ABERTAX®
TECHNOLOGIES

ELECTRONIC BATTERY ACCESSORIES

PRODUCT CATALOGUE

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ABERTAX®
TECHNOLOGIES

Our Vision

Quality – Our Abertax® Identity

Quality in the co-operation between those working for Abertax®
expressed in politeness, helpfulness, understanding and respect.

Quality in relations with our customers and suppliers
by honouring their high expectations in our service and products.

Quality in our work
aiming at products of reliable highest standard in function and design, whilst keeping in consideration the quality of our local and global environment.

Quality in our foundation structure
conceived to ensure utmost continuity and reliability for all Abertax® employees and relations with Abertax® customers.

Our Mission

We are devoted to developing, producing and marketing top quality articles predominantly conceived to make careful use of resources, such as electric energy and water consumption. Abertax® considers customer satisfaction as important as maintaining reliable work opportunities for its employees. Research and Development – in-house and in partnership with others – is our core competence with the aim of keeping our products and intellectual property ahead of technology in the global market.

Our Values

Our activities are guided by the following values

LOYALTY	The Abertax® Commitment is our guideline
INTEGRITY	Hold others in high regard
DELEGATION	Delegate responsibilities and decision making
FLEXIBILITY	Adapt to changing environment
TEAM SPIRIT	Focus on common goals
INNOVATION	Encourage creative thinking
RESPONSIVENESS	React with sense of urgency

