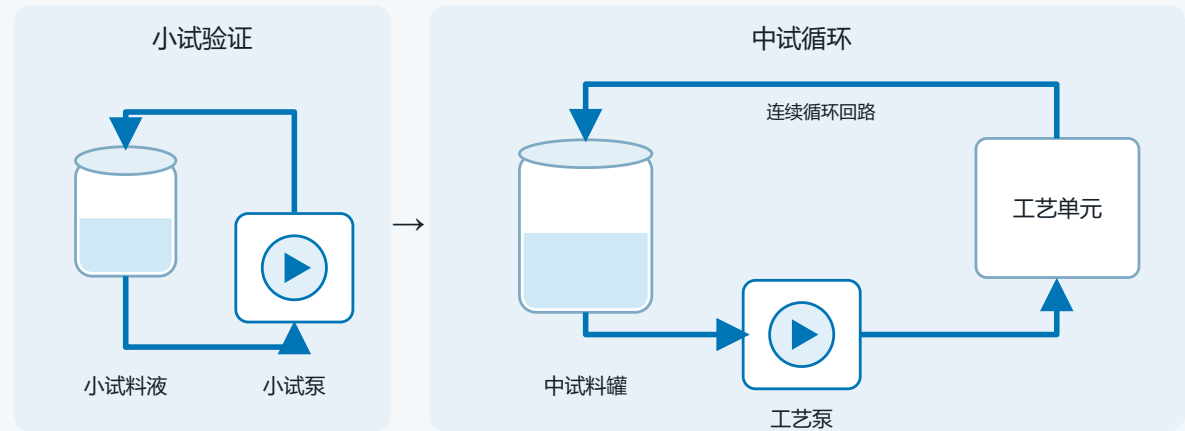
06

Process Development & Scale-up

Bridge laboratory validation and process scale-up.

As a workflow moves from one-off validation to continuous operation, flow, communications, maintenance, and scalability become critical. Process-grade pumps support fluid transfer and circulation in bench-

工艺开发 · 从小试验证到中试循环



液路原理示意 · 具体配置以实验需求为准

Typical Workflow

01

Validate Parameters at Lab Scale

02

Increase Flow and Integrate Controls

03

Begin Continuous Operation and Evaluation

Key Fluid-Control Requirements

01

Scalable Flow

Allow pump-head and fluid-path capacity for future scale-up

02

Communication Integration

Match equipment control protocols and start/stop interlocks

03

Maintenance Planning

Schedule tubing inspection and preventive replacement based on duty cycle

Recommended Products



M4-KK2600

Laboratory Process-Grade Platform



M5-KK6000

Industrial High-Flow Circulation

Selection Note Final selection should consider the fluid, flow rate, pressure, tubing, duty cycle, and equipment interfaces.

Electrolyte Circulation

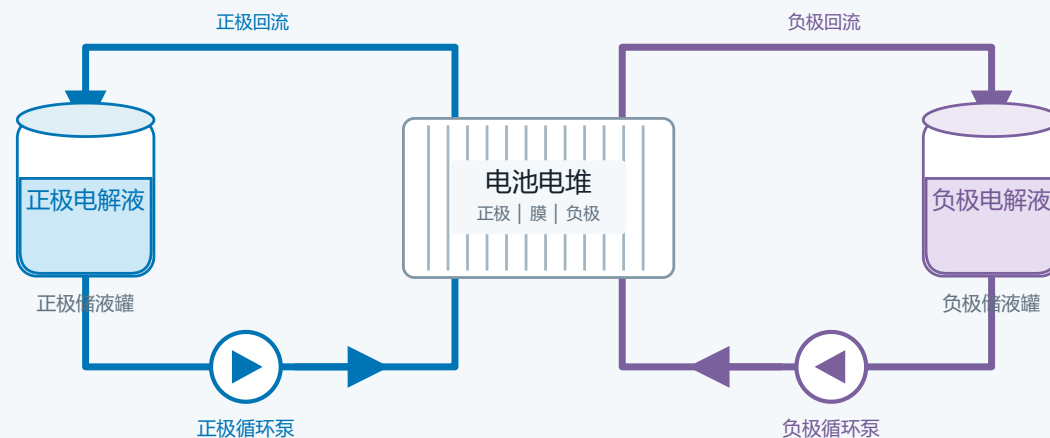
07

Flow-Battery Electrolyte Circulation

Stable circulation for long-duration charge/discharge testing.

In all-vanadium, iron-chromium, and organic aqueous flow-battery experiments, positive and negative electrolytes must circulate continuously between reservoirs and the stack. Stable flow and

正负极独立液路 · 闭环循环示意



面合系 / 双通管路 · 液路互不连通

Typical Workflow

01

Configure Independent Positive/Negative Loops

02

Circulate Electrolyte at Set Flow

03

Perform Charge/Discharge and Cycle-Life Tests

Key Fluid-Control Requirements

01

Two Independent Loops

Positive and negative electrolytes circulate separately. Confirm the drive configuration when independent flow adjustment is required.

