

IPS12
infusion
mode

SYRINGES	
CAPACITY	1
TYPE	Glass, plastic, steel
MIN SIZE	Hamilton 0.5 µl (ID:0.103mm)
MAX SIZE	Monoject 140 ml (ID:38mm)
FLOW RATE	
MIN	17,89 pl/min (Hamilton 0.5 µl)
MAX	121,51 ml/min (140 ml Monoject Syringe)
ACCURACY	< 1%
REPRODUCIBILITY	< 1%
MOTOR SPESIFICATIONS	
MOTOR TYPE	Stepper Motor
MOTOR DRIVE CONTROLLER	Microcontroller with Microstep Drive
STEP RESOLUTION (TRAVEL/MICROSTEP)	357 nm/µstep
MIN STEP RATE	10 sec/µstep
MAX STEP RATE	200 µsec/µstep
MIN LINEAR SPEED	2,14 µm/min
MAX LINEAR SPEED	107,14 µm/min
LINEAR FORCE	20 kg
GENERAL SPESIFICATIONS	
CONNECTORS	Wi-fi(optional)
RECIPE SAVE-RECALL	No
POWER SUPPLY	12 VDC 1A (110-240 VAC adapter included)
DIMENSIONS	W:200 L:170 H:137 mm
WEIGHT	2.1 kg
OPERATING CONDITIONS	
OPERATING TEMPERATURE	Between -10 and 50 (°C)
STORAGE TEMPERATURE	Between -30 and 85 (°C)
OPERATING HUMIDITY	RH 10% - RH 90% (not condensed)
STORAGE HUMIDITY	RH 10% - RH 90% (not condensed)

- 4.3” Resistive Touch TFT LCD screen
- Microcontroller software
- User-friendly interface
- High precise pumping
- Adjustable flow rate even during process



IPS12 R

infusion / withdrawal
mode

SYRINGES	
CAPACITY	1
TYPE	Glass, plastic, steel
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MAX LINEAR SPEED	107,14 µm/min
LINEAR FORCE	20 kg
GENERAL SPESIFICATIONS	
CONNECTORS	Wi-fi(optional)
RECIPE SAVE-RECALL	No
POWER SUPPLY	12 VDC 1A (110-240 VAC adapter included)
DIMENSIONS	W:200 L:170 H:137 mm
WEIGHT	2.2 kg
OPERATING CONDITIONS	
OPERATING TEMPERATURE	Between -10 and 50 (°C)
STORAGE TEMPERATURE	Between -30 and 85 (°C)
OPERATING HUMIDITY	RH 10% - RH 90% (not condensed)
STORAGE HUMIDITY	RH 10% - RH 90% (not condensed)

- 4.3” Resistive Touch TFT LCD screen
- Microcontroller software
- User-friendly interface
- High precise pumping
- Adjustable flow rate even during process



IPS12S
infusion mode

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DIMENSIONS	W:200 L:170 H:137 mm
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OPERATING HUMIDITY	RH 10% - RH 90% (not condensed)
STORAGE HUMIDITY	RH 10% - RH 90% (not condensed)

- 4.3” Resistive Touch TFT LCD screen
- Microcontroller software
- User-friendly interface
- High precise pumping
- Adjustable flow rate even during process