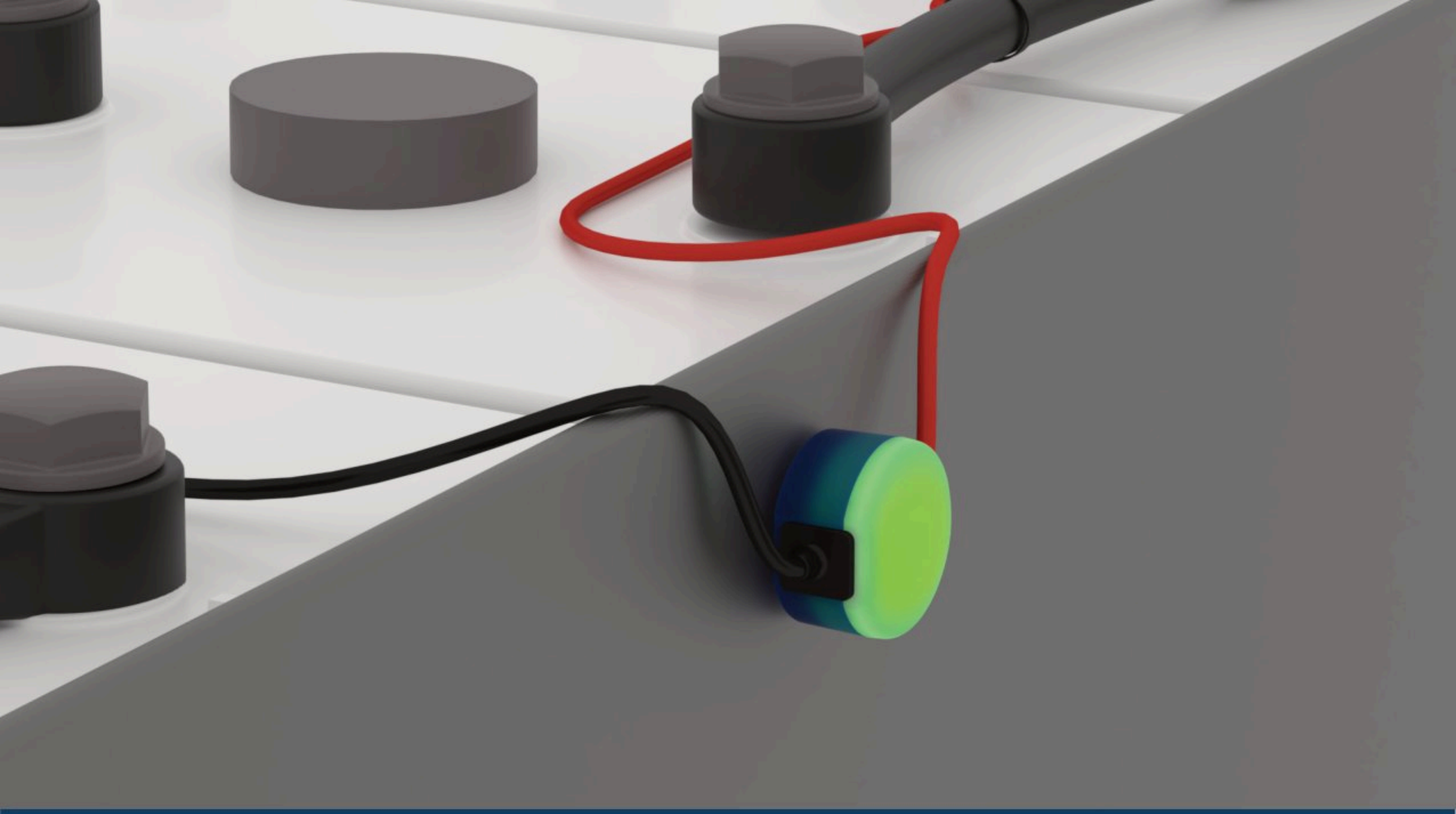
About Us

Since our inception, in 1999, Abertax® has excelled in offering exclusively high-quality products. Products that are innovative, that can fully meet the requirements of their target industry and that nevertheless complement, support and respect the environment.

The fact that we continue to hold fast to these values after more than 20 years is a matter of immense pride for our team at Abertax®.

Electronic Battery Accessories

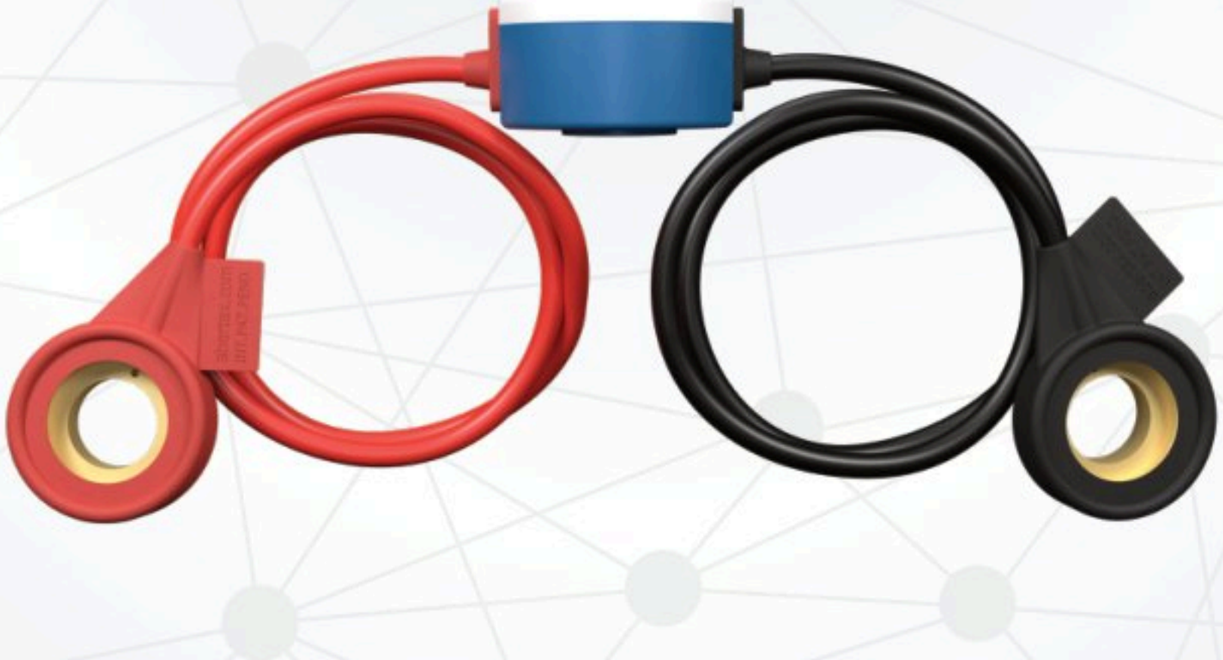
We are devoted to developing, producing and marketing top quality articles predominantly conceived to make careful use of resources, such as electric energy and water consumption. Abertax® considers customer satisfaction as important as maintaining reliable work opportunities for its employees. Research and Development – in-house and in partnership with others – is our core competence with the aim of keeping our products and intellectual property ahead of technology in the global market.



BATTERY VOLTAGE SENSOR - BVS

for all flooded batteries

The Abertax® BVS is a simple device that attaches to the battery and provides an indication of the battery health by measuring the terminal voltage when the battery is in storage. A periodic slow green flash indicates the voltage is above the pre-set threshold. When the sensor flashes RED, stores personnel will immediately realize it is time to charge the battery, avoiding costly over-discharge damage to the battery.



