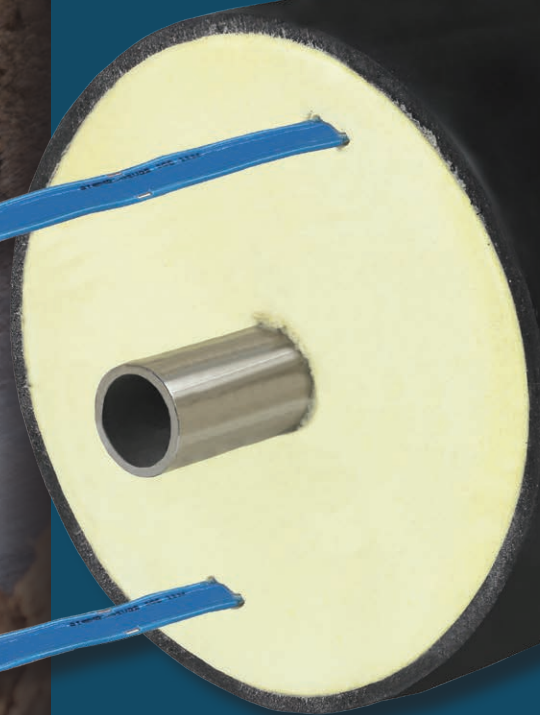# MSC-1 Blue Detect Leak Sensing Cable

Rovanco®

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• Fault Locating Accurate within 3 Feet

• Alarm Box will Email & Text when there is a Leak

• Works with Metal and Plastic Piping Systems

Innovative leak detection monitoring for your piping system!

Rovanco's

MSC-1 Blue Detect Leak Sensing Cable with Monitoring/Alarm Unit

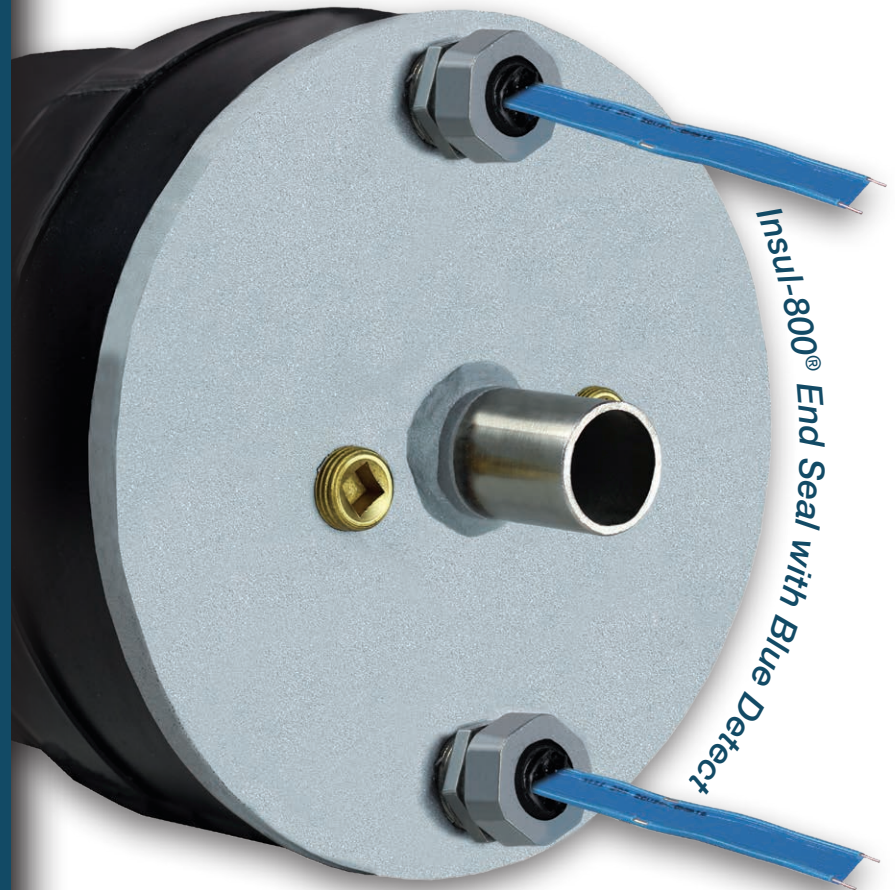*Undetected Pipe Faults Result In...*

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

The Blue Detect Leak Sensing Cable system features a precisely parallel pair of conductors producing the same impedance along the entire length of the cables which facilitates the trouble-shooting 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 and can be attached directly to a pipe, in the air space between the carrier pipe and outer jacket or embedded within the polyurethane insulation on pre-insulated piping.

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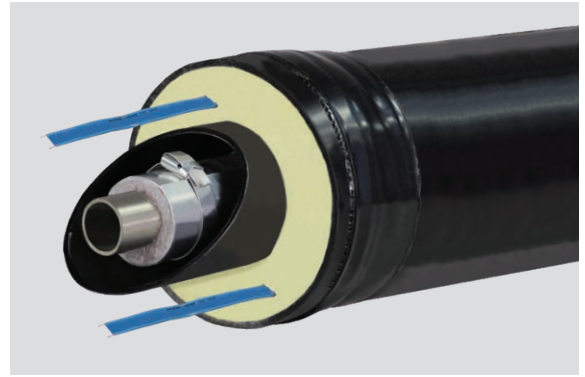
In the result of a break in the system or leak, the alarm unit's system software sends an immediate alert via email or text with the location of the leak – accurate within 3 feet!

Insul-800® End Seal with Blue Detect

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 polyurethane foam insulation is added and the pipe manufacturing process is complete, assuring reliable and dependable performance

- **Dual Cable System** – 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 first cable

- **Easy to Connect Cables** – connecting one leak sensing cable to the next in the field can be easily accomplished with the included joining sleeves

- **Advanced Communication** – measured data can be transmitted wirelessly via NB-IoT or through a LAN network if hardwired and the unit's software can be updated remotely using the network

- **A Better Cable** – the Blue Detect Leak Sensing Cable eliminates problems associated with conventional systems using two bare copper wires. Blue Detect's fully insulated cables minimize the chance of a false positive alarm and can be used with plastic carrier pipes.

- **Broadcasted Alerts** – monitoring boxes can send alerts via email or text message to as many people as you choose

Twin 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 NB-IoT 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.

Mounting

The RAT units are easy to install. If the detector is to be connected to the RATManager Online Service, it is delivered with a SIM card, antenna, stored in your account so that communication and collection of measurement values start as soon as the monitoring units are powered up and connected to the sensor wires. Connection to sensor cables is made using the supplied materials.
For connection, follow our installation instructions.

MSC-1 Blue Detect Leak Sensing Cable Technical Data

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

Leak Location: Reflectometer (TDR)

Cable Width x Thickness: 7 mm x 1.9 mm

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

Cable Insulation: XLPE

Loop Resistance: 2.0 ohm per 1,000 m wire

Operating Temperature: -40˚F to 248˚F

VOP (volocity of propagation): 85% for Polyurethane foam

Connection Type: Crimp connector with heat shrink tube

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