02

Long-Term Continuous Operation

Designed for long-duration charge/discharge testing; consider tubing life and maintenance intervals.

03

Corrosion-Resistant Fluid Path

Select suitable tubing and fitting materials for the electrolyte composition, concentration, and temperature.

Recommended Products


M2-KK360

Dual-Loop Electrolyte Circulation


UIP-KK2600

High-Flow Continuous Electrolyte Circulation

Selection Note Final selection should consider electrolyte properties, flow, pressure, temperature, tubing, and the continuous duty cycle.

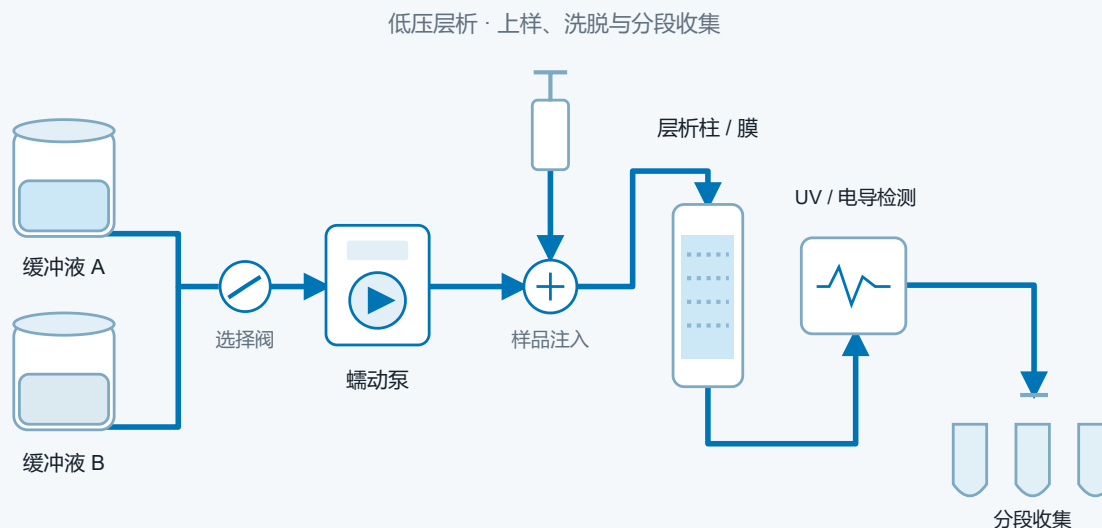
Precise Delivery

08

Chromatography Fluid Delivery

Stable delivery for low-pressure chromatography and process-condition screening.

In protein purification, membrane chromatography, and resin screening, buffers, samples, and eluents must be delivered steadily at defined flow rates. Accurate flow control, low pulsation, and independent multi-channel operation help maintain stable pre-column pressure, residence time, and elution conditions for better



Typical Workflow

01

Configure Sample and Buffer Paths

02

Load and Elute per Protocol

03

Record Flow, Pressure, and Elution Results

Key Fluid-Control Requirements

01

Stable Flow

Maintain the target residence time and elution conditions.

02

Low-Pulsation Delivery

Reduce the impact of flow variation on elution and detection results.

03

Pressure Management

Match flow and operating pressure to the chromatography medium and column-bed resistance.

Recommended Products



M2-KK360

Stable Low-Flow Chromatography Delivery



NP04-KK360

Multi-channel Chromatography Condition Screening



Selection Note Final selection should consider chromatography type, target flow, column or membrane pressure, buffer properties, tubing dimensions, and continuous duty cycle.

Ceramic Piston Pump

Precision Ceramic Piston Dosing Pump

01



M1-KPVP / Precision Ceramic Piston Dosing Pump

M1-KPVP

Precision dosing at the microlitre scale.

Precision small-volume delivery for corrosive fluids, electrolytes, and analytical instruments. A zirconia ceramic pump head and stepper drive keep every injection clean, stable, and easy to integrate.

01 100–300 μ L Shot Volume	02 PVDF / PTFE / ZrO_2 Wetted Materials
03 Retraction control reduces dripping and residual drops	04 Designed for Instrument Integration and Automated Dispensing

Typical Applications

- Addition of Highly Corrosive Reagents and Organic Solvents
- Volumetric Injection of Lithium-Battery Electrolyte
- Precision Dispensing for Automated Analysers

5–300 rpm

Speed Range

90 mL/min

Maximum Reference Flow

150 kPa

Maximum Continuous Pressure

 $\geq 10M$

Pump-Head Service Life

Parameters were measured at 20°C, standard atmospheric pressure, with pure water and no back pressure. Actual flow is affected by fluid properties, outlet pressure, and speed tolerance.

