LANCIER Monitoring

Feel safe

Total Network Transparency

Monitoring of Pipe Networks for Local and District Heating

We develop solutions together: innovative, reliable, future-proof

Effective district heating pipe monitoring

Increased operational reliability with the LANCIER Monitoring System

The rising use of district heating constantly increases the requirements for an effective, affordable and comprehensive monitoring of the corresponding pipe network.

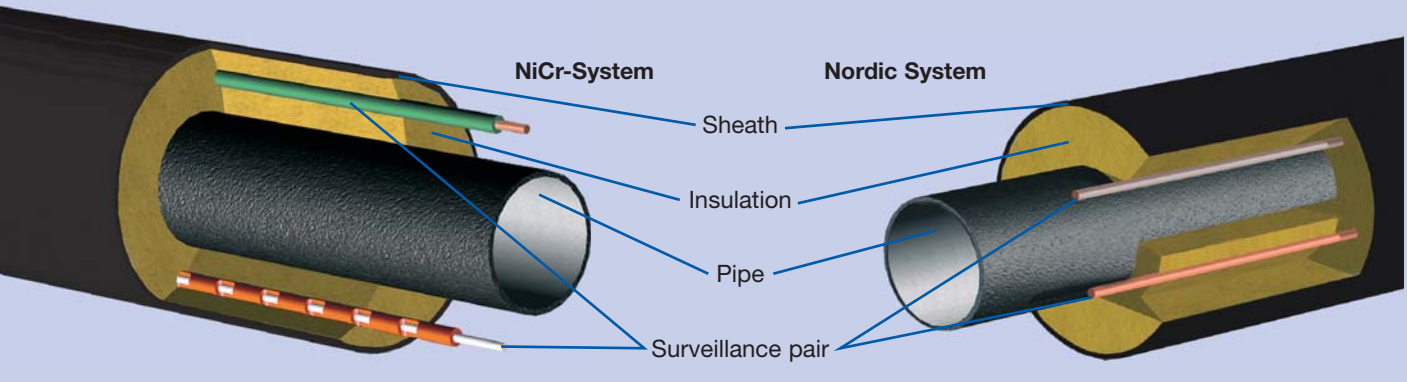
Undetected leaks mean loss of performance as well as heat and reduce the earnings of the supplier.

The early detection and localisation of leaks and sheath damage increases the efficiency of the pipe network. The repair of faults in the early stages keeps costs and downtime to a minimum.

The early awareness of pipe leaks with LANCIER Monitoring:

- Awareness and localisation of the leaks or sheath damage in the early stages
- Increased operational safety
- investment protection by timely repairs before larger, more expensive damages are incurred
- Prevention of loss of heat and performance through defective insulation
- Extension to further relevant parameters

Surveillance pair arrangements in insulated sheath pipe systems for district heating



Modular, open and innovative

Due to new approaches in district heating pipe network monitoring, there are major advantages for the network operators

LANCIER Monitoring Advantages

- The length of pipe able to be monitored: **NiCr up to 1500 m, Cu up to 3000 m**
- Central visualisation of the network status
- Open for integration into the user system structure
- Confirmation or acknowledgement of an alarm onsite is not compulsory
- Concrete measurements allow for an accurate statement with regard to the status of the pipe transmission routes
- Programming of individual safety limits as required by the network operators
- Extensive standard configuration, such as leak detection, interfaces, various measuring programmes, on-site measurement indicators, etc.

The Pipe Monitoring system of LANCIER Monitoring is modularly expandable

Thus, the monitoring of further relevant parameters of the immediate environment and infrastructure in the same monitoring system can be easily and cost-effectively implemented.

