

Rigel Multi-Flo

Single and Multi-Channel Infusion Pump Analyser



Technical Data Sheet

Innovating Together



The Rigel Multi-Flo Infusion Pump Analyser provides accurate and fast analysis of the performance of all common infusion devices.

Measuring flow rates, volume and pressure, the Multi-Flo is available in 1, 2 and 4 channel configuration which can be upgraded in the future to include additional channels up to a maximum of 4 channels. The Multi-Flo will ensure it meets your current and future requirements.

Instantaneous flow measurement gives the benefit of faster test times at low flow rates. The ability to detect flow rates from 10 μ L/hour, makes the Multi-Flo infusion pump analyser a versatile tool for all types of infusion.

Designed to fully meet the IEC 60601-2-24 test requirements, the Rigel Multi-Flo is a truly valuable test tool for those requiring fast and accurate assessments and calibration of flow rates, pressure and volume.

A rugged and compact all-in-one housing with integrated infusion program memory, makes the Multi-Flo completely stand-alone. Onboard memory stores test data and allows fast transfer to the PC for traceability. An upgraded version of Rigel's Med-eBase software provides test templates, custom test certificates and the ability to control and configure the Multi-Flo infusion pump analyser.

Fast and error-free asset information can be directly entered into the Multi-Flo via a compact Bluetooth barcode scanner or an optional keyboard.

The Multi-Flo infusion pump analyser is the latest addition to Rigel Medical's product offering of biomedical test equipment.

Key features

- **Available in 1, 2 and 4 independent channels (future upgradeable to additional channels up to 4 maximum)**
A variety of channel options will provide the user with the flexibility to meet current and future requirements with the option to upgrade to additional channels (up to a maximum of 4 channels).
- **Run each channel simultaneously**
Speed-up testing with the availability of each channel across the full flow range.
- **Instantaneous flow rate across full range**
Faster testing with instantaneous flow measurements from 10 μ L/hour up to 1000mL / hour.
- **Accurate and fast measurement of flow, pressure, PCA/bolus and total volume**
Test all requirements according to IEC 60601-2-24 during the manufacturing, design and performance test stages.
- **Colour display with real-time flow and trompet curves**
No need for PC applications to run trompet curve analyses, view flow curves or view real-time and stored data.
- **Internal memory for storage of results, curves and test programs**
Use the Multi-Flo as a stand-alone infusion pump analyser, without the need of a direct PC application.
- **User definable full test sequences**
Run automatic tests from the build-in sequences without the need for a PC application. Customer test sequences can be created with the Med-eBase PC application.

SPECIFICATIONS

Flow measurements

Test Duration: Programmeable up to 24 hours for memory storage

Display range	0.010 mL/h to 1100 mL/h
Max. Resolution	10µL / hour
Measured Range	0.500 mL/h to 1000mL/h
Accuracy	+/-1% of the reading after 100µL volume
Volume	0.001 mL to 9999 mL
Flow Update Rate	1 Hz

Occlusion / back pressure measurements

Range	-500 to 2500 mmHg
Unit Selection	bar, PSI, mmHg, mmH2O
Accuracy	+/-1% of the reading up to 1500 mmHg
Max. Resolution	1 mmHg

PCA / Bolus measurements (Volume)

Range	0.10 to 100 mL
Accuracy	+/-1% of the reading
Max. Resolution	0.01 mL
Basal Flow Rate	1 – 30 mL
Pressure	max 2 500 mmHg

General specifications

Storage	max of 10 x 24 hour tests
Power Source	100 – 240V ac 50/60Hz mains
Power Cable	standard IEC 10A connector
Weight	5 kg (1 channel) 6 kg (2 channels) 8 kg (4 channels)
Dimensions	300 (H) X 204 (W) x 150 (D) mm
Operating Temperature	15 °C to 35 °C
Storage Temperature	0°C to 50 °C

Part numbers:

385A910 (1 channel version*)
385A920 (2 channel version*)
385A940 (4 channel version)

*can be upgraded during annual calibration to include more channels up to a maximum of 4.

Key features (Cont.)

- Remote control, download and upload options with Med-eBase**
 Transfer data to and from the PC for traceability and configuration of the Multi-Flo. Use Med-eBase for remote control functions during trend analysis.
- Direct print facility**
 Test results can be printed directly to Rigel's Test 'n' Tag Elite system for instant traceability.
- Data entry**
 Asset detail information can be entered directly via an optional keyboard and stored in the internal memory for traceability.
- Bluetooth and USB connectivity**
 Choose between USB or Bluetooth communication for easy and fast data transfer.

Optional accessories:

- Med-eBase PC download and control software
- Test 'n' Tag Elite printer
- Bluetooth barcode scanner
- Carry case
- Med-ekit solutions

Also available:

- Rigel 266 Plus manual safety analyser
- Rigel 277 Plus automatic safety analyser
- Rigel 288 hand-held safety analyser
- Rigel 601 Checkbox
- Rigel UNI-SIM vital signs simulator
- Rigel BP-SIM NIBP simulator
- Rigel SP-SIM SpO2 simulator
- Rigel 333 patient simulator
- Rigel Uni-Pulse defibrillator tester
- Rigel Uni-Therm electrosurgical analyser
- Med-eBase – software application

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