



# FCX Wireless Process Solutions

## Wireless Steam Trap Monitoring

## SolutioNet™101.1

FCX Model ELD-101-VA

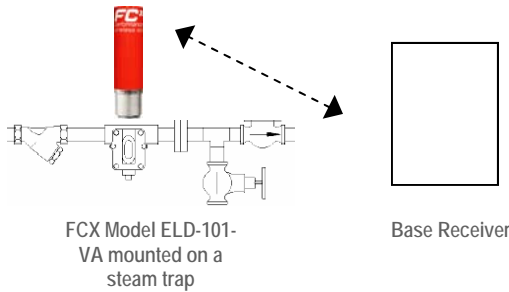
According to the U.S. Energy Information Administration, an average of 15% - 25% of steam traps are leaking at any given time. Even a single, small leaking trap can waste thousands of dollars each year. Most facilities perform a steam trap audit once a year—a manual, time-consuming, costly and error-prone process which involves sending technicians into the plant to manually inspect hundreds of traps a time. The problem is further compounded by the fact that most steam traps are located in difficult to reach or dangerous areas. Because of the infrequent inspection cycle, a faulty steam trap can leak for months before detection.

FCX single point acoustic monitoring devices with optional integral temperature sensor provide a reliable and economical wireless solution for steam trap monitoring.

Our patented technology allows users to *continuously* monitor the performance and temperature of a steam trap and immediately learn the moment a leak or blow through occurs.

The FCX Model ELD-101-VA is especially valuable for steam intensive users such as refineries, food processors, chemical manufacturers and institutions such as hospitals and universities that want to reduce labor costs inherent with the manual monitoring of steam traps.

The ELD-101-VA operates through the use of an acoustic sensor mounted at the inlet of any manufacturer's type or style of steam trap, combined with a radio frequency transceiver. Steam leaks typically generate high frequency waves that closely match the response of our wireless transmitters.



THIS DATASHEET CONTAINS PROTECTED INFORMATION ON PATENTED TECHNOLOGY

Efficient and reliable equipment health & vibration monitoring engthens service life and optimizes performance in all types of rotating equipment



A leaking steam trap



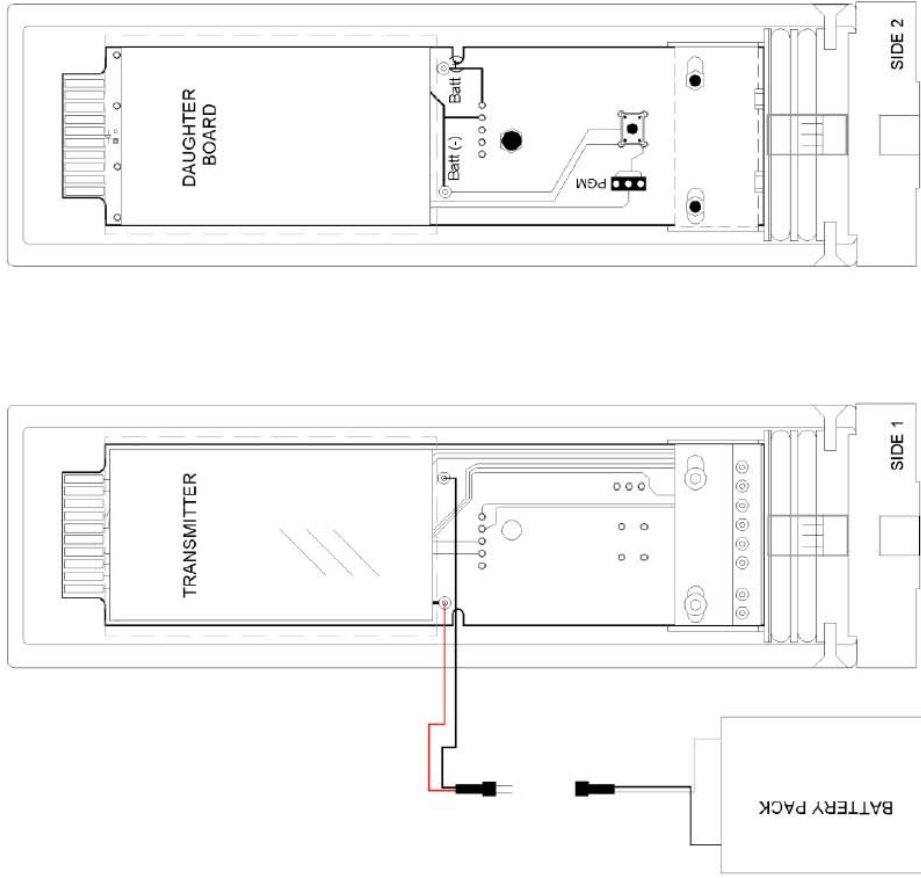
Typical steam trap installation

Our patented technology mounts on top of your steam trap, performs monitoring and diagnostics and transmits health status wirelessly to a central receiver for monitoring, trending, graphing and alarming. The unit installs in minutes and does not require breaking seals, leak checks or system down-time; leading to a quick return on your investment.



Please refer to test sheets for final parameters

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**Specifications for Electronics**

- Operating Frequency 902-928 MHz
- Channels 2
- Transmission Rates 5 Seconds+
- Operating Temp -40 F to +185 F
- Humidity 0-95% Noncondensing
- Power Requirement 3 VDC
- Enclosure PVC Tube, 2" x 8-3/4"
- Base 316LSS
- Base Mounting / Connection 1/4" x 28" Thread Female Stud Mount
- Weight (without battery) 2.5 lbs.

**Specifications for Accelerometer**

- Dynamic Performance (+/-20%), mV/g 10
- Voltage Sensitivity + g pk, 200
- Measurement Range (+5%) 1 to 4000 Hz
- Frequency Range (+3dB) 0.32 to 10000 Hz
- Phase Response +5 (at 70 F[21 C]), 1.5 to 4000 Hz
- Broad Band Resolution g pk [ms-2pk], 0.003 [0.03]

**Environmental**

- Shock Likit- All Axes (Max.) + g pk, 7000
- Operating Temperature Range (-65 F to +185 F)
- Temperature Coefficient 0.10%/F
- Installation Category I
- Pollution Degree II
- Altitude Up to 2000m

**Mechanical**

- Sensing Element Material/Geometry PZT/Shear
- Housing Material/Stainless Steel
- Pollution Degree Sealing/Welded Hermetic

**ELD-101-VA**



REV.	DESCRIPTION	BY	DATE	APVD	CAD:	SW	HS
-	INITIAL RELEASE PER ERM R0039	YL	02/15/06	HS	APVD	HS	
				SHEET		1 OF 1	
				DRAWING NO.		101-1300	