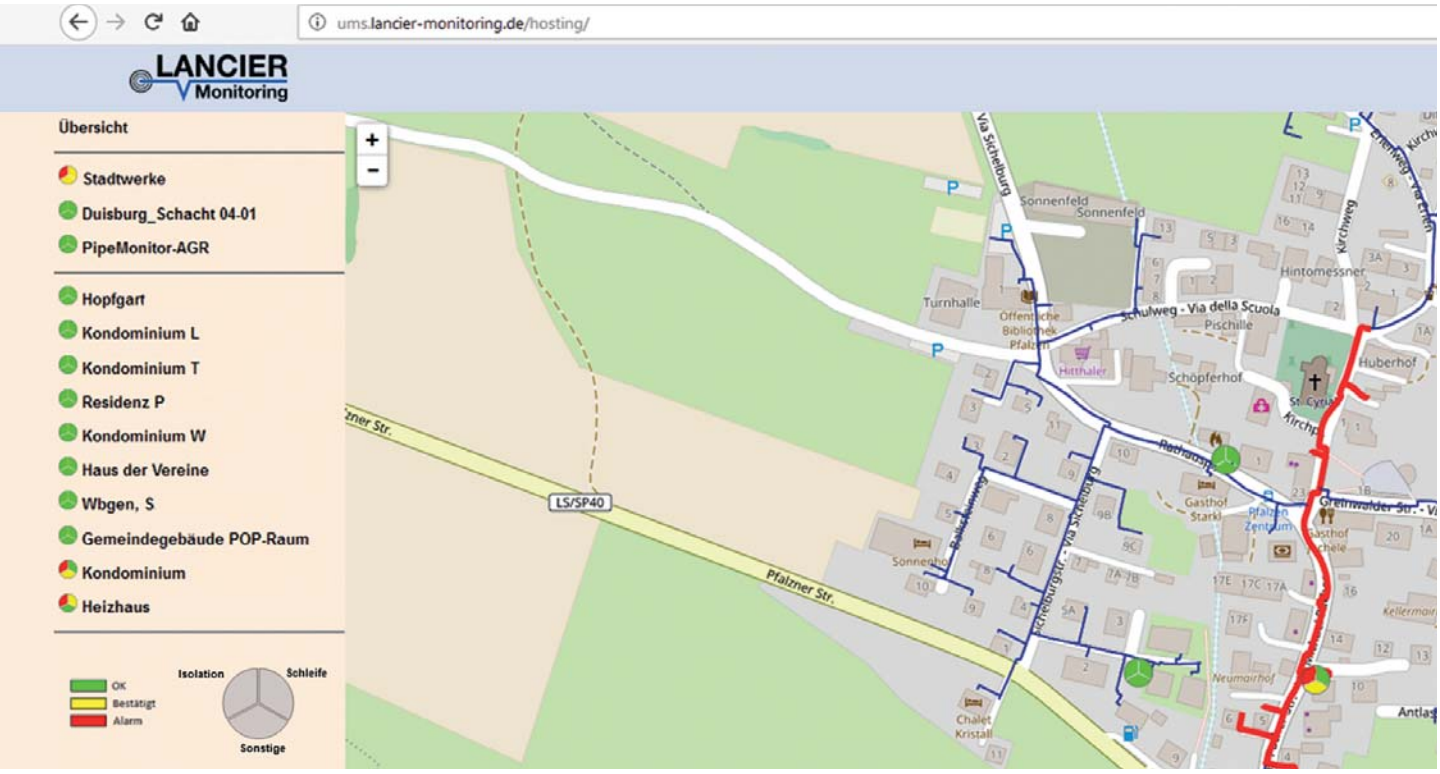
Physical parameters

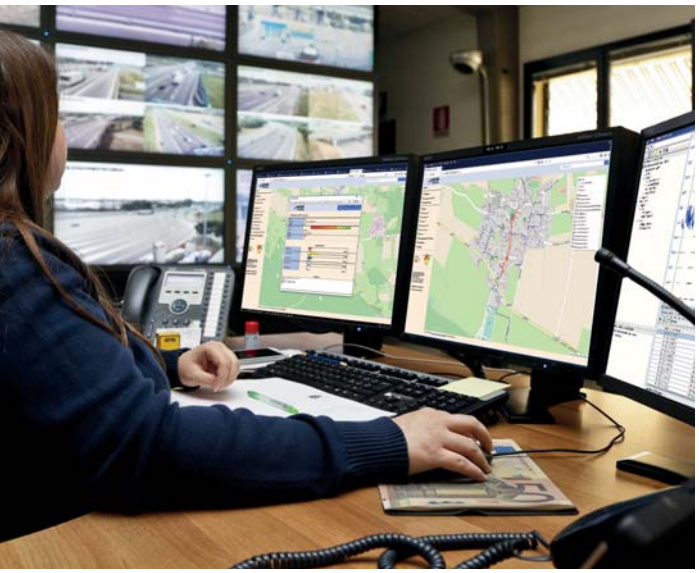
- Contacts (floating switches, door contacts etc.)
- Temperature
- Humidity
- Pressure, etc.

Peripheral equipment

- Counters
- Manholes/ manhole covers
- Telecommunication cables, etc.

From an overview down to details





The UMS reveals all important information in a few mouse clicks

Store your own plans and documents for quick access and assign them to the relevant routes or particular - sections.

On the start screen all monitoring stations and routes are shown and selectable via a mouse click.

