

DAVIS Vantage Vue 6250EU Wetterstation



DAVIS Vantage Vue 6250EU Wetterstation von DAVIS Instruments

Die Davis Vantage Vue 6250EU besteht aus:

- der Integrated Sensor Suite (ISS) 6357 = Aussensensoreinheit
- der Konsole 6351 .

Die Vantage Vue ISS und die Konsole kommunizieren per Funk.

Durch einstellbare "Transmitter ID Codes" können Daten von bis zu 8 Stationen gleichzeitig empfangen werden. Die Davis Vantage Vue Konsole kann ausserdem die Daten von einer Davis Vantage Pro2 ISS empfangen und anzeigen.

Die Konsole wird über ein Netzteil oder über Batterien mit Spannung versorgt.

Der Aussensensor ISS wird über ein Solarpanel und einer Batterie mit Spannung versorgt.

Mit dem Davis Datenlogger und der Software Weatherlink können die Daten ausgelesen, auf einem

Computer (PC) dargestellt und abgespeichert werden (nicht im Lieferumfang enthalten).

- LCD - Anzeige (Konsole)
- Integrierte Sensoreinheit mit Funkübertragung, solarbetrieben
- Temperatursensor
- Feuchtigkeitssensor
- Regenmesser
- Windrichtungssensor
- Windgeschwindigkeitssensor
- Befestigungsmaterial
- Bedienungsanleitung

Technische Daten Davis Vantage Vue 6250EU :

- Datensendung alle 2,5 Sekunden
- Funkübertragung bis zu 300m (im freien Feld)
- Aufzeichnen der Windgeschwindigkeit zwischen 3 und 241 km/h
- Solarbetrieben und mit zusätzlicher Stützbatterie
- Sehr gut ablesbares, beleuchtbares LCD - Display, 8 x 11 cm groß
- 50 verschiedene grafische Anzeigen am Display geben Auskunft über das aktuelle Wetter und über den Wetterverlauf der letzten 25 Tage
- 22 Alarmer sind vom Benutzer einstellbar

Integrated Sensor Suite (ISS)

- Betriebstemperatur : -40° to +65°C
- Solar Power Panel : 0.5 Watts
- Batterie : CR-123A 3 Volt Lithium
- Batterie Lebensdauer : ca. 8 Monate ohne Sonne
- Wind-Geschwindigkeitssensor: Windschalen mit Magentsensor
- Wind-Richtungs-Sensor : Windfahne mit Magnetsensor
- Rain Collector Type : 0.2 mm mit metrischen Adapter
- Temperatur Sensor Type :PN Junction Silicon Diode
- Relative Humidity Sensor Type : Film capacitor element
- Material : UV-Resistenter ABS & ASA Kunststoff

- ISS Dimensions : 329 mm x 146 mm x 340 mm
- Konsolen Betriebstemperatur : 0° to +60°C
- Netzadapter: 5 VDC, 300 mA
- Batterien : 3x C Batterien
- Batterienlebensdauer: ca. 9 Monate
- Material : UV-resistenter ABS Kunststoff
- Konsole Display Typ: LCD
- Hintergrundbeleuchtung : LED's
- Abmessungen:
Konsole (mit Antenne) : ca. 190 mm x 146 mm x 114 mm
Display : ca. 105 mm x 76 mm
Gewicht (mit Batterien) : ca. 670gr.

