

ANNEX 01

1. Infusion Pump

Model Classification: Volumetric pump: CF, Defibrillation-proof, protection class I

Quantity: 35

Specifications;

Delivery Rate	<p>Volume preselection:</p> <ul style="list-style-type: none"> • 0.1- 99.99 ml in increments of 0.01ml • 100.0 - 999.0 ml in increments of 0.1ml • 1000 – 99999 ml in increments of 1ml
Bolus parameters	<ul style="list-style-type: none"> • Bolus volumes: 0.1 – 99.9/500ml • Bolus delivery rate: 1 – 999ml/h • Interval times: max 99h 59min
KVO-rate	<ul style="list-style-type: none"> • Delivery rate \geq 10 ml/h: KVO-rate 3 ml/h • Delivery rate $<$ 10 ml/h: KVO-rate 1 ml/h • Delivery rate $<$ 1 ml/h: KVO-rate = set rate (default setting 0.1ml/h)
Function spectrum	<ul style="list-style-type: none"> • Delivery volume pre-setting: 0.1-9999.9ml • Time pre-selection: max 99h 59min • Automatic calculation of the delivery rate: based on volume and time pre-selection • Dose calculation: automatic calculation of the delivery rate, ml/h based on the entry of the drug concentration in conjunction with the desired dosage, selectable in microgram, mg, IE, mmol, body weight and time-based, e.g.mg/kg/min • Standby pause: max 24h, set values remain stored • History: times-based storage of 350 actions for therapy analysis
Display	<ul style="list-style-type: none"> • Delivery rate, current infusion, infused volume/time, dose • Mains / Battery operation, battery capacity
Safety system	<ul style="list-style-type: none"> • Deactivation of drip control in conjunction with volume pre-selection • Flow clamp: prevent free flow when pump door is open • Air detector: Minimizes the risk or air detection • Selectable occlusion alarm pressure setting: 0.6/1.2bar • Date lock: keys are blocked • Visual and acoustic alarms with interruption of pump operation: signals delivery failure in case of system defects, pressure alarm, stand-by alarm, battery alarm • Staff call connection
History Protocol	<ul style="list-style-type: none"> • 3000 last history entries 100 events for system diagnose

Mains/Battery operation	<ul style="list-style-type: none"> • Voltage 230V AC – 50Hz • Battery operating time: Minimum 10 h
Warranty	<ul style="list-style-type: none"> • Minimum 12months
Standards	<ul style="list-style-type: none"> • Must comply with CE standards
Accessories	<ul style="list-style-type: none"> • Original Administration sets for the pump model – 500pcs • Provide user and technical manuals

2. Syringe Infusion Pump

Model classification: Defibrillation-proof: CF equipment, Protection class II, IIb

Quantity: 25

Specifications;

General	<ul style="list-style-type: none"> • Moisture protection IP 22 (fluid protection for horizontal usage) • Syringe Selection • 2/3, 5,10,20 and 50/60 ml • User-specific configuration possible • Delivery rate <p>Volume preselection:</p> <ul style="list-style-type: none"> • - 99.99 ml in increments of 0.01 ml • 100.0 – 999.0 ml in increments of 0.1 ml • 1000 – 9999 ml in increments of 1 ml <p>Rate increments:</p> <ul style="list-style-type: none"> • -99.99 ml/h in increments of 0.01ml/h • 100.0 – 999.9 ml/h in increments of 1 ml <p>Accuracy of bolus infusion:</p> <ul style="list-style-type: none"> • +/-2% <p>Bolus delivery rate:</p> <ul style="list-style-type: none"> • 1 – 1800ml/h • Function spectrum • Delivery volume pre-setting: 0.1 – 9999.9 ml • Time pre-selection: 00:01-99:00 hr. • Automatic calculation of the delivery rate: based on volume over time
Delivery	<ul style="list-style-type: none"> • Syringe type / size, Deliver rate, current infusion, infused volume, pressure alarm, alarm sources, mains/battery operation capacity

	<ul style="list-style-type: none"> • Drug Library with capacity to up to 1200 drug names, including therapy data, information and up to 10 concentrations per drug to be stored in 30 different categories. • Safety systems • Automatic recognition of syringe size / fixation. • Occlusion alarm pressure limits selectable: 0.3/0/1.2bar • Automatic reduction of the bolus volume following pressure alarm • Date lock – Keys are blocked • Pre – alarms: 3min before syringe is empty, 30 mins before battery is discharged • System alarm signal a defect / delivery failure • Staff call connection • PC connectivity to transfer the data in PFD with required accessories and software. • RS232 or Service plugs if required
Mains/Batter operation	<ul style="list-style-type: none"> • Voltage 100 ... 240V AC ~ 50/60Hz • External Voltage: 11 ... 16V DC via Connection lead SP 12 V or via Space station • Li-ion, NiMH battery – rechargeable • Battery operating time: Minimum 10 h at <10ml/h
Warranty	<ul style="list-style-type: none"> • Minimum 12 months
Standards	<ul style="list-style-type: none"> • Must comply with CE standards
Accessories	<ul style="list-style-type: none"> • Original Administration set for the pump model – 500 pcs (50ml) • User and Technical manual