ER Coupon – Soil Corrosion Probe

Verify cathodic protection efficiency
or
Detect corrosion and diagnose the cause

Probe featuring:

- Corrosion rate by ER measurement
- Cable wired for all electrical coupon measurements
- Cable terminated in gold plated plug
- Rugged probe construction and durable cable

Installation:
Place the ER probe in the soil in the vicinity of the pipeline.
Use an auger or make a larger excavation.
The flush type is designed for flexible mounting on the pipeline surface. Connect the cable electrically to the pipeline in a test post.

Principle:
The probe simulate a coating defect.
It is designed for Electrical Resistance measurement with an exposed part and a shielded reference element. Measuring the electrical resistance and using simple mathematical algorithms, yield the thickness.

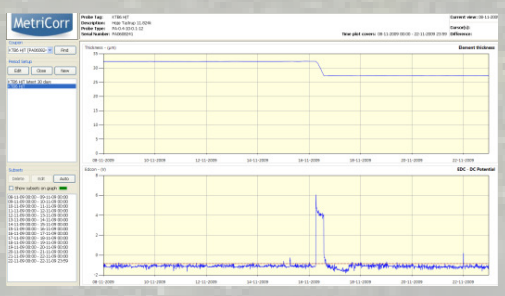
Characteristics:
The probe lifetime is “infinite” provided protection is efficient.

Once installed, replacement is only necessary in case the element is corroded through .

ER coupons yields reliable results:

- during long time routine monitoring,

- validation of mitigating actions taken to prevent complicated interference problems.



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ER Coupon – Soil Corrosion Probe for CP Verification

Technical data

To specify a MetriCorr standard ER probe for soil select:				
Type	Material	Area	Thickness	Cable length
Rod Flush Gutter	Mild steel	1.0 cm^2 10 cm^2	100 µm 500 µm 1000 µm	6 m 12 m 30 m

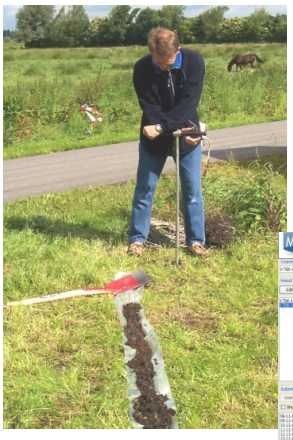
Detection Limits using MetriCorr ICL-02i	Detectable change of thickness based on 2 measurements from the same logger
Rod – Mild steel – 100 µm	0.0045 µm
Rod – Mild steel – 500 µm	0.14 µm

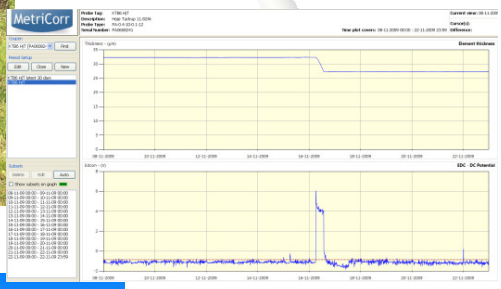
Detection Time @ 100 µm/y	Time required to detect a corrosion rate of 100 µm/y
Rod – Mild steel – 100 µm	0.5 hour
Rod – Mild steel – 500 µm	12 hours

Probe type	Dimensions
Rod – 1 cm^2	Ø 32 x 190 mm
Flush – 1 cm^2	180 x 190 x 45 mm
Rod – 10 cm^2	Ø 32 x 245 mm

Conformance	**ANSI/NACE RP0104-2004**
Standard Recommended Practice	The Use of Coupons for Cathodic Protection Monitoring Applications

The ER probe includes
ER probe
Coupon certificate
Termination cable - adaptor cable
Swap for cleaning ER surface
Installation instruction





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