

Low cost satellite telemetry, data-logging and alarm system

Halytech **microSpider2 satellite** is a complete, cost-effective solution for monitoring inputs, controlling outputs, data logging and automatic reporting. It communicates using the Iridium global satellite Short Burst Data (SBD) service.

The Halytech **microSpider2 satellite** is a low power device integrating all components including the Iridium satellite modem and a battery charger into a compact DIN-rail mounted enclosure. It is ideal for remote, solar powered installations.

Halytech advanced data compression technology combined with the low cost Short Burst Data service is able to deliver from remote sites anywhere in the world.

Featuring a built-in web server, the **microSpider2 satellite** can be configured by any computer with a web browser. No software or licence fees are required. This unique design offers unprecedented ease of use and full control over all operating parameters.

Features

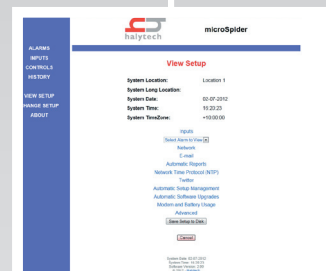
- Complete system includes:
 - DIN-rail mounted ABS enclosure
 - Integrated Iridium satellite SBD modem
 - 4 analogue + 4 digital multi-type inputs
 - 2 digital outputs for sensor / accessory control
 - Programmable low power sensor power supply
 - 400,000 record non-volatile FLASH memory
 - Ethernet interface
 - Low profile Iridium satellite antenna
- User configurable inputs, outputs and alarms
- Integrated battery charger regulator
- Connects to any computer with a browser and LAN port
- Easy to use internet style setup
- Download data locally as a CSV file compatible with Excel
- Automatic field data reports via low cost Iridium satellite Short Burst Data
- Ultra low power design - perfect for solar powered applications
- Optional external intelligent sensor interfaces: Modbus, SDI-12, GPS
- Designed and manufactured in Australia

Typical Applications

- Environmental monitoring
- Data logging
- Remote monitoring



Complete Compact Unit



Simple Access With Any Browser



Remote Deployment
Built-in Iridium communications

Specifications

General

Dimensions (approx)	156(W) x 87(H) x 60(D) mm
Weight (approx)	520 g
Enclosure rating	IP - 50
Enclosure material	ABS
Mounting system	DIN Rail
Operating temperature	standard -5 to +50 deg C optional -30 to + 70 degC
Factory backup	12 months parts and labour guarantee

Power Supply

Battery or power supply requirement	12VDC, min 1A
Power consumption	Standby 95uA Active <3mA (modem off, LAN powered externally) Active 90mA (modem on, LAN powered internally) Active 120mA (modem on, communicating)

Integrated battery charger regulator	Charges an external 12V SLA battery from an external 12V solar panel or a 16 - 30V DC 2A power source
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Inputs

Standard inputs	Up to 4 analogue + 4 digital + 4 system inputs
Optional inputs	Up to 20 SDI-12, Modbus, GPS
Input names	User definable
Connector	Modular, plug-in terminal block
Wire size	Up to 1.5mm ²

Analogue Inputs

Resolution	12 bits
Calibration	2 - point, 1-point or manual
Units of measure	User definable
Supported types	Calibrated 4 - 20 mA, common ground 0 - 1V, common ground 0 - 2.5V, common ground 0 - 5V, common ground 0 - 10V, common ground

Digital Inputs

Input range	0 - 12 VDC Voltage or voltage-free switch contact
Type	User selectable: switch, event (rainfall), counter, utility meter, quadrature

Counter / Event Inputs

Minimum pulse width	5 ms
Maximum frequency	100 Hz
Range	0 - 999,999.999

System Inputs

Type	System temperature External Battery voltage Charger Voltage LAN power voltage
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Outputs

Number of outputs	3
Type	1 x open collector, 1 x high side power switch 1 x low power sensor supply (3.3V or 5V)
Output Names	User definable
Output Control	Via browser, alarms and/or sensor warmup
Connector	Modular, plug-in terminal block
Wire Size	Up to 1.5mm ²

Alarms

Number of alarms	16
Type	Exception SBD report
Trigger	User definable input and trigger point
Alarm names	User definable

Logger

Capacity	approximately 400,000 records
Storage memory	Non-volatile FLASH
Time resolution	1 second
Time synchronisation	Automatic by Iridium satellite network
Local download format	CSV file
SBD report format	Compressed binary e-mail attachment

Communication Interfaces

Ethernet	10 base-T, RJ-45 connector
Mobile communications	Iridium satellite Short Burst Data (SBD)
Iridium satellite antenna	External, SMA connector

Optional Assesories

Weatherproof enclosure	
Intelligent sensor adapter - Modbus and SDI-12, GPS	
Mains power supply	
Solar panel	
Sealed lead acid battery	
Range of external Iridium antennae	
Range of antenna extension cables	

All specifications are subject to change without notice. Published 9 November 2018.

