DLV50 Data Logging Voltmeter *Plus*

The DLV50 data logging voltmeter automatically measures and records cell voltages in less than 1 second and then increments the cell counter. This enables the user to take hundreds of cell voltage readings from a string of cells without being interrupted to write down a reading or even push a button.
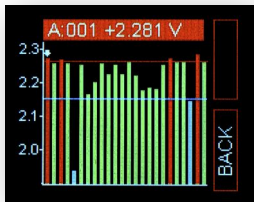
The instrument can measure and record float cell voltages in two formats: 8 strings of 256 readings or 20 strings of 48 readings. The instrument can also upload temperature and specific gravity (SG) measurement data directly from a DMA35 hydrometer in 8 strings of 256 format.

The DLV50 can also perform a full discharge test on up to 256 cells by recording up to 11 time-stamped data points (voltage readings) for each cell. The User also has the option of recording time-stamped load current readings (via a shunt/current probe) and initial and/or final hydrometer readings via a DMA35 hydrometer.

The DLV50 provides immediate onsite analysis of all battery test data including threshold, statistical and graphical reporting, battery and individual cell discharge curves. Threshold limits for all modes can be set manually on the instrument or via the USB/PC interface.

The test data can be quickly and easily uploaded to a PC with the included Winmeter 5.1 Battery Analysis Software via a USB Plug 'n' Play interface. Winmeter 5.1 battery analysis software has powerful report generation and database capabilities. The DLV50 can also export the readings to a USB flash drive or print the data directly to an optional IRDA printer.

Features

Record, View & Analyze Cell Float Voltages
- Automatically measures, time-stamps and stores voltages in about 1 second (no buttons to push)
- Immediate audio and visual out-of-tolerance indication
- View/edit last 5 readings with out-of-tolerance indication
- Record in either 8 strings of 256 or 20 strings of 48 format (over 3000 float cell readings)
- Color-coded out of tolerance indication based on user defined limits
- Set threshold limits via PC interface for each mode and/or string
- Statistical analysis (sum, average, max/min readings with cell number)
- Graphical analysis (color-coded bar graphs: Voltage, SG and Temp.)

Perform a Full Battery Discharge Test & Analyze Results Onsite *During* the Test
- Analyze up to 256 cells by recording up to 11 time-stamped data points for each cell
- Record up to 256 time-stamped readings of load current via a shunt/current probe (Optional)
- Record initial and/or final hydrometer readings via a DMA35 hydrometer (Optional)
- Color-coded out of tolerance indication (Vmax, Vmin, Imax, Imin, SGmax, SGmin, Tmax, Tmin)
- Threshold limits set via PC interface or set manually on the instrument
- Statistical analysis (sum, average, max/min readings with cell number)
- Graphical analysis (Including Battery voltage Vs Time & Selected Cell Voltage Vs Time)

Upload and View DMA35 Hydrometer Data
- Upload DMA35 data via IRDA in 8 strings of 256 format
- No data data logging module required
- Date and time stamping of uploaded data
- Combine hydrometer data with 8 strings of 256 cell voltage data (Optional)
- **IMPORTANT**: Hydrometer is NOT included, consider purchasing the DMA35-DLV50-BATT battery test package

Easily Transfer Data Files to Winmeter 5.1 Battery Analysis Software
- The DLV50 offers USB Plug 'n' Play syncing & configuration of parameters/test data
- Enables threshold, date, time and string deletion via USB
- Users can edit, delete or insert test data prior to creating battery analysis reports
- Create detailed battery test reports and save to a custom database or export in PDF format
- Perform sophisticated analysis of battery discharge data (incl. animated discharge reports)
- Optional one-click export data to Excel™

Accessories

Winmeter 5.1 Battery Analysis Software *(Included)*
- Compatible with all ETG data logging battery test instruments
- Provides PC interface (USB Plug 'n' Play and legacy RS232)
- Statistical and graphical analysis & report generation
- Searchable battery test database

Custom Soft Case *(Included)*
- Compatible with DLV50
- Space for all accessories
- Acid Resistant

Voltage test Leads *(Included)*
- Compatible with DLV30 & DLV50
- Needle sharp points for penetrating oxidized/dirty battery terminals
- Flexible high quality leads for ease of use

NIST Calibration Certificate *(Included)*
- National Institute of Standards & Technology traceable calibration certificate
- Test data included as standard
- Yearly calibration available at minimal cost

Cables and Connecters *(Included)*
- Mini USB cable (PC/Winmeter 5.1 interface & Internal battery charging (slow charge))
- AC/DC Power supply & 2.5mm charging cable (fast charge)
- USB Flash Drive & adapter

Custom Hard Case *(Optional)*
- Compatible with DMA35, DMA35 Module, DLV30 & DLV50
- Space for all accessories
- Acid Resistant

Specifications

Physical

Dimensions	L 6.3" x W 3" x D 1.3"
Weight	10.5 ounces
Keypad	5 key membrane tactile

Display

Type	LED 256K Color
Viewing Area	35mm by 28mm
Resolution	160 by 128 pixels

Memory

Internal:	512K EEPROM
Float Voltage Capacity:	8 by 256 & 20 by 48
Discharge Voltage Capacity:	11 by 256 (time-stamped)
SG & Temp. Capacity:	8 by 256
Data Retention:	10+ years

Real Time Clock

Precision	+/- 3 sec per month
Calendar	100 year w/ leap year

Communication

DMA35 Hydrometer	IRDA Obex
Optional Printer	IRDA Raw
USB Flash Drive	USB Host mode
PC/Winmeter 5.1	USB Device mode

Battery

Type	Rechargeable 3.7V Li ion
Battery Life	20 hours (Approx.)
Auto-off	3 min with no activity

Environmental

Temperature Range (Operating)	0C-40C (32F-104F)
Temperature Range (Storage)	-10C-60C (20F-140F)
Humidity Range (0C-31C)	0% to 80% (non-condensing)
Humidity Range (32C-40C)	0% to 50% (non-condensing)
Altitude	0-2000m above sea level

Electrical Specifications

Input	DC Resolution	VDC Accuracy
0-4V	1mV	+/-5mV
4-20V	1mV	+/-10mV

Warranty
1 year limited warranty