

Wave Energy Converter Load Cell

Industry: Energy

Summary

Customer Challenge

Wave energy converters, or WEC's, devices that convert the mechanical energy of waves into electrical energy. A tension monitoring system is needed when the converter is attached to multiple mooring lines to keep it securely anchored in its location.

Interface Solution

Custom made ISHK-B Bow Type Submersible Crosby Cabled Load Shackles are attached to the mooring lines that are connected to the wave energy converter. The WEC must stay in one location as it creates power, and the load shackles ensures that the mooring lines stays securely anchored. Connecting the SGA AC/DC Powered Signal Conditioners to the customers control center, remote monitoring of the shackles is possible.

Results

Interface's custom made submersible load shackle successfully monitored the tension of the mooring lines connected to the wave energy converter.

Materials

- Custom submersible ISHK-B Bow Type Crosby™ Cabled Load Shackles
- SGA AC/DC Powered Signal Conditioner
- Customer control center

How It Works

1. Interface's custom made submersible ISHK-B Bow Type Crosby™ Cabled Load Shackles are attached to the mooring lines, which is connected to the wave energy converter. An electric cable is connected which can then start creating power.
2. The SGA AC/DC Powered Signal Conditioner can connect to the customers control center, where force tension data can be remote monitored.

