

## Minipuls 3 Series Peristaltic Pumps

High performance liquid transfer ...

... wide range of flow-rates,

Gilson robustness and reliability!



### Ordering Information

Gilson's Minipuls 3 is available as two parts: a speed control module and a pump head. An accessory package is supplied with the speed control module.

Item	Reference N°
Speed-Control Module	F155001
R1 Pump Head	F117604
R2 Pump Head	F117800
R4 Pump Head	F117606
R8 Pump Head	F117608
R2/HF (high-flow) Pump Head	F117830
R4/HF (high-flow) Pump Head	F117831

### Technical Specifications

Flow Rate	Standard Model: 0.3 µL/min to 30 mL/min (72 psi/5 bar/0.5 MPa max) High Flow Model: 1 mL/min to 220 mL/min (42 psi/3 bar/0.3 MPa max)
Pump Head	Standard Model: 1, 2, 4 or 8 channel heads with 10 stainless steel rollers per head High Flow Model: 2 or 4 channel heads with 5 stainless steel rollers per head
Head Speed	Continuous adjustment from 0 to 48 rpm by 0.01 rpm increments up to 9.99 rpm and by 0.1 increments above 10 rpm
Peristaltic Tubing Diameter	Standard Model: 0.25 to 4 mm (i.d.) High Flow Model: 2 to 8 mm (i.d.)
Tubing materials	PVC for most applications, Viton for chemical inertness, silicone for biocompatibility, and Pharmed(r) for FDA and USP class 4.
Motor Speed Stability	0.5% for any variation of line voltage, torque or temperature
Line Voltage	90V to 132V for 110 voltage selection; 180V to 264V for 220 voltage selection
Line Frequency	47 to 63 Hz
Power Consumption	Full load 45 W at 220V; no load 35 W at 220V
Operating Temperature	0-40° C No warm-up time required
Input/Output Options	Contact Closure: Two TTL-compatible inputs for control of start/stop and direction of flow Voltage Input: One 5 V analog signal for variable control of motor speed Serial: Gilson Serial Input/Output Channel (GSIOC), an RS-422A interface
Keypad functions	Start, stop, direction of flow, increase and decrease flow, prime.
Dimensions (w x h x d)	15 x 18 x 17.5 cm (5.0 x 7.1 x 6.9 in)
Weight	4 kg (9 lbs)

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# MINIPULS 3

High Performance  
Peristaltic Pump



## Minipuls 3 Series ... ... the peristaltic pump, best performance!

### Pulse Free Liquid Transfer

- By driving the liquid flow with as many as 10 rollers, Minipuls 3 is able to produce smoother, pulse free flows, with excellent accuracy and precision, even at high flow rates.



- An adjustable speed stepper motor and high quality precision-bore tubing assure reproducible flow rates.
- The adjustable cams allow the tubing to be overcompressed to make priming easier or less compressed to allow the tubing to last longer. Also, by this means, minor adjustments in flow rate are possible, which may be useful when you want to synchronize the flow-rates of multichannel systems.



### Wide Flow-rate Range (0.3 $\mu$ L/min to 220 mL/min), Wide Tubing Size Range (0.25 mm to 8 mm ID)

Choice of 6 fully interchangeable pump-heads to accommodate a wide range of flow-rates and back pressures, according to your application. So, you do not need to change the entire pump if your application or flow-rates requirements change.

- **Standard flow pump-heads:** choice of 1, 2, 4, or 8 channels.
- **High flow pump-heads:** choice of 2 or 4 channels.

A wide range of accepted tubing types and sizes gives you much greater flexibility in terms of the flow rate range that is available with each pump head.

- **Standard model:**  
from 0.3  $\mu$ L/min to 30 mL/min  
(maximum pressure 0,5 MPa).
- **High flow:**  
from 1 mL/min to 220 mL/min  
(maximum pressure 0.3 MPa).



## Gilson Product, Quality Built-in

### Reliable, Robust, Safe

Solidly constructed from robust, chemically resistant materials, Minipuls 3 ensures reliable liquid transfer even in the most challenging environments. The built-in overflow is your protection in case of tubing rupture.

### Quiet, User Friendly

Minipuls 3 is easy to install, simple to operate, easy to maintain.

Simple operation thanks to its microprocessor control, uncomplicated soft-touch keypad and easy-to-read LCD screen. Remote control is possible with most instruments possessing an RS232C interface (adapter required).

### Snappy Tubing Changes

Just snap the cams! Tubing in any channel can be changed easily and independently. The retaining stops, which are color coded for easy recognition of the tubing's internal diameter, ensure that the tension in the peristaltic tubing is correct and that reproducible flow rates are obtained.



### Gilson Support

With its wide range of experience as a manufacturer of laboratory equipment for liquid handling, Gilson can provide support and advice on the best tubings and connectors to use for your application.