5 Steps Operation Mode | Saving and Recalling Subsequently Up to 5 Recipes | Repeating recipes up to 50 Cycles

IPS 12 RS
infusion / withdrawal
mode

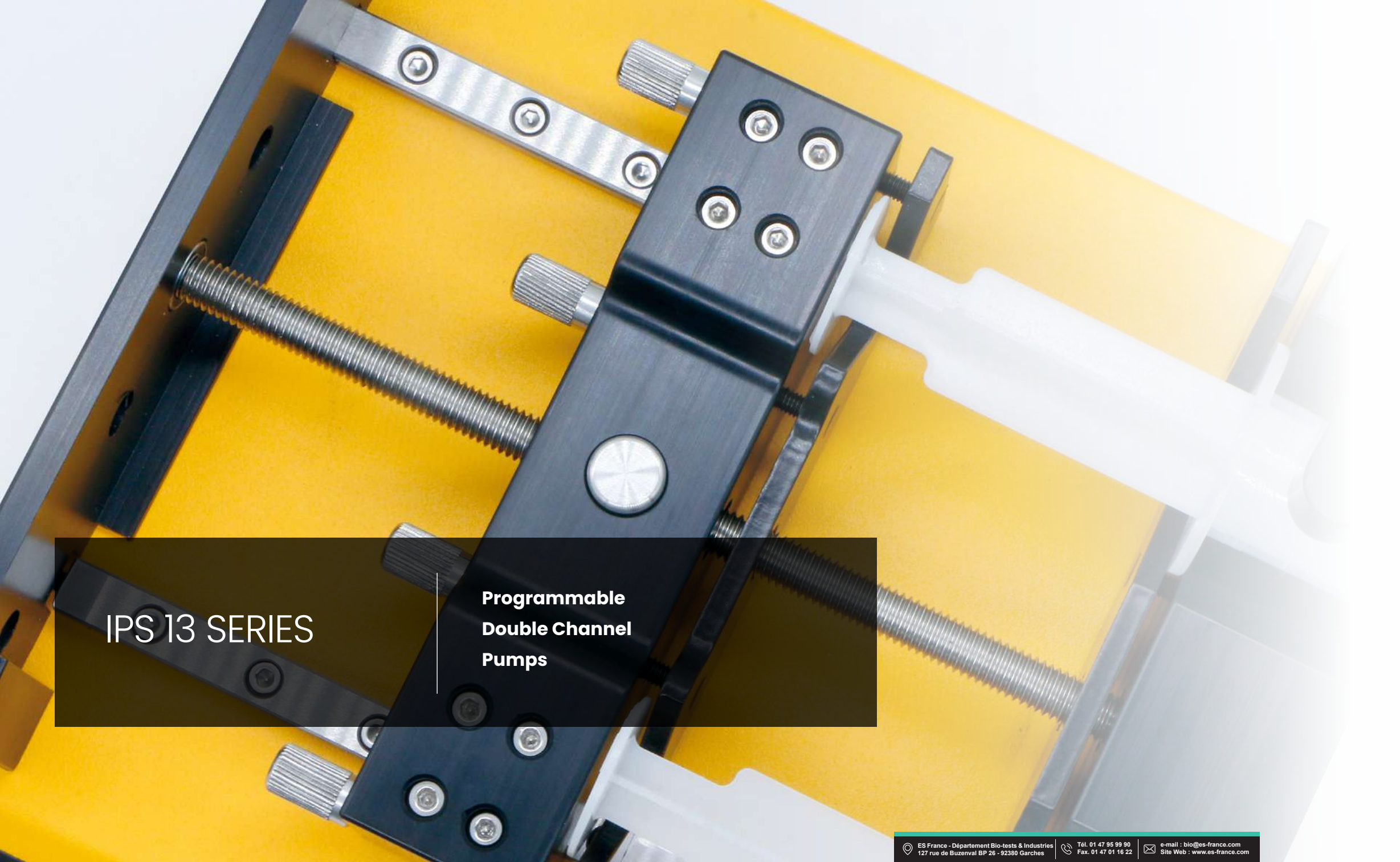
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MAX STEP RATE	200 µsec/µstep
MIN LINEAR SPEED	2,14 µm/min
MAX LINEAR SPEED	107,14 µm/min
LINEAR FORCE	20 kg
GENERAL SPESIFICATIONS	
CONNECTORS	Wi-fi(optional)
RECIPE SAVE-RECALL	Yes
POWER SUPPLY	12 VDC 1A (110-240 VAC adapter included)
DIMENSIONS	W:211 L:170 H:137 mm
WEIGHT	2.2 kg
OPERATING CONDITIONS	

OPERATING TEMPERATURE	Between -10 and 50 (°C)
STORAGE TEMPERATURE	Between -30 and 85 (°C)
OPERATING HUMIDITY	RH 10% - RH 90% (not condensed)
STORAGE HUMIDITY	RH 10% - RH 90% (not condensed)

- 4.3” Resistive Touch TFT LCD screen
- Microcontroller software
- User-friendly interface
- High precise pumping
- Adjustable flow rate even during process



