






Level Logging Equipment Comparison

	Water Level Meter (Dip Meter)	Level Logger	vanwaltKISS	vanwaltDataSlave Telemetry	vanwaltDataHub Telemetry
	https://www.vanwalt.com/equipment/water-level-meters/	https://www.vanwalt.com/equipment/levelscout/	https://www.vanwalt.com/equipment/vanwaltkiss/	https://www.vanwalt.com/equipment/vanwaltdataslave/	https://www.vanwalt.com/equipment/vanwalthub/
					
Application	Spot check of groundwater level in boreholes, monitoring wells, tanks & for surface water. Often used as a reference measurement before deploying a level logger or telemetry	Long term, continuous water level & temperature monitoring of groundwater. Deployed onsite, usually on Dyneema rope (Cabled version available). One unit per monitoring well.	vanwaltKISS – the Keep It Simple Sensing system is a “plug and play” environmental telemetry system to monitor water level & temperature	Designed by Van Walt & manufactured by our UK partners under licence. A highly versatile, secure & robust Data Collection system that works across radio waves. An internal radio “tile” communicates with a PC or a vanwaltDataHub wirelessly over a considerable distance, up to 10 km line of sight.	Designed by Van Walt & manufactured by our UK partners under licence. A highly versatile, secure & robust Data Collection Telemetry System that works across a range of sensors, manufacturers & environmental parameters
Attributes	Polyethylene coated steel tape marked in metric increments with cm resolution. Audible & visible alarms activated on reel when probe contacts water	Absolute logger that is accurate, easy to deploy & use. Data needs downloading & can be analysed in Aqua4Plus software. Changeable batteries for extended life	Developed by Van Walt & manufactured by our partners under license in the UK. Easy to use & accurate system delivers data cost-effectively, securely & with no hidden extras. Once installed, no need to go to site, data delivered directly to desktop, tablet or mobile. Replaceable battery. Data measured every 15 minutes & uploaded once per day.	Site measurements can be sent from the connected sensor’s internal memory or, if a sensor does not have memory, then the DataSlave collects the data from the sensor & stores it inside its own onboard memory. It is licence free, subscription free so has no on-going annual charges	One of the most flexible environmental telemetry solutions on the market, working across a range of sensor manufacturers & parameters. Bespoke, personalised support in planning system; sensor choice; site installation & after-sale support in multiple markets around the world

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Variations	Available in 10m, 30m, 50m and 100m lengths. Longer to order	Available in 10m, 25m, 60m and 200m ranges. Titanium version available	Standard Unit comes with 30 m of cable, up to 50 m available (cable can be shortened). CTD version available for monitoring Conductivity in addition to level and temperature	Operates with multiple sensors types & brands to measure environmental, agricultural, archaeological & meteorological parameters. Different variations are available depending on the radio frequencies in the country of deployment	Interfaces with numerous sensors to measure environmental, agricultural, archaeological & meteorological parameters such as Water Level; Water Quality; pH; EC; Redox; Temperature; DO; Rainfall; Hydrocarbons; Water Flow & Soil Moisture The system is open to new sensors not on the list
Dimensions	Measuring probes: Diameter - 15 mm / 12 mm Length - 195 mm / 70 mm	Length (cabled version) - 16.7 cm Length (cableless version) - 12.9 cm Diameter - 22 mm	Height - 170 mm (Height decreases as well diameter increases) Diameter - 24.46 mm (at narrowest point) to 88 mm Bespoke, self-levelling design fits 1 inch well & larger	125 x 125 x 80 mm + Antenna	260 x 160 x 120 mm + Antenna
Accuracy	Polyethylene coated steel tape marked in metric increments with cm resolution	$\pm 0.05\%$ FS (@ 20° C) $\pm 0.10\%$ FS (0° C to 40° C)	Standard Unit: $\pm 0,1$ %FS CTD Unit: Pressure - 0.05 FS Temperature - 0.1 °C Conductivity - 2.5 % of the selected measuring range 4 ranges: 0,2 / 2 / 20 / 200 mS/cm	Sensor dependent	Sensor dependent
Memory	None	100,000 records	500,000 records	Sensor dependent but typically 5 months of data from a single sensor such as water level and temperature	Internal micro-SD card 16GByte (expandable up to 128GByte) with 11GByte usable (3GB O/S, 0.5GB boot partition 11GB for storage) Second internal micro-SD card 16GByte (expandable up to 128GByte) for data redundancy External rugged USB interface to 4GByte (expandable to 64GByte) rugged USB key for data extraction
Power Supply	Long life replaceable battery	Long life replaceable battery	Long life replaceable battery	Internal battery, Solar or External Power Pack Source options	Battery, Booster Power Pack, Solar & External Power Source options
Manufacturing Material	Stainless steel & electroplated brass	316 stainless steel, acetal, fluoropolymer, titanium available as an option	Powder coated stainless steel 304	Diecast Aluminium, nylon coated	Diecast Aluminium, nylon coated

