

## Data sheet **Module MVP MS** VOLUMETRIC INFUSION PUMP



**The Module MVP fits your requirements of safety and ease of use.**

The Module MVP can be integrated into all Orchestra configurations and is designed for clear and simple differentiation between syringe pump and infusion pump channels.



**FRESENIUS  
KABI**

caring for life

# MODULE MVP MS

## PERFORMANCE

FLOW RATE RANGE	From 1 to 1000 ml/h in normal mode. From 0,1 to 100 ml/h in micro-infusion mode.
FLOW RATE ACCURACY	± 5% with recommended sets.
PROGRAMMING MODES	Rate only, rate + volume, volume / time, ramp up / ramp down, primary / secondary, sequential, bolus, micro infusion.
VOLUME LIMIT	From 1 to 9999 ml in normal mode, from 0,1 to 999,9 in micro infusion mode.
INFUSION TIME	Settable from 1 minute to 96 hours.
KVO RATE	3 ml/h, programmable.
AIR DETECTION	Set at 250 µl over a period of 15 minutes.
OCS: OCCLUSIVITY CHECK SYSTEM	OCS patented system is the only auto-test which checks the good operating of the pump in association with its set and thus prevents all risk of free-flow.
FREE-FLOW PROTECTION	Control of occlusivity of pumping system toward set, automatic safety clamp integrated into set.
DPS: DYNAMIC PRESSURE SYSTEM	Line disconnection alarm, indication of pressure increase and decrease in the infusion line.
OCCLUSION DETECTIONS	Upstream & downstream.
OCCLUSION THRESHOLD	Set at 750 mmHg, settable from 100 to 900 mmHg.
AUTOMATIC REDUCTION OF BOLUS AFTER RELEASE OF AN OCCLUSION	Bolus < 0,2 ml, whatever the rate.
KEYBOARD LOCK	Programmable in configuration.
DROP SENSOR	Use in option for an empty bottle detection.
HISTORY MODULE	Up to 768 dated events.
ALARMS AND PREALARMS	<b>Infusion control:</b> set in place, volume limit reached, empty bottle, air in line, upstream occlusion, downstream occlusion, set disconnection, end of pause, door open. <b>Device control:</b> discharged battery, low battery, interface failure, technical malfunction. <b>Maintenance:</b> periodic servicing.

## TECHNICAL SPECIFICATIONS

PUMPING SYSTEM	Second generation linear wave peristaltic pumping system.
DIMENSIONS / WEIGHT	H 10,5 x W 31,5 x D 13 cm / ~ 2,4 kg.
EXTERNAL SUPPLY	7,15 Vdc (with the Base or the Mainy Mod).
BATTERY / BATTERY LIFE	Lead acid battery - 6 V 1.1 to 1.3 Ah / 2 hours 125 ml/h. Display of real battery life in hours and minutes.
COMPLIANCE, STANDARDS	Complies with EN 60601-1, EN 60601-1-2 and EN 60601-2-24. CE 0459 Marking in compliance with the EEC 93/42 European Medical Device Directive.
WATERPROOFNESS	Protection against splashing liquid: IP 34.
ELECTRICAL COMPLIANCE	Protection against leakage current: CF type. Protection against electric shocks: class II.

## MS SETS RANGE

MS 05, standard, 15 µ filter, L 220 cm	Cat # z072905f
MS 10, standard, 15 µ filter, L 270 cm	Cat # z072910f
MS 20, male luer and female luer connection, 100 µ filter, L 330 cm	Cat # z072920f
MS 30, standard, injection site (latex free), 15 µ filter, L 270 cm	Cat # z072930f
MS 31, needle-free access for intermittent injection, 15 µ filter, L 270 cm	Cat # z072931f
MS 33, 3-way stopcock for intermittent injections, 15 µ filter, L 270 cm	Cat # z072933f
MS 50, transfusion, 200 µ filter, L 270 cm	Cat # z072950f
MS 51, transfusion of bag, 200 µ filter, L 270 cm	Cat # z072951f
MS 60, PVC free, DEHP free, 15 µ filter, L 255 cm	Cat # z072960f
MS 70, PVC free, DEHP free, phtalate free, suitable for Taxol, 0,22 µ filter, L 260 cm	Cat # z072970f
MS 80, for use with secondary line, 15 µ filter, L 300 cm	Cat # z072980f
MS 95, with 150 ml graduated burette, 15 µ filter, L 300 cm	Cat # z072995f
OP MS, opaque, 15 µ filter, L 300 cm	Cat # z072990f



The patented OCS (Occlusivity Check System) is the unique auto-test which verifies the pump functioning in association with the set and prevents free-flow.



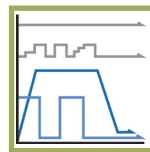
The safety clamp integrated onto the set ensures the sets' correct positioning and prevents free-flow when the door is open.



The Module MVP's ease of setting and monitoring are provided by a user-friendly software thanks to a graphic LCD that displays explanatory messages illustrated with graphics and thanks to a LED for essential information.



The Dynamic Pressure System - DPS - informs, thanks to a warning light, of pressure variation when there is a risk of occlusion or a possible leak in the infusion line.



Module MVP's offers a large range of setting modes (primary/secondary, volume/time, bolus, micro, sequential, induction, ramp up/ramp-down...) enabling the use of all protocols: from the simplest to the most specific.

Due to our policy of continuous product development as well as changes in standards, the features described are subject to change. Please contact us for current situation.

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## Orchestra

Infusion Workstation composed of Bases and Infusion Modules adapted to every clinical practice.

**Module DPS**  
Modular Syringe Pump



**Module DPS Visio**  
Modular Syringe Pump



**Module MVP**  
Modular Volumetric Pump



**Base A**  
Data concentrator



**Base Intensive**  
Unique 2 channel relay function, Customised drug library, Infusion history management.



**Base Primea**  
Simultaneous control of both hypnotic and analgesic effects in TCI.



**Orchestra Mobile stand**  
Whatever may be the architecture of your department, Orchestra Mobile Stand provides the choice of customised accessories.



### Disposables

A wide range for use with Module DPS and Module MVP. Catalogue is available from our Customer Service.