CorroWatch Multisensor works as a system for early detection of corrosion initiation in concrete structures

The CorroWatch Multisensor is embedded in the concrete cover of new concrete structures. The probe measures most of the relevant parameters, in order to assess the corrosion condition.

It consists of four measuring electrodes of black steel (anodes) in varying positions with a known distance to the reinforcement and a measuring electrode of noble metal (cathode). The height of the anodes is flexible and may be adjusted according to the thickness of the concrete cover.

In order to predict when the reinforcement will start to corrode, the current between the individual anodes and the cathode is measured, either with a specially designed handheld Zero ohm ammeter or a specially designed datalogger. When corrosion starts, the current will increase significantly.

Areas of application
• Inaccessible areas e.g. in tunnels and bridges in marine environments
• Structures exposed to de-icing salt, e.g. bridge decks, parking lots and houses
• Structures under great influence of acid rain, e.g. chimneys/funnels/smokestacks.