M1-KPVP · Technical Specifications

Fluid Performance

Product Type	Complete Piston Pump
Speed Range	5–300 RPM
Maximum Reference Flow	90 mL/min
Shot Volume	100–300 µL/Shot
Standard Displacement	100 / 200 / 300 µL
Maximum Continuous Pressure	150 kPa (Approx. 1.5 bar)
Connection	M6 Female Thread
Wetted Materials	PVDF / PTFE / ZrO ₂

Dimensions

Unit: mm

Mechanical & Environmental

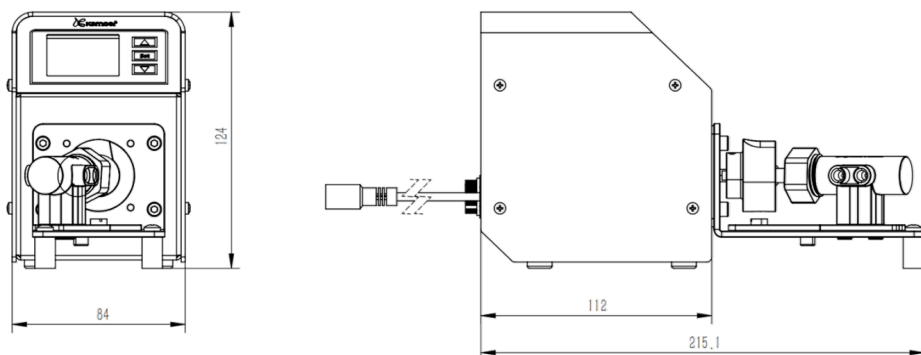
Unit Dimensions	84 × 216 × 124 mm
Unit Weight	Approx. 1.5 kg (including pump head)
Pump-Head IP Rating	IP66
Fluid Temperature	0–60°C
Ambient Temperature	0–40°C
Ambient Humidity	< 80% RH, Non-condensing
Reference Noise	≤50 dB (0.5 m)
Pump-Head Life	≥10,000,000 cycles*
Motor Life	≥6000 h

* Pump-head life data are based on Kamoer test conditions.

Electrical & Control

Operating Voltage	DC 24V
Power	24W
Motor Type	Stepper Motor
Display	1.8 -inch Colour Display
Control Method	Buttons / RS485 / Foot Switch
Operating Mode	Volume / Continuous Mode
Functions	Start/Stop, Direction, Speed Control, Calibration, Retraction
External Interface	GX16-4 + DC24V Input
Pin Definition	Foot Switch ± / RS485 A/B

Refer to the product manual for control-interface wiring and communication settings.



Laboratory Peristaltic Pump

Dual-Tube Low-Pulsation Peristaltic Pump

02



M2-KK360 / Dual-Tube Low-Pulsation Peristaltic Pump

M2-KK360

Dual-tube combined flow with continuous low pulsation.

Alternating dual-channel delivery compensates for flow peaks and troughs. Our proprietary closed-loop motor provides fine speed control, low noise, and long-term stability in a compact enclosure.

- | | |
|--|--|
| 01 Combined dual-tube flow for continuous low-pulsation delivery | 02 Proprietary closed-loop motor for low noise and long life |
| 03 Quick tubing change; flexible single-/dual-tube configuration | 04 Smart control with calibration and retraction |

Typical Applications: High-Efficiency Filling / Continuous Addition / Automated Dispensing
Fluid-Path and Reagent Circulation / Laboratory Transfer and Sample Introduction
Bioreactor Feeding / Water-Quality Testing / Automated Instruments

0.1–350 rpm

Speed Range

 $\leq \pm 0.5\%$

Volumetric Accuracy

360 mL/min

Reference Total Flow, Dual Channel

 ≤ 60 dB

Reference Noise

Parameters vary with tubing, fluid, and configuration. Refer to the applicable specification and actual testing for final selection.

M2-KK360 · Technical Specifications

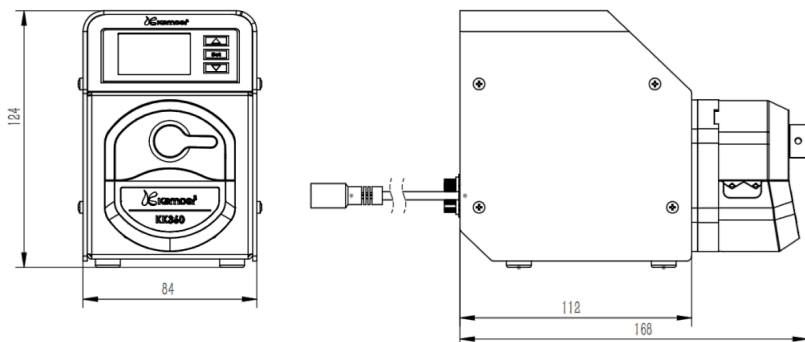
Fluid Performance

Pump Head / Rollers	KK360 / 3Rollers
Channel Configuration	Single Channel / Dual Channel
Speed Range	0.1–350 rpm
Speed Resolution	0.1 rpm
Volumetric Accuracy	±0.5%*
Maximum Flow per Channel	360 mL/min
Combined Dual-Channel Flow	Up to approx. 360 mL/min
Tubing Wall Thickness	1.6 mm

Dimensions

Unit: mm

* Accuracy is affected by tubing, fluid, back pressure, and calibration conditions.