Angezeigte Daten an der Konsole:

- Historical Data: Includes the past 25 values plus the current value listed unless otherwise noted; all can be cleared and all totals reset
- Daily Data : Includes the earliest time of occurrence of highs and lows; period begins/ends at 12:00 am
- Monthly Daten: Period begins/ends at 12:00 am on the first of the month
- Yearly Data : Period begins/ends at 12:00 am on the first of January unless otherwise noted
- Current Data: Current data appears in the right most column in the console graph and represents the latest value within the last period on the graph; totals can be set or reset
- Graph Time Interval: 10 min., 1 hour, 1 day, 1 month, 1 year (user-selectable, availability depends upon variable selected) (2.5 seconds for Last 25 Wind Speeds)
- Graph Time Span: 26 Intervals (Current Interval plus 25 past values included; see Graph Intervals to determine time span)
- Graph Variable Span (Vertical Scale) : Automatic (varies depending upon data range); Maximum and Minimum value in range appear in Weather Center
- Alarm Indication : Alarms sound for only 2 minutes (except for time) if operating on battery power. Alarm message is displayed in Weather Center as long as threshold is met or exceeded. Alarms can be silenced (but not cleared) by pressing the DONE key.
- Transmission Interval : Varies with transmitter ID code from 2.25 seconds (#1=shortest), to 3 seconds (#8=longest)
- Update Interval : Varies with sensor - see individual sensor specs

Barometric Pressure

- Resolution and Units : 0.01" Hg, 0.1 mm Hg, 0.1 hPa/mb (user-selectable)
- Range: 16.00" to 32.50" Hg, 410 to 820 mm Hg, 540 to 1100.0 hPa/mb
- Elevation Range : -999' to +15,000' (-600 m to +4570 m). (Note that console screen limits entry of lower elevation to -999' when using feet as elevation unit.)
- Uncorrected Reading Accuracy : ± 0.03 " Hg (± 0.8 mm Hg, ± 1.0 hPa/mb) (at room temperature)
- Sea-Level Reduction Equations Used : United States Method employed prior to use of current "R Factor" method ("NOAA"), Altimeter Setting
- NOAA Equation Source : Smithsonian Meteorological Tables
- NOAA Equation Accuracy : ± 0.01 " Hg (± 0.3 mm Hg, ± 0.3 hPa/mb)
- NOAA Elevation Accuracy Required : $\pm 10'$ (3m) to meet equation accuracy specification
- Overall Accuracy: ± 0.03 " Hg (± 0.8 mm Hg, ± 1.0 hPa/mb)
- Trend (change in 3 hours) : Change 0.06" (2 hPa/mb, 1.5 mm Hg) = Rapidly Change 0.02" (.7hPa/mb, .5 mm Hg)= Slowly
- Trend Indication: 5 position arrow: Rising (rapidly or slowly), Steady, or Falling (rapidly or slowly)
- Update Interval: 1 Minute
- Current Data : Instant and Hourly Reading; Daily, Monthly, Yearly High and Low; Barometer change 24-hour
- Historical Data : 15-min. and Hourly Reading; Daily, Monthly Highs and Lows
- Alarms: High Threshold from Current Trend for Storm Clearing (Rising Trend Low Threshold from Current Trend for Storm Warning (Falling Trend)
- Range for Rising and Falling Trend Alarms : 0.01 to 0.25" Hg (0.1 to 6.4 mm Hg, 0.1 to 8.5 hPa/mb)

Uhr

- Resolution: 1 minute
- Units : Time: 12 or 24 hour format (user-selectable)
- Date: US or International format (user-selectable)
- Accuracy: ± 8 seconds/month
- Adjustments: Time: Automatic Daylight Savings Time (for users in North America and Europe that observe it in AUTO mode, MANUAL setting available for all other areas) Date: Automatic Leap Year
- Alarms : Once per day at set time when active 3

Dewpoint (calculated)

- Resolution and Units : 1°F or 1°C (user-selectable)
- Range: -105° to +130°F (-76° to +54°C)
- Accuracy: ±1.5°C (typical)
- Update Interval: 10 bis 12 Sekunden
- Source: World Meteorological Organization (WMO)
- Equation Used: WMO Equation with respect to saturation of moist air over water
- Variables Used: Instant Outside Temperature and Instant Outside Relative Humidity
- Current Data: Instant Calculation; Daily, Monthly High and Low
- Historical Data: Hourly Calculations; Daily, Monthly, Yearly Highs and Lows
- Alarms : High and Low Threshold from Instant Calculation

