Voytech 🜑

SITELINK-micro



GW1 Gateway

Multi-protocol gateway

Overview

The Sitelink-micro/GW1 Gateway is a gateway for remote monitoring and integration between BMS controllers and Modbus hardware. The Gateway can be used locally at the site level for integration, and can also be cloud connected for remote monitoring, engineering, datalogging and alarming.

The Gateway supports secure tunnelling to allow remote access to BMS web servers and engineering ports over both broadband and 3G.

Remote cloud access also allows remote Modbus and BMS queries to be performed and to remotely log datapoints directly to cloud databases.

Features

- 1 x RS485 Com Port
- 4 x USB 2 Ports supporting Serial to USB
- Up to 16 Virtual Ports supporting local and remote Ethernet serial interfaces
- Drivers for Modbus-RTU, Modbus-TCP and Trend Textcomms
- Port-to-Port point bindings for data point exchange between systems
- Secure access from cloud to site web servers and engineering ports.
- Cloud connectivity via broadband or roaming 3G
- Cloud datalogs and alarm generation





Remote BMS Connectivity

Remote Datalogging and Monitoring, with secure engineering and webpage cloud access.





BMS / Modbus Integration

Integration of multiple Modbus networks into BMS control strategy, with optional cloud connectivity for management and logging.



Point Bindings

Bindings can be created between any two points in any of the attached devices. Bindings can be configured to update at a specified rate, or to perform updates only when the value changes.

Device Configuration

The device can be configured from a local web browser connected via Ethernet, or if cloud connected the device can be engineered remotely. Device configuration is automatically backed up in the cloud and can be used to duplicated and restore devices.

Virtual Network Ports

The Gateway supports up to 16 Virtual network ports that can be configured with any supported driver. Ports can be configured as Ethernet, RS485 or RS232 ports connected to local hardwired, USB or on Ethernet devices accessible via the LAN connection.

RS485/RS232 Ports

The Sitelink has a single 3-wire RS485 port, maximum cable distance 1000m. Additional RS485/232 ports can be added using upto 4 USB-RS485/232 converters, or Ethernet to RS485/232 converters.

Modbus Driver

The Sitelink Modbus Driver supports connection via RS232 and RS485 as well as via Ethernet to Serial converters.

Trend BMS Driver

The Sitelink Trend Driver supports connection via VCNC over Ethernet, or connection to the local CNC serial port using an RS232 to Ethernet or USB converter.

Gateway Bindings

The gateway allows read/write point bindings between points on any two ports. This allows BMS to Modbus bindings as well as Modbus to Modbus bindings.

Bindings can be configured using a CSV file exported from a spreadsheet.

Binding update speeds are typically 10 to 20 points per second, cycle time for 1000 points is typically less than 2 minutes.

Advanced configuration options allow different point polling rates to be specified, as well as advanced functions such as heartbeat and update on change.

Licencing

The number of Ports and Bindings available on a device is determined by the device Licencing. See the Product Order Codes at the end of this document for details. Licences can be upgraded in the field either via the local interface or by a cloud update.

3G Connection

The Sitelink Gateway uses a protocol optimised for lowbandwidth 3G application. The Gateway supports roaming 3G SIMs to allow highly robust 3G connections. Remote BMS engineering can be achieved via 3G connection. The cloud platform performs 3G data usage monitoring and alarming to prevent data overuse.

Broadband Connection

In Broadband mode the Sitelink Gateway uses Reverse Tunnelling to connect to the Cloud Server without the need for port forwarding configuration on the Client firewall. Remote engineering and web access connections use the same method so no changes to client network are required.

Cloud Web and Engineering Proxies

When operating with a 3G or Broadband Cloud connection the Sitelink can perform secure port forwarding for Local BMS web server and BMS engineernig connections to the Cloud platform. The Cloud can act as a secure (https://) proxy to the web servers, with the ability to secure the connection using username/password and additional features such as client IP whitelisting.

Cloud Datalogging and Alarming

The Cloud platform can be configured to log data from the Sitelink and attached controllers, data is stored in a cloud database and can be accessed for graphing and file export. Datapoints on site can also be monitored for alarm conditions and are logged in the cloud database and can be used to generate e-mail alarm notifications.

REST API

Cloud and Sitelink hardware implement a REST API for 3^{rd} party data integration.

ORDER CODES

Code	Description
SL2-M/GW1/50	Sitelink Gateway licensed for 50 bindings + 2 Virtual Ports
SL2-M/GW1/250	Sitelink Gateway licensed for 250 bindings + 4 Virtual Ports + Remote Hosting
SL2-M/GW1/1000	Sitelink Gateway licensed for 1000 bindings + 16 Virtual Ports + Remote Hosting

SPECIFICATIONS

Enclosure	Grey RAL 7035 PC/ABS, self-extinguishing UL94-V0
Dimensions	106 x 90.5 x 61 (LxWxH)
Power supply	12-24VDC, 150mA 2 Pole, 5.08 Pitch Plug Reverse Polarity Protected
Mounting	DIN Rail EN 60715
Connectors	15A 300V, 5.08 Pitch Screw Rising clamp, Tin plated brass contacts, 0.33-2mm ² (22- 14AWG) Nylon PA66, UL940-V0,
Ethernet	10 / 100 BaseT RJ45 Cat 5e 100m maximum
USB	4 x USB 2.0 PORTS
COM Port	RS485, 3 wire, 1/8 unit load 3 Pole, 5.08 Pitch Plug
Processor	1.25 Ghz 64bit quad core
RAM	1GB SDRAM
Application Flash	1.5GB
Realtime Clock	30 day capacitor backup power
ЕМС	Immunity: EN 55024:2010 Emissions: EN 55032:2012 Class B
Environmental	0°C to 45°C, 0 to 90% RH non-condensing
IP Rating	IP20

COMPLIANCE

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to the European Standard EN 55023:2012.

Product manuals, guides and API documentation are available from

https://jsonlink.com/v2/0/web/docs/products/sitelink-micro-gw1



This symbol on the product or on its packaging indicates that the product must not be disposed of with normal household waste. Instead, it is your responsibility to dispose of your waste equipment by arranging to return it to a designated collection point for the recycling of waste electrical and electronic equipment. For more information about how to recycle this product call our Product Support Department on +44 (0) 203 287 2728.

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