### MEDICAL DEVICES



# Volumat MC Agilia Advanced Volumetric Infusion Pump



Fresenius Kabi

## VOLUMAT MC AGILIA

	INFUSION
FLOW RATE RANGE	1-1500 ml/h in normal mode (1 ml/h increment).
	0.1-99.9 ml/h in micro mode (0.1 ml/h increment).
FLOW RATE ACCURACY	Flow rate can be limited according to drug name (soft and hard limits) with Vigilant®, the IV Medication Safety System ± 5% and even better in most clinical situations.
VOLUME TO INFUSE	1-9999 ml in normal mode, 0.1-999.9 ml in micro mode.
INFUSION MODES	ml/h modes: Volume + Flow rate, Volume + Time, Flow rate + Time, Volume + Time + Rate, Rate only (if optional)
	drop sensor is used), Ramp-up / Ramp-down, Sequential / Intermittent, Secondary / Piggyback, Drop/min
	<ul> <li>Dose rate modes: ng/h, ng/kg/min, ng/kg/h, ng/m2/24h, μg/min, μg/h, μg/kg/min, μg/kg/h, μg/m2/min, μg/m2/h, mg/min,</li> </ul>
	mg/h, mg/24h, mg/kg/min, mg/kg/h, mg/kg/24h, mg/m2/min, mg/m2/h, g/h, g/kg/min, g/kg/h, g/m2/min, g/m2/h, g/m2/24h,
	mU/min, mU/h, mU/kg/min, mU/kg/h, mU/m2/min, mU/m2/h, U/min, U/h, U/kg/h, U/kg/24h, U/m2/min, U/m2/h, mEq/min, Eq/h, mEq/kg/min, mEq/kg/h, mEg/m2/min, mEg/m2/h, mEg/m2/24h, mmo/h, kcal/h, kcal/24h, kcal/kg/h, kcal/kg/24h.
	With or without loading dose.
	Dose time mode: calculation of the rate is based on dose and dilution over an adjusted time.
TIMES OF INFUSION	From 0 h 01' to 168 h 00' with warning when recommended duration of set use is elapsed.
	Possibility of a delayed start-up.  Warning function: a warning message can be activated and adjusted from 0 h 01' to 96 h 00'.
PRIMING	Manual or by using the purge/prime function of the pump.
OCS PATENT	The Occlusivity Check System is the only patented auto-test to check the good working order of the pump in
	association with its set and thus preventing risk of free-flow.
BOLUS	1500 ml/h, adjustable from 50 ml/h to 1500 ml/h by 50 ml/h increments.
10.10	Manual or programmable.
KVO	Automatic Keep Vein Open rate of 1 ml/h (adjustable from 1 to 20 ml/h) when volume limit is reached.
PAUSE	Programmable from 1 minute to 24 hours, increments from minute to minute.
Graphical History Data log event	Volumes infused, doses infused, flow rates, pressure.  1500 data log events in real time.
NIGHT MODE	The night mode decreases the brightness of the screen and the green lights. The key beep can eventually be turned off
MIGHT MODE	The night mode can be programmed manually or automatically in a variable time range.
PROGRAMMING MODES	No drug names: infusion without any display of the drug names.
	Drug labelling: infusion with the drug names displayed.
	Vigilant® Drug'Lib: the secured IV administration mode by soft and hard limits.
DRUG LABELLING	Display of the drug name based on a list of 50 pre-set drug names.
DRUG LIBRARIES	Customized drug library with Vigilant®, the IV Medication Safety Solution. Up to 4 different drug libraries.  Each drug is defined by: drug name, default rate, min. and max. rates (soft and hard limits), and infusion mode.
	Up to 100 drugs.
KEYBOARD PROTECTIONS	Possibility to lock the keyboard to prevent involuntary change of setting.
	PRESSURE MANAGEMENT
PRESSURE MODE	2 modes available: variable (from 50 to 750 mmHg, 50 mmHg increment) or 3 pre-set levels.
DPS	The Dynamic Pressure System - DPS - warns of pressure variations.  A risk of obstruction or a possible leak in the infusion line can thus be anticipated.
PRESSURE MONITORING	Graphic representation of the pressure in the infusion line and of the pressure limit thanks to the pictograms.
ANTI-BOLUS SYSTEM	Reduces significantly bolus after occlusion release (0.2 ml max.).
	ALARMS / PRE-ALARMS / SECURITY
PUMP STATUS	Green for infusion in progress, orange for pre-alarm and warnings, red for alarm.