Battery Voltage Sensor

BVS - Part Number Tree

PROBE SEALING

MG	-	Magnet Mount	**MT**	-	Mounted with Double Sided Tape

CONNECTOR TYPE

SC	-	Standard Connector	**WLW**	-	Washer with Leading Wire
TC	-	Terminal Connector	**AUX**	-	Auxiliary Battery Connector

CL
(Base Unit)
+
MG
(Mount)
+
WLW
(Connector)
+
X
(Term.)

Ordering Example:

BV-MG-WLW-X

Battery Voltage Sensor, Magnet Mount Sensor, Washer with Leading Wire Connector

CAPACITIVE LEVEL SENSOR LITE - CLS LITE

for all flooded batteries

The Abertax® CLS lite was developed to provide electrolyte level sensing in a trouble- free, effective and energy-efficient manner using patented technology. Compared to the regular CLS, the CLS lite works with only one connector connected to a negative cell terminal to achieve an operating voltage between 8 and 18V. Despite the product's simplicity, its design robustness makes it ideal for the harsh electrical, mechanical and chemical environments that flooded batteries are subjected to. The sensor flashes green to indicate that the battery electrolyte is at a suitable level.

Capacitive Level Sensor Lite

CLS Lite - Part Number Tree

PROBE SEALING

GG	-	Gauge Guard	**OR**	-	O-Ring

PROBE TYPE AND LENGTH

LP77	-	Lead Probe (77mm)	**CF77**	-	Carbon Fibre Probe (77mm)
LP127	-	Lead Probe (127mm)	**CF127**	-	Carbon Fibre Probe (127mm)

CONNECTOR TYPE

SC	-	Standard Connector	**WLW**	-	Washer with Leading Wire
TC	-	Terminal Connector	**AUX**	-	Auxiliary Battery Connector

CL
(Base Unit)
+
GG
(Seal)
+
LP77
(Type/Length)
+
WLW
(Connector)
+
X
(Term.)

Ordering Example:

CL-GG-LP77-WLW-X

CLS Lite, Gauge Guard Probe Seal, 77mm Lead Probe, Washer with Leading Wire Connector

CAPACITIVE LEVEL SENSOR – CLS

for all flooded batteries

The Abertax® CLS is the entry level product for monitoring the electrolyte level in a battery.

Extensive research in electrical, mechanical, and chemical engineering resulted in the CLS being designed to meet the harsh environments present in flooded batteries.

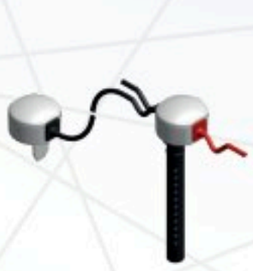
The level probe is integrated in the LED housing, giving a steady GREEN signal when electrolyte level is at or above the cell plates. When the electrolyte level drops below the cell plates, the sensor switches to flashing RED.

The CLS has robust protection against voltage, current transients, and reverse polarity connection. Furthermore, it is protected against electromagnetic interference.

Abertax® CLS' allows for flexible assembly and includes a selection of various designs.

Standard Sensor

Sensor for mounting between cells



Multilayer Sensor with external housing between cells

Sensor with remote LED and lens for mounting on a dashboard

Sensor with remote LED for mounting between battery cables

Sensor for mounting on cable (with strapping bracket)

Capacitive Level Sensor

CLS - Part Number Tree

SENSOR TYPE

ST	-	Standard with Integrated Probe	**OC**	-	External Probe on Cable
BC	-	External Probe between Cells			

LED TYPE (2m CABLE)

RD	-	Remote Dashboard	**MC**	-	Multilayer on Cable
RC	-	Remote between Battery Cable	**MT**	-	Multilayer with Double Sided Tape
MB	-	Multilayer between Cells	**IL**	-	Standard Internal LED

PROBE SEALING

GG	-	Gauge Guard	**OR**	-	O-Ring

PROBE TYPE AND LENGTH

LP77	-	Lead Probe (77mm)	**CF77**	-	Carbon Fibre Probe (77mm)
LP127	-	Lead Probe (127mm)	**CF127**	-	Carbon Fibre Probe (127mm)

CONNECTOR TYPE

SC	-	Standard Connector	**WLW**	-	Washer with Leading Wire
TC	-	Terminal Connector	**AUX**	-	Auxiliary Battery Connector

CS
(Base Unit)
+
ST
(Voltage)
+
RD
(Sensor)
+
GG
(Seal)
+
LP77
(Type/Length)
+
WLW
(Connector)
+
X
(Term.)