Mechanical & Environmental

Unit Dimensions	84 × 168 × 124 mm
Unit Weight	Approx. 1.5 kg (including pump head)
Motor Life	≥6,000 hours
Reference Noise	≤60 dB (0.5 m)
Ambient Temperature	0–40°C
Ambient Humidity	< 80% RH, Non-condensing
Optional Tubing	PharMed BPT / Silicone
Custom Options	PEEKRollers (Alkaline Fluids)

Electrical & Control

Motor Type	Wanban 42 Closed-Loop Motor
Operating Voltage	DC 24 V
Rated Power	20 W
Display	1.8-inch Colour Display
Operating Mode	Continuous / Volume Mode
Control Method	Buttons / Foot Switch / RS485
Functions	Start/Stop, Forward/Reverse, Speed Control, Calibration, Retraction
Networked Control	RS485Centralized Multi-unit Control

Tubing & Reference Flow

Value Order: BPT / Silicone · Flow: mL/min

Tubing Size	ID × OD mm	Single Channel	Combined Dual Channel
13	0.8 × 4.0	15 / 14	30 / 28
14	1.6 × 4.8	55 / 55	110 / 110
19	2.4 × 5.6	110 / 110	220 / 220
16	3.2 × 6.4	180 / 180	360 / 360
25	4.8 × 8.0	320 / 360	Not Supported

Dual-channel operation supports tubing up to 3.2 × 6.4 mm; 4.8 × 8.0 mm tubing is supported in single-channel operation only.

Smart Peristaltic Pump

Continuous Delivery · Volumetric Dispensing

03



UIP-KK2600 / Smart Peristaltic Pump

UIP-KK2600

Flexible configuration. Precise delivery.

A closed-loop stepper drive with optional three- or six-roller pump heads supports fluid transfer, circulation, and volumetric dispensing. Single- and dual-channel configurations integrate readily with automated equipment.

01 Single ChannelUp to 1,500 mL/min Optional Three- or Six-Roller Heads	02 Closed-Loop Stepper Motor 0.1 rpmFine Speed Control
03 Quick-Loading Design Supports Two Tubing Wall Thicknesses	04 RS485 / CAN / Analogue Input Supports photoelectric detection for automated dispensing

Typical Applications

- Food-Liquid Packaging / Automated Filling / Reagent Dispensing
- Laboratory Fluid Transfer / Chemical Reagent Transfer
- Viscous and Non-viscous Fluid Transfer / Industrial Fluid Circulation

1,500 mL/min

Maximum Reference Flow per Channel

350 rpm

Maximum Speed

0.1 rpm

Speed Resolution

1 / 2 Channels

Depends on Pump-Head Configuration

Flow varies with pump head, tubing, and fluid. See the next page for reference values by configuration.

UIP-KK2600 · Technical Specifications

Fluid Performance

Pump-Head Configuration	KK2600 Three Rollers / Six Rollers
Maximum Flow per Channel	1,500 mL/min
Maximum Speed	350 rpm
Speed Resolution	0.1 rpm
Channel Configuration	1 or 2 (depending on pump-head configuration)
Operating Mode	Continuous / Volume Mode
Tubing Wall Thickness	1.6 mm / 2.5 mm
Standard Tubing	Silicone

Construction & Materials

Dimensions	269 × 140 × 180 mm
Unit Weight	Approx. 4.3 kg
Unit Enclosure	Sheet Metal
Pump-Head Housing	Engineering Plastic
Rollers / Handle	Stainless Steel
Timing Plate	Aluminium Alloy
Motor Life	≥6,000 hours
Reference Noise	≤65 dB (0.5 m)
Silicone Tubing Compliance	RoHS / GB 4806.11-2016

Electrical & Control

Operating Voltage	AC 100–240 V
Power	< 50 W
Motor Type	Closed-Loop Stepper Motor
Communication Interface	RS485 / CAN
Voltage Analogue Input	0–5 V / 0–10 V
Current Analogue Input	4–20 mA
External Control	Direction Control / Foot-Switch Start/Stop
Sensor Expansion	Photoelectric Detection / Automated Dispensing

Pump Heads & Reference Flow

Pump-Head Configuration	Channels	Compatible Tubing	Single Channel mL/min
KK2600-T1.6-3R	1 / 2	19 / 16 / 25 / 17 / 18	0.1–1,500
KK2600-T1.6-6R	1 / 2	19 / 16 / 25 / 17 / 18	0.1–750
KK2600-T2.5-3R	1	15 / 24	0.5–950

Select three or six rollers according to flow and pulsation requirements; dual channels support synchronized delivery.

Silicone tubing material range: –60–200°C; this is not the permitted fluid temperature range of the complete unit.

