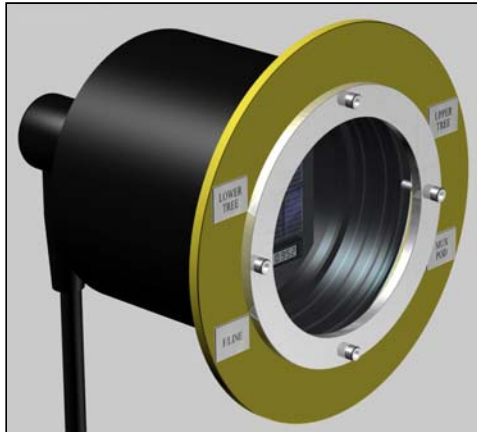
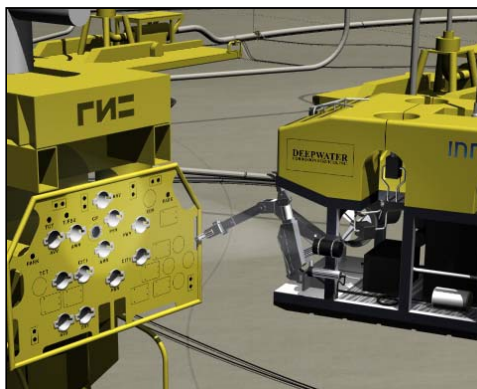
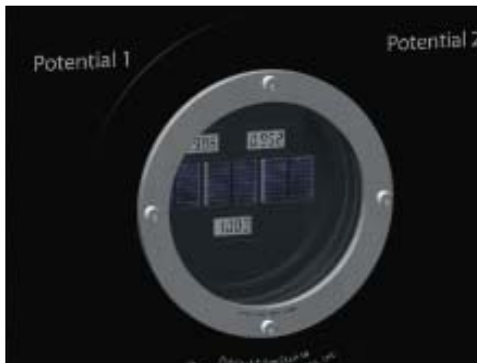


## SunStation™

### Polatrak® Cathodic Protection Monitoring



The integral solar panels eliminate the need for batteries. Any low-level light source will power system.



#### Product Overview

The Polatrak SunStation provides an improved low cost convenient cathodic protection monitoring solution for any subsea application where ROV assisted CP surveys are conducted. No more fooling with ROV mounted probes, or having to get a qualified inspector offshore. The SunStation provides a full time readout powered by the lights on the ROV.

The SunStation has up to 4 channels each with an independent ground, thus any Polatrak instrument can output to this device. Anode currents, for example, can now be read directly, in real numbers, as can current densities. This system can save an operator hundreds of thousands of dollars in reduced inspection time, and improves quality and repeatability of data to a level never before available.

The readouts are strategically located at locations where ROV intervention is required; CP inspection is achieved whenever the ROV visits. The mounting panel around the unit indicates inspection point location information and the designation of each channel.

#### Applications

- Subsea trees & manifolds
- Deepwater flowlines
- Floating production systems
- Pipeline sleds
- Inside soft ballast tanks and center wells
- Anywhere ROV CP inspection is required

#### Main Benefits

- Competitive pricing provides rapid ROI.
- Eliminates the need for OQ personnel offshore.
- Provides repeatable accurate data and eliminates operator error.
- Provides positive real-time verification of electrical continuity or isolation.
- Eliminates the hassle of ROV interfaced probes.
- Provides more selective measurement at points not easily accessible with an ROV mounted probe.
- Reduces cost and eliminates wear and tear on ROV systems.

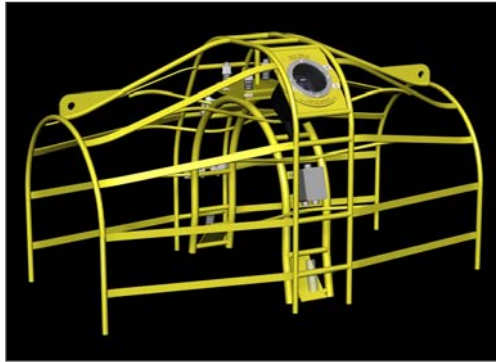


SunStation panel on a subsea manifold

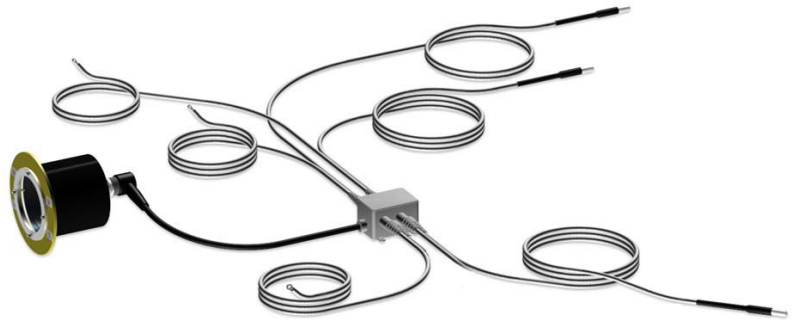
### Specifications

<b>Depth Rating</b>	3,000 FSW (915 m) or 10,000 FSW (3000 m)
<b>Design Life</b>	20 years
<b>No. Channels</b>	3 (each has independent ground and is totally isolated)
<b>Readouts</b>	4 digit 12 mm LCD +/- 2 Volt (1 mV Resolution) +/- 200 mV (0.1 mV Resolution)
<b>Housing</b>	Heavy wall thermoplastic or 316 stainless steel
<b>Lens</b>	Acrylic
<b>Antifouling</b>	CuNi lens bezel
<b>Dimensions</b>	6.0" (150mm) diameter x 9.5" (242 mm) long (including cable penetrator)
<b>Interface</b>	V-String™ Reference Electrodes & Ground (3 Pairs pictured below) MA-1™ Monitored anode DR-2™ Reference Electrode DR-2 CD™ Polarization Monitor

Can take any DC input from passive sensors. Can be mounted to a RetroClamp™ for retrofit applications (Clamp provides reference ground)



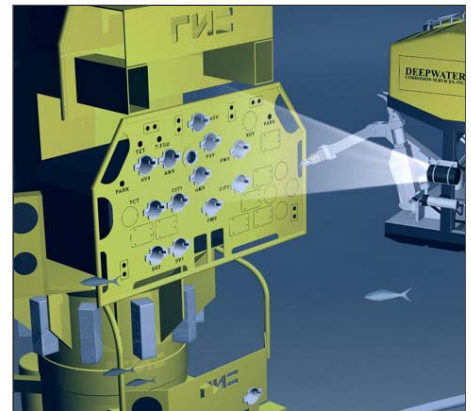
SunStation housed in an over-trawlable RetroClamp



SmartPod™ is a self-monitoring CP system for platforms or deepwater production systems.



A closer view of the SunStation built into Deepwater's SmartPod.



SunStation installed on a subsea tree, making every ROV visit a CP inspection.