



IPS-12R Syringe Pump

Single Channel Infusion/Withdrawal Pump

The IPS-12R enables both infusion and withdrawal operations in a single channel. Flow rate and direction can be easily adjusted during use. It is suitable for applications that require bidirectional and flexible flow control.

- 4.3" intuitive touchscreen control
- Supports both infusion and withdrawal functions
- Adjustable flow rate during operation for flexible control

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

|                    |                                          |
|--------------------|------------------------------------------|
| 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) |