



Monitoring system > copper wires

Type : NORDIQUE

Standard : EN 14419

Electrical resistance : 24 Ω /Km

Maximum wire length : in detection and 2500 m in fault localisation.

Connection : loop or single wire

The system is composed of:

→ 1 "sensor" bare tin-plated copper wire

→ 1 "ground" bare copper wire

The system is based on the quantity of electricity conducted by the insulation.

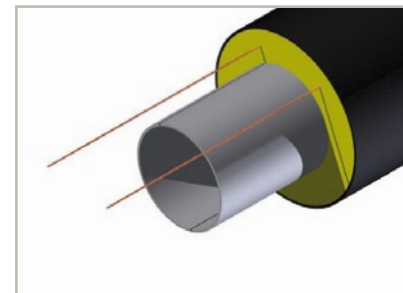
Depending on the amount of moisture of the polyurethane foam, the electrical resistance between the steel service pipe and the PUR foam decreases.

Humidity can be detected by measuring the impedance.

The units are available in several models:

→ Detectors indicate the presence of faults on the network.

→ The locator can detect faults on the network with a precise indication of the position to allow for targeted interventions.



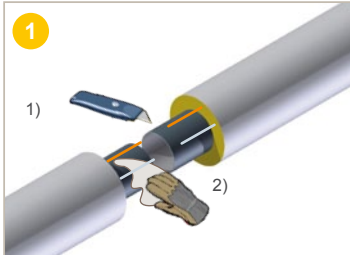
Detection units : 2020 / 3000

Localisation units : 4000

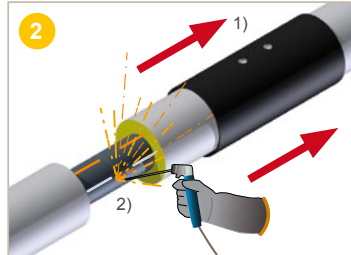
System composition	
1 "sensor" bare tin-plated copper	1 "ground" bare copper wire
Ø mm	Ø mm
1,39	1,39



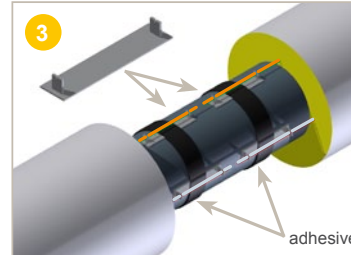
Implementation of the monitoring system > Copper



- 1) **Scrape** the PUR foam off the front (all signs of damp PUR foam must be removed from the ends).
2) **Clean** the ends of the pipes or parts with a cloth to remove any water, mud or sand.



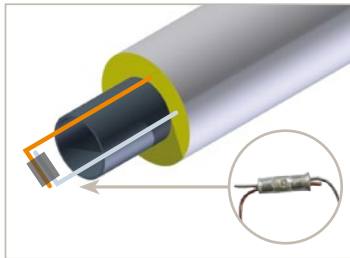
- 1) **Slide** along the HDPE muff.
⚠ Make sure not to remove the protective film, which prevents accidental shrinkage of the muff.
2) Align the pipes and weld the two steel pipes together according to professional standards.



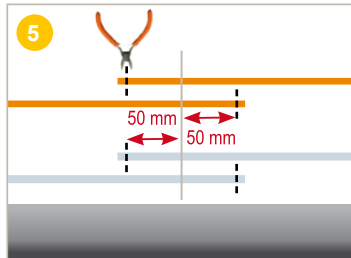
- 1) **Position** the spacers on the service pipe.
2) **Hold** the spacers in position with sellotape.



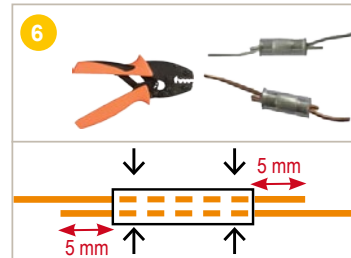
- For each junction:
• **Check** that the detection wires are in good condition.
• **Check** that the detection wires are correctly connected using an INPAL TEST meter or an ohmmeter.
⚠ The wires are checked at each junction.



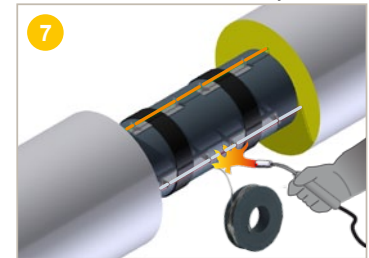
- ⚠ For operation 4 the wires must be connected at one end.



- 5 **Cut** the wires to obtain an extra length of 50 mm and so that the cut ends stick out of the connector.



- 1) **Insert** the conductor wires of the same colour into the connector (lug) with the ends sticking out by about 5 mm.
2) **Crimp** the connectors at both ends using the crimping pliers.



- 1) **Weld** the connector using a blow torch and tin wire. Test the connected conductors by pulling them by hand.
2) Now **position** the wires on the spacers already fitted. After assembly, check the electrical continuity of the wires.