	Visibility up to 5 meters.  All alarms are expressed by means of light indicators, written words, pictograms and sound beeps.
SET INSTALLATION CONTROL	Door's closing, set positioning, SafeClip control, OCS test.
INFUSION CONTROL	End of infusion, imminent end of infusion, downstream occlusion, upstream occlusion, line disconnection, air
	in line, under flow rate, over flow rate, empty container, unconfirmed setting, end of pause, unauthorised flow
	rate (hard or soft).
DEVICE CONTROL	Motor rotation check, power source indication, mains power disconnection, low battery, discharged battery, technical fault, watchdog check, communication connection failure.
MAINTENANCE	Preventive maintenance warning.
MAINTENANCE	revenuve maintenance warning.
	TECHNICAL SPECIFICATIONS
PUMPING MECHANISM	2nd generation linear peristaltic pumping system with software adjustments and compensations.
DISPLAY	Blue graphic LCD monochrome, size 66 mm x 33 mm (128 x 64 pixels).
SWINGLOCK CLAMP	Versatile clamp that allows the fixation on a rail or a pole (Pole: 20-40 mm max. / Rail: 25-35 x 10 mm)
STACKABILITY	Up to 3 devices self-stackable on a pole with a safe handle.
Stackability Dimensions (H/W/D) / Weight	Up to 3 devices self-stackable on a pole with a safe handle. 145 $\times$ 130 $\times$ 135 mm / Weight: ~2000 g.
STACKABILITY DIMENSIONS (H/W/D) / WEIGHT BATTERY	Up to 3 devices self-stackable on a pole with a safe handle.  145 x 130 x 135 mm / Weight: ~2000 g.  Li-lon, battery life at least 8 hours at 125 ml/h, remaining battery life and battery charge level available on the display
STACKABILITY DIMENSIONS (H/W/D) / WEIGHT BATTERY	Up to 3 devices self-stackable on a pole with a safe handle.  145 x 130 x 135 mm / Weight: ~2000 g.  Li-lon, battery life at least 8 hours at 125 ml/h, remaining battery life and battery charge level available on the display  ENJEC 60601-1 and ENJEC 60601-2-24 / CE 0459 marking in compliance with the EEC 93/42 European Medical
STACKABILITY DIMENSIONS (H/W/D) / WEIGHT BATTERY COMPLIANCE STANDARD	Up to 3 devices self-stackable on a pole with a safe handle.  145 x 130 x 135 mm / Weight: ~2000 g.  Li-lon, battery life at least 8 hours at 125 ml/h, remaining battery life and battery charge level available on the display
STACKABILITY DIMENSIONS (H/W/D) / WEIGHT BATTERY COMPLIANCE STANDARD WATERPROOFNESS	Up to 3 devices self-stackable on a pole with a safe handle.  145 x 130 x 135 mm / Weight: ~2000 g.  Li-lon, battery life at least 8 hours at 125 ml/h, remaining battery life and battery charge level available on the display  ENJEC 60601-1 and ENJEC 60601-2-24 / CE 0459 marking in compliance with the EEC 93/42 European Medical  Device Directive / EMC.  IP22.
STACKABILITY DIMENSIONS (H/W/D) / WEIGHT BATTERY COMPLIANCE STANDARD WATERPROOFNESS ELECTRICAL COMPLIANCE	Up to 3 devices self-stackable on a pole with a safe handle.  145 x 130 x 135 mm / Weight: ~2000 g.  Li-lon, battery life at least 8 hours at 125 ml/h, remaining battery life and battery charge level available on the display  ENJEC 60601-1 and ENJEC 60601-2-24 / CE 0459 marking in compliance with the EEC 93/42 European Medical  Device Directive / EMC.
STACKABILITY DIMENSIONS (H/W/D) / WEIGHT BATTERY COMPLIANCE STANDARD WATERPROOFNESS ELECTRICAL COMPLIANCE	Up to 3 devices self-stackable on a pole with a safe handle.  145 x 130 x 135 mm / Weight: ~2000 g.  Li-lon, battery life at least 8 hours at 125 ml/h, remaining battery life and battery charge level available on the display  EMIEC 60601-1 and ENVIEC 60601-2-24 / CE 0459 marking in compliance with the EEC 93/42 European Medical  Device Directive / EMC.  IP22.  Protection against leakage current: CF type — protection against electric shocks: class II.  100–240 Vac / 50-60 Hz with standard cable, 10 Vdc with specific DC cable.
