CASE STUDY

Control Panel for the Ocean Bottom Seismology Lab

Communication within the depths of the ocean
The Cecil H. and Ida M. Green Institute of Geophysics and Planetary Physics (IGPP) at the University of California, San Diego works in close cooperation with the Scripp's Institