

## Technology for health



**REF: PS3AD** 



# Ambulatory infusion pump

#### **INTENDED PURPOSE**

CRONO SC is an ambulatory pump for subcutaneous infusion of palliative care drugs in terminally ill patients and for subcutaneous infusion of Treprostinil.

#### PUMP DESCRIPTION

CRONO SC is a medical device.

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

CRONO SC uses 10 and 20 ml dedicated reservoirs.

An outstanding feature of the pump is its ability to allow 4 modes of administration:

- · Continuous;
- Bolus on request (PCA);
- Clinical bolus (managed by the doctor);
- Combined (continuous + bolus on request + clinical bolus).

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** SC 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**

	(2.99 in)
Pump dimensions (with protective wings)	138 mm (5.43 in) (1.14 in)
Pump weight	115 g (4.06 oz.), including battery
Pump weight with protective wings	127 g (4.48 oz.), including battery
Battery	Lithium CR123A 3V (battery life about 90 infusions)
Single-use reservoir	Dedicated with a 10 and 20 ml capacity and a Luer-Lock universal security attachment
Administrable volumes	Programmable, from 1 to 10 ml in 1 ml increments (10 ml reservoir) Programmable, from 1 to 20 ml in 1 ml increments (20 ml reservoir)
Prime function	Only available at the start of the infusion. The maximum deliverable volume is 1500 $\mu\text{I}$
Flow rate	Programmable from 5 to 2000 $\mu$ l/h in increments of 1 $\mu$ l/h It is possible to disable this function by setting 0 $\mu$ l/h
Bolus dose	Programmable, from 10 $\mu$ l to 2000 $\mu$ l in increments of 10 $\mu$ l It is possible to disable this function by setting 0 $\mu$ l
Clinical bolus	Programmable, from 10 $\mu$ l to 2000 $\mu$ l in increments of 10 $\mu$ l It is possible to disable this function by setting 0 $\mu$ l
Interval between boluses	Programmable, from 5 min to 24 h in the following modes: <ul> <li>from 5 min to 1 h in increments of 5 min</li> <li>from 1 h to 24 h in increments of 15 min</li> </ul> It is possible to disable this function by setting no,Lt
Bolus doses deliverable in one hour	From 0 to 12 boluses. The function may be disabled by setting <b>no,Ln</b>
Shot volume	5 μl (minimum quantity administered at each motor rotation)
Flow rate precision	+/- 2 %
Occlusion pressure	2.5 bar +/- 1.5 ( <b>PL1</b> ) ; 4 bar +/- 2 ( <b>PL2</b> ) ; 5.5 bar +/- 2 ( <b>PL3</b> )
Post-occlusion bolus	About 600 μl ( <b>PL1</b> ), 900 μl ( <b>PL2</b> ), 1000 μl ( <b>PL3</b> )
Settings memory	All settings are automatically stored in a flash memory which is retained even if the device is left without a battery
Display	Liquid crystal display (LCD) (dimensions 11 x 28 mm; 0.43 x 1.1 in)
Motor	Coreless DC motor, the rotation of which is controlled by an infrared system
Settings lock	Two configurable levels
Electronic circuits with twin microcontrollers	Ensures a more reliable and safer infusion system
Safety circuits	These check that the device is functioning correctly, intervening in the event of any anomaly with sounds and messages on the display
Ingress protection rating	IP 42
Anti-free-flow safety system	Avoids the occurrence, within the delivery set, of a flow not under the control of the instrument but caused by the effect of gravity
Buzzer sound pressure level	53 dBA +/- 5 dBA
Warranty	2 years from the date of purchase against any material or manufacturing defects
Standard equipment	CRONO SC ambulatory pump, Carry-case, Elastic belt, Fabric case, Collar strap, 2 Batteries (1 of which in the pump), Battery-cover opening tool, 2 Instructions for use (doctor and patient)
Environmental conditions for use	+5°C / +40°C 15% / 90% RH (non-condensing, water vapour partial pressure max 50 hPa) 700 hPa / 1060 hPa
Environmental conditions for storage and transport	-25°C / +70°C 15% / 90% RH

76 mm