Routes in alarm states are shown in red.

See fault locations including GIS coordinates and mapping.

UMS components

- The monitoring stations form a universal platform for all network and system monitoring tasks.
- The server contains the central Oracle™ data base for all monitoring stations and supplies data and information to clients.
- The client/server communication feature uses the Internet protocol and can therefore be accessed via the Internet or Intranet using standard browsers.

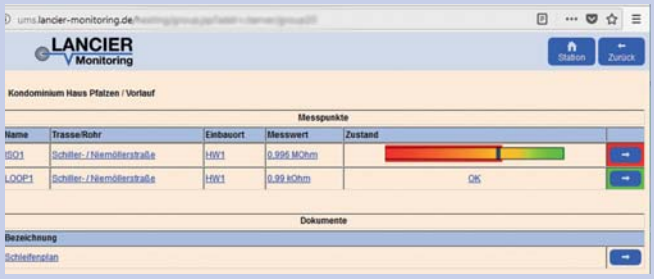
Obtain results intuitively and quickly

Monitoring stations

The monitoring stations record all measurement parameters and evaluate the measurement results according to determined, programmed threshold values.

A central server permanently calls up alarms and status information via the network.

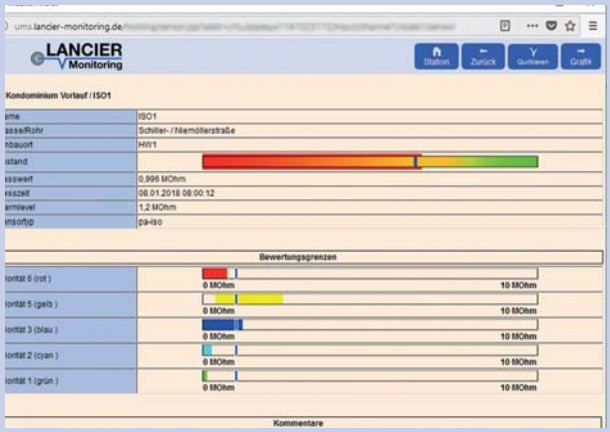
From the start screen you can go directly to the detailed view of any monitoring station and all of its relevant parameters.



Measurement points

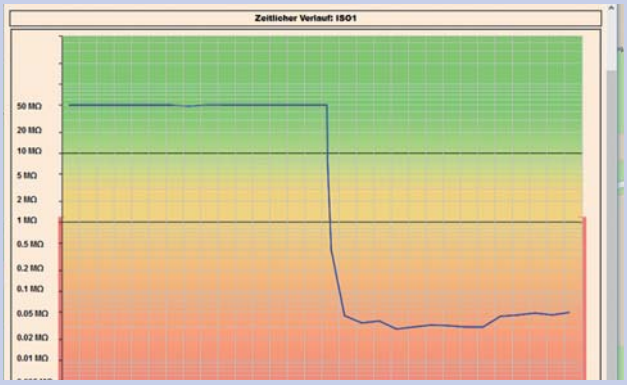
By mouse click you can move quickly and easily from any monitoring station to individual measurement points.

Here you will find all the important details relating to the applied sensors along with all of the recorded measurement values.



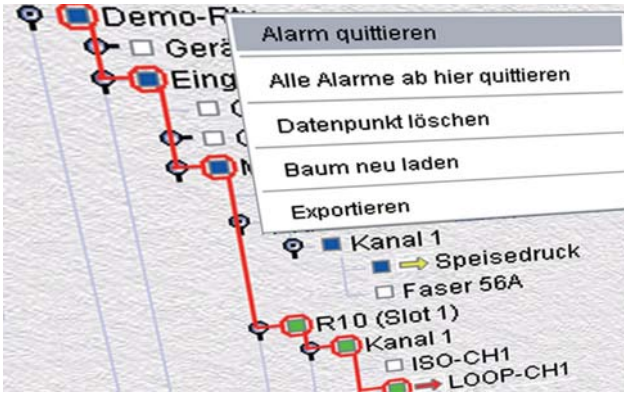
Graphic evaluation

With just one click you can call up a graphic evaluation for any measurement point, e.g. the measurement values over time.



Automatic alarms

Configure the recipients of particular alarm messages individually, according to their operational requirements and via a range of communication channels, e.g. e-mail or SMS.



District heating pipe monitoring

In order to detect leaks and shaeth damage in district heating pipes early and reliably, the insulation and loop resistance of a measuring pair in the insulation layer of the pipe is monitored.

