The background of the advertisement is a photograph of a construction site. A deep trench has been dug into the ground, and a tracked excavator is visible at the top left. A large black pipe is laid along the bottom of the trench. A section of the pipe is wrapped in a yellow material, and a blue pipe is connected to it. A large, powerful spray of water is being ejected from a hole in the pipe, indicating a significant leak.

# Pipeline Leak Detection Systems

## **Rovanco®**

ISO 9001:2015  
CERTIFIED COMPANY

 **PRI Registrar**  
PERFORMANCE REVIEW INSTITUTE

- Fault Locating Accurate within 3 Feet
- Alarm Box will Email & Text when there is a Leak
- For Metal and Plastic Piping Systems

**Innovative leak detection monitoring for your piping system!**



# Rovanco's

## Blue Leak Sensing Cable or Nordic System with Monitoring/Alarm Unit

### *Undetected Pipe Faults Result In...*

- Pipe corroding or failure
- Loss of system service
- Expensive repairs
- Destruction of fiber optics & cables

The Blue Leak Sensing Cable and Nordic Systems feature conductors producing the same impedance along the entire length of the cables which facilitates the troubleshooting and detection of pipe leaks and wet insulation in district heating, district cooling, water, sewerage and industrial sectors.

The cables run the entire length of the pipe with either system and can be attached directly to a pipe, in the air space between the carrier pipe and outer jacket or embedded within the foam insulation on pre-insulated piping.

Once leak detection equipped piping is installed and one of the alarm units are connected, the status of the piping system is continuously monitored by the embedded cables which conveys this information to one of the alarm units (pictured to the right).

*Note: RAT Combo compatible with Blue Detect & Nordic. RAT-2 compatible with Nordic only.*

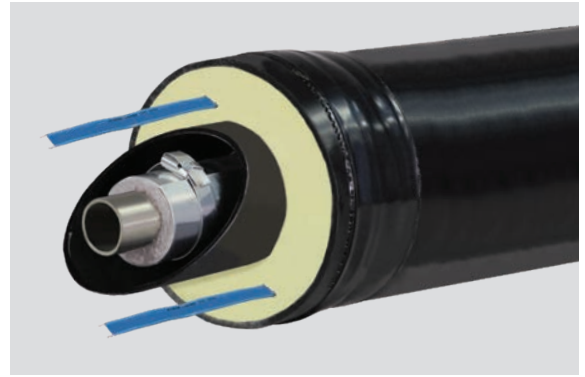
***In the result of a break in the system or leak, the alarm unit's system software sends an immediate alert via email or text with the location of the leak – accurate within 3 feet!***



***Monitoring &  
Alarm Units***

# Features

- **Continuous Remote Monitoring** – connection between the cable conductors and the monitoring unit facilitates accurate, fast locating of system fault
- **Total System Monitoring** – of the carrier pipe/conduit pipe, outer jacket and insulation detecting moisture or breaches in all elements of the system
- **Versatility** – cable sensing system works with nearly every pipe type and diameter as well as metal and plastic piping systems
- **Fully Tested** – all cable conductors are tested before and after foam insulation is added and the pipe manufacturing process is complete, assuring reliable and dependable performance
- **Dual Cable System (option)** – ideal for very large pipe diameters, can serve as monitoring redundancy for piping installed in critical environments or second cable can be split off at piping junction allowing it to go in a different direction than the other cable
- **Easy to Connect Cables** – connecting one leak sensing cable to the next can be easily accomplished in the field
- **Advanced Communication** – measured data can be transmitted wirelessly via IoT.
- **Match Cable System to Piping** – the two leak sensing cable systems Rovanco offers can be chosen based on the piping system. Blue sensing cable for non-metallic systems and the Nordic System for metallic systems. Choosing the proper leak sensing system minimizes the chance of a false positive alarm
- **Broadcasted Alerts** – monitoring boxes can send alerts via email or text message to as many people as you choose



Cable runs the entire length of pipe so your complete piping run is continuously monitored for leaks



Intelligent enough to recognize the difference between typical pipe condensation and a leak



Fast, accurate fault location in the field shortens downtime and reduces repair cost



Monitoring/Alarm unit can be mounted inside or externally mounted (remote monitoring)

## Dependable performance with accurate fault location!

District Heating leakage control & localization for pre-insulated piping at the highest level.

## RAT2 & RAT Combo Monitoring Units

### Function

Continuously measures electrical quantities on the sensor cables that are monitored. If a leak occurs, this is detected immediately when the measured values change so it can be analyzed by trained technicians.

Measures the sensor cable every minute, 24 hours a day, and measures a leakage or other error directly into the sensor cable that the error occurred. It also detects if one or more sensor cables are interrupted.

Alerts for leaks or cable interruptions are sent immediately via email or text to the person(s) in charge and/or the central monitoring station.

### Monitoring

The RAT-2 unit notifies you of a leak or a break. The RAT Combo unit notifies you of a leak or a break and identifies where it is within the system.

These units are equipped with the latest technology able to communicate via GSM with the monitoring software that manages the network and send information to the appropriate personnel if the system is effected.

Using RATManager you can easily check any device in the system, analyze measurement data and effectively get an overview of your monitoring system.

## Sensing Cables Technical Data

**Application:** District heating & cooling within steel & plastic pre-insulated piping

**Leak Location:** Reflectometer (TDR)

**Cable Width x Thickness:** 8.3 mm x 2.2 mm

**Cable Wires:** 2 single-strand, parallel copper wires, 2 x 0.9 mm each

**Cable Insulation:** Resistant to high temperature & oil

**Loop Resistance:** 30 ohm / 1 km of wire

**Operating Temperature:** -40°F to 248°F  
(-40°C to 120°C)

**VOP (velocity of propagation):** 80% for Polyurethane foam

**Connection Type:** Crimp connector with heat shrink tube

## Rovanco Piping Systems, Inc.

20535 S.E. Frontage Road  
Joliet, IL 60431  
(815) 741-6700  
Fax (815) 741-4229  
[www.rovanco.com](http://www.rovanco.com)  
[marketing@rovanco.com](mailto:marketing@rovanco.com)

ISO 9001:2015  
CERTIFIED COMPANY



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