Product Information

LANCIER Monitoring

LANCIER Monitoring GmbH
Gustav-Stresemann-Weg 11
48155 Münster, Germany
Tel. +49 (0) 251 674 999-0
Fax +49 (0) 251 674 999-99
mail@lancier-monitoring.de
www.lancier-monitoring.de

PipeCheck plus

Hand-held measuring device for district heating pipe sensors

Small, light and efficient: the ***PipeCheck plus*** mobile measuring device by LANCIER Monitoring is used for inspecting existing or newly installed measurement sections in district heating pipeline monitoring.

Intuitive operation using just three keys. The illuminated, glare-free LC display can also be easily read in difficult lighting conditions. A battery-saving LED torch is integrated into the device for working in dark areas.

The ***PipeCheck plus*** identifies the MH level, as well as the insulation and loop resistance. By reversing the polarity of the metering voltage automatically, the interference from the element potential is eliminated and so a typical measurement error is avoided.

The ***PipeCheck plus*** recognises the following faults:
- pipe leakage,
- breaks in the measurement section,
- pipe connection fault,
- contact of a sensing wire with the media pipe

and detects the **fault location** as well as the length of the loop (for NiCr only).

All measurements are stored on a replaceable **memory card** with a georeferenced time-stamp (via internal GPS module) for later **post-processing on the PC**. Route memos help to identify and evaluate particular measuring spots.

The battery-operated measuring device is equipped with a USB port for easy data transfer.

The ***PipeCheck plus*** is supplied in a handy shock-proof carry case.

Technical Data

Measurement range insulation	0 .. 100 MΩ (fault: ±1 % of m. v. for 0 .. 20 MΩ, ±3 % of m. v. for > 20 MΩ ±1 Digit)
Resolution insulation	0.1 kΩ
Measurement range loop	0 .. 50 kΩ (fault: ±1 % of measured value ±10 Ω absolute ±1 Digit)
Resolution loop	0.1 Ω (Cu)
Locating tolerance	±0.2 %, ±1 m for insulation values < 1MΩ (NiCr)
Pipe length	NiCr: max. 2.500 m (1m = 5.8 Ω) HDW / Cu (nordic system): max. 4.000 m
Pipe contact control	yes
Measuring voltage	≤ 24 V DC and < 100 mA (according to EN 14419)
Display	LC display, monochrome grey, glare-free
Power supply	Li-Ion battery, operating duration 10 h typ.
Features	Location tracking by GPS module SD memory card (max. 2 GB, FAT 16) Integrated LED torch USB port Battery status display
Operating temperature	-10 .. 50 °C
Admissible humidity	0 .. 95 % rel. humidity, non condensing
Dimensions (l / w / h)	approx. 221 / 106 / 35 mm
Weight, including case and accessories	approx. 1.55 kg (without outdoor box)

The +plus of PipeCheck plus

+ ***Fault location*** *(NiCr-System)*
+ ***Separate measurement of insulation resistance*** *of the wires against pipe at HDW-System*
+ ***Route memos*** *for route identification and remarks*
+ ***Individual measurement for loop survey***
+ ***Comprehensive accessories and outdoor case***

Ordering Data

Hand-held measuring device *PipeCheck plus*
for district heating pipe sensors
including outdoor box and accessory kit comprising:
1 charging cable with plug for use in cars, 2 test tips, 2 large alligator clips,
1 test plug (1.1 MΩ / 5.8 kΩ, fault 0.1 % of m. v. each), 2 spring clips,
1 replacement magnet, 1 pipe connector mount, 1 pipe connection extension cable,
1 replacement SD memory card **Order-no. 075410.000**

Product Information

LANCIER Monitoring

LANCIER Monitoring GmbH
Gustav-Stresemann-Weg 11
48155 Münster, Germany
Tel. +49 (0) 251 674 999-0
Fax +49 (0) 251 674 999-99
mail@lancier-monitoring.de
www.lancier-monitoring.de

PipeCheck plus

Hand-held measuring device for district heating pipe sensors

Systems comparison	*PipeCheck*	*PipeCheck plus*
Figure		
NiCr-Measurement		
Insulation and loop measurement	✔ R_{loop} 15 kΩ	✔ R_{loop} 50 kΩ
Fault location	✗	✔
Nordic measurement		
Insulation and loop measurement	✔	✔
HDW measurement		
Iso measurement a→b, Iso measurement ab→pipe, loop resistance	✔	✔
Individual Iso measurement a→pipe, b→pipe	✗	✔
Features		
GPS module	✔	✔
Data storage	✔	✔
Route memos	✗	✔
Individual measurements for loop survey	✗	✔
Integrated LED torch	✔	✔
Comprehensive accessory kit	Option	✔
Outdoor box	Option	✔

Measurement setup

The measuring wire (**1**) is about 1 m long and branched in the middle.

The red and green measuring wires (**2**) are connected to the sensing leads of the pipe to be measured.

The black measuring wires (**3**) are connected to the media pipe by means of a pipe connection magnet (**4**). They must not have direct contact to each other.

All measuring wires are equipped with banana plugs. Alligator clips and a pipe connection magnet are included to simplify the connection works.