CerAnode™ Technologies International

Division of APS-Materials, Inc. ----------

Coupon Reference Probe

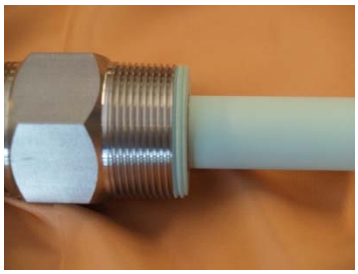
Product Data Sheet

Features

Robust Construction
Insulated Threads Next to Process
Integrated Pure Zinc Reference
IR-Free Reference Measurement
Current Pickup Measurement
Potential Measurement
Fits Standard Rigid Conduit Boxes

Coupon technology is becoming a widely accepted means of determining the effectiveness of cathodic protection (CP). Coupons can be used for many CP applications. CerAnode has developed a rugged Coupon Reference Probe for insertion into process vessels such as tanks and pipelines. The Probe is sometimes referred to as an IR-Free Probe or IR-Free Reference Electrode since it essentially eliminates the IR errors associated with potential measurements. These coupons can be used to measure corrosion current and CP current to determine current density, i.e. current pickup and discharge.

Zinc Ref. & Steel Coupon



Dielectric Threads

Color Coded Leads

The Probe has a steel (Fe) coupon ring and a high purity zinc (Zn) reference located in close proximity as shown above and in the drawing (next page). The coupon and reference are accessible electrically via color coded leads for the Zn reference, Fe coupon and structure. When operated, the Fe coupon is generally connected to the structure and represents a holiday on that structure. The coupon size for this model is 1 cm^2. The probe with its coupon and reference electrode can be used with the CerAnode Multi-Mode Automatic Rectifier Monitoring & Control System or with portable instrumentation. Corrosion Resistant materials have been used throughout. The hex fitting threads adjacent to the process are molded FRP to isolate the stainless hex fitting from the electrolyte to minimize measurement interference.

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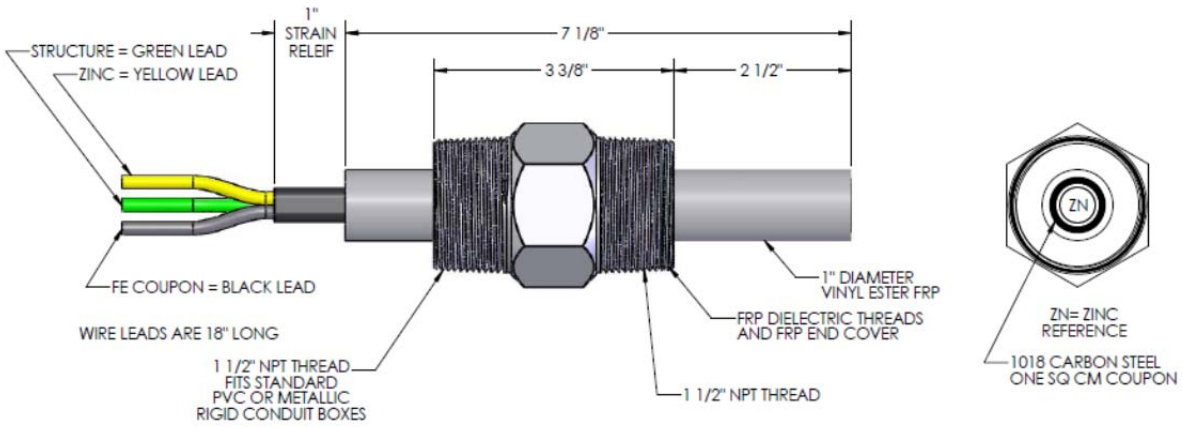

CerAnode Coupon Reference Probe (Specifications)	
Fe Coupon Material	1018 Carbon Steel
Fe Coupon Surface Area	1 cm^2
Zn Reference Electrode Material	99.99% Pure Zinc
Zn Reference Electrode Vs $Cu/CuSO^4$	+250 mV @ 25 C
Zn Reference Electrode Surface Area	1.27 cm^2
Pressure Rating	150 PSI
Temperature Rating	10 – 40 C
Flow Rating	10 ft/sec (3 m/sec)
Dimensions	See Drawing
Dielectric Materials in Process	Vinylester FRP
Hex Nipple Material	316 Stainless Steel
Hex Nipple Process Thread Size & Type	1-1/2" NPT
Type of Electrical Connection	14 AWG wire leads (Zn-YEL, Fe-BLK, Structure-GRN)
Junction Box Type & Material	Fits Optional Rigid Conduit Box (PVC or Metallic)
CerAnode Part Number	**CRP-ZN4X9-C1018-2.5-1-1.5NPT-316SS-1.5NPT**