

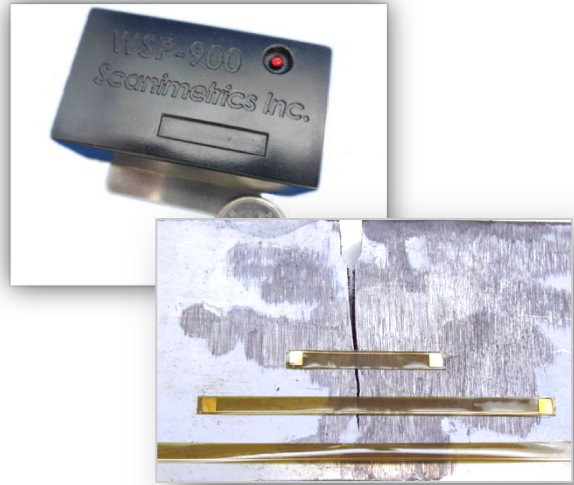


**Advanced Technology Driving Change**

## WiTAP™ Crack Detection and Monitoring System

### FEATURES

- Scanimetrix' Crack Detection and Monitoring System is a wireless, electronic system used for the detection of cracks and crack propagation in metallic objects.
- Sensors are spot welded in place (or bonded to the surface with adhesive) and then covered with special materials to protect the sensors from harsh environments.
- Data from the crack sensors is monitored electronically and stored in the WiTAP™ sensing module.
- Data from the WiTAP™ motes is transmitted to an internet gateway and access point and then to Scanimetrix' MoteScan™ Cloud.



### BENEFITS

- Crack detection and propagation monitored electronically
- No need for constant visual inspections
- Condition-Based Maintenance (CBM) practices can be used to determine when repairs actually need to be done; and scheduled when convenient
- Avoid catastrophic failures in the field – saving both time and money
- Real-time monitoring of crack formation, crack repairs, and existing cracks on heavy equipment
- Determining service life intervals or critical flaw size estimates
- Send automated alarms before critical failures occur in the field
- Validate structural integrity

### APPLICATIONS

Most industrial operations have many pieces of equipment with metal parts which are subject to cracking due to excessing loading. Prior to failure, these parts can develop micro-cracks which can propagate and cause failures. During normal servicing cycles, these cracks are detected by visual inspection or other means, and are scheduled for expedited repair, which is approximately 3 times more costly in most cases. However, if repairs cannot be performed immediately, extended downtime can result in production loss. Equipment put back in service *without* repair requires constant monitoring to prevent field failures, further equipment damage, production downtime, injury of personnel, and perhaps even loss of life.

Manual inspection is the most common method of monitoring these cracks. At best, this is a highly subjective and imprecise manner to monitor crack propagation. In addition, manual inspection usually requires equipment to be taken off line, and as a result, is not a cost effective maintenance procedure.

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*Scanimetrix' Crack Detection and Monitoring products are changing this tedious but necessary inspection of cracks in equipment parts into a quick and precise process that can be monitored from anywhere in the world.*

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For more information on Scanimetrix' products, please contact:

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## WiTAP™ Crack Detection and Monitoring System

Scanimetrix' Crack Detection and Monitoring System can be used to accurately detect formation of new cracks, monitor crack repairs, and monitor crack propagation on metal parts so that optimal maintenance decisions can be made on repair and replacement. Operators and Maintenance Managers can be informed directly by the system through email, text message, voice message, or web update, of impending failures, enabling maintenance to be scheduled when convenient, *without* the need for expedited repairs.

### STANDARD SPECIFICATIONS

Sensor Operating Temperature Range	-40 °C to +150 °C
Operating Temperature Range	-40 °C to +85 °C
Sensor Configuration	1", 2" and 6" sensors spaced at least 0.5" apart
Minimum Crack Width Detected	100 microns
Maximum Wireless Operating Range to Master	10 metres (extendable with repeaters)
Maximum Battery Life	2 years of continuous operation (See Note 1) 50 million samples
Modes of Operation	Real-time display, unaccompanied alarming, data logging and data transmission
Size	9.5 cm x 5 cm x 3 cm (3.8" x 2.0" x 1.25")
Weight	110 g (4 oz)
Wireless Module Housing	Sealed epoxy compound (water and chemical resistant, built to IP67 standard)
Wireless Module Mounting Method	Magnetic or adhesive
Certifications	FCC and Industry Canada 900 MHz non licensed ISM band, ETSI 868 MHz non licensed SRD band

### OPTIONS

Extended Sensor Temperature Range	-55 °C to +200 °C
Extended Life Battery	Double the capacity
Certifications	Intrinsic Safety (Zone 0 or Class I, Division 1)

Note 1: Battery is rated for 50 million samples or 2 year of operation, whichever occurs first.  
All specifications subject to change without notice

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