Corrosion rate monitoring probes are designed for installation during the construction of structures to provide information on the corrosion of the reinforcement and the condition of the concrete. This is done in the form of the following measurements:

- Corrosion potential ($E_{corr}$) of the probe working electrode and the main reinforcement with respect to the probe reference element.
- Corrosion rate ($I_{corr}$) of the probe working electrode and the main reinforcement using the linear polarization resistance (LPR) method.
- Concrete Resistivity.
- Concrete temperature.

**CORROSION RATE MONITORING PROBES - Concrete Cathodic Protection**

**MATERIAL SPECIFICATIONS**

**Anode Performance:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Width</th>
<th>Current Output</th>
<th>Anode Surface Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10mm</td>
<td>2.8 m.Amps / m</td>
<td>0.027m² / m</td>
</tr>
<tr>
<td>B</td>
<td>12.7mm</td>
<td>3.5 m.Amps / m</td>
<td>0.032m² / m</td>
</tr>
<tr>
<td>C</td>
<td>19mm</td>
<td>5.28 m.Amps / m</td>
<td>0.048m² / m</td>
</tr>
</tbody>
</table>

- **Maximum anode concrete interface current density:**
  - BS EN 12696 / FHWA limit: 110 mA/m²
  - Short-term limit: 220 mA/m²

- **Current Rating at 110 mA/m² (BS EN 12696):**
  - Expected life (NACE Standard TM0294-94): 75 years
  - Catalyst: Mixed Metal Oxide
  - Dimensions common to all types: 76 m
  - Expanded thickness: 0.9-1.0 mm
  - Diamond dimensions: 2.5 mm x 4.6 mm x 0.6 mm

- **Substrate:**
  - Titanium, Grade 1, per ASTM B265
  - Coefficient of thermal expansion: 8.7 x 10⁻⁵/K
  - Thermal conductivity at 20°C: 15.6 W/m °K
  - Electrical resistivity: 0.000056 ohm-cm
  - Modulus of elasticity: 105 GPa
  - Tensile strength: 245 MPa
  - Yield strength: 175 MPa
  - Elongation: 24% minimum

**MATERIAL SPECIFICATIONS**

**Anode Ribbon Mesh**

Anode Ribbon Mesh is a key component for Cathodic Protection systems in new reinforced concrete structures. It is composed of a precious metal oxide catalyst sintered onto an expanded titanium mesh substrate.

**MMO RIBBON ANODE - Concrete Cathodic Protection**

**Major Applications – Concrete Cathodic Protection**

We can provide this product to suit your specification and requirements.