Tubing Specifications

Interface	Chinese / English	ID × OD · mm
19#	2.4 × 5.6	16# 3.2 × 6.4
25#	4.8 × 8.0	17# 6.4 × 9.6
18#	7.9 × 11.1	15# 4.8 × 9.8
24#	6.4 × 11.4	

Smart Peristaltic Pump

Fluid Transfer · Automated Dispensing

04



UIP-KK25 / Smart Peristaltic Pump

UIP-KK25

Wide-range delivery with flexible automation integration.

The KK25 three-roller pump head and closed-loop stepper motor support 2.5 mm wall tubing for viscous and non-viscous fluids. Continuous and volume modes cover fluid transfer and volumetric dispensing.

- | | |
|---|---|
| 01 Reference FlowUp to 6,500 mL/min
Supports Three Silicone Tubing Sizes | 02 Closed-Loop Stepper Drive
0.1 rpmSpeed Resolution |
| 03 Quick Tubing Change
Stainless-Steel Rollers and Timing Plate | 04 RS485 / CAN / Analogue Input
Supports foot switch and external sensor |

Typical Applications

- Automated Food Packaging / Volumetric Liquid Dispensing
- Automated Reagent Dispensing / Chemical Reagent Transfer
- Laboratory Fluid Transfer & Dispensing

6,500 mL/min

Maximum Reference Flow

600 rpm

Maximum Speed

0.1 rpm

Speed Resolution

2.5 mm

Compatible Tubing Wall Thickness

Continuous operation is supported at 350 rpm or below; speeds above 350 rpm require intermittent operation. Reference flow varies with tubing and fluid.

UIP-KK25 · Technical Specifications

Fluid Performance

Pump-Head Configuration	KK25 / 3Rollers
Maximum Reference Flow	6,500 mL/min
Maximum Speed	600 rpm
Speed Resolution	0.1 rpm
Continuous-Operation Speed	≤350 rpm
High-Speed Operation	> 350 rpmIntermittent Operation Required
Tubing Wall Thickness	2.5 mm

Optional Tubing: Silicone S24 / S35 / S36

Tubing & Reference Flow

Flow Calibration: Flow Calibration Supported

Tubing Size	Material	ID × OD mm	Flow mL/min
S24	Silicone	6.4 × 11.4	1–3,200
S35	Silicone	7.9 × 12.9	1.5–4,500
S36	Silicone	9.6 × 14.6	2–6,500

Continuous operation is supported at ≤350 rpm; speeds above 350 rpm require intermittent operation.

Reference flow varies with tubing, fluid, and operating conditions. Silicone tubing material range: –60–200°C.

Construction & Materials

Unit Dimensions	269 × 140 × 180 mm
Unit Weight	Approx. 4.5 kg
Unit Enclosure	Sheet Metal
Upper / Lower Pump-Head Housing	Engineering Plastic
Rollers / Timing Plate	Stainless Steel
Motor Life	≥6,000 hours
Reference Noise	≤65 dB (0.5 m)
Tubing Compliance	RoHS / GB4806.11-2016

Electrical & Control

Operating Voltage	AC 100–240 V
Power	< 75 W
Motor Type	Closed-Loop Stepper Motor
Operating Mode	Continuous / Volume Mode
Communication Interface	RS485 / CAN
Voltage Analogue Input	0–5 V / 0–10 V
Current Analogue Input	4–20 mA
External Control	Direction Control / Foot-Switch Start/Stop

Interface Languages: Chinese / English

Interfaces & Accessories

Interface A	CAN / RS485 / Voltage Analogue Input
Interface B	Current Analogue Input / Direction / Foot Switch
GX16-4	Dedicated Foot-Switch Port
Standard	Power Cord / Foot Switch / Quick-Connect Terminal
Optional	Photoelectric sensor for automated dispensing

Multi-channel Volumetric Dispensing

Modular Expansion · Independent Calibration

05



NP04-KK360 / Smart Multi-channel Peristaltic Pump

NP04-KK360

Multi-channel dispensing with flexible expansion.

Starting with four pump heads, each KK360 head supports two channels and the system can be expanded to 48 heads. A 7-inch touchscreen and closed-loop stepper drives support independent calibration and in-process volume adjustment.

- | | |
|--|--|
| 01 Modular Stacked Design
4 Pump Heads Minimum, Up to 48 Pump Heads | 02 Independent Flow Calibration
Single/Multi-channel Purge and Retraction |
| 03 Save and Recall Dispensing Methods
Password Protection, In-Process Volume Adjustment | 04 7-inch Touchscreen
RS485 (Modbus) / Foot-Switch Control |

Typical Applications

- Food & Beverage Filling: Milk, Coffee, Juice, and Alcoholic Beverages
- Pharmaceutical Filling: Vaccines, Oral Liquids, and Injectables
- Personal-Care Filling: Liquid Cosmetics

4–48 pump heads

Base Configuration to Expansion Limit

0.1–350 rpm

Speed Range

180 mL/min

Maximum Reference Flow per Channel

7-inch

Colour Touchscreen

Each pump head has two channels. Reference flow is listed per channel and varies with tubing and operating conditions.

