

Spider AMR™

Wired



Automatic Meter Reading System

Description

Halytech Spider AMR is an advanced data-logging and communications system for use in Automatic Meter Reading (AMR) solutions. Compatible with pulse type meters as well as smart meters, **Spider AMR** is modular, scalable, cost-effective and offers great flexibility when implementing AMR in new or existing buildings. Available in wired, wireless and mixed formats, **Spider AMR** is suitable for use in a wide range of applications such as: shopping centres, universities, golf courses, apartment buildings, high-rise commercial buildings, airports, schools, industrial sites and factories.

Spider AMR- Wired collects data from traditional pulse-type gas, water and electricity meters using up to 10 Remote Input Modules (RIMs) distributed throughout the building. Each RIM can accommodate either 16 meter inputs with tamper detection or 32 meters inputs without and is connected to the Spider AMR base station in a daisy-chain manner using Modbus RS485. Smart meters which communicate using Modbus RS485 can also be connected. **Spider AMR-Wired** is well suited to situations with clusters of meters such as high-rise office buildings and campuses with distributed buildings.

In all **Spider AMR** systems, meter data is sent as a CSV file by email or FTP using LAN, WAN, GSM or NextG networks giving full control over your data. Many users of **Spider AMR** use MS Excel to analyse their data while others employ specialist software or web-based services for visualization and reporting. Whichever method you choose, you control the data. A major advantage of **Spider AMR** is the ability to start with a small system and expand it as required or as funds permit.

Features

Base Station

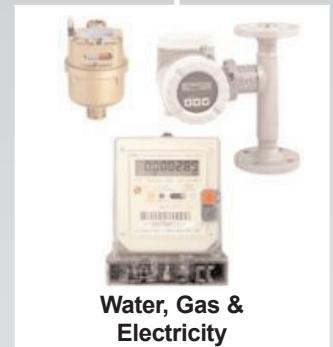
- Powder-coated steel enclosure, IP66
- Spider AMR high-capacity solid state data logger
- Manages up to 10 Remote Input Modules (RIMs)
- Gathers data from up to 320 RIM connected meters and 8 local meters
- Integrated LAN, WAN, NextG or GSM communications
- Connects to SCADA or BMS using Modbus (option)
- Sends CSV data by email and/or FTP
- Sends alarms by SMS and/or email
- Simple installation and setup
- No software or licencing
- User friendly browser interface
- User configurable analog and digital inputs, relay outputs and alarms

Remote Input Modules (Wired)

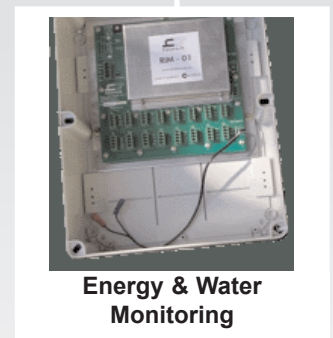
- IP54 self-extinguishing thermoplastic enclosure
- Accepts 16 inputs from pulse-type meters with tamper detection OR
- Accepts 32 inputs from pulse-type meters without tamper detection
- Connects to Spider AMR base station using Modbus/RS485
- Battery back-up



Spider AMR



Water, Gas & Electricity



Energy & Water Monitoring

Specifications

Spider AMR Base Station

General

Dimensions (approx)	400 (W) x 300 (H) x 200 (D) mm
Weight (approx)	14 kg
Enclosure rating	IP - 66
Enclosure material	Powder-coated steel
Mounting system	Brackets included
Operating temperature	-5 to +50 degrees Celsius
Factory backup	12 months warranty

Power Supply

Operating voltage	12 Vdc (240Vac plug-pack included)
Power consumption	Maximum 220mA @12Vdc less than 1 mA in XLP mode
Battery System	Built in charger and 12V SLA battery

Inputs

Total number of inputs	8 user inputs + 3 system inputs
User Input type	Digital, analogue, counter or event, individually definable by the user
Input names	User definable

Digital Inputs

Type	8 Voltage free switch contact
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Analogue Inputs

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

Counter / Event Inputs

Minimum pulse width	100 ms
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System Inputs

Type	Battery voltage, Charger status, System temperature
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Outputs

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

Alarms

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

Logger

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

Local Display and Keypad

Display	16 character x 2 line alphanumeric LCD with backlight
Capability	Show inputs, outputs, alarms, LAN parameters (no external computer required)

Communication Interfaces

Ethernet	10 base-T, RJ-45 connector
Cellular phone module	Built-in NextG or GSM (as required) External antenna
Data reporting	E-mail, FTP, HTTP, Modbus
E-mail sending method	User selectable: LAN, dial-up internet or GPRS (if available)
Standard telephone line	Built in support for optional external PSTN modem

Remote Interface Module

General

Dimensions (approx)	250 (W) x 320 (H) x 115 (D) mm
Weight (approx)	4kg
Enclosure rating	IP-65
Enclosure material	Self-extinguishing thermoplastic
Mounting system	Screws to suit installation (not included)
Operating temperature	-5 to +50 degrees Celsius
Factory backup	12 months warranty

Inputs

Total number of inputs (with tamper detection)	16
Total number of inputs (without tamper detection)	32
Input type	Pulse (10Hz max)
Wire size	Up to 1.5mm ²

Power Supply

Operating voltage	18-24 V(ac or dc) (240Vac plug-pack optional)
Power consumption	<80mA
Charger type	Built in battery management system. 12Vdc backup battery optional

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All specifications are subject to change without notice.

