vPad-IV™

vPad-IV is the future of Infusion Device Testing!

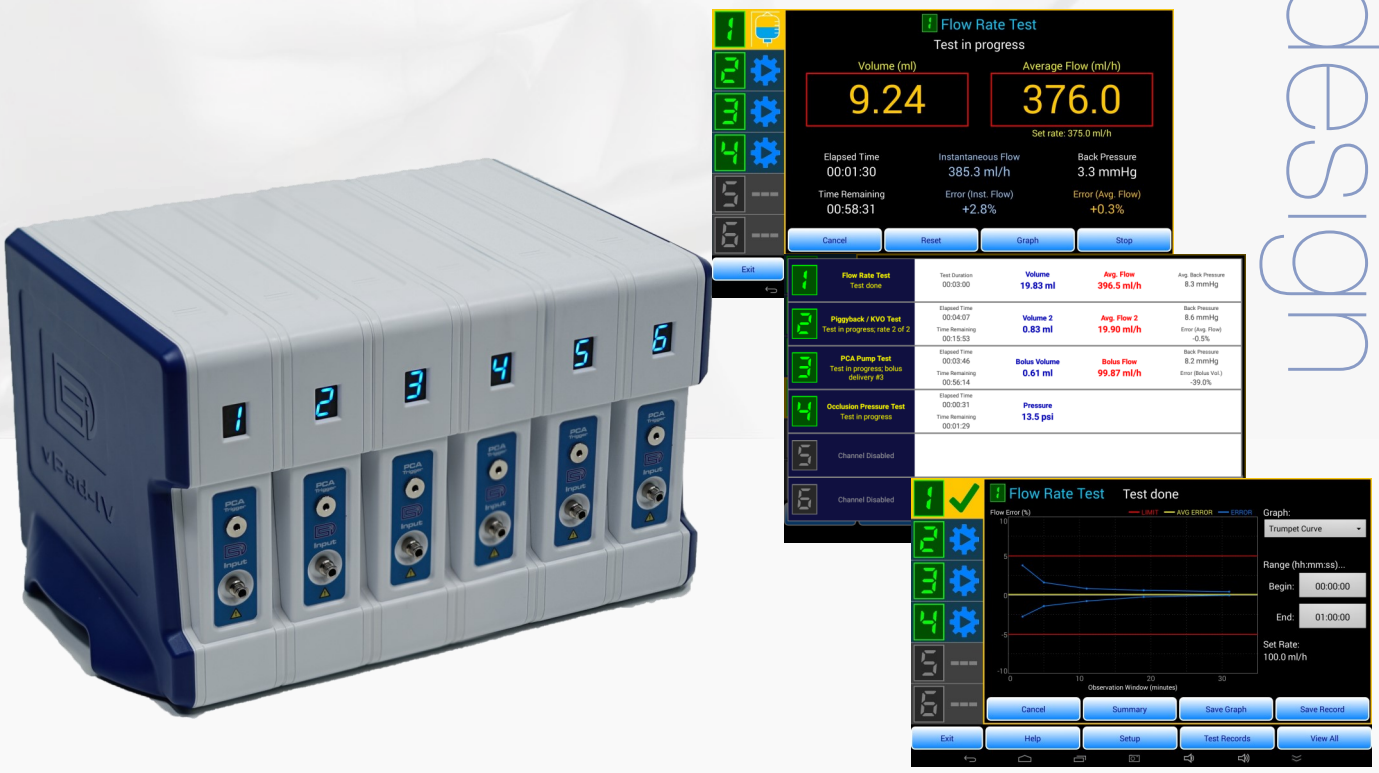
Our intuitive modern design is merely the beginning as it features several industry firsts, including the ability to conduct up to six preventive maintenance inspections on different devices at the same time. vPad-IV is an expandable modular system providing on-device user-managed automated testing and many other standard features that customers using our vPad platform are familiar with.

This flexible system allows you to start with a single channel today and slowly add more channels over time to meet your testing needs.

Key Features:

- Conforms to all IEC 60601-2-24 test requirements for Infusion Pumps & Pump Controllers
- Modular, expandable system can be arbitrarily configured as 1 to 6 channels
- Completely independent channels enable differing tests and inspections to be executed simultaneously
- Automatic or Manual Flow, Piggyback/KVO, PCA Pumps, and Occlusion Pressure tests
- Automated test setups provide user-defined pass/fail conditions
- User-managed test sequences combine PM Checklists and Automated Testing
- Large 10” high-resolution LCD touch screen
- Integrates with existing vPad platform
- Full-range class-leading accuracy from 0.1 - 3000 ml/hr

innovation by design



vPad-IV™ – Infusion Device Analyzer

Flow Measurement †

Nominal range: 0.1 - 3000 ml/hr
Maximum flow displayed: 3200 ml/hr
Minimum flow displayed: 0.01 ml/hr
Maximum display resolution: 0.001 ml/hr
Accuracy (Average flow):
±(1% + 0.005 ml/hr) at 0.1 - 9.9 ml/hr for volume > 100µl;
±1% at 10 - 1200 ml/hr for volume > 1 ml;
±2% at 1201 - 3000 ml/hr for volume > 10 ml

Volume Measurement

Range: 0.02 - 9999 ml
Accuracy:
±(1% + 1 LSD) at 0.1 - 9.9 ml/hr for volume > 100µl;
±(1% + 1 LSD) at 10 - 1200 ml/hr for volume > 1 ml;
±(2% + 1 LSD) at 1201 - 3000 ml/hr for volume > 10 ml
Maximum display resolution: 0.01 ml