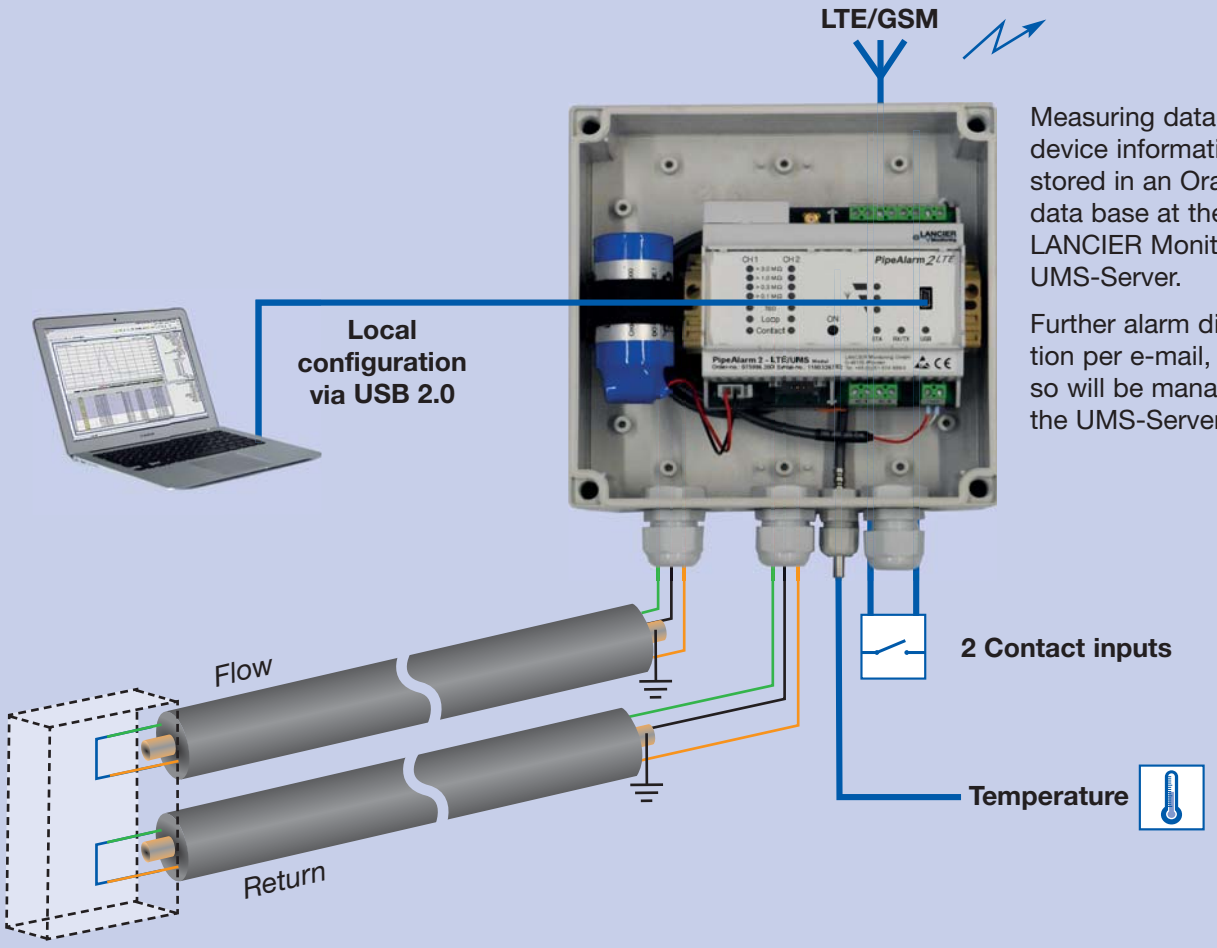
Moisture penetrating into the insulation layer or faulty joints changes the measured insulation resistance. This is detected and reported by the LANCIER monitoring system. With the NiCr system, the leak can even be located exactly.

Likewise, breaks in the measuring wires and manually inserted bridges (e.g. after maintenance work) are reliably detected.

Depending on the structure of the network to be monitored and the available signal paths, there are various system options that can be combined with each other.

