Early Corrosion Detection with the CANIN+ reduces Risk of catastrophic Damage

Features

- Accurate field potential measurements aid in detecting corrosion in rebars
- Immediate presentation of test area and reading - directly on the instrument display
- Optional rod or wheel electrode for increased testing speed and productivity
- Four-point Wenner probe
- Total memory for up to 240,000 measurements

Measuring with rod electrode according to standards.

Wheel electrode with moistening wheel for continuous wetting up to a length of 200 m (650 ft). Linear distance recorder with travel direction detection. Automatic measurement of pre-selected intervals.

Four-point Wenner probe.

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CANIN+ Corrosion Analyzing Instrument

The CANIN+ instrument offers two methods for investigating and assessing the corrosion of steel in concrete.

Firstly, the instrument can measure the corrosion potential and secondly, it can measure the resistivity of the concrete. The same CANIN+ device can perform both tasks.

Corrosion of steel in concrete is an electrochemical process. A potential field can be measured on the concrete surface by the use of an electrode, known as a half-cell, and a high-impedance voltmeter.

The CANIN+ Corrosion Analyzing Instrument highlights corrosion activity before rust becomes visible. This early detection can be key in preventing an unanticipated structural failure.

CANIN+ is ideally suited for assessment of corrosion potentials on large areas of 8,000 m² (83,000 sq.ft.) or multiple thereof, depending on the individual selectable grid size. 235,000 values can be stored by the intelligent memory. Up to 240 measurement values are displayed at a time in easy to read grey-scale and a menu-driven approach facilitates simple operation using just nine keys.

The concrete resistivity is measured by the four-point Wenner probe. A low concrete resistivity indicates a greater chance of corrosion of the reinforcement and also a greater corrosion rate.

The instrument can also store up to 5,800 resistivity values.

Data can be transferred to a PC.

Testing Standards: ASTM C876-91, BS 1881 Part 201, SIA 2006, DGZfP B3, UNI 10174

Specifications

Potential Mesurement	
Measurement Range:	± 999 mV
Resolution:	1 mV
Memory:	non-volatile memory for up to 235,000 measurements stored in up to 71 object files
Software:	ProVista software for downloading data and evaluation on PC
Battery Operation:	six LR 6 batteries, 1.5 V for 60 hours or 30 hours with activated backlight
Resistance Measurement	
Measurement Range:	0 to 99 kΩcm
Resolution:	1 kΩcm
Memory:	non-volatile memory for up to 5,800 measurements stored in up to 24 object files
Data Transfer:	by Windows Hyperterm
Battery Operation:	six LR 6 batteries, 1.5 V for 40 hours or 20 hours with activated backlight
General	
Impendance:	10 MΩ
Temperature Range:	0 °C to 60 °C
Display:	128 x 128 pixels graphic LCD with backlight
Data Output:	RS 232 interface, USB with adapter
Case Dimensions:	580 x 480 x 210 mm (22.8" x 18.9" x 8.3")
Weight:	Net. 10.6 kg (23.5 lbs); Shpg. 14 kg (31.1 lbs)

CANIN⁺ Corrosion Analyzing Instrument

Ordering Information

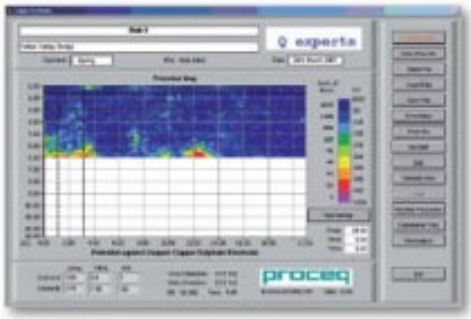
330 00 201	CANIN⁺ Half-Cell Configuration with Rod Electrode
Includes	CANIN⁺ indicating device, carrying strap, protection sleeve for indicating device, rod electrode with spare parts, electrode cable 1.5 m (4.9 ft.), cable coil 25 m (82 ft.), CANIN ProVista PC software on memory stick, transfer cable, USB-serial adapter, bottle with copper sulphate 250 g, operating instructions, CANIN⁺ carrying case
330 00 202	CANIN⁺ Half-Cell Configuration with Rod and Wheel Electrodes
Includes	CANIN⁺ indicating device, carrying strap, protection sleeve for indicating device, rod electrode with spare parts, electrode cable 1.5 m (4.9 ft.), cable coil 25 m (82 ft.), one-wheel electrode system, tool kit to wheel electrode system, CANIN ProVista PC-Software on memory stick, transfer cable, USB-serial adapter, bottle with copper sulphate 250 g, bottle with citric acid 250 g, operating instructions, CANIN⁺ carrying case
330 00 203	CANIN⁺ Configuration with Wenner Probe
Includes	CANIN⁺ indicating device, carrying strap, protection sleeve for indicating device, Wenner resistance probe with spare rubber foam pads, cable for Wenner probe, control plate for Wenner probe, operating instructions, CANIN⁺ carrying case
330 00 204	CANIN⁺ Combined Configuration with Rod and Wheel Electrodes and Wenner Probe
Includes	CANIN⁺ indicating device, carrying strap, protection sleeve for indicating device, rod electrode with spare parts, electrode cable 1.5 m (4.9 ft.), cable coil 25 m (82 ft.), one-wheel electrode system, tool kit to wheel electrode system, CANIN ProVista PC-Software on memory stick, transfer cable, USB-serial adapter, bottle with copper sulphate 250 g, bottle with citric acid 250 g, Wenner resistance probe with spare rubber foam pads, cable for Wenner probe, control plate for Wenner probe, operating instructions, CANIN⁺ carrying case

Accessories

330 00 956	One-wheel electrode system
330 02 520	Wenner probe with cable, spare rubber foam pads and control plate
390 00 542	USB-serial Adapter

CANIN ProVista PC-Software

The CANIN ProVista Windows-based software, developed by Proceq SA, makes it possible to download, present and edit data measured by the CANIN half-cell instrument in an easy and fast way using an IBM-compatible PC. The program generates a potential map, a relative frequency and a cumulative frequency diagram and provides a chipping graph. This statistical presentation is the basis for an efficient interpretation of the half-cell potentials by the corrosion engineer.



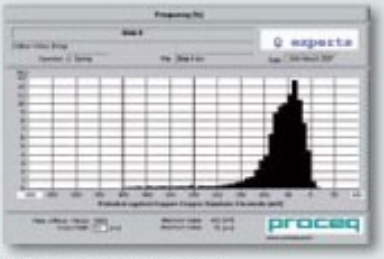
Potential map

The software allows the engineer to rotate and mirror files. Single potential maps can be combined to form a complete graph representing the total investigated surface area.

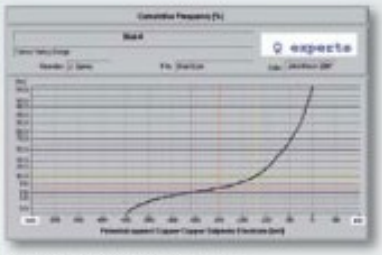
Based on the determined threshold potentials that represent certain conditions of the structure, up to four characteristic potential intervals can be chosen. The corresponding partial areas are marked with different colors in the presentation as a „chipping graph".

Rapid and Reliable Measurement of very large Areas

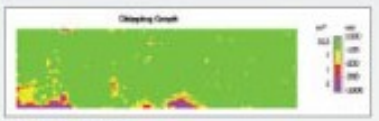
One-wheel electrode system



Relative frequency diagram



Cumulative frequency diagram



Chipping graph

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