NP04-KK360 · Technical Specifications

Fluid Performance

Base Configuration	4 pump heads
Expansion Limit	48 pump heads
Channels per Pump Head	Dual Channel
Pump Head / Rollers	KK360 / 3Rollers
Speed Range	0.1–350 rpm
Speed Resolution	0.1 rpm
Reference Flow per Channel	Up to 180 mL/min
Tubing Wall Thickness	1.6 mm

Tubing & Per-Channel Reference Flow

Tubing Size BPT / Silicone	ID × OD mm	BPT mL/min	Silicone mL/min
B13 / S13	0.8 × 4.0	15	14
B14 / S14	1.6 × 4.8	55	55
B19 / S19	2.4 × 5.6	110	110
B16 / S16	3.2 × 6.4	180	180

Values are per channel. Select silicone or BPT tubing according to fluid properties.

Construction & Environment

Unit Weight	Approx. 6.5 kg
Motor / Display Housing	304Stainless Steel
Pump-Head Housing / Base	Modified Polymer
Timing Plate	Modified Polymer
Rollers / Motor Mount	Engineering Plastic / Aluminium
Motor Life	≥6,000 hours
Ambient Temperature	0–40°C
Ambient Humidity	< 80% RH, Non-condensing
Reference Noise	≤60 dB (0.5 m)

Electrical & Control

Operating Voltage	AC 110–240 V
Power	< 75 W
Motor Type	42Closed-Loop Stepper Motor
Display & Operation	7-inch Touchscreen
Operating Mode	Volumetric Dispensing Mode
Control Method	Internal / External / Communication Control
Communication Control	RS485 (Modbus)
Flow Management	Independent Calibration / In-Process Volume Adjustment
Dispensing Functions	Purge / Retraction / Method Save/Recall

Interfaces & Accessories

6-pin Communication Interface	CAN-L / CAN-H
9-pin Communication Interface	RS485 / IN1 / OUT1 / OUT2
Standard	Power Cord / Display-to-Unit Cable
Optional	Foot Switch
System Management	Password Protection / Chinese/English Interface

Smart Multi-head Peristaltic Pump

Based on NP04-KK360 Platform

06



NP04-KK2600 / Multi-channel Transfer & Volumetric Dispensing

NP04-KK2600

Multi-channel delivery with flexible tubing options.

Provisionally based on the NP04-KK360 four-head platform with KK2600 four-roller pump heads. System control and expansion capability follow the platform reference; exact compatibility and performance remain to be confirmed.

- | | |
|---|---|
| 01 Provisional4Pump-Head Platform
Independent Calibration and
Expansion TBC | 02 KK2600Four-Roller Design
Quick Tubing Change, Fixed /
Adjustable Occlusion |
| 03 1.6 / 2.4 mmWall Thickness Options
Multiple Tubing Sizes and Materials | 04 Based on 7-inch Touch Platform
RS485 / Foot SwitchFunctions TBC |

Target Applications: Multi-channel Food & Beverage Filling
Reagent Dispensing & Fluid Transfer
Personal-Care Liquid Dispensing (Configuration TBC)

4 pump heads*

Provisional Platform Configuration

4 Rollers

KK2600Pump-Head Design

1.6 / 2.4 mm

Tubing Wall Thickness

2,600 mL/min

pump heads400 rpmContinuous
Reference Value

* Complete-system values are based on the NP04-KK360 platform. Pump-head flow is not a measured complete-system value; supported speed, flow, and configurations remain to be confirmed.

NP04-KK2600 · Technical Specifications

Pump Head & Fluid

Pump Head / Rollers	KK2600S / X · 4Rollers
Tubing Wall Thickness	1.6 mm / 2.4 mm
Occlusion Type	Fixed / Adjustable Occlusion
Dual-Channel Pump Head	T1.6 Only, ID ≤4.8 mm
400 rpmContinuous	Maximum Reference: 2,600 mL/min
600 rpmIntermittent	Maximum Reference: 2,800 mL/min
Pump-Body Material	Modified Nylon
Rollers / Metal Parts	Stainless Steel

Complete-System Reference Configuration*

Base / Expansion*	4 / Up to 48 pump heads
Operating Voltage*	AC 110–240 V
Power*	< 75 W
Unit Weight*	Approx. 6.5 kg
Motor*	42Closed-Loop Stepper Motor
Motor Life*	≥6,000 hours
Environment*	0–40°C / < 80% RH
System Noise*	≤60 dB (0.5 m)

Control-Platform Reference*

Platform Speed*	0.1–350 rpm
Speed Resolution*	0.1 rpm
Touchscreen*	7-inch Touchscreen
Operating Mode*	Volumetric Dispensing
Control Method*	Internal / External / Communication Control
Communication / External Control*	RS485 (Modbus)/ Foot Switch
Flow Management*	Independent Calibration / In-Process Volume Adjustment
Dispensing Functions*	Purge / Retraction / Method Save

T1.6 Tubing Reference Flow

Tubing Size	ID × OD mm	400 rpm	600 rpm
13	0.8 × 4.0	27	40
14	1.6 × 4.8	100	156
16	3.2 × 6.4	440	600
25	4.8 × 8.0	850	1,160
17	6.4 × 9.6	1,190	1,800
18	7.9 × 11.1	1,600	—

Unit: mL/min; 400 rpm continuous / 600 rpm intermittent. ≤400 rpm recommended for #18 tubing.