Evapotranspiration (calculated, requires Vantage Pro2 ISS with solar radiation sensor)

- Resolution and Units: 0.01" or 0.1 mm (user-selectable)
- Range: Daily to 32.67" (999.9 mm); Monthly & Yearly to 199.99" (1999.9 mm)
- Accuracy: Greater of 0.01" (0.25 mm) or ±5%, Reference: side-by-side comparison against a CIMIS ET weather station
- Update Interval: 1 hour
- Calculation and Source: Modified Penman Equation as implemented by CIMIS (California Irrigation Management Information System) including Net Radiation calculation
- Current Data: Latest Hourly Total Calculation, Daily, Monthly, Yearly Total
- Historical Data: Hourly, Daily, Monthly, Yearly Totals
- Alarm: High Threshold from Latest Daily Total Calculation

Forecast

- Variables Used: Barometric Reading & Trend, Wind Speed & Direction, Rainfall, Temperature, Humidity, Latitude & Longitude, Time of Year
- Update Interval: 1 hour
- Display Format: Icons on top center of display; displays weather conditions that may occur for the next 12 hours.
- Variables Predicted: Sky Condition, Precipitation

Heat Index (calculated)

- Resolution and Units: 1°F or 1°C (user-selectable)
- Range: -40° to +165°F (-40° to +74°C)
- Accuracy: ±3°F (±1.5°C) (typical)
- Update Interval: 10 bis 12 Sekunden
- Source: United States National Weather Service (NWS)/NOAA
- Formulation Used: Steadman (1979) modified by US NWS/NOAA and Davis Instruments to increase range of use
- Variables Used: Instant Outside Temperature and Instant Outside Relative Humidity
- Current Data: Instant Calculation; Daily, Monthly High
- Historical Data: Hourly Calculations; Daily, Monthly, Yearly Highs
- Alarm: High Threshold from Instant Calculation

Humidity

Inside Relative Humidity (sensor located in console)

- Resolution and Units: 1%
- Range: 1 to 100% RH
- Accuracy: ±3% (0 to 90% RH), ±4% (90 to 100% RH)
- Update Interval: 1 Minute
- Current Data: Instant (user adjustable) and Hourly Reading; Daily, Monthly High and Low
- Historical Data: Hourly Readings; Daily, Monthly, Yearly Highs and Lows

- Alarms: High and Low Threshold from Instant Reading

Outside Relative Humidity (sensor located in ISS)

- Resolution and Units: 1%
- Range: 1 to 100% RH
- Accuracy: $\pm 3\%$ (0 to 90% RH), $\pm 4\%$ (90 to 100% RH)
- Temperature Coefficient : 0.03% per °F (0.05% per °C), reference 68°F (20°C)
- Drift: $\pm 0.5\%$ per year 4
- Update Interval: 50 seconds to 1 minute
- Current Data: Instant (user adjustable) and Hourly Reading; Daily, Monthly, Yearly High and Low
- Historical Data: Hourly Readings; Daily, Monthly Highs and Lows
- Alarms: High and Low Threshold from Instant Reading

Moon Phase

- Console Resolution: 1/8 (12.5%) of a lunar cycle, 1/4 (25%) of lighted face on console
- WeatherLink Resolution: 0.09% of a lunar cycle, 0.18% of lighted face maximum (depends on screen resolution)
- Range: New Moon, Waxing Crescent, First Quarter, Waxing Gibbous, Full Moon, Waning Gibbous, Last Quarter, Waning Crescent
- Accuracy: ± 38 minutes

