

## Data Acquisition Hardware



### ExpertALERT 4.0 – The Analyst's Application

ExpertALERT™ provides critical machinery health information in addition to vibration data, by rapidly screening vibration measurements and applying over 6000 unique rules to identify over 1200 individual faults in a wide variety of machine types. Our proven automated machinery condition assessment system can process hundreds of vibration measurements in just a few minutes leaving you with a fault diagnosis, fault severity and repair priority and action. Instead of overwhelming you with data that is difficult to interpret, ExpertALERT™ provides fast and accurate screening that will lead to better diagnostic results.

### ALERT Online Engine™ – The ultimate data acquisition software

ALERT Online Engine™ manages the data collection and communication on the network with configuration utilities. In addition to support of new data types, this software significantly improves communication between multiple hardware acquisition devices and the centrally-hosted diagnostic software. WATCHMAN Online Systems can also be integrated with portable data collection programs.

### 8+8 channel data acquisition network device

- 8 Simultaneous ICP Accelerometer plus
- 8 Multiplexed DC input acquisition device (supports ICP accelerometer, dynamic, and DC voltage signal ranges +/- 10V)
- Single or triaxial sensors per machine location, wired directly to i800 acquisition device
- One-year battery life at twice-per-day data acquisition (or DC power)
- Communication: 802.11 b/g/n Wi-Fi compatible, 100BaseT Ethernet (CAT5/6)
- Compatible:
  - # SPRITE™ i1600 – 16-channel multiplexed data acquisition device (ICP accel., AC or DC coupled)
  - # SPRITE™ i400 – 4-channel simultaneous data acquisition device, battery-powered, wireless
  - # Optional: OPC Client Software (scalar information)
  - # Optional: Server internet access
- Spectral lines: up to 25,600
- Bandwidth Ranges: 0.5 Hz – 40,000 Hz

*Multiple power options and 8+8 channels makes this the most versatile SPRITE yet.*

#### Processing:

- ADC: 24 bit simultaneous, dynamic channels 16 bit multiplexed, DC channels
- Sampling Rate: 64Hz to 102.4kHz (dynamic channels)
- Bandwidth Ranges: 0.5Hz-25Hz to 0.5Hz-40kHz
- Block Lengths: up to 250,000
- Spectral lines: up to 25,600

#### Dynamic Inputs (Channels 1-8):

- No of Channels: 8 simultaneous (banks of 3)
- Ranges: +/- 10V
- ICP Interface: 2.4 mA @ 20Vdc
- Other Coupling: AC, configurable per channel
- Measurements: Acceleration, displacement, demodulation, velocity via software integration
- 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
- Demod Function: Azima DLI's proprietary Impact Demod

#### DC Inputs (Channels 1-8):

- No of Channels: 8 multiplexed
- Ranges: 0 to +3V and 0 to +10V, jumper selectable
- Trigger: One analog/digital, one digital/Namur)

#### Indicators:

LCD Display: Backlit LCD, 7 lines x 21 characters

#### Mechanical:

- Protection: NEMA 4, IP66
- Enclosure: Al Si 12 grade (LM24) Die-cast aluminum alloy
- Dimensions: 26cm x 16cm x 9cm
- Cable entry: 16 glands, IP68, 3mm to 6.5mm
- Weight: 7.5 pounds (without batteries or antenna)

#### Environmental:

- Temperature: -20 C to +70 C
- Compliance: CE, RoHS

#### Power:

- Input Power: Battery or DC power (10 to 30Vdc)
- Battery Type: Two x lithium 'D' cell type LSH 20 (transportable option available)
- Battery Monitor: Internal battery monitor and critical battery shutdown
- Isolation: 1500V from DC power input

#### Communications:

- Network (LAN): 100BaseT Ethernet (CAT5/6)
- Network (WLAN): 802.11 b/g/n WiFi compatible
- Speed: Up to 54 Mbps/sec (depending on LAN or WLAN)
- Encryption: WEP, WPA/WPA2, PSK (TKIP, AES)
- Wake-up Mode: programmable from one minute to one day via software interface
- Addressing: Static IP or DHCP

#### Note:

- Technical Specifications are subject to change.