Ordering Example:

CS-ST-RD-GG-LP77-WLW-X

CLS, Standard with Integrated Probe, Remote Dashboard LED, Gauge Guard Probe Seal,
77mm Lead Probe, Washer with Leading Wire Connector

BATTERY MONITORING SYSTEM - BMS

for motive power & standby applications

The Abertax® BMS is our entry level Battery Monitoring System, equipped with highly visible LEDs and includes our patented battery analysis algorithms that provide an edge over competing products in the market.

The BMS is designed to withstand the harsh electrical, mechanical and chemical environments present on flooded batteries. The technology and algorithms employed are the result of extensive research work in all the above engineering fields.

By giving essential battery information i.e. full voltage, half voltage, temperature and electrolyte level as well as storing any events that may harm the battery it is a must-have to improve the operation and service. Thanks to the extensive information provided in a clear reporting system, there is no need for long and costly battery inspections in the event of premature failure. Data can be easily read out via our proprietary PC software or mobile application.

Battery Monitoring System

BMS - Part Number Tree

VOLTAGE

V12	-	12 Volts	**V36**	-	36 Volts	**V60**	-	60 Volts
V24	-	24 Volts	**V48**	-	48 Volts	**V72**	-	72 Volts
						V80	-	80 Volts

TEMPERATURE SENSOR

TX	-	External Temperature Sensor	**TE**	-	Temperature Sensor into Electrolyte

PROBE / TEMPERATURE SENSOR SEALING

GG	-	Gauge Guard	**OR**	-	O-Ring

PROBE TYPE AND LENGTH

LP77	-	Lead Probe (77mm)	**CF77**	-	Carbon Fibre Probe (77mm)
LP127	-	Lead Probe (127mm)	**CF127**	-	Carbon Fibre Probe (127mm)
			NP	-	No Level Probe

LED TYPE (550mm CABLE)

MB	-	Multilayer between Cells	**MT**	-	Multilayer with Double Sided Tape
MC	-	Multilayer on Cable	**MX**	-	No External LED

CONNECTOR TYPE

SC	-	Standard Connector	**WLW**	-	Washer with Leading Wire
TC	-	Terminal Connector	**AUX**	-	Auxiliary Battery Connector

COMMUNICATION

SER	-	Wired Connection	**BLE**	-	Bluetooth Connection

BS
(Base Unit)
+
V24
(Voltage)
+
TX
(Sensor)
+
GG
(Seal)
+
LP77
(Type/Length)
+
MB
(LED)
+
WLW
(Connector)
+
BLE
(Comm.)
+
X
(Term.)

Ordering Example:

BS-V24-TX-GG-LP77-MB-WLW-BLE-X

Battery Monitoring System, 24 Volts, External Temperature Sensor, Gauge Guard, 77mm Lead Probe, Multilayer between Cells, Washer with Leading Wire, Bluetooth Connection

WIRELESS BATTERY MONITORING SYSTEM – E²BMS

The e²BMS is a state-of-the-art wireless technology Battery Monitoring System

The Abertax® e²BMS is our flagship Battery Monitoring device with multiple usage options, equipped with state of the art wireless transmission and includes our patented battery analysis algorithms that provide an edge over competing products in the market.

The Abertax® e²BMS will collect and process data from your batteries allowing you to monitor and control the way these are being used, thus increasing their service life to give you the maximum return on your investment.

The data stored on the device can be comfortably retrieved wirelessly to be processed by our proprietary software or automatically directed to locally-hosted or cloud-based storage for easy retrieval via a powerful web-based interface with advanced reporting capabilities.

Wireless Battery Monitoring System

e²BMS - Part Number Tree

VOLTAGE

V12	-	12 Volts	**V36**	-	36 Volts	**V60**	-	60 Volts
V24	-	24 Volts	**V48**	-	48 Volts	**V72**	-	72 Volts
						V80	-	80 Volts

CURRENT SENSOR (90cm CABLE)

HF	-	Fixed Hall Sensor	**NC**	-	No Current Sensor
HS	-	Split Hall Sensor			

TEMPERATURE SENSOR

TX	-	External Temperature Sensor	**TE**	-	Temperature Sensor into Electrolyte

PROBE SEALING

GG	-	Gauge Guard	**OR**	-	O-Ring

PROBE TYPE AND LENGTH

LP77	-	Lead Probe (77mm)	**CF77**	-	Carbon Fibre Probe (77mm)
LP127	-	Lead Probe (127mm)	**CF127**	-	Carbon Fibre Probe (127mm)
			NP	-	No Level Probe

CONNECTOR TYPE

SC	-	Standard Connector	**WLW**	-	Washer with Leading Wire
TC	-	Terminal Connector	**AUX**	-	Auxiliary Battery Connector

COMMUNICATION 1

RF	-	RF Communication

COMMUNICATION 2

CAN	-	CANBus

ES
(Base Unit)
+
V24
(Voltage)
+
HS
(Sensor)
+
TX
(Sensor)
+
GG
(Seal)
+
LP77
(Type/Length)
+
WLW
(Connector)
+
RF
(Comm.)
+
CAN
(CANBus)
+
X
(Term.)