T2.4 Tubing Reference Flow

Tubing Size	ID × OD mm	400 rpm	600 rpm
15	4.8 × 9.6	800	1,150
24	6.4 × 11.2	1,300	2,000
35	7.9 × 12.7	1,800	2,800
36	9.6 × 14.4	2,600	—

These are pump-head reference values. The complete system is provisionally based on a 350 rpm platform, so 400/600 rpm flow values cannot be applied directly; complete-system flow remains to be tested.

Smart Multi-channel Peristaltic Pump

Parallel Tubing · Phase Compensation

07



M4-KK2600 / Multi-channel Transfer & Dispensing

M4-KK2600

Multi-channel delivery with low-pulsation parallel flow.

A closed-loop stepper drive with KK2600 pump heads supports 2–5 channels. Parallel tubing provides phase compensation, while continuous and volume modes cover fluid transfer and volumetric dispensing.

- | | |
|--|--|
| 01 2–5Flexible Channel Configuration
Supports Three- or Six-Roller Pump Heads | 02 Parallel TubingPhase Compensation
Reduced pulsation for multi-channel delivery |
| 03 Closed-Loop Stepper Motor
0.1 rpmFine Speed Control | 04 Quick tubing change and stainless-steel rollers
Foot Switch / RS485 / Analogue Control |

Typical Applications
Automated Food Packaging / Volumetric Liquid Dispensing
Automated Reagent Dispensing / Chemical Reagent Transfer
Laboratory Fluid Transfer & Dispensing

2–5 Channels

Depends on Configuration

600 rpm

Maximum Speed

0.1 rpm

Speed Resolution

3 / 6 Rollers

Optional Pump-Head Configurations

Reference flow varies by pump head, tubing, and channel configuration. See the next page for details.

M4-KK2600 · Technical Specifications

Fluid Performance

Pump-Head Model	KK2600
Channel Configuration	2 / 3 / 4 / 5Channels
RollersConfiguration	3Rollers / 6Rollers
Maximum Speed	600 rpm
Speed Resolution	0.1 rpm
Operating Mode	Continuous / Volume Mode
Tubing Wall Thickness	1.6 mm / 2.5 mm
Parallel-Flow Feature	Parallel-tube phase compensation reduces pulsation

Construction & Environment

Enclosure	Sheet Metal
Pump-Head Housing	Engineering Plastic
Rollers / Handle	Stainless Steel
Timing Plate	Aluminium Alloy
Motor Life	≥6,000 hours
Ambient Temperature	0–40°C
Ambient Humidity	< 80% RH, Non-condensing
Reference Noise	≤65 dB (0.5 m)

Electrical & Control

Operating Voltage	AC 100–240 V
Power	< 150 W
Motor Type	Closed-Loop Stepper Motor
Communication Interface	CAN / RS485
Voltage Analogue Input	0–5 V / 0–10 V
Current Analogue Input	4–20 mA
External Control	Direction / Foot Switch / Sensor
Wireless Function	Wi-FiSupports App Firmware Updates

Pump Heads & Reference Flow

KK2600Configuration	Compatible Tubing	Reference Flow mL/min
T1.6-3R-4	19 / 16 / 25 / 17 / 18	2,000 × 4
T1.6-3R-5	19 / 16 / 25 / 17	1,600 × 5
T1.6-6R-4	19 / 16 / 25	780 × 4
T2.5-3R-2	15 / 24	1,510 × 2

T denotes wall thickness (mm), R denotes roller count, and the final digit denotes channel count.

Flow values are based on the supplied data and vary with tubing, fluid, and speed.

Configuration Dimensions & Weight

Configuration	L × W × H mm	Weight kg
Dual Channel	164 × 372 × 244	8.4
Three Channels	164 × 427 × 244	9.0
Four Channels	164 × 483 × 244	9.6
Five Channels	164 × 538 × 244	10.2

Weights are approximate and exclude the power adapter.

Standard: Power Cord, Foot Switch.

Smart High-Flow Peristaltic Pump

M5 V3 · Single Head / Dual Head

08



M5-KK6000 / High-Flow Transfer & Volumetric Dispensing

M5-KK6000

High-flow delivery with flexible volumetric dispensing.

M5 V3 with the KK6000 pump head supports single- and dual-head configurations. The stepper drive and continuous/volume modes handle viscous and non-viscous fluids and integrate easily with automated dispensing equipment.

