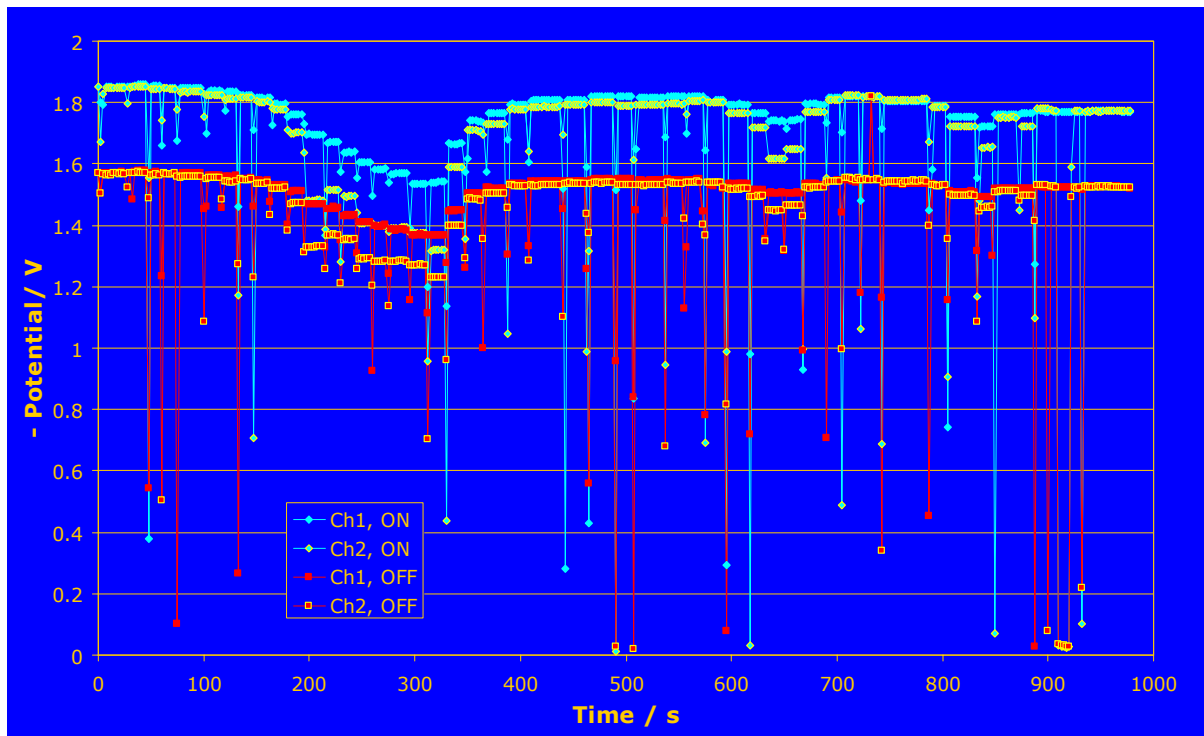


CPM 401

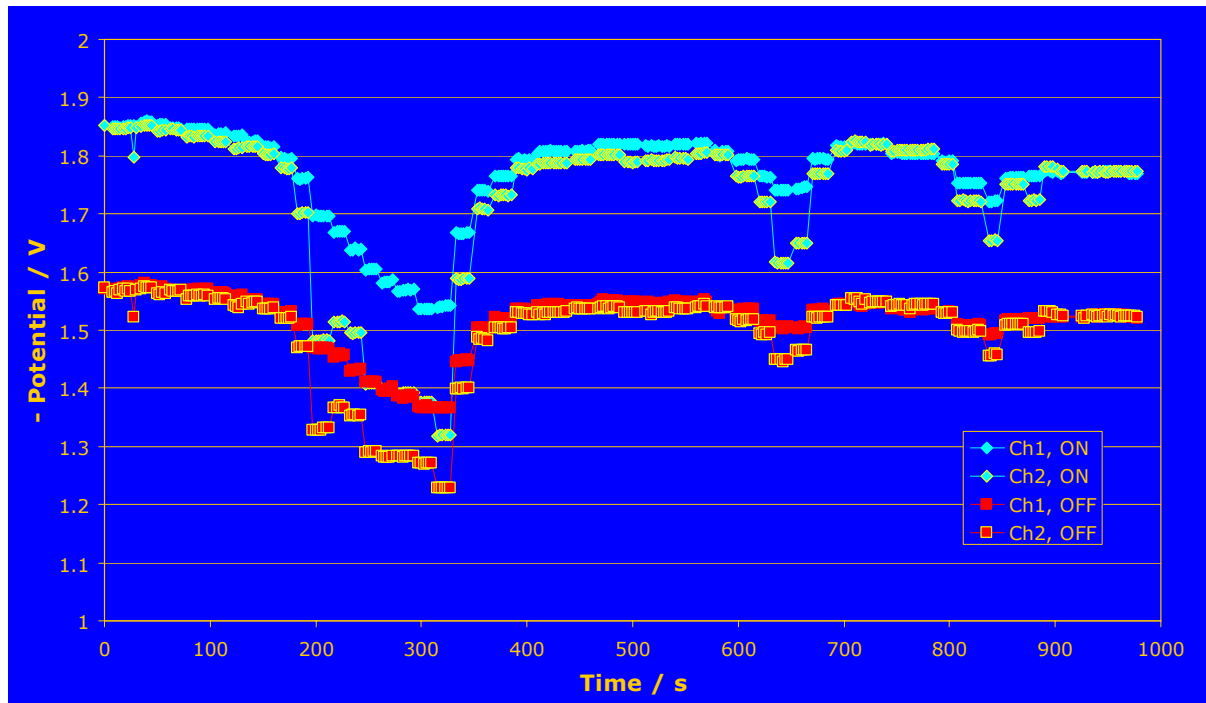
An advanced cathodic protection diagnostic technology