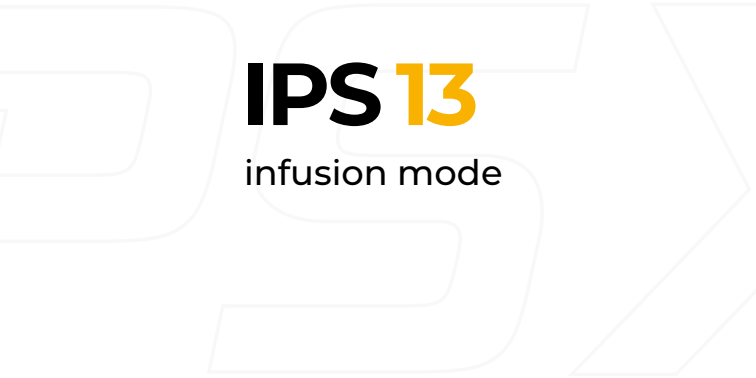
5 Steps Operation Mode | Saving and Recalling Subsequently Up to 5 Recipes | Repeating recipes up to 50 Cycles



IPS 13 SERIES

**Programmable
Double Channel
Pumps**

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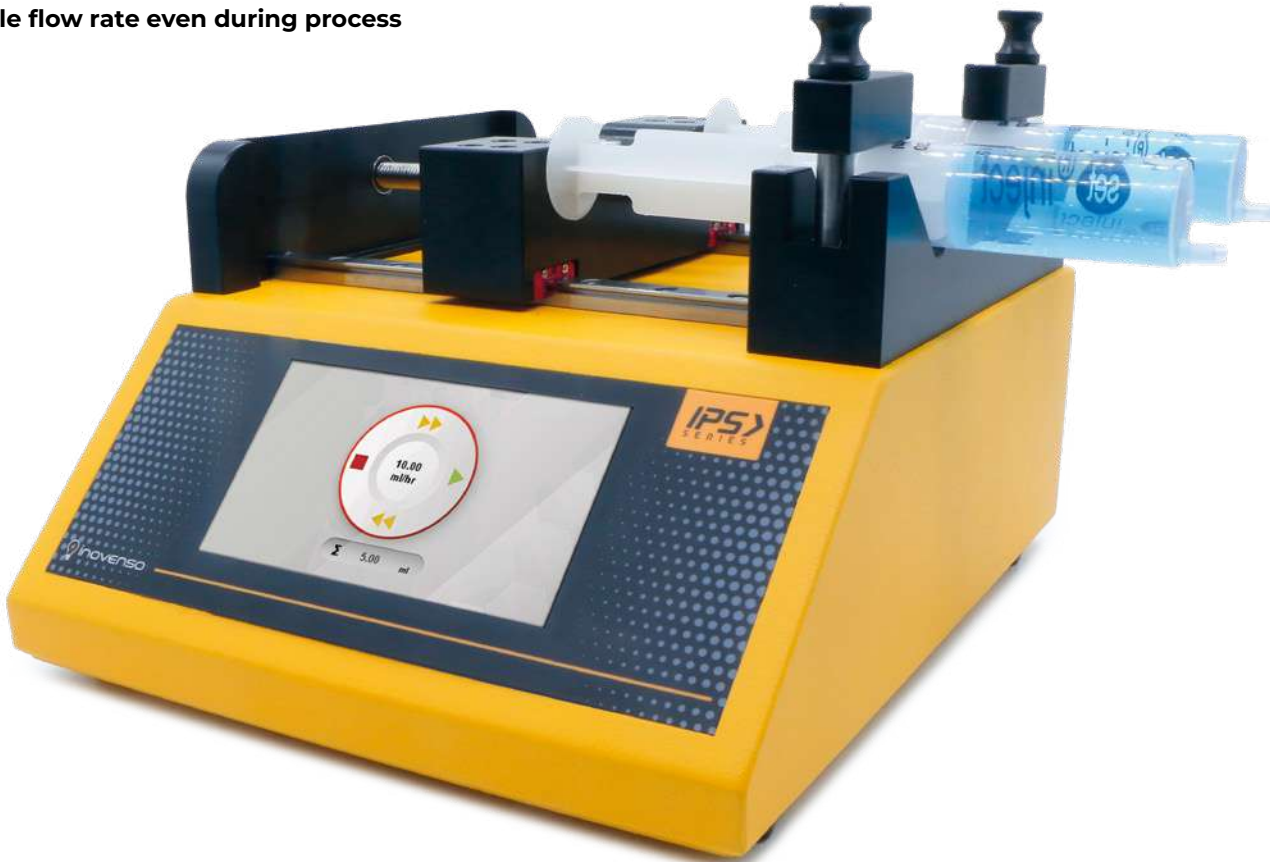