SWINGLOCK CLAMP STACKABILITY DIMENSIONS (H/W/D) / WEIGHT BATTERY COMPLIANCE STANDARD WATERPROOFNESS ELECTRICAL COMPLIANCE POWER SUPPLY	Up to 3 devices self-stackable on a pole with a safe handle.  145 x 130 x 135 mm / Weight: ~2000 g.  Li-lon, battery life at least 8 hours at 125 ml/h, remaining battery life and battery charge level available on the display ENJEC 60601-1 and ENJEC 60601-2-24 / CE 0459 marking in compliance with the EEC 93/42 European Medical Device Directive / EMC.  IP22.  Protection against leakage current: CF type – protection against electric shocks: class II.  100–240 Vac / 50-60 Hz with standard cable, 10 Vdc with specific DC cable.  VOLUMAT LINES ADMINISTRATION SETS
STACKABILITY DIMENSIONS (HAW/D) / WEIGHT BATTERY COMPLIANCE STANDARD WATERPROOFNESS ELECTRICAL COMPLIANCE	Up to 3 devices self-stackable on a pole with a safe handle.  145 x 130 x 135 mm / Weight: ~2000 g.  Li-lon, battery life at least 8 hours at 125 ml/h, remaining battery life and battery charge level available on the display.  ENJEC 60601-1 and ENJEC 60601-2-24 / CE 0459 marking in compliance with the EEC 93/42 European Medical Device Directive / EMC.  IP22.  Protection against leakage current: CF type — protection against electric shocks: class II.  100–240 Vac / 50-60 Hz with standard cable, 10 Vdc with specific DC cable.  VOLUMAT LINES ADMINISTRATION SETS  All sets integrate the SafeClip that automatically clamps the line to avoid any risk of free-flow when the door is
STACKABILITY DIMENSIONS (H/W/D) / WEIGHT BATTERY COMPLIANCE STANDARD WATERPROOFNESS ELECTRICAL COMPLIANCE POWER SUPPLY FREE-FLOW PROTECTION	Up to 3 devices self-stackable on a pole with a safe handle.  145 x 130 x 135 mm / Weight: ~2000 g.  Li-lon, battery life at least 8 hours at 125 ml/h, remaining battery life and battery charge level available on the display.  ENJEC 60601-1 and ENJEC 60601-2-24 / CE 0459 marking in compliance with the EEC 93/42 European Medical Device Directive / EMC.  IP22.  Protection against leakage current: CF type – protection against electric shocks: class II.  100-240 Vac / 50-60 Hz with standard cable, 10 Vdc with specific DC cable.  VOLUMAT LINES ADMINISTRATION SETS  All sets integrate the SafeClip that automatically clamps the line to avoid any risk of free-flow when the door is opened and when the set is disengaged.
STACKABILITY  DIMENSIONS (H/W/D) / WEIGHT  BATTERY  COMPLIANCE STANDARD  WATERPROOFNESS  ELECTRICAL COMPLIANCE  POWER SUPPLY	Up to 3 devices self-stackable on a pole with a safe handle.  145 x 130 x 135 mm / Weight: ~2000 g.  Li-lon, battery life at least 8 hours at 125 ml/h, remaining battery life and battery charge level available on the display ENJEC 60601-1 and ENJEC 60601-2-24 / CE 0459 marking in compliance with the EEC 93/42 European Medical Device Directive / EMC.  IP22.  Protection against leakage current: CF type – protection against electric shocks: class II.  100–240 Vac / 50-60 Hz with standard cable, 10 Vdc with specific DC cable.  VOLUMAT LINES ADMINISTRATION SETS  All sets integrate the SafeClip that automatically clamps the line to avoid any risk of free-flow when the door is

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.



#### Manufacturer:

Fresenius Vial S. A. S. Le Grand Chemin 38590 Brézins France

Tel.: +33 (0)4 76 67 10 10 Fax: +33 (0)4 76 67 11 34

A Company of Fresenius Kabi

#### Agilia

The Agilia family offers a complete range of infusion pumps, accessories and disposables to cover all major IV drug administration needs.

#### Injectomat® Agilia



#### Injectomat® MC Agilia



#### Injectomat® TIVA Agilia



#### Volumat Agilia



SMART

#### Volumat MC Agilia



ADVANCED

#### Links & Accessories



#### **Administration Sets**



#### **Maintenance Tools**



Agilia is a registered trademark by Fresenius Kabi in selected countries.