

# cescor scms

## Cescor Stray Current Monitoring System

**Cescor SCMS** is specifically designed to monitor the presence or occurrence over time of **interference conditions**, for example due to direct current traction systems (railways, tramways, undergrounds, etc.), with consequent corrosion damage on reinforced concrete structures.

The system performs a **continuous registration of the potential** of the structure to be monitored by means of permanent reference electrodes in activated titanium (Ti-MMO).

The system records and processes the potential difference data between the steel reinforcements embedded in concrete and the Ti-MMO electrodes, generating alarms if certain thresholds defined by current normative are exceeded.



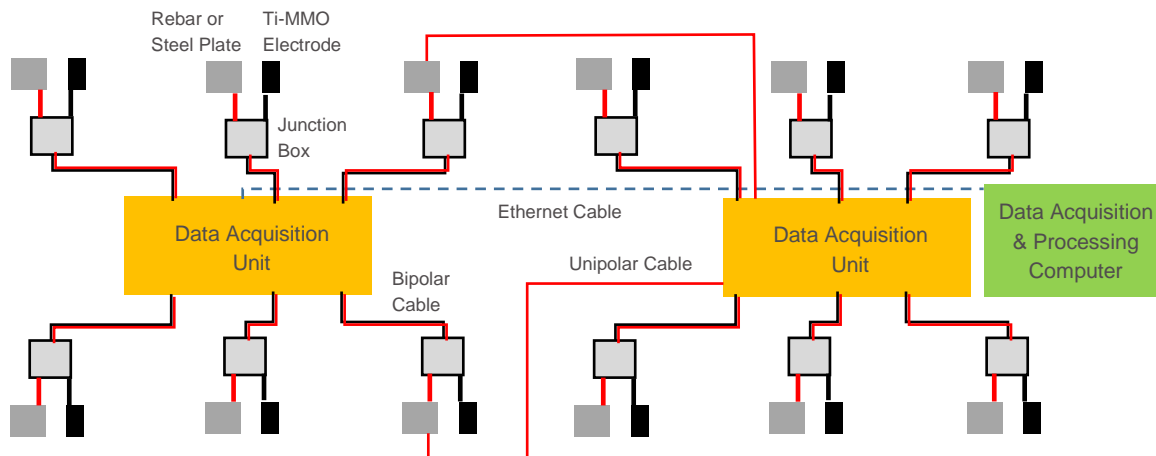
### Advantages

- Each data acquisition unit can operate as a stand-alone device, with software installed on the SSD hard disk of the internal PC, or it can be connected to an external PC that manages the monitoring system, acquires data from the connected units and creates daily files
- The software can acquire and save daily data, functionalities and alarms, also visible in a graphical form, and transmit them via Ethernet fiber-optic cable to the external PC



**cescor SCMS** is a monitoring system that periodically verifies the absence of corrosion issues due to electrical interference

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## INSTALLATION

Each data acquisition unit can be easily fixed to the wall with appropriate fixing screws, without any risk of movement, oscillation or detachment.

The cables of Ti-MMO electrodes and steel reinforcements to be monitored, together with the connection of the Ethernet fiber-optic cable, are inserted into appropriate protection conduits of suitable length, and connected to the internal terminal block of the unit.

## USE

The Ethernet fiber-optic cable must be connected to the external router, which must necessarily be connected to the internal industrial Ethernet switch to allow the operation of each data acquisition unit.

## TECHNICAL SPECIFICATIONS

- Dimensions: L = 500 mm, H = 500 mm, D = 210 mm
- Weight: about 20 kg
- Degree of protection: IP66
- Measurement accuracy: 0.05 % related to full scale range selected
- Measurement resolution: 20 ppm in each range selected
- Input impedance: 1 G $\Omega$  for connection to Ti-MMO electrode
- Sampling rate: from 1 to 10 samples per second
- Software interface: application running under Windows provided with each data acquisition unit
- SSD hard disk of the internal PC: No. 2, 64 Gb each one

## REFERENCE ELECTRODES

Ti-MMO electrodes supplied with FG16R16 cable 1x2.5 mm<sup>2</sup> (grey), or with LSZH cable (H1Z2Z2-K Eca 1x6.00 mm<sup>2</sup>, black).

## LIFE EXPECTANCY

Operating life is expected to be at least 20 years or more.



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