Linear Polarisation Resistance (LPR) Corrosion Probe for Reinforced Concrete

Abstract

A linear polarisation Resistance (LPR) corrosion probe comprising two steel bar segments mounted in a molding resin in such way that the exposing length of the steel bar outside the molding resin and the distance between these two steel bar segments are fixed. Two steel bar segments cut from the actual steel bars used for construction are used as electrodes to reflect the actual corrosion condition in the concrete structure. Two electric cables are provided which are electrically connected to the two steel bar segments inside the molding resin. The probe is embedded in the reinforced concrete structure. Corrosion monitoring instruments are connected to the cables to monitor corrosion of the reinforcement in the concrete structure.