MuRE™ is a permanent reference electrode for reinforced concrete structures to detect corrosion in early stage. It is made of a series of linear-Ni-made-electrodes, working as pseudo-reference electrodes to measure the local potential of steel reinforcements.

ADVANTAGES

MuRE™ gives the potential profile of steel reinforcement to which is encased. Pitting corrosion initiation is early detected before corrosion propagation. This allows to prevent hydrogen embrittlement on high strength steels (for instance prestressing tendons).
MūRE™ is a permanent reference electrode for reinforced concrete structures to detect corrosion

INSTALLATION
It is designed and manufactured on the basis of the specific application, like total reinforcement length and duct diameter.

MūRE™ is installed close to the steel reinforcement; in the case of pre-stressing steel, inside the duct; in the case of a beam, along its length.

Cable shall be connected to a suitable junction box.

For continuous potential measurements, voltmeter used must have an impedance higher than 1 GΩ.

OPERATING
Potential against each electrode is measured sequentially. A negative variation of the potential of one electrode compared to the average variation of all electrodes indicates pitting initiation at the pertinent location.

One pitting has started, hydrogen embrittlement can occur.

SIZE WEIGHT CABLES
Size: from 5 to 18 mm in diameter.
Multipolar Cable with insulation resisting alkalinity.
Gross weight: 0.1 – 0.3 kg/m.

LIFE EXPECTANCY
No limitation.