Monitoring device PipeAlarm2 LTE/UMS

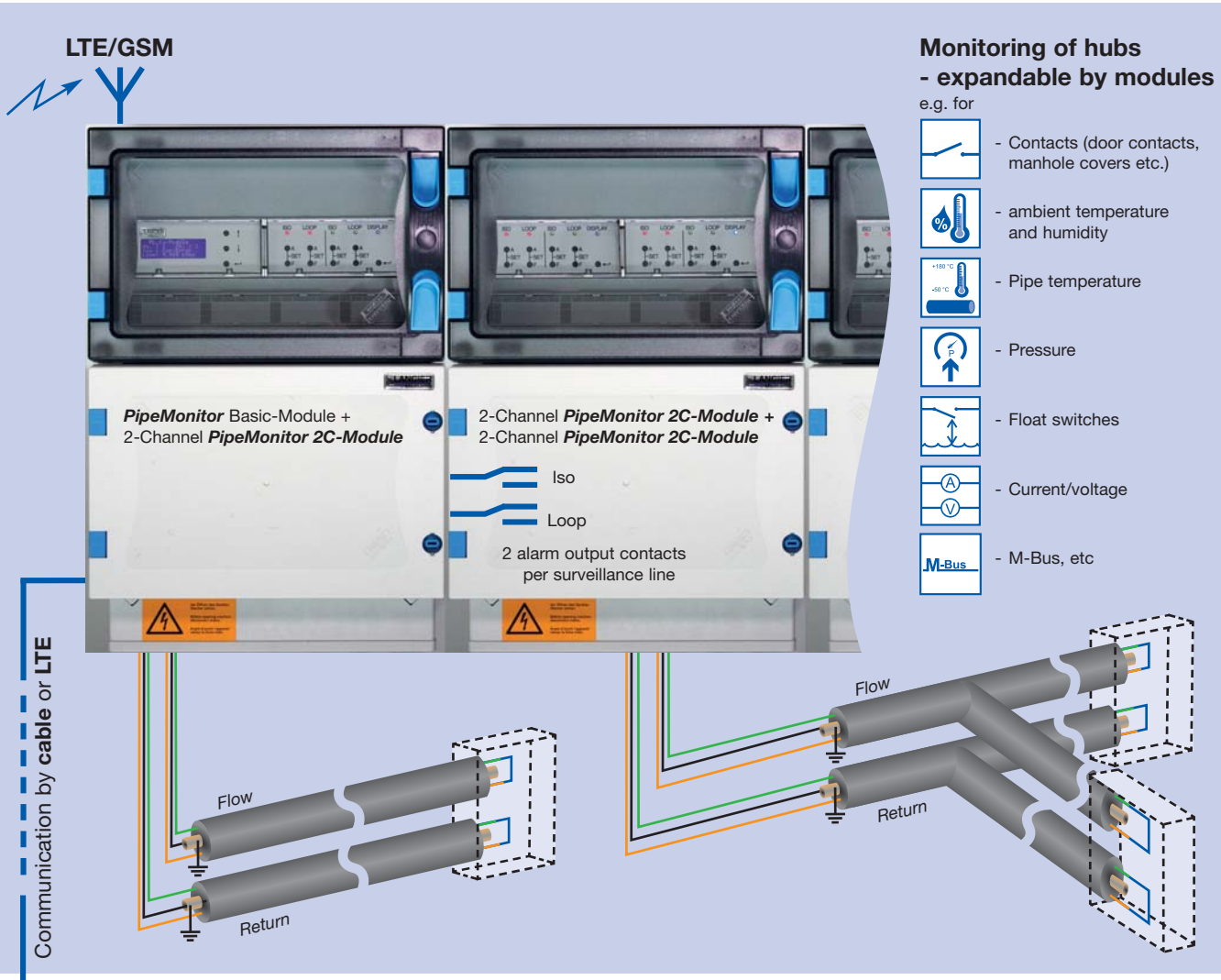
- The cost-effective monitoring alternative for single lengths with flow and return line
- Automatic measuring value storage
- For NiCr, nordic system (Cu) and hierarchical system



Pipe monitoring with fault location

Modular system PipeMonitor

- The flexible modular system for single lengths up to larger hubs
- For NiCr (with fault location), nordic system (Cu) and hierarchical system
- Expandable for further measuring tasks (e.g. temperature, humidity, pressure, contacts etc.)



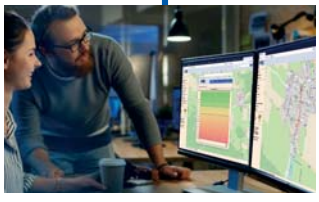
Data transmission and configuration

1. UMS-Server

Comfortable measurement collection and administration with flexible alarming.

2. Integrated Webserver

For configuration tasks and memory readout by direct IP access.



3. Telecontrol centre/BMS by Mod-Bus

Measurement collection and administration

LANCIER Monitoring

Feel safe

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