Ordering Example:

ES-V24-HS-TX-GG-LP77-WLW-RF-CAN-X

e²Battery Monitoring System, 24 Volts, Split Hall Sensor, External Temperature Sensor, Gauge Guard, 77mm Lead Probe, Washer with Leading Wire, RF Communication, CANBus

ABERTAX® MASTER CONTROLLER - AMC

for motive power & standby applications

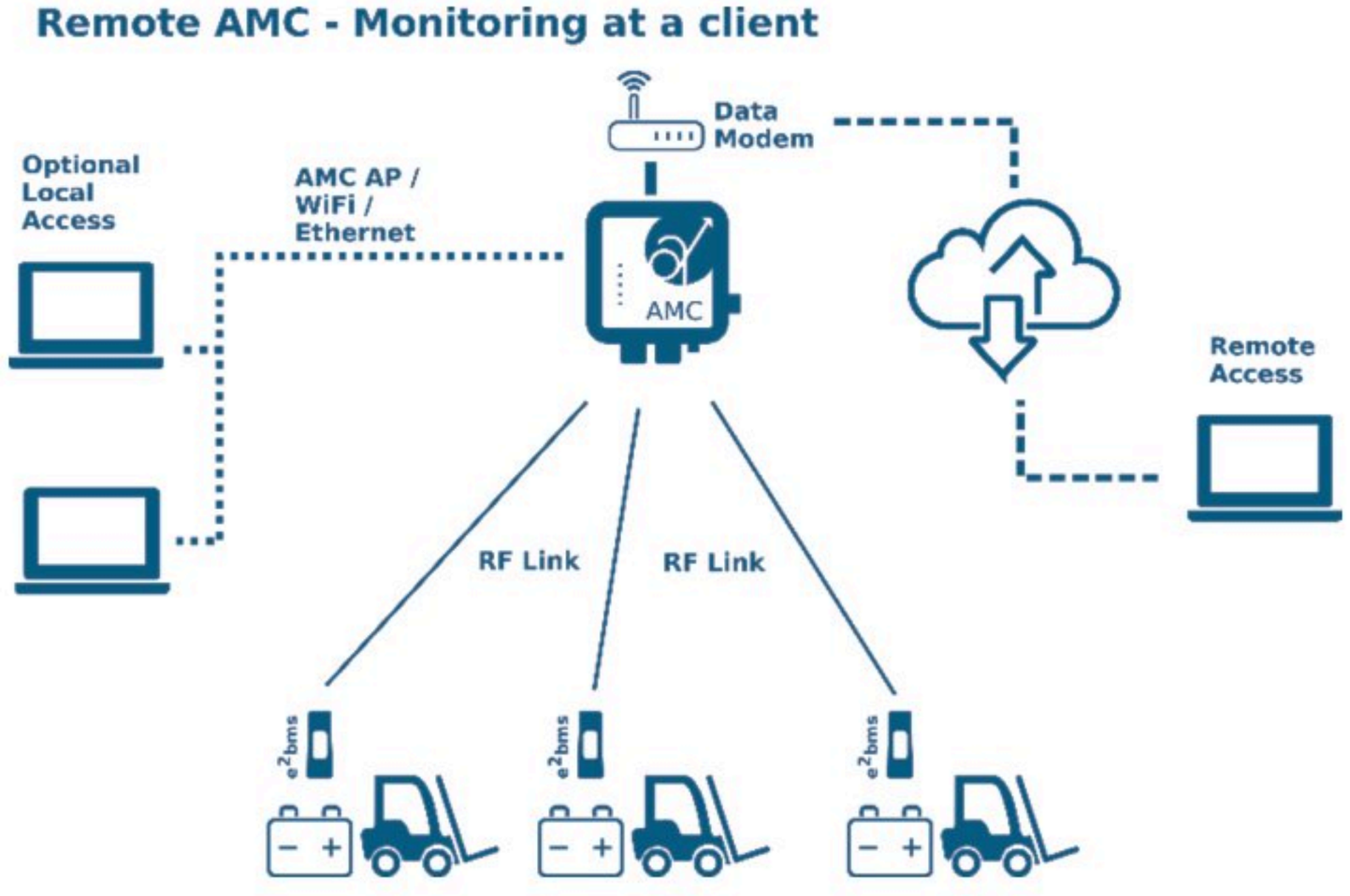
In conjunction with the e²BMS, the Abertax® AMC is the perfect solution when multiple batteries need to be monitored in real time. The AMC enables data to be collected from batteries in range, presenting the data via a web-based interface. Data can be retrieved from the AMC via an embedded web server, even via its own WiFi hotspot. Alternatively, it can be connected to the client's WiFi network or via ethernet to the LAN. If connecting to the client network is not possible, add a data modem to allow the data to be accessed remotely. The Abertax® Battery Sentinel software displays the data you need, with a multi-user hierarchy.