IPS 13

infusion mode

SYRINGES	
CAPACITY	2 Interdependent
TYPE	Glass, plastic, steel
MIN SIZE	Hamilton 0.5 µl (ID:0.103mm)
MAX SIZE	Monoject 140 ml (ID:38mm)
FLOW RATE	
MIN	17,89 pl/min (Hamilton 0.5 µl)
MAX	121,51 ml/min (140 ml Monoject Syringe)
ACCURACY	< 1%
REPRODUCIBILITY	< 1%
MOTOR SPESIFICATIONS	
MOTOR TYPE	Stepper Motor
MOTOR DRIVE CONTROLLER	Microcontroller with Microstep Drive
STEP RESOLUTION (TRAVEL/MICROSTEP)	357 nm/µstep
MIN STEP RATE	10 sec/µstep
MAX STEP RATE	200 µsec/µstep
MIN LINEAR SPEED	2,14 µm/min
MAX LINEAR SPEED	107,14 µm/min
LINEAR FORCE	20 kg (each syringe: 15 kg)
GENERAL SPESIFICATIONS	
CONNECTORS	Wi-fi(optional)
RECIPE SAVE-RECALL	No
POWER SUPPLY	12 VDC 1A (110-240 VAC adapter included)
DIMENSIONS	W:200 L:250 H:143 mm
WEIGHT	2.9 kg
OPERATING CONDITIONS	
OPERATING TEMPERATURE	Between -10 and 50 (°C)
STORAGE TEMPERATURE	Between -30 and 85 (°C)
OPERATING HUMIDITY	RH 10% - RH 90% (not condensed)
STORAGE HUMIDITY	RH 10% - RH 90% (not condensed)

- Double Channel
- 4.3” Resistive Touch TFT LCD screen
- Microcontroller software
- User-friendly interface
- High precise pumping
- Adjustable flow rate even during process



IPS13 R
infusion/withdrawal
mode

SYRINGES	
CAPACITY	2 Interdependent
TYPE	Glass, plastic, steel
MIN SIZE	Hamilton 0.5 µl (ID:0.103mm)
MAX SIZE	Monoject 140 ml (ID:38mm)
FLOW RATE	
MIN	17,89 pl/min (Hamilton 0.5 µl)
MAX	121,51 ml/min (140 ml Monoject Syringe)
ACCURACY	< 1%
REPRODUCIBILITY	< 1%
MOTOR SPESIFICATIONS	
MOTOR TYPE	Stepper Motor
MOTOR DRIVE CONTROLLER	Microcontroller with Microstep Drive
STEP RESOLUTION (TRAVEL/MICROSTEP)	357 nm/µstep
MIN STEP RATE	10 sec/µstep
MAX STEP RATE	200 µsec/µstep
MIN LINEAR SPEED	2,14 µm/min
MAX LINEAR SPEED	107,14 µm/min
LINEAR FORCE	20 kg (each syringe: 15 kg)
GENERAL SPESIFICATIONS	
CONNECTORS	Wi-fi(optional)
RECIPE SAVE-RECALL	No
POWER SUPPLY	12 VDC 1A (110-240 VAC adapter included)
DIMENSIONS	W:211 L:250 H:143 mm
WEIGHT	3.2 kg
OPERATING CONDITIONS	
OPERATING TEMPERATURE	Between -10 and 50 (°C)
STORAGE TEMPERATURE	Between -30 and 85 (°C)
OPERATING HUMIDITY	RH 10% - RH 90% (not condensed)
STORAGE HUMIDITY	RH 10% - RH 90% (not condensed)

- Double Channel
- 4.3” Resistive Touch TFT LCD screen
- Microcontroller software
- User-friendly interface
- High precise pumping
- Adjustable flow rate even during process



