

# Spider<sup>TM</sup> SATELLITE

## Low power satellite, logging and alarm system

**Halytech Spider Satellite** is an intelligent, STAND-ALONE system capable of monitoring inputs, controlling outputs, alarming and logging. The Spider works with the Iridium Satellite network and utilizes extra low cost Short Burst Data (SBD) communication. Standard data transfers and voice are also provided.

The major benefit of the **Spider Satellite** solution is its low running costs. Using SBD you can get real time data from 3 inputs for less than 8 cents per transmission. Add more inputs for less than 1.3 cents each.

The system comes complete with all the Satellite components you need to get going.

Every **Spider Satellite** has a built-in web server. It allows communication with most modern computers regardless of brand or operating system, without the need to install any software. Its unique design offers unprecedented ease of use as well as complete user programmability of all operating parameters.

### Features

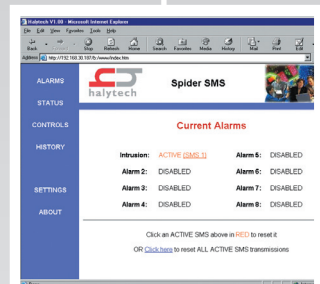
- Complete system includes:
  - Compact high quality plastic data logger enclosure
  - All satellite components including power supply, cables, lightning protection and antenna.
  - Digital and analogue input interface
  - Relay outputs with 7 day/24 hour programmable timer
  - Email notification of alarms
  - Two-way voice communication
  - High capacity solid state data logger
  - Built in solar panel/mains charger support for external battery
- Low power consumption suitable for long term remote deployment with solar panel
- Requires no system integration or custom software
- User configurable inputs, outputs and alarms
- User friendly "Internet surfing" approach
- Simple installation and setup
- Designed and manufactured in Australia

### Typical Applications

- Environmental Monitoring
- Water Resource Management
- Remote Weather Monitoring
- Remote mining and rehabilitation
- Remote plant monitoring



Compact Size



Simple Access With Any Browser



Iridium Satellite Communications



# Specifications

## General

<b>Spider Dimensions (approx)</b>	110 (W) x 200 (H) x 85 (D) mm
<b>Weight (approx)</b>	800 g
<b>Enclosure rating</b>	IP - 50
<b>Enclosure material</b>	Polystyrene / acrylic
<b>Mounting system</b>	Integrated
<b>Operating temperature</b>	0 to +50 degrees Celsius
<b>Factory backup</b>	12 months parts and labour guarantee

## Power Supply

<b>Operating voltage</b>	Nominal 12 V DC
<b>Power consumption</b>	Approx. 60 mA while not communicating, 1mA in XLP mode
<b>Charger type</b>	Built in battery management system supporting external batteries and solar panels

## Inputs

<b>Total number of inputs</b>	8 user inputs + 3 system inputs
<b>User Input type</b>	Digital, analogue, counter or event, individually definable by the user
<b>Connector</b>	Modular, plug-in terminal block
<b>Wire size</b>	Up to 1.5 mm <sup>2</sup>
<b>Input names</b>	User definable

## Digital Inputs

<b>Type</b>	Voltage free switch contact
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## Analogue Inputs

<b>Resolution</b>	12 bits
<b>Calibration</b>	2 - point, full user control
<b>Units of measure</b>	User definable
<b>Supported types</b>	4 - 20 mA, common ground 0 - 2.5V, common ground 0 - 5V, common ground 0 - 10V, common ground

## Counter / Event Inputs

<b>Minimum pulse width</b>	100 ms
<b>Range</b>	0 - 99,999

## System Inputs

<b>Type</b>	External battery voltage Battery charger status System temperature
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## Outputs

<b>Number of outputs</b>	8
<b>Type</b>	Normally open relay contacts
<b>Contact rating</b>	1A 30V DC resistive
<b>Connector</b>	Modular, plug-in terminal block
<b>Wire size</b>	Up to 1.5 mm <sup>2</sup>
<b>Output Names</b>	User definable
<b>Output Control</b>	Via browser and/or SMS and/or timer and/or alarms

## Alarms

<b>Number of alarms</b>	8
<b>Type</b>	SMS and/or e-mail transmission
<b>Trigger</b>	User definable input and trigger point
<b>SMS / e-mail text</b>	1 per alarm, user definable
<b># of phone numbers</b>	3 per alarm, user definable
<b># of e-mail addresses</b>	2 per alarm, user definable
<b>Alarm names</b>	User definable

## Logger

<b>Capacity</b>	25,000 records
<b>Storage memory</b>	Battery-backed SRAM
<b>Time resolution</b>	1 second
<b>Download format</b>	CSV file

## Local Display and Keypad

<b>Display</b>	16 character x 2 line alphanumeric LCD with backlight
<b>Keypad</b>	Integrated, single key
<b>Capability</b>	Show inputs, outputs, alarms, LAN parameters (no external computer required)

## Communication Interfaces

<b>Ethernet</b>	10 base-T, RJ-45 connector
<b>Satellite interface</b>	IridiumSatellite Modem
<b>Synthesised speech</b>	Software based with text to speech technology

## Notes:

<sup>1</sup> Auxiliary Input is currently not used. It is reserved for special applications and future enhancements  
All specifications are subject to change without notice.

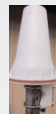
## Complete System



Halytech Spider



Satellite Modem



Antenna with Cable and  
Lightning Arrestor



Modem Power Supply