Abertax® Master Controller

AMC - Part Number Tree

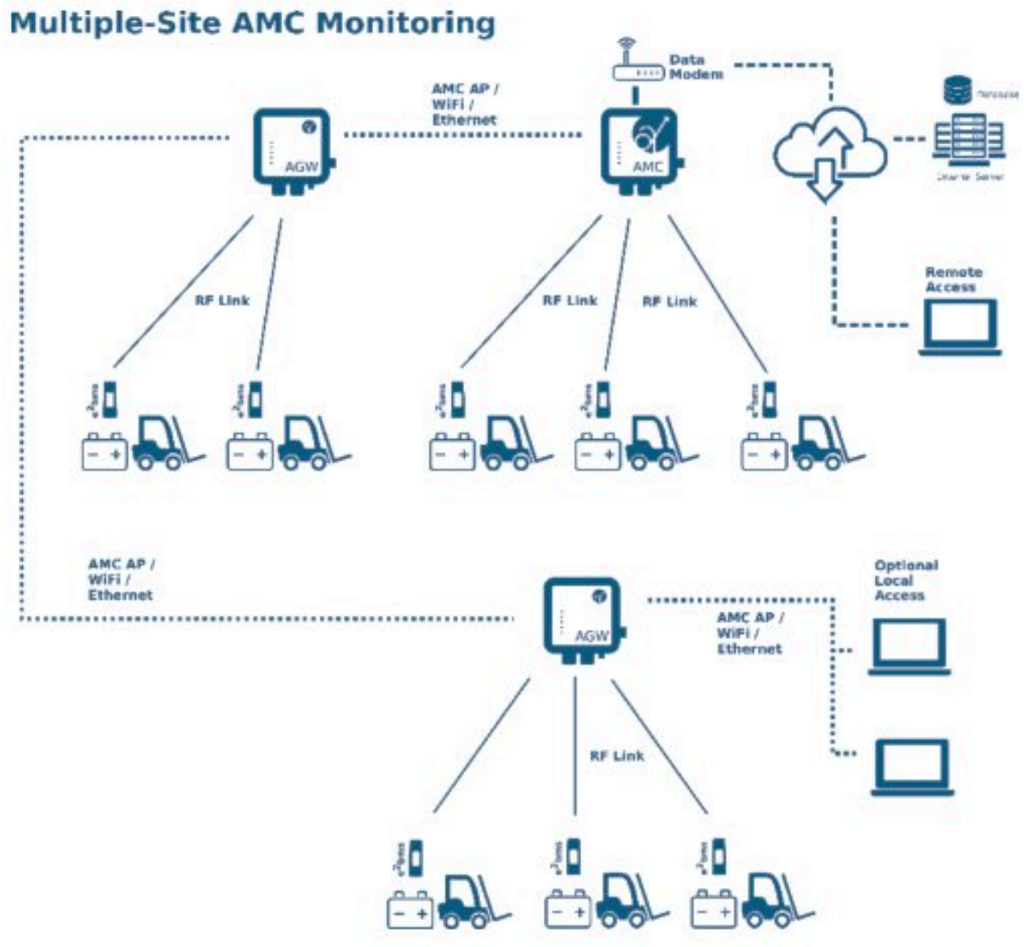
Stand Alone AMC:

Part-Number: AMC-SL-1130-X



AMC with multiple data collecting points:

Part Number Master Unit: AMC-SL-1139-X
Part Number Range Extender: AGW-U-3255-X



WIRELESS BATTERY ANALYZER - AT114B

A rugged battery data logging device designed for harsh environments

The Abertax® Wireless Battery Analyzer is a rugged battery data logging device designed for harsh environments. All the advantages of a scientific data logger combined with the durability of our acid proof sensors and housing. The result is an analytical tool that can be safely installed on batteries - even lead acid batteries, to log the most important battery parameters.

This product is ideal for extracting the full charge and discharge profiles of a battery, thus providing a unique insight on the battery performance directly in-field.

