

# CRONO PAR 50

REF: PS3FL



## Ambulatory infusion pump

### INTENDED PURPOSE

**CRONO PAR 50** is an ambulatory pump for subcutaneous infusions of apomorphine in the treatment of Parkinson's disease.

### PUMP DESCRIPTION

**CRONO PAR 50** is a medical device.

**CRONO PAR 50** is an union of high technology and innovative design. Its compact size and light weight make it ideal for home use.

**CRONO PAR 50** uses 50 ml dedicated reservoirs.

The main features of the pump are:

- the possibility of selecting two different operation modes: the **FrEE** mode, with base-level functions, and the **Auto** mode, with advanced functions for patients with greater therapeutic demands;
- a clock allowing administration of different flow rates over a 24-hour period;
- twin microcontrollers making the device safer and more reliable.

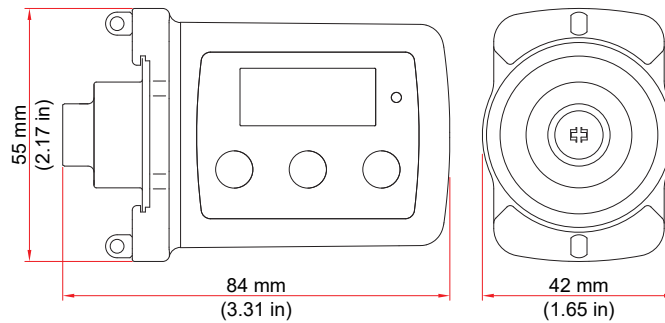
The pump is equipped with a settings lock to prevent incorrect or unauthorised administration.

The pusher mechanism, which operates directly on the rubber piston of the reservoir, enables the pump to combine high delivery pressure with excellent precision while administering the drugs.

**CRONO PAR 50** is provided with a liquid crystal display (LCD) which shows practical information to the doctor and patient about the settings, operations and diagnostics of the pump.

# TECHNICAL FEATURES

## Pump dimensions



<b>Pump weight</b>	139 g (4.90 oz.), including battery
<b>Battery</b>	Lithium CR123A 3V (battery life about 90 infusions)
<b>Single-use reservoir</b>	Dedicated with a 50 ml capacity and a Luer-Lock universal security attachment
<b>Administrable volumes</b>	Programmable, from 1 to 50 ml in increments of 1 ml
<b>Prime function</b>	Only available at the start of the infusion. The maximum deliverable volume is 1.5 ml
<b>Flow rates in FrEE mode (F1, F2, F3)</b>	<p>Programmable from:</p> <ul style="list-style-type: none"> <li>• 0.05 ml/h to 1.00 ml/h in increments of 0.01 ml/h</li> <li>• 1.00 ml/h to 3.00 ml/h in increments of 0.02 ml/h</li> <li>• 3.00 ml/h to 5.00 ml/h in increments of 0.05 ml/h</li> </ul> <p><b>F2</b> and <b>F3</b> may also be programmed to 0.00 ml/h or to <b>oFF</b> (flow rate display disabled)</p>
<b>Selectable flow rates in FrEE mode</b>	3, all programmable
<b>Flow rates in Auto mode (F0, F1, F2, F3)</b>	<p><b>F1, F2, F3</b> programmable from:</p> <ul style="list-style-type: none"> <li>• 0.05 ml/h to 1.00 ml/h in increments of 0.01 ml/h</li> <li>• 1.00 ml/h to 3.00 ml/h in increments of 0.02 ml/h</li> <li>• 3.00 ml/h to 5.00 ml/h in increments of 0.05 ml/h</li> </ul> <p><b>F0</b> is fixed to 0.00 ml/h</p>
<b>Selectable flow rates in Auto mode</b>	4, 3 of which are programmable and 1 is fixed to 0.00 ml/h ( <b>F0</b> )
<b>Bolus dose</b>	Programmable from 0.00 to 2.00 ml in increments of 0.02 ml
<b>Interval between boluses</b>	<p>Programmable from:</p> <ul style="list-style-type: none"> <li>• 5 min to 1 h in increments of 5 min</li> <li>• 1 h to 24 h in increments of 15 min</li> </ul> <p>This function can be disabled by setting <b>no,Lt</b></p>
<b>Shot volume</b>	20 µl (minimum quantity administered at each motor rotation)
<b>Flow rate precision</b>	+/- 3 %
<b>Occlusion pressure</b>	1.8 bar +/- 0.8 ( <b>PL1</b> ) ; 2.2 bar +/- 1 ( <b>PL2</b> ) ; 3.2 bar +/- 1.2 ( <b>PL3</b> )
<b>Post-occlusion bolus</b>	About 1.0 ml ( <b>PL1</b> ), 1.4 ml ( <b>PL2</b> ), 1.8 ml ( <b>PL3</b> )
<b>Settings memory</b>	All settings are automatically stored in a flash memory which is retained even if the device is left without a battery
<b>Display</b>	Liquid crystal display (LCD) (dimensions 11 x 28 mm; 0.43 x 1.1 in)
<b>Motor</b>	Coreless DC motor, the rotation of which is controlled by an infrared system
<b>Settings lock</b>	Two configurable levels
<b>Electronic circuits with twin microcontrollers</b>	Ensures a more reliable and safer infusion system
<b>Safety circuits</b>	These check that the device is functioning correctly, intervening in the event of any anomaly with sounds and messages on the display
<b>Ingress protection rating</b>	IP 42
<b>Buzzer sound pressure level</b>	53 dBA +/- 5 dBA
<b>Warranty</b>	2 years from the date of purchase against any material or manufacturing defects
<b>Standard equipment</b>	CRONO PAR 50 ambulatory pump, Carry-case, Elastic belt, Fabric case, Collar strap, 2 Batteries (1 of which in the pump), Battery-cover opening tool, Instructions for use
<b>Environmental conditions for use</b>	+5°C / +40°C 15% / 90% RH (non-condensing, water vapour partial pressure max 50 hPa) 700 hPa / 1060 hPa
<b>Environmental conditions for storage and transport</b>	-25°C / +70°C 15% / 90% RH

