SPRITE i400

4 + 4 CHANNEL DATA ACQUISITION HARDWARE

Wireless and battery-powered puts SPRITE in more remote locations.

The WATCHMAN™ Online System is a custom, permanently installed vibration condition-based monitoring system to automatically test your high-value assets. With SPRITE™ data acquisition hardware and ExpertALERT™ automated diagnostic software, you have access to actionable information to keep your production up and running.

Each SPRITE device is accessed over a local area network to deliver setup information, collection commands, and transmit vibration and process data. Practically an unlimited number of SPRITE devices can be used simultaneously and managed through the WATCHMAN Online System throughout your plant giving you near real-time access to the health of your machines. It can also integrate with portable TRIO, walk-around data collection to give you a robust maintenance program.

WATCHMAN™
PDM MONITORING SERVICES

HARDWARE

- **SPRITE i400 – 4 + 4 channel acquisition device**
  The SPRITE i400 is a wireless network device which can acquire 4 simultaneous channels of vibration data plus 4 additional multiplexed DC signals for process parameters. Powered either from a 10-30V DC supply or internal batteries. On battery power, acquisition is managed by the software to maximize battery life. 1 year life estimated with once per 12 hour data acquisition.

  The SPRITE i400 is enclosed in a compact and rugged, IP-67 rated enclosure and is approved for hazardous locations through ATEX (Zone 2) and CSA (Class 1, Division 2).

SOFTWARE

There are two key software components that make WATCHMAN Online Systems effective for monitoring your assets.

- ExpertALERT™ – Diagnostic software that analyzes machine vibration data, maintains historical records, and reports the findings to your team
- ALERT Online Engine™ manages the data collection and communication on the network with configuration utilities

OTHER REQUIRED COMPONENTS

- Single or triaxial sensors per machine location, wired directly to the SPRITE i400 data acquisition device
- Wireless 802.11 standard network connection
- System Server (physical or virtual) to host software and database

OPTIONAL COMPONENTS

- Server internet access for virtual database hosting
- OPC client software (scalar information)
- Relay Output Adapter and software for physical alarm notifications
- Can be combined with SPRITE i1600—16-channel multiplexed data acquisition devices

For more information on the SPRITE i400 please visit www.AzimaDLI.com

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AZIMA DLI

SPRITE i400

4 + 4 CHANNEL DATA ACQUISITION HARDWARE

SPECIFICATIONS

Dynamic Inputs: (Channels 1-4)

- No of Channels: 4
- Ranges: +/- 5V
- ICP Interface: 2.4 mA @ 20Vdc
- Other Coupling: AC, configurable per channel
- Measurements Integration: Acceleration, displacement, demodulation, velocity via software
- Anti-Alias Filter: Compound analog and digital filter
- Bias/Gap Measurement: +/- 25V range for ICP bias voltage and eddy probe gap measurement
- Amplitude Accuracy: +/-2% typical passband
- Demodulation Function: Azima DLI's proprietary Impact Demod

DC Inputs (Channels 5-8):

- No of Channels: 4
- Ranges: 0 to +3V and 0 to +10V, jumper selectable

Trigger:

- 2 (one analog/digital, one digital)
- 5V to 24V digital pulse, or analog in range +/- 20V

Processing:

- ADC: 24 bit simultaneous on channels 1-4, 16 bit multiplexed on channels 5-8
- Sampling Rate: 64Hz to 102.4kHz (channels 1-4)
- Bandwidth Ranges: 0.5Hz-25Hz to 0.5Hz-40kHz
- Block Lengths: 256 to 32768
- Spectral lines: Up to 12,800

Mechanical:

- Glass reinforced polyester, NEMA 4, IP67
- Dimensions: 22 cm (8.5") x 12cm (4.6") x 9 cm (3.5")
- Weight: 1.4kg (3 lbs)

Environmental:

- Temperature: -10 C to 60 C
- Compliance: CE, RoHS
- Hazardous Locations: ATEX Zone 2, CSA Class 1, Division 2

Power:

- Input Power: Battery or DC power (10 to 36Vdc)
- Battery Type: Two x lithium 3.6V 'C' cell type LSH 14
- Battery Monitor: Internal battery monitor and critical battery shutdown
- Isolation: 1500V from DC power input

Communications:

- Network: 802.11 b/g WiFi compatible
- Addressing: Static IP or DHCP
- Speed: Up to 54 Mbits/sec
- Encryption: WEP, WPA/WPA2, PSK (TKIP, AES)
- Wake-up Mode: programmable from one minute to one day via software interface

Minimum Server Requirements

- Microsoft® Server 2008 or Server 2012 (English/US-Native Operating System)
- Physical server or virtual machine (VM)
- Free disk space: 100GB
- Processors: 2 CPU, 1.8 GHz minimum
- RAM: 4GB minimum
- Microsoft Message Queuing enabled
- Microsoft .NET framework 4.5.1

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*Specifications are subject to change without notice

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