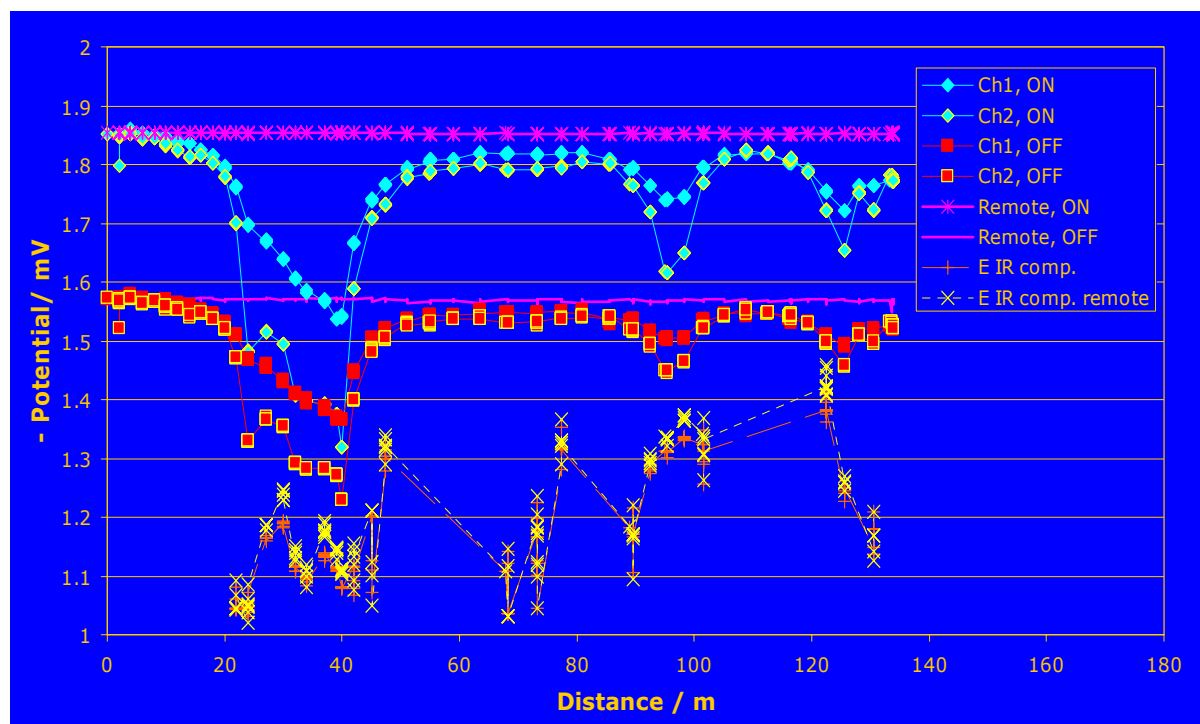
INDEXON Ltd. P.
Szeged, Hungary



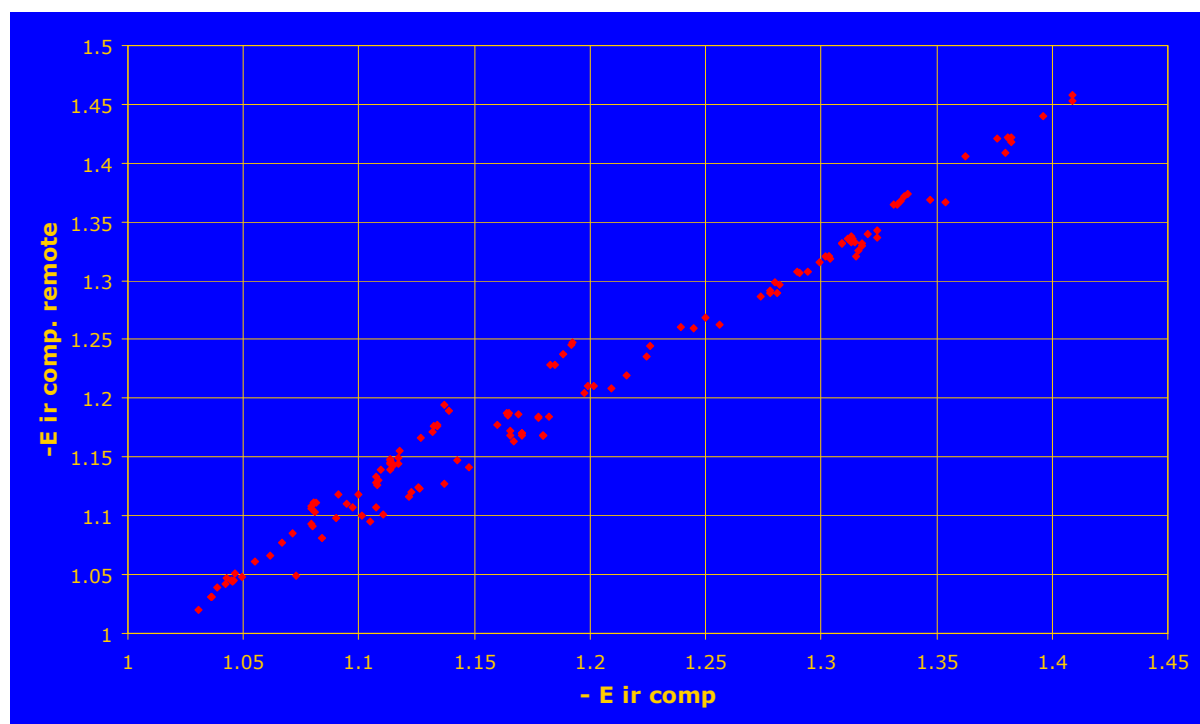
Potential vs. time diagram of the raw data of a DCPA measurement, with a great number of erroneous points.



Potential vs. time diagram of the filtered data. The bad contact points were all eliminated by the error rejection algorithm.



Potential vs. distance diagram of the filtered data with the calculated values of IR-free potentials.



Comparison of IR-free potential data determined with DCPA and DCPA-WL (wireless) methods.

Aims of the CPM 401 cathodic protection diagnostic technology

The technology was developed on the basis of the CIPS and DCVG methods, in order to facilitate correct measurements also in the following cases when the conventional methods are unable to provide correct IR-free potential data:

- ***An excess number of uninterrupted CP stations***
- ***Interference***
- ***Stray current***
- ***Presence of uninterrupted sacrificial anodes***
- ***Dry or heavily polluted (oily) soil***

Results of development

- ***A novel procedure for the determination of the contact resistance of the reference electrode, compensation of the effect of resistance***
- ***An integrated data processing system with erroneous data rejection algorithm***
- ***The DCPA (Direct Corrosion Potential Assessment) method, enabling the calculation of IR-free potential data from close and remote potential measurements***
