

Product Brief **GSM Telemetry Remote Sensor Gateway**

Features

- Compatible with SiteReacher Base Station.
- Two multifunction digital inputs provide status, totalise or rate functions.
- Multi-protocol interface allows connection to serial devices using RS232, RS422 or RS485.
- Drivers available for Modbus, Greenspan PS2100 and Greenspan 3000 series sensors.
- Regularly sends compressed data SMS to Base Station for automated data collection from sensors.
- Two relay outputs can be controlled remotely from SiteReacher Base Station.
- Compact size and fully solid state construction allows location in fixed or mobile environments.
- Low power operation – designed for remote sites with battery or solar supplies.
- Internal GSM Modem and SIM card socket with international compliance.
- Complete integrated low cost solution.
- Easy to set up and use from Base Station. No IP addressing or network administration needed.
- No internet connection or subscription needed, other than a GSM account.

Applications

- Automated data gathering from sensors and serial devices at remote sites.
- Environmental Sensor networks.
- Remote control of pump, valve and sampler systems.

Product Description

The Model 277 Remote Gateway is a remote telemetry unit with in-built communications drivers for a range of serial devices.

It periodically collects data from the serial device and transmits packets of compressed data via SMS to a nominated Base Station. This automatic and regular action removes the need for users to regularly connect to sensors and download data. When received by the Base Station the SMS are decompressed and appended to .csv files for data, alarms and system records.

The two digital inputs can be used for simple status monitoring at the Base Station or can be configured as totaliser (eg for rain) and rate (eg flow).

The digital outputs can be controlled at the Base Station and are low power latching relays with normally open and normally closed contacts.

The Base Station includes embedded web pages that provide a summary overview of all stations, configuration and control pages and graphical display of trend data.

The SiteReacher system provides users with the ability to automatically gather and store remote data without the need for an internet connection or having to subscribe to a data collection service provider.

The Base Station can be connected to an internet router so that the Base Station web pages can be accessed from other locations through the internet.

Specifications

DC Supply Input Characteristics	Min	Typical	Max	Unit
Operating supply voltage range	9	12	30	VDC
Allowable ripple and noise at input	-	-	0.2	V
Supply current at 12 VDC input supply	-	10	-	mA
Voltage protection: clamping voltage	-	33	-	V
Internal fuse rating	-	1	-	Amps

Digital Output Characteristics	Min	Typical	Max	Unit
Switching capacity	-	-	60	Watts
Rated contact voltage	0.01	-	30	V
Rated contact current (AC)	10 uA	-	0.25	AAC
Rated contact current (DC)	10 uA	-	1	ADC

Digital Input Characteristics	Min	Typical	Max	Unit
Input voltage protection		5.6		VDC
Contact resistance to register high level	10000	-	-	Ohms
Contact resistance to register low level	-	-	100	Ohms

Communications Interface Characteristics – RS232 Mode	Min	Typical	Max	Unit
Driver output voltage swing (3000 ohm load)	±5	±5.4	-	VDC
Driver short-circuit current output			±60	mA
Receiver input resistance	3	5	7	kOhms
Receiver input voltage range	-25	-	25	VDC
Receiver input threshold low	0.8	1.5	-	VDC
Receiver input threshold high	-	1.8	2.4	VDC
Receiver hysteresis	-	0.5	-	VDC

Environmental Conditions and Physical Characteristics	Min	Typical	Max	Unit
Storage temperature range	0	-	70	°C
Operating temperature range	5	-	55	°C
Ambient Humidity	20	-	70	%RH
Vibration (10 to 60 Hertz)	-	-	0.02	G
Shock	Not permissible			
Dimensions - overall	119 (w) x 142 (h) x 32 (d) mm			
Material and finish	Anodised Aluminium			
Connectors	Hirschmann HS7 (Sensor Interface) DB9 Male (service port) RJ12 serial (service port) 3.5mm screw terminal (power and digital IO) SMA Female (GSM Antenna)			
Mounting	Wall mountable using M4 screws			
Weight (approx.)	0.5 kilograms			

General Arrangement