Elapsed Time Measurement

Range: 0 - 240 hours
Accuracy: ±0.5 second
Display format: HHH:MM:SS

PCA Pump or Piggyback (KVO) Measurement †

Range: See Volume Measurement above
Minimum Detectable Bolus or Dose: 0.5 ml
Bolus or Dose Uncertainty: ±10 µl for volume > 0.5 ml

PCA Lockout Time Measurement

Range: 1 - 240 minutes
Accuracy: ±0.05 minutes

PCA Pump Trigger Outputs:

Mechanical: 3.5 mm mono phono jack
Electrical: SPST NO relay contact, 30V, 300 mA

Pressure Measurement

Range: -260 to +2600 mmHg (-5 to +50 psi)
Accuracy: ±(1% + 5 mmHg)
Units of measure: mmHg, psi, bar, mbar, kPa, in. H_2O, torr
Barometric compensation: 715 to 1095 mbar

Fluid Interface

Luer lock female (Front)
Barbed fitting for 1/8" ID tubing (Rear)

User Interface

High-Resolution Android 10.1" Tablet with Wi-Fi and Bluetooth
(Optional) Bluetooth compatible barcode scanner, keyboard, & mouse

Additional Analyzer Interfaces

Primary Module (Controller):

USB Type A (host) - Charging and communication to a vPad tablet
USB Type B (device) - Connection to PC
RJ45 - vPad-IV communication bus for multi-channel systems
RJ12 (DACOM XBUS) - Communication with other Datrend products
Bluetooth - Communication to a vPad tablet (standard feature)

Secondary Module:

RJ45 (2x) - vPad-IV communication bus

IEC Standards

Enables testing per IEC 60601-2-24: Particular requirements for the basic safety and essential performance of infusion pumps and controllers

Standard Apps ‡

vPad-IV - Provides automatic and manual infusion pump testing
Record Manager - Full-featured test record management system
Datrend Docs - PDF management app for user and service manuals
QuickSupport (TeamViewer) - Tool for remote support and training

vPad-IV App Key Features

- Execute up to 6 infusion device PM inspections simultaneously
- Individual Channel and All-Channel Views
- Manual or Automatic Testing (Flow, Piggyback/KVO, PCA, Occlusion)
- User-configured test criteria enables automatic test pass/fail
- User-managed AutoSequences to combine PM checklist steps with automated performance tests
- Channel Linking merges test results of multi-channel pumps into one report
- Auto-recall equipment information and test or PM procedure based on inventory Control Number
- Real-time test graphs and on-device Trumpet Curve analysis… No PC software required!

Power Supply

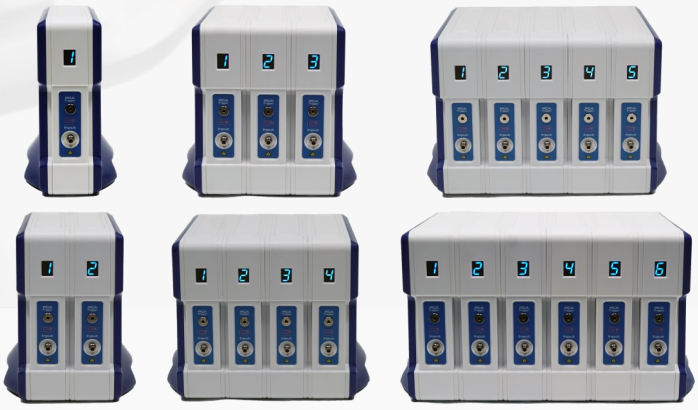
100 - 240 VAC 50/60 Hz @ 60 W

Dimensions & Weights

1 CH	11.2 x 20.0 x 23.6 cm (4.4 x 7.9 x 9.3 in.)	@ 1.34 kg (2.95 lbs.)
2 CH	16.3 x 20.0 x 23.6 cm (6.4 x 7.9 x 9.3 in.)	@ 2.32 kg (5.10 lbs.)
3 CH	21.3 x 20.0 x 23.6 cm (8.4 x 7.9 x 9.3 in.)	@ 3.30 kg (7.25 lbs.)
4 CH	26.4 x 20.0 x 23.6 cm (10.4 x 7.9 x 9.3 in.)	@ 4.28 kg (9.40 lbs.)
5 CH	31.5 x 20.0 x 23.6 cm (12.4 x 7.9 x 9.3 in.)	@ 5.26 kg (11.55 lbs.)
6 CH	36.6 x 20.0 x 23.6 cm (14.4 x 7.9 x 9.3 in.)	@ 6.24 kg (13.70 lbs.)

Environment

Operating Temp: 15°C to 40°C
Storage Temp: -20°C to 50°C
Relative Humidity: 10% to 90% non-condensing
Indoor Use Only, Category II
Max. Altitude 3000 m



† For continuous flow conditions only
‡ Apps listed are those most commonly used, other standard Apps in supporting roles are not listed

All specifications subject to change without notice.

DATREND Systems Inc.
130 - 4020 Viking Way, Richmond, BC, Canada V6V 2L4
Phone: +1.604.291.7747 • Fax: +1.604.294.2355
Toll-free (North America only): 800.667.6557
Email: Sales@Datrend.com