

# WL-1B GSM Base

*WatchLink GSM versatile WL-1B base unit can remotely monitor and control various devices over the GSM Network using your own mobile phone*

Solutions for  
GSM based  
Telemetry

The flexible configuration of the WL-1B unit allows it to be used in a variety of applications including remote sensing of switches, sensors and security devices and also control of equipment such as lights, pumps and actuators. Using the WL-2 Pod as its GSM engine, the WL-1B comes in a robust waterproof enclosure that includes user connectors and Mains rated power relays.

The unit can be programmed with its own configuration using an easy to use PC program. Alarm messages from activated inputs are sent as specific SMS text messages to pre-defined mobile phone numbers and the status of the unit can be interrogated remotely. The high current output Relays can be switched ON or OFF remotely using SMS text messages from authorised mobile phone users.

The unit employs extensive security features which prevent unauthorised use such as password protection, Auto Pin feature and Authorised mobile phone numbers. PrePaid SIM cards can be used for most applications. The unit supports GSM standards that are in use worldwide. The WL-1B unit will especially appeal to Security and Automation Integrators who want to add wireless connectivity to their remote assets and products.

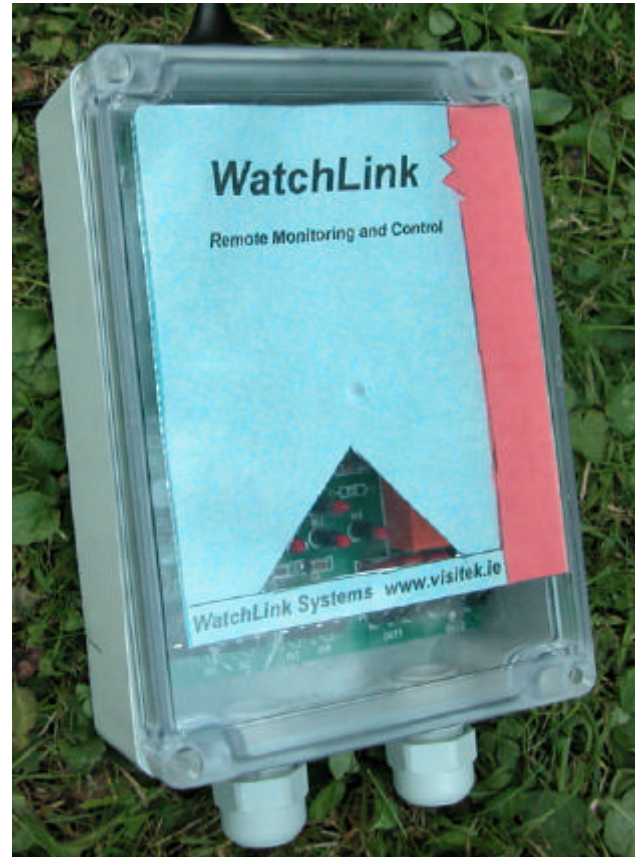
## Technical Features

The WL-1B includes Industrial grade Inputs and Outputs by using optical isolated digital inputs and high current Mains rated Relay outputs. The user connectors are easy accessible screw terminals or plug in connectors.

All the inputs have visual indication with test switches for alarm simulation. The status of the Relays are also indicated visually.

Depending on the WL-2 version included, you can also add a GPS module and an extra serial port for monitoring PLC devices.

The unit includes the WL-2 GSM Pod which integrates the Nokia 12 GSM engine that delivers excellent M2M capability in a small package size. Nokia 12 GSM engine introduces a set of technological advances which give you more scope for developing applications and controlling your remote assets. These include Java with remote IMlet downloading, multiple I/O capability as well as interface for connecting a GPS receiver for locating applications. Java enables effective application development with lower costs and faster time to market.



The wide choice of wireless bearers supported by the WL-2 GSM Pod allows the choice of the most appropriate one for the application. The bearers include EDGE, GPRS, HSCSD, CSD and SMS. EDGE can provide increased data throughput for use in MMS applications.

