

Deepwater Corrosion Services Inc.

Cathodic Protection Probes for Divers and ROVs

POLATRAK



DEEPWATER

www.stoprust.com

Overview

Polatrak is the leading brand in offshore and marine cathodic protection measurement. From simple drop cells (dip-cells) to complete self contained deep water CP probes for ROVs, the wide range of portable instruments and probes provides reliable CP potential data, spanning the gamut of potential CP measurement applications.

Systems are available for divers, work-class or light-weight ROVs, and surface deployment topside. Polatrak probes also utilize varying electrode elements (Ag/AgCl or Cu/CuSO₄) for use in seawater, brackish water or fresh water situations. The ROV systems (Deep C Meter) are rated to either 300 M (1000 ft.) or 3000 M (10,000 ft.), depending on the depth-requirements of the cathodic protection systems in question.

Polatrak CP Probes are designed to be simple to use, and Deepwater manufacturing only uses top-quality components, to ensure the most accurate readings for the life of the probe. In addition, all Polatrak probes are all designed with a certain level of built-in redundancy, to eliminate user-error in the field.

Deepwater offers full maintenance services on Polatrak instruments from our main facility in Houston, and most of our probes are available for rental from one of our worldwide distributors. Operating manuals and detailed specifications on all Polatrak probes are always available on-line at www.stoprust.com and www.cprobes.com.

Key design points

All Polatrak instruments (except EFG-1) have dual electrode elements, allowing all readings to be calibrated and qualified in real-time. This eliminates lengthy, cumbersome calibration procedures and the possibility that an inspection will return bad data.

The sintered Ag/AgCl electrode elements provide long service with repeatable accuracy, guaranteed to $\pm 0.005V$. With most Polatrak instruments, the elements are pluggable, allowing rapid field replacement when elements become depleted.

Instruments that have built-in readouts naturally have dual voltage displays, for to utilize the redundancy of the dual element design. The self-contained Polatrak systems greatly reduce the time and cost associated with ROV interface, eliminating the need for complex digitizers and thus, reducing the chance of survey errors.

The use of photo switches (activated by ROV lights) enables standard alkaline batteries to provide power for a whole season of survey activity.

Unlike other systems, most Polatrak probes are field-serviceable. All key components are easily replaced, thus your survey project is never compromised because of CP probe downtime.

Interchangeable Cu/CuSO₄ reference elements on most Polatrak systems now allow diver or ROV surveys to be performed in brackish or fresh water rivers and lakes.



Polatrak CP Probe Models

1. DC-II Drop Cell

The ultimate drop cell, with guaranteed accuracy +/- 5 mV. The rugged thermoplastic housing with tapered cone prevents snagging. Available with extra-long cable and high capacity cable reel with up to 1500 ft. of test cable (standard model shown with 75 m of cable).

2. CP Gun

The CP Gun outperforms all other bathycorrometer type devices available on the market in accuracy and convenience. Longer battery life interchangeable freshwater electrodes, and ultra-bright LED displays (for limited visibility) make the CP Gun the most user-friendly diver-held CP probe. The dual electrode elements and readouts make it the most accurate, as the probe is self-calibrating. Each probe kit comes with a full complement of spare parts, and replacements are easily available via cprobes.com. A single set of disposable alkaline batteries provides up to 150 hours of continuous survey operation.

A convenient on-off switch allows display only when actually probing for even longer life. The CP Gun is rated to depths of up to 300 m (~1000 ft).

3. ROV II

The ROV II is the most popular Polatrak probe. Rugged and simple, with the flexibility to interface to most ROV's or be diver deployed. The probe has replaceable and interchangeable elements, contact tip, nose and tail assemblies, for easy field maintenance. The ROV II can be used as a proximity probe or as a contact probe for checking subsea items, pipelines, or just about any immersed metallic structure.

4. The Deep C Meter

The Deep-C-Meter, is designed for rugged service on a work-class ROV. With 316 SS pressure housing and a fully articulating mount, this system can go to work out-of-the-box on CP survey projects down to 3000 m (10,000 feet). The Deep C Meter is self-contained, which means that there is no interface with the ROV umbilical. Just point a camera at the readout, grab the probe in the manipulator, and start to record accurate CP data from the LED readout.

The Deep C Meter kit includes the ROV II Probe, mount and all standard replacement parts.

* Addition of the EFG gradient probe (not pictured) allows rapid and simplified real time survey of deepwater flowlines, by providing gradient data.

** A lighter-duty 300 m (1000 ft) version of the Deep C Meter is available for inspection class ROV's. Call for details.



Polatrak CP Probe Comparison Chart

Probe Model	Electrode Elements	Deployment	Readout	Depth	Contact or Proximity Read	Standard Kit Contains	Description
DC-II	2xAg/AgCl sealed	Surface	Surface Voltmeter	300 M (1000 ft.)	Proximity	Ruggedized weighted probe, 75 M (250 ft) seismic test cable, plastic deployment reel.	Surface Deployed Drop Cell
CP Gun	2xAg/AgCl pluggable, pluggable CuSO4 available	Diver, or ADS	Integral dual ultra bright blue LED. Manual switch	300 M (1000 ft.)	Contact	Offshore storm case, CP Gun, recovery lanyard, Zn calibration coupon, spare electrode, tips, o-rings, lens screws.	Self contained CP measurement system
ROV-II	2xAg/AgCl pluggable, pluggable CuSO4 available	Diver, ADS or ROV	Surface, or Deep-C-Meter	3,000 M (10,000 ft.)	Proximity or Contact	Storage/calibration tube, ROV II probe, Zn calibration coupon, spare electrode, tips.	General purpose ruggedized tip contact CP probe
Deep-C-Meter	2xAg/AgCl pluggable, pluggable CuSO4	ADS or ROV available	Integral dual red LED. Photo switch	3,000 M (10,000 ft.)	Contact	Offshore storm case, Deep-C-Readout with adjustable dovetail ROV mount. ROV-II Probe with light weight tee-handle probe mount and extension cable whip. Zn calibration coupon, spare electrode, tips, o-rings, lens screws.	Work class ROV deep water self-contained CP survey system
Deep-C-Meter (light-duty version)	as above	as above	as above	300 M (1000 ft.)	as above	as above	Lightweight ROV self-contained CP survey system

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