

Product Information

Smart-Iso-Box 200/10

Network analysis of communication cables via LoRaWAN®

The **Smart-Iso-Box 200/10** is a cost-effective **cable monitoring system** from LANCIER Monitoring that uses LoRaWAN® communication for fast and effective data transmission. It can be easily integrated into existing LoRaWAN® networks.



As a LoRa node, the **Smart-Iso-Box 200/10** measures the insulation and loop resistance of a representative twisted pair in telephone cables on a daily basis. If humidity penetrates, for example, the transmission quality deteriorates and the resistance values change. This is detected and reported by the **Smart-Iso-Box 200/10**.

The value of the loop resistance also provides information about cable interruptions, e.g. due to tearing, theft or sabotage. The resulting rapid damage detection enables immediate reaction and prevents greater damage and costs.

The **Smart-Iso-Box 200/10** is additionally equipped with two contact inputs for the detection of e.g. float switches or access controls.

For easy configuration and parameter setting, the **Smart-Iso-Box 200/10** has a USB interface and an easy-to-use Smart Tool.

The battery-powered **Smart-Iso-Box 200/10** is independent of external power sources. It transmits measured values and device status information via LoRaWAN® to the control room. Here a meaningful assessment and visualisation can be carried out.

The range of data transmission in the LoRaWAN® is up to 2 km in urban areas and up to 15 km in rural, less built-up areas, depending on the local structural conditions. Data transmission is also possible through manhole covers, building walls and even out of cellars.

The Smart-Iso-Box can also be used as an **alternative to manual checks of the measuring points**. This avoids the time-consuming coordination of appointments with operators or residents as well as the elaborate entry into manholes, etc.

The **Smart-Iso-Box 200/10**

is especially suitable

- for telecommunications and control cables.
- for operators of wired telephone networks.
- as an alternative to manual checks of the measuring points.

Technical Data

Supply voltage	Exchangeable lithium battery, 3.6 V
Battery lifetime	> 10 years at daily measurement
Number of measurement channels	1
Measuring range insulation	0 .. 200 MΩ (Fault ±3 % of measured value ±10 kΩ absolute)
Measuring range loop	0 .. 10 kΩ (Fault ±3 % of measured value ±0.05 kΩ absolute)
Cable length	max. 2500 m
Measuring voltage	≤ 50 V DC
Contacts	2 contact inputs, cable length up to 10 m, permanently monitored
Data transfer	LoRaWAN® standard
On-site display	5 LED: 3 x Status, 1 x USB-Power, 1 x USB-Detect
On-site operation	1 button for real-time measurement
Interface	USB 2.0 interface for configuration of device
Operating temperature	-20 .. +60 °C
Degree of protection by enclosure	IP 66/67
Dimensions	104 x 104 x 70 mm (W x D x H)

Ordering Information

Smart-Iso-Box 200/10 for mobile measurement data readouts

Order-no. 076362.000

Accessories

Installation kit for **pole mounting**

Order-no. 076380.000

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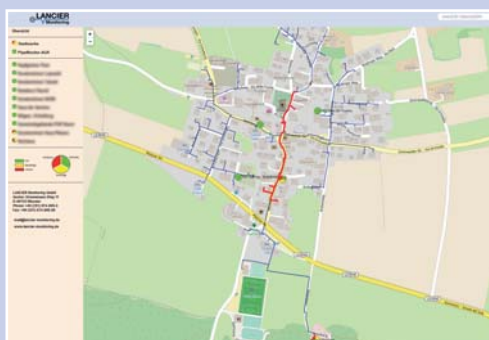
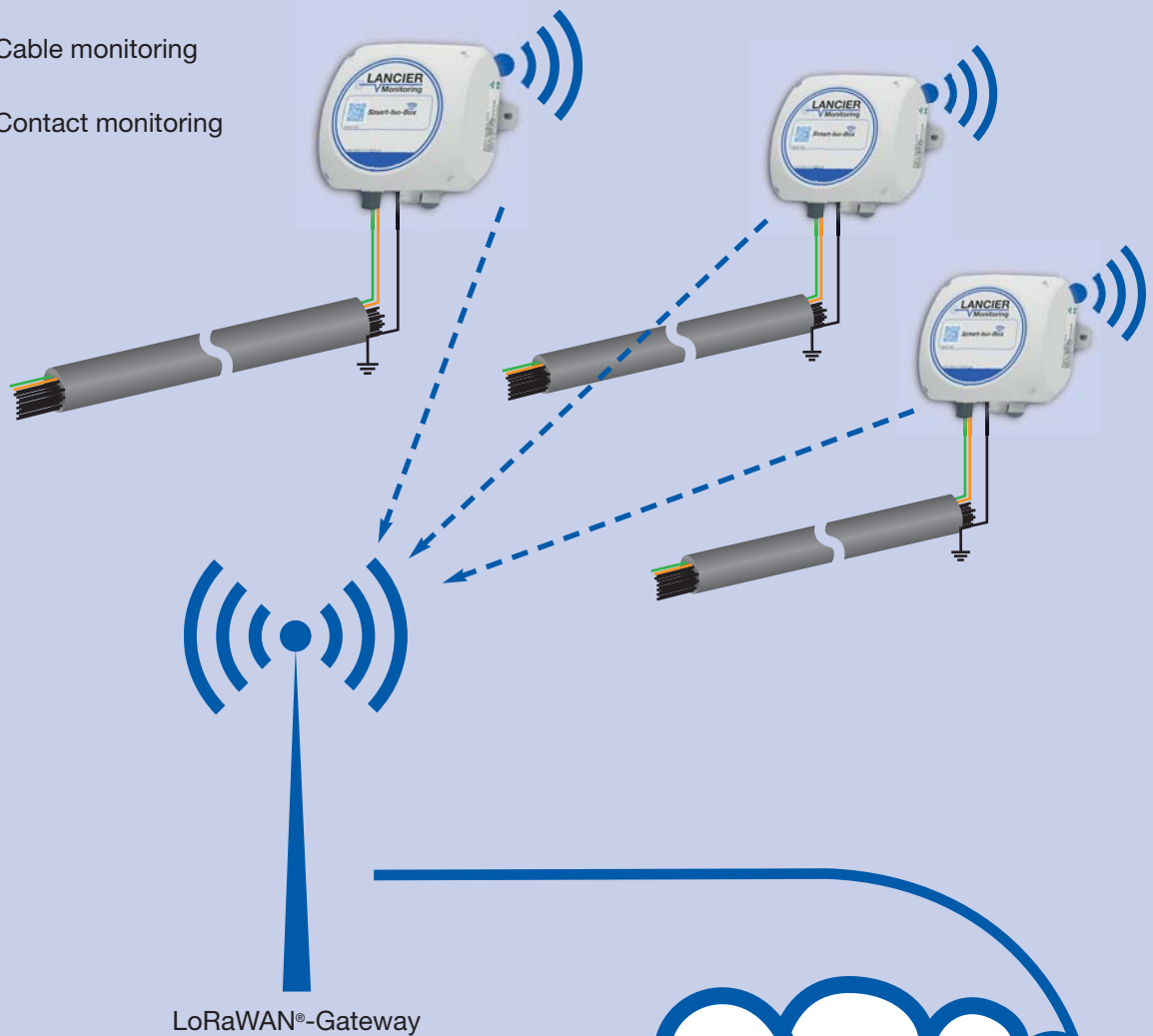
System diagramme

Smart-Iso-Box 200/10



1 x Cable monitoring

2 x Contact monitoring



Evaluation of the measurement data and alarm report with visualisation of its geographical position in the LANCER Monitoring UMS System.