Main Features:

- Measurement and recording of full pack and half pack voltage, current (optional), battery and ambient temperature, and electrolyte level (optional).
- Fast logging at up to 10 samples per second.
- Data storage up to 32GB (> 24 years @ 1 sample per second).
- The device is configured, started, stopped and downloaded via an embedded web interface. (No software or dongles required).
- Real time clock with backup power.
- Data can be exported for further elaboration.

Wireless Battery Analyzer

AT114b - Part Number Tree

VOLTAGE

- **HV** - 15 ... 120V
- **LV** - 6 ... 30V

CURRENT SENSOR (90cm CABLE)

- **HF** - Fixed Hall Sensor
- **HS** - Split Hall Sensor
- **NC** - No Current Sensor

TEMPERATURE SENSOR

- **TX** - External Temperature Sensor
- **TE** - Temperature Sensor into Electrolyte

PROBE / TEMPERATURE SENSOR SEALING

- **GG** - Gauge Guard
- **OR** - O-Ring

PROBE TYPE AND LENGTH

- **LP77** - Lead Probe (77mm)
- **LP127** - Lead Probe (127mm)
- **CF77** - Carbon Fibre Probe (77mm)
- **CF127** - Carbon Fibre Probe (127mm)
- **NP** - No Level Probe

CONNECTOR TYPE

- **SC** - Standard Connector
- **TC** - Terminal Connector
- **WLW** - Washer with Leading Wire
- **AUX** - Auxiliary Battery Connector

COMMUNICATION

- **WiFi** - WiFi Communication - Embedded Webserver (AP and/or network connected)

AT114B
(Base Unit)
+
HV
(Voltage)
+
HF
(Sensor)
+
TX
(Sensor)
+
GG
(Seal)
+
CF127
(Type/Length)
+
WLW
(Connector)
+
WiFi
(Comm.)
+
X
(Term.)

Ordering Example:

AT114B-HV-TX-GG-CF127-WLW-WiFi-X

Wireless Battery Analyzer, High Voltage, Fixed Hall Sensor, External Temperature Sensor, Gauge Guard, 127mm Carbon Fibre Probe, Washer with Leading Wire, WiFi

ACCESSORIES

Abertax® provide a number of premium accessories that complement our range of products.

Proper installation is a fundamental part of our battery monitoring systems. In order to guarantee the best results we produce a number of connection options to suit most requirements.

Our connectors, in particular our patented WLW connector, guarantees a reliable corrosion resistant connection which is surprisingly easy to install. Other options are also available according to your particular needs.

For level sensor installation, one may choose from our o-ring variant or our patented Gauge Guard system that allows you to achieve a reliable water level indication whilst reducing watering intervals to a minimum.

The configuration, setup and communication with our products is rendered possible via USB transceivers that link our PC software suites to the devices. This allows you to query, configure and read data off the devices with ease.

All our accessories are engineered to the highest standards, ensuring compatibility and long-term reliability for your Abertax® products.

Accessories

Adaptor Cable USB for Abertax® BMS with wired Communication

The USB adaptor cable is required to connect the BMS with serial communication to a computer to read the data with our BMS software.

Adaptor Cable USB, incl. BMS Software	16 00 68 71 00Y
Adaptor Cable USB	16 00 68 02 00U

USB-RF Transceiver for Abertax® e²BMS

The USB-RF Transceiver is required to connect wirelessly to an e²BMS with a computer that is in RF range to the device. In combination with our e²BMS the data can be retrieved and displayed.

USB-RF e2BMS Transceiver, incl. e²BMS Software	16 00 68 69 00Q
USB-RF e2BMS Transceiver	16 00 68 79 00W

Washer with Leading Wire

Our patented connector for standard M18 terminals can be purchased separately to replace damaged cables for example.

Washer with leading wire, red, 1500mm	WLW-RD-1500-X
Washer with leading wire, black, 1500mm	WLW-BL-1500-X

Accessories

Connectors

All our electronic products can be used on different types of batteries. It is therefore crucial that we can also offer the most stable and safe options to connect to all variants of existing battery terminals. We currently offer four connection methods that are described in detail below.

Standard Connection

The standard connection consists of the connecting wire with the end stripped to 8mm. This allows you to install any suitable connector of your choice according to your requirements.

Terminal Connection

Our terminal connection allows you to attach our voltage supply cables to welded lead connectors.

Washer with leading wire (WLW)

The Washer with leading wire (WLW) is an Abertax® patented connector ideal for installation on standard M18 terminal connectors. It allows for the neatest, most stable and reliable connection possible.