## KEY FEATURES

- Ready-to-Go for many SMS controlled I/O applications
- Industrial grade Inputs and Outputs using Isolators and Relays
- Visual indication of all Inputs and Outputs and Test Switches
- Compact IP55 rated Enclosure which can be wall mounted
- Uses WL-2 GSM Pod which supports GSM/GPRS communications
- Simple setup of I/O and M2M parameters with Configurator program
- Easy accessible and robust connectors for external devices

## Applications

- Remote Pump Monitoring
- Traffic monitoring and control
- Environmental Monitoring
- Remote assets Security
- Home/Office Automation
- Emergency Call stations
- Vehicle Tracking
- Access control

WatchLink GSM

## TECHNICAL SPECIFICATIONS

### MAIN FEATURES

#### GSM ENGINE

- Dual band EGSM900/GSM1800 MHz
- Dual band GSM850/GSM1900 MHz
- EDGE/GPRS/HSCSD/CSD/SMS Wireless bearers
- Integrated Java and Remote IMlet downloading
- Integrated TCP/IP stack, 1Mb java application memory
- GSM security features such as password and AutoPin
- Location service (NMEA-0183 support for external GPS)

#### PERIPHERALS

- 4 digital inputs and 2 Power Relay outputs
- Buzzer output
- Dual RS232/TTL Serial ports
- Expansion connectors for GPS and AT control
- Analogue audio interface
- Status Indications and Test Switches
- SIM Card Connector

## SOFTWARE INTERFACES & DEVELOPMENT

- Java APIs :** Serial, ORB, I/O, HTTP, Socket, RMS, Wireless Messaging
- Configurator Software (Windows)
  - IMP 1.0 Concept Simulator
  - AT Commands and IDL
  - Nokia M2M Platform SDK
  - Java tools

#### SOFTWARE OPERATING MODES :

- M2M System Mode
- User Control Mode
- AT Command Mode

## ELECTRICAL CHARACTERISTICS

<i>Input Power Consumption</i>	9-18V DC Input supply, 12V Nominal Standby average 50mA, GPRS max RMS 630mA, Peak 2A
<i>Expansion</i>	3.3V/5.0V TTL, ESD protected
<i>RF Power</i>	2W(max) in 900MHz, 1W in 1800MHz

## PHYSICAL CHARACTERISTICS

<i>Size</i>	170 x 120 x 55 mm (L x B x H)
<i>IP Rating</i>	IP55
<i>Mounting</i>	Wall Mount or Panel Mount.
<i>Type</i>	Polycarbonate plastic with clear lid. Supplied with PG11 glands or Bushings

## ENVIRONMENTAL SPECIFICATIONS

<i>Recommended Operating Temp</i>	0 ... +55 deg C
<i>Storage Temperature</i>	-10 ... +70 deg C
<i>Relative Humidity range</i>	5 ... 95% noncondensing
<i>Approvals</i>	CE

## INTERFACE CHARACTERISTICS

<i>Digital In</i>	4 x opto-isolated inputs for volt free contact or voltage threshold > 4.8V ... 18V 5 mm screw terminals
<i>Digital Out</i>	2 x high current SPCO Relays 230VAC@ 5A contact rating (Inductive Load) 5mm screw terminals
<i>Serial</i>	1 x 9pin D type serial RS232 socket (used for programming) * 1 x RJ type 4 pin serial RS232/RS485 (Java serial port) * 2 x TTL(3.3V or 5V) serial ports available on Expansion connector
<i>Audio</i>	1 x Analogue Audio connector for microphone input and earpiece output
<i>External Power</i>	2.1mm DC socket or 5mm screw terminals
<i>SIM Card</i>	Drawer style SIM card connector with card presence detector
<i>Test function</i>	4 x Momentary Test switches on 4 Inputs
<i>Status</i>	Red led indications for 4 Inputs and 2 Outputs
<i>Antenna</i>	MMCX connector
<i>Expansion</i>	* 20 way IDC cable header or board to board connector on WL-2 Pod

\* depends on the WL-2 Pod version installed

## ORDERING INFORMATION & ACCESSORIES

#### Basic unit

4 inputs, 2 outputs, 1 Serial RS232 9pin D, Analogue audio, Serial Port 3 TTL, test switches, status LEDs, IP enclosure  
[Order Code: WL-1BS]

#### Other Options

Extra serial port (RS232/RS485), GPS plug in module, Expansion AT connector

#### Accessories

MMCX to FME/M adaptor, external antennae, 12V Power Supply, interface cables.

\* Please visit our website [www.watchlinkgsm.com](http://www.watchlinkgsm.com) for more information on products, accessories & applications

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