IPS 13 S
infusion mode

SYRINGES	
CAPACITY	2 Interdependent
TYPE	Glass, plastic, steel
MIN SIZE	Hamilton 0.5 µl (ID:0.103mm)
MAX SIZE	Monoject 140 ml (ID:38mm)
FLOW RATE	
MIN	17,89 pl/min (Hamilton 0.5 µl)
MAX	121,51 ml/min (140 ml Monoject Syringe)
ACCURACY	< 1%
REPRODUCIBILITY	< 1%
MOTOR SPESIFICATIONS	
MOTOR TYPE	Stepper Motor
MOTOR DRIVE CONTROLLER	Microcontroller with Microstep Drive
STEP RESOLUTION (TRAVEL/MICROSTEP)	357 nm/µstep
MIN STEP RATE	10 sec/µstep
MAX STEP RATE	200 µsec/µstep
MIN LINEAR SPEED	2,14 µm/min
MAX LINEAR SPEED	107,14 µm/min
LINEAR FORCE	20 kg (each syringe: 15 kg)
GENERAL SPESIFICATIONS	
CONNECTORS	Wi-fi(optional)
RECIPE SAVE-RECALL	Yes
POWER SUPPLY	12 VDC 1A (110-240 VAC adapter included)
DIMENSIONS	W:200 L:250 H:143 mm
WEIGHT	2.9 kg
OPERATING CONDITIONS	
OPERATING TEMPERATURE	Between -10 and 50 (°C)
STORAGE TEMPERATURE	Between -30 and 85 (°C)
OPERATING HUMIDITY	RH 10% - RH 90% (not condensed)
STORAGE HUMIDITY	RH 10% - RH 90% (not condensed)

- Double Channel
- 4.3” Resistive Touch TFT LCD screen
- Microcontroller software
- User-friendly interface
- High precise pumping
- Adjustable flow rate even during process



5 Steps Operation Mode | Saving and Recalling Subsequently Up to 5 Recipes | Repeating recipes up to 50 Cycles

IPS 13 RS

infusion/withdrawal mode

SYRINGES	
CAPACITY	2 Interdependent
TYPE	Glass, plastic, steel
MIN SIZE	Hamilton 0.5 µl (ID:0.103mm)
MAX SIZE	Monoject 140 ml (ID:38mm)
FLOW RATE	
MIN	17,89 pl/min (Hamilton 0.5 µl)
MAX	121,51 ml/min (140 ml Monoject Syringe)
ACCURACY	< 1%
REPRODUCIBILITY	< 1%
MOTOR SPESIFICATIONS	
MOTOR TYPE	Stepper Motor
MOTOR DRIVE CONTROLLER	Microcontroller with Microstep Drive
STEP RESOLUTION (TRAVEL/MICROSTEP)	357 nm/µstep
MIN STEP RATE	10 sec/µstep
MAX STEP RATE	200 µsec/µstep
MIN LINEAR SPEED	2,14 µm/min
MAX LINEAR SPEED	107,14 µm/min
LINEAR FORCE	20 kg (each syringe: 15 kg)
GENERAL SPESIFICATIONS	
CONNECTORS	Wi-fi(optional)
RECIPE SAVE-RECALL	Yes
POWER SUPPLY	12 VDC 1A (110-240 VAC adapter included)
DIMENSIONS	W:211 L:250 H:143 mm
WEIGHT	3.2 kg
OPERATING CONDITIONS	
OPERATING TEMPERATURE	Between -10 and 50 (°C)
STORAGE TEMPERATURE	Between -30 and 85 (°C)
OPERATING HUMIDITY	RH 10% - RH 90% (not condensed)
STORAGE HUMIDITY	RH 10% - RH 90% (not condensed)

- Double Channel
- 4.3” Resistive Touch TFT LCD screen
- Microcontroller software
- User-friendly interface
- High precise pumping
- Adjustable flow rate even during process

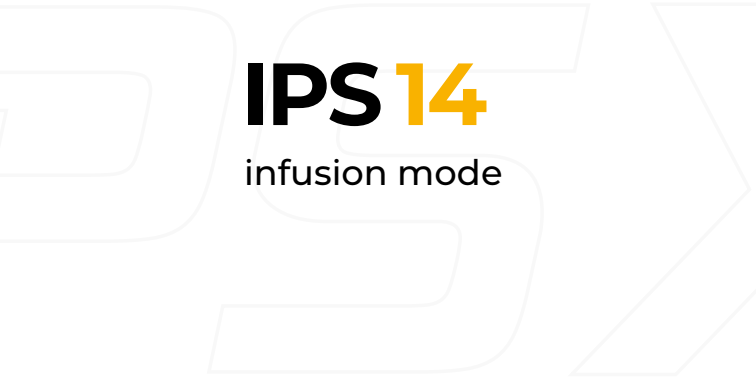


5 Steps Operation Mode | Saving and Recalling Subsequently Up to 5 Recipes | Repeating recipes up to 50 Cycles

IPS 14 SERIES

**Independent
Double Channel
Pumps**

// 14 ^{IPS} »