Auxiliary battery connector

The Auxiliary Battery Connector is designed for batteries that use the Perfect Connector to combine the cells. Our unique design allows perfect integration with existing technology. The contact is extremely

Accessories

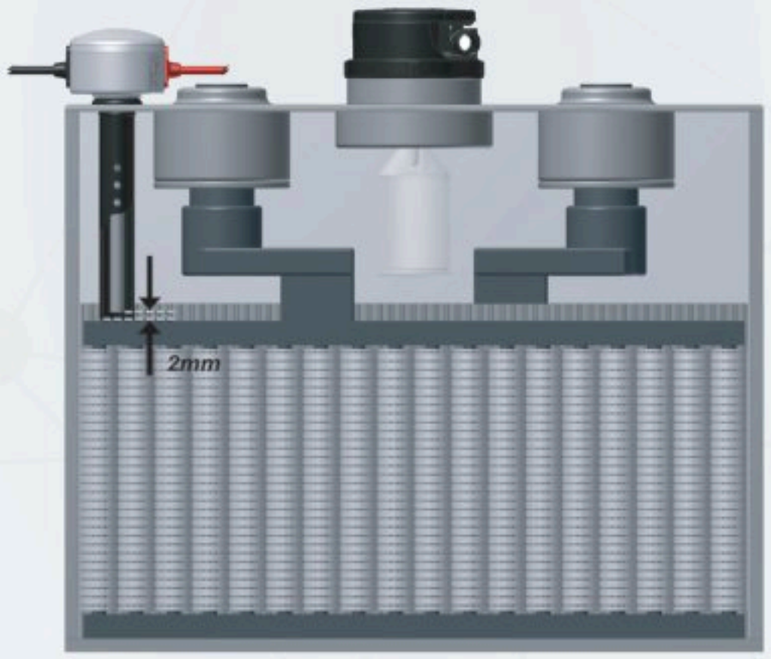
Level Probe Installation Options

We offer two options for the installation of our electrolyte level sensors. The correct choice depends upon whether the electrolyte level is to be measured through an opening above the cells or in the air agitation opening.

Gauge Guard

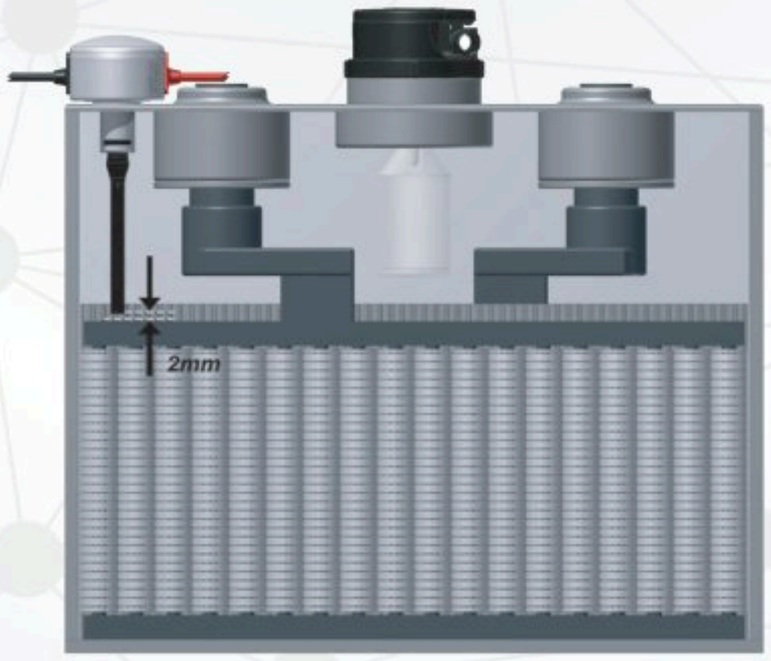
It is recommended that the level sensor is installed above the cell in order to achieve the optimal level threshold that allows watering interventions to be kept to a minimum without risking damage to the cells due to a threshold that is too low.

To achieve this, we have developed the gauge guard. The gauge guard provides two distinct advantages; it allows you to determine the perfect length of the level probe and, more importantly, it allows the measurement to be taken at the top of the plates, and not, as is usually the case, at the top of the separators. This significantly reduces the number of watering interventions and consequently the



O-Ring

For those cases where the cell height is known and it would be advantageous to make use of an existing air agitation hole for the installation, our O-ring variant is the ideal alternative. A matching sleeve in combination with an O-ring on the level probe ensures the opening is optimally sealed.



ABERTAX® - Leader in Battery Ancillaries

Improving Battery Operation all over the World

ABERTAX®
TECHNOLOGIES

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