Rainfall

- Resolution and Units: 0.01" or 0.2 mm (user-selectable) (1 mm at totals \square 2000 mm)
- Range: 0 to 199.99" (0 to 6553 mm)
- Rain Rate: 0 to 40"/hr (0 to 1016 mm)
- Accuracy: Greater of 4% or 1 tip
- Update Interval: 20 to 24 seconds
- Storm Determination Method: 0.02" (0.5 mm) begins a storm event, 24 hours without further accumulation ends a storm event
- Current Data: Totals for Past 15-min, Past 24-hour, Daily, Monthly, Yearly (start date user-selectable) and Storm (with begin date); Umbrella is displayed when 15 minute total exceeds zero
- Historical Data: Totals for 15-min, Daily, Monthly, Yearly (start date user-selectable) and Storm (with begin and end dates)
- Alarms: High Threshold from Latest Flash Flood (15-min. total, default is 0.50", 12.7 mm), 24-hour Total, Storm Total,
- Range for Rain Alarms: 0 to 99.99" (0 to 999.7 mm)

Rain Rate

- Resolution and Units: 0.01" or 0.1 mm (user-selectable) at typical rates (see Fig. 3 and 4)
- Range: 0, 0.04"/hr (1 mm/hr) to 40"/hr (0 to 1016 mm/hr)
- Accuracy: $\pm 5\%$ when rate is under 5"/hr (127mm/hr)
- Update Interval: 20 to 24 seconds
- Calculation Method: Measures time between successive tips of rain collector. Elapsed time greater than 15 minutes or only one tip of the rain collector constitutes a rain rate of zero.
- Current Data: Instant and Hourly, Daily, Monthly and Yearly High
- Historical Data: Hourly, Daily, Monthly and Yearly Highs
- Alarm: High Threshold from Instant Reading

Solar Radiation (requires Vantage Pro2 ISS with solar radiation sensor)

- Resolution and Units: 1 W/m²
- Range: 0 to 1800 W/m²
- Accuracy: $\pm 5\%$ of full scale (Reference: Eppley PSP at 1000 W/m²)

- Drift: up to $\pm 2\%$ per year
- Cosine Response: $\pm 3\%$ for angle of incidence from 0° to 75°
- Temperature Coefficient: -0.067% per $^\circ\text{F}$ (-0.12% per $^\circ\text{C}$); reference temperature = 77°F (25°C)
- Update Interval: 50 Sekunden bis 1 Minute (5 minutes when dark)
- Current Data: Instant Reading and Hourly Average; Daily, Monthly High

Sunrise and Sunset

- Resolution: 1 minute
- Accuracy: ± 1 minute
- Reference: United States Naval Observatory

Temperature

Inside Temperature (sensor located in console)

- Resolution and Units: Current Data: 0.1°F or 1°F or 0.1°C or 1°C (user-selectable) 5 Historical Data and Alarms: 1°F or 1°C (user-selectable)
- Range: $+32^\circ$ to $+140^\circ\text{F}$ (0° to $+60^\circ\text{C}$)
- Sensor Accuracy: $\pm 1^\circ\text{F}$ ($\pm 0.5^\circ\text{C}$)
- Update Interval: 1 Minute
- Current Data: Instant Reading (user adjustable); Daily, Monthly, Yearly High and Low
- Historical Data : Hourly Readings; Daily and Monthly Highs and Lows; Highs and Lows for Last 25 Days; Temp change per hour, Temp change for last 24 hours.
- Alarms : High and Low Thresholds from Instant Reading

Outside Temperature (sensor located in ISS)

- Resolution and Units: Current Data: 0.1°F or 1°F or 0.1°C or 1°C (user-selectable) nominal (see Fig. 1) Historical Data and Alarms: 1°F or 1°C (user-selectable)
- Range: -40° to $+150^\circ\text{F}$ (-40° to $+65^\circ\text{C}$)
- Sensor Accuracy: $\pm 1^\circ\text{F}$ ($\pm 0.5^\circ\text{C}$) above $+20^\circ\text{F}$ (-7°C); $\pm 2^\circ\text{F}$ ($\pm 1^\circ\text{C}$) under $+20^\circ\text{F}$ (-7°C) (see Fig. 2)
- Radiation Induced Error (Passive Shield): $+4^\circ\text{F}$ (2°C) at solar noon (insolation = 1040 W/m^2 , avg. wind speed $\square 2\text{ mph}$ (1 m/s)) (reference: RM Young Model 43408 Fan-Aspirated Radiation Shield)
- Update Interval: 10 to 12 seconds
- Current Data: Instant Reading (user adjustable); Daily, Monthly, Yearly High and Low
- Historical Data: Hourly Readings; Daily, Monthly, Yearly Highs and Lows
- Alarms: High and Low Thresholds from Instant Reading