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Versatility	Necessary equipment to monitor/spot-check groundwater. Easy to clean & reuseable	Allows for regular water level readings, usually every 15 mins but can go down to one per second. Data can be retrieved from site by either withdrawing the logger & downloading data via a cabled read-out unit or initially installing the logger as a cabled version, with readout from the top of the well	Entry level, cost-effective telemetry system for water level & temperature. Data direct to your desktop, tablet or mobile phone. No baro required. Fits most wells. After 2 years: re-commission & service unit; replace battery; reactivate SIM; verify sensor & re-issue 2-year warranty	Ideal for difficult or restricted access sites. Works as a networked solution with the vanwaltDataHub to reduce costs as up to 30 vanwaltDataSlaves can be daisy chained together with an automatic, wireless connection to a single vanwaltDatahub. The system can accept different inputs so works with many sensor types & brands	State-of-the-art telemetry system designed to work in locations and areas where less sophisticated systems will not operate. A product of Van Walt's extensive 40+ year's of experience on site. The system can take multi inputs, works with many sensor types & brands & supplies data via our bespoke vanwaltCONNECT software/cloud or directly to a customer's server
Ease of Deployment	Fast & easy to use. Robust construction & light weight	Easy deployment on Dyneema rope or cable for top-of-well access to data. Can be cleaned & easily deployed on other sites	Very easy to deploy. Bespoke auto-centering design to IP68, fits securely on top of a 1" or larger well. Easy to clean & re-deploy. Can be secured or installed under a well cover	In it's simplest version this is customer deployable. For more complex networks Van Walt offers an installation service	In it's simplest version this is customer deployable. For more complex networks Van Walt offers an installation service
Software	Not Applicable	Aqua4Plus	vanwaltCONNECT-Lite	vanwaltCONNECT or by RF link to laptop	vanwaltCONNECT
Communication	Not Applicable	USB Read-out Unit	POD SIM	Radio Frequencies: 869.1 – 869.4 MHz; 869.4 – 869.65 MHz; 869.65 – 870.0 MHz; 902 – 928 MHz; 902 – 928 MHz	POD SIM & Radio
Accessories	Leader guard to protect tape from sharp well edges. Bottom sensor available for additional sounding of drilling depth. 10mm probe, length 140 mm	BaroSCOUT, Dyneema Rope, Readout Cable, Readout Unit	None	Battery Pack; Config Tool. Installation Kit. Standard and bespoke solutions are available as required	Installation kit. Standard & bespoke solutions are available as required
Data Compensation	Not Applicable	BaroSCOUT	Vented	Solution dependent/configurable	Solution dependent/configurable
Life Expectancy	5+ years	Lasts a lifetime with replaceable batteries	Lasts a lifetime with recommissioning of unit, battery and SIM every 2 years	Typically 5-7 years	Typically 5-7 years
Options to purchase	Short-term rental or Purchase	Short-term rental or Purchase	Rental (min. 1 month) or Purchase	Purchase only	Purchase only

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Cost Bracket	Purchase Price from £205 Rental Price from £33.48 (per week)	Purchase Price from £494 Rental Price from £45.53 (per week)	Purchase Price circa £1200 Rental Price from £170 per month	Purchase Price depends on configuration & sensors deployed	Purchase Price depends on configuration & sensors deployed
Warranty	1 year	3 years	2 years	2 years	2 years
Limitations	Data recorded manually. Difficult to replicate measuring point (human error)	Baro required to compensate for barometric pressure. Need for regular site visits to download data. No warning/alarm if sensor stops working so a cycle of data can be lost	GPS Signal required. Data downloadable as .csv file from vanwaltCONNECT-Lite. No visualisation of data via graphs etc. No alarms	Line of site for radio frequencies	GPS Signal or good line of site for Radio transmission to networked DataSlaves in telemetry networks
Future-proofing	N/A	The cabled version is compatible with Van Walt Data Collection equipment & Loggers can be retro-spectively connected	2 year re-commissioning cycle means improved cost of ownership & repeating 2 year warranty. Potentially additional parameters may be added	The flexibility of the vanwaltDataSlave in terms of being sensor agnostic, supporting multiple inputs, built-in data redundancy, secure cloud hosting and excellent cost of ownership ensures the system is totally futureproof for single monitoring points to complex, integrated multi-parameter & multi-point installations	The flexibility of the vanwaltDataHub in terms of being sensor agnostic, supporting multiple inputs, built-in data redundancy, secure cloud hosting and excellent cost of ownership ensures the system is totally futureproof for single monitoring points to complex, integrated multi-parameter & multi-point installations