IPS 14

infusion mode

SYRINGES	
CAPACITY	2 Independent
TYPE	Glass, plastic, steel
MIN SIZE	Hamilton 0.5 µl (ID:0.103mm)
MAX SIZE	Monoject 140 ml (ID:38mm)
FLOW RATE	
MIN	17,89 pl/min (Hamilton 0.5 µl)
MAX	121,51 ml/min (140 ml Monoject Syringe)
ACCURACY	< 1%
REPRODUCIBILITY	< 1%
MOTOR SPESIFICATIONS	
MOTOR TYPE	Stepper Motor
MOTOR DRIVE CONTROLLER	Microcontroller with Microstep Drive
STEP RESOLUTION (TRAVEL/MICROSTEP)	357 nm/µstep
MIN STEP RATE	10 sec/µstep
MAX STEP RATE	200 µsec/µstep
MIN LINEAR SPEED	2,14 µm/min
MAX LINEAR SPEED	107,14 µm/min
LINEAR FORCE	20 kg for each syringe
GENERAL SPESIFICATIONS	
CONNECTORS	Wi-fi(optional)
RECIPE SAVE-RECALL	No
POWER SUPPLY	12 VDC 1A (110-240 VAC adapter included)
DIMENSIONS	W:200 L:257 H:143 mm
WEIGHT	3.3 kg
OPERATING CONDITIONS	

OPERATING TEMPERATURE	Between -10 and 50 (°C)
STORAGE TEMPERATURE	Between -30 and 85 (°C)
OPERATING HUMIDITY	RH 10% - RH 90% (not condensed)
STORAGE HUMIDITY	RH 10% - RH 90% (not condensed)

- 2 Independent channels
- 4.3” Resistive Touch TFT LCD screen
- Microcontroller software
- User-friendly interface
- High precise pumping
- Adjustable flow rate even during process



IPS14 R
infusion/withdrawal
mode

SYRINGES	
CAPACITY	2 Independent
TYPE	Glass, plastic, steel
MIN SIZE	Hamilton 0.5 µl (ID:0.103mm)
MAX SIZE	Monoject 140 ml (ID:38mm)
FLOW RATE	
MIN	17,89 pl/min (Hamilton 0.5 µl)
MAX	121,51 ml/min (140 ml Monoject Syringe)
ACCURACY	< 1%
REPRODUCIBILITY	< 1%
MOTOR SPESIFICATIONS	
MOTOR TYPE	Stepper Motor
MOTOR DRIVE CONTROLLER	Microcontroller with Microstep Drive
STEP RESOLUTION (TRAVEL/MICROSTEP)	357 nm/µstep
MIN STEP RATE	10 sec/µstep
MAX STEP RATE	200 µsec/µstep
MIN LINEAR SPEED	2,14 µm/min
MAX LINEAR SPEED	107,14 µm/min
LINEAR FORCE	20 kg for each syringe
GENERAL SPESIFICATIONS	
CONNECTORS	Wi-fi(optional)
RECIPE SAVE-RECALL	No
POWER SUPPLY	12 VDC 1A (110-240 VAC adapter included)
DIMENSIONS	W:211 L:257 H:137 mm
WEIGHT	3.6 kg
OPERATING CONDITIONS	
OPERATING TEMPERATURE	Between -10 and 50 (°C)
STORAGE TEMPERATURE	Between -30 and 85 (°C)
OPERATING HUMIDITY	RH 10% - RH 90% (not condensed)
STORAGE HUMIDITY	RH 10% - RH 90% (not condensed)

- 2 Independent channels
- 4.3” Resistive Touch TFT LCD screen
- Microcontroller software
- User-friendly interface
- High precise pumping
- Adjustable flow rate even during process



IPS 14 S
infusion mode

SYRINGES	
CAPACITY	2 Independent
TYPE	Glass, plastic, steel
MIN SIZE	Hamilton 0.5 µl (ID:0.103mm)
MAX SIZE	Monoject 140 ml (ID:38mm)
FLOW RATE	
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- 2 Independent channels
- 4.3” Resistive Touch TFT LCD screen
- Microcontroller software
- User-friendly interface
- High precise pumping
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5 Steps Operation Mode | Saving and Recalling Subsequently Up to 5 Recipes | Repeating recipes up to 50 Cycles

IPS 14 RS
infusion/withdrawal
mode

SYRINGES	
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