Ultra Violet (UV) Radiation Index (requires Vantage Pro2 ISS with UV sensor)

- Resolution and Units: 0.1 Index
- Range: 0 to 16 Index
- Accuracy: $\pm 5\%$ of full scale (Reference: Yankee UVB-1 at UV index of 10 (Extremely High))
- Cosine Response: $\pm 4\%$ (0° to 65° incident angle); 9% (65° to 85° incident angle)
- Update Interval: 50 seconds to 1 minute (5 minutes when dark)
- Current Data: Instant Reading

Wind

Wind Chill (Calculated)

- Resolution and Units: 1°F or 1°C (user-selectable)
- Range: -110° to $+135^\circ\text{F}$ (-79° to $+57^\circ\text{C}$)
- Accuracy: $\pm 2^\circ\text{F}$ ($\pm 1^\circ\text{C}$) (typical)
- Update Interval: 10 to 12 seconds
- Source: United States National Weather Service (NWS)/NOAA
- Equation Used: Oszcewski (1995) (adopted by US NWS in 2001)
- Variables Used: Instant Outside Temperature and 10-min. Avg. Wind Speed
- Current Data: Instant Calculation; Hourly, Daily, Monthly, Yearly Low

- Historical Data: Hourly, Daily and Monthly Lows
- Alarm: Low Threshold from Instant Calculation

Wind Direction

- Display Resolution: 16 points (22.5°) on compass rose, 1° in numeric display
- Range: 0-360°
- Accuracy: ±3°
- Update Interval: 2,5 bis 3 Sekunden
- Current Data: Instant Reading (user adjustable); 10-min. Dominant; Hourly, Daily, Monthly Dominant
- Historical Data: Past 6 10-min. Dominants on compass rose only; Hourly, Daily, Monthly Dominants

Wind Speed

- Resolution and Units: 1 mph, 1 km/h, 0.5 m/s, or 1 knot (user-selectable)
- Range: 2 to 180 mph, 2 to 156 knots, 1 to 80 m/s, 3 to 290 km/h
- Update Interval: Instant Reading: 2.5 to 3 seconds, 10-minute Average: 1 minute
- Accuracy: ±2 mph (2 kts, 3 km/h, 1 m/s) or ±5%, whichever is greater
- Current Data: Instant Reading; 10-minute and Hourly Average; 10-minute High Gust with Direction of Gust; 2-minute Average; Hourly High; Daily, Monthly and Yearly High with Direction of High; Beaufort Scale 6
- Historical Data: 2.5 sec., 10 min. and Hourly Averages; Hourly Highs; Daily, Monthly and Yearly Highs with Direction of Highs
- Alarms: High Thresholds from Instant Reading and 10-minute Average

Wireless Communication Specifications

- Transmit/Receive Frequency:
US Models: 902 - 928 MHz FHSS
Overseas Models: 868.0 -868.6 MHz FHSS
- ID Codes Available: 8
- Output Power:
902 - 928 MHz FHSS: FCC-certified low power, less than 8 mW, no license required
868.0 -868.6 MHz FHSS: CE-compliant, less than 8 mW, no license required

Range:

- Line of Sight: up to 1000 feet (300 m)
- Through Walls..... 200 to 400 feet (60 to 120 m)

Im Lieferumfang enthalten:

- 1x DAVIS Vantage VUE ISS 6357OV
- 1x DAVIS Vantage VUE Konsole 6351EU
- Bedienungsanleitung