01 82# tubingUp to Reference Flow12 L/min Optional Single- or Dual-Head Configuration	02 Fine Stepper-Motor Control 0.1 rpmSpeed Resolution
03 3.5 mm Wall-Thickness Tubing Stainless-steel rollers for easy tubing changes	04 Foot Switch / RS485 / Analogue Input Supports Calibration and External Sensors

Typical Applications: Automated Food Packaging / Volumetric Liquid Dispensing
Automated Reagent Dispensing / Chemical Reagent Transfer
Laboratory Fluid Transfer & Dispensing

12 L/min

82# tubingMaximum Reference Flow

600 rpm

Maximum Speed

0.1 rpm

Speed Resolution

1 / 2 pump heads

Flexible Configuration

Reference flow varies with tubing, fluid, and operating conditions. See the next page for configurations.

M5-KK6000 · Technical Specifications

Fluid Performance

Pump-Head Model	KK6000 / 3Rollers
Configuration	Single Head / Dual Head
73# tubingReference Flow	Up to 8,000 mL/min
82# tubingReference Flow	Up to 12,000 mL/min
Maximum Speed	600 rpm
Speed Resolution	0.1 rpm
Tubing Wall Thickness	3.5 mm
Optional Tubing	Silicone 73# / 82#
Flow Calibration	Flow Calibration Supported

Tubing & Reference Flow

Tubing Size	Material	ID × OD mm	Maximum Flow mL/min
73#	Silicone	9.6 × 16.6	8,000
82#	Silicone	12.8 × 19.8	12,000

Tubing size affects the maximum speed for stable operation; reference flow varies with the fluid and tubing condition.

Silicone tubing compliance: RoHS / GB4806.11-2016.

Construction & Materials

Single-Head Dimensions	383.3 × 200 × 324.4 mm
Dual-Head Dimensions	460.8 × 200 × 324.4 mm
Single-Head Weight	Approx. 16.4 kg
Dual-Head Weight	Approx. 18.3 kg
Enclosure	Powder-Coated Sheet Metal
Upper / Lower Pump-Head Housing	Engineering Plastic
Rollers / Timing Plate	Stainless Steel
Motor Life	≥6,000 hours
Reference Noise	<75 dB (0.5 m)

Electrical & Control

Operating Voltage	AC 100–240 V
Power	≤400 W
Motor Type	Stepper Motor
Operating Mode	Continuous / Volume Mode
Communication Interface	RS485 / CAN
Voltage Analogue Input	0–5 V / 0–10 V
Current Analogue Input	4–20 mA
External Control	Direction / Foot Switch / Sensor
Interface Languages	Chinese / English

Interfaces & Accessories

Interface A	CAN / RS485 / Voltage Analogue Input
Interface B	Current Analogue Input / Direction / Foot Switch
GX16-4	Foot Switch / RS485 A, B
Standard	Power Cord / Foot Switch / Quick-Connect Terminal
Optional	Photoelectric Sensor, for Automated Dispensing

Product Selection

Start Selection with Key Requirements.

Metering Principle → Flow Range → Channel Count
→ Control Method

Product	Technology	Flow Positioning	Channels	Core Capability	Typical Applications
M1-KPVP	Ceramic Piston Pump	Precision Microlitre Metering	1	100–300 µL / Shot	Reagents, Electrolytes,
M2-KK360	KK360 Peristaltic Pump	Up to approx. 360 mL/min	1 / 2	Dual-Tube Low Pulsation	Dispensing, Feeding, C
UIP-KK2600	KK2600 Peristaltic Pump	Single ChannelUp to 1,500 mL/min	1	Multi-interface Control / Flexible Pump Heads	TFF, Filtration, Process
UIP-KK25	KK25 Peristaltic Pump	Up to 6,500 mL/min	1	Thick-Wall Tubing / Multiple Interfaces	Fluid Transfer, Automat
NP04-KK360	KK360 Pump-Head Array	Single ChannelUp to 180 mL/min	2 Channels per Head	4–48 pump heads / Independent Calibration	Multi-channel Volumetri
NP04-KK2600*	KK2600 Pump-Head Array	Complete-System Flow TBC	Provisional4 pump heads	Based on NP04-KK360 Platform	Multi-channel Transfer d
M4-KK2600	KK2600 Peristaltic Pump	Depends on Pump-Head Configuration	2–5	Parallel Tubing / Phase Compensation	Fluid Transfer, Volumet
M5-KK6000	KK6000 Peristaltic Pump	82# tubingUp to 12 L/min	1 / 2 pump heads	High Flow / Multi-interface Control	Food Packaging, Reage

From Lab to Process

For precision micro-dosing, focus on shot volume and wetted materials; for continuous delivery, flow and pulsation; for parallel experiments, channel independence; and for process circulation, continuous operation and system integration.

This table provides a product-positioning overview. Flow and performance depend on tubing, fluid, and operating conditions; consult the applicable product specification for details.

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Values

Reliability as Our Foundation, Mutual Success as Our Goal

Vision

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