- ***Wireless DCPA technique, no need of pulling the cable over the pipeline***
- ***Evaluation of interference and stray current phenomena***

Specifications

- ***Four-channel AD-converter, range of -10 .. +10 V, resolution of 1.2 mV.***
- ***Data sampling frequency of max. 160 Hz, noise suppression optimized for the frequency range 50 .. 120 Hz, very stable analogous inputs.***
- ***DA converter, range of -5 .. +5 V, output max. 0.25 A.***
- ***TTL Out channel, for driving an interrupter.***
- ***TTL In channel, for backpack distance signal counter.***
- ***GPS module for precise timing and location assessment.***
- ***GSM module for remote operation and data transfer.***
- ***Battery operation, at least 12 hours of operation (if DA Out channel is inactive).***
- ***USB and RS232 communication channels for data transfer with master computers.***
- ***128 MB built-in flash-card, capable of storing data of minimum 24-hour (typically 100-hour) long measurement series.***
- ***Simple measurement setup design and download by means of the CPM 401 Expert program (included free of charge).***
- ***Field measurement monitoring by means of the CPM 401 Surveyor program (included free of charge), on a PSION Workabout Pro palmtop computer.***
- ***Weight: 2.5 kg.***
- ***Dimensions (H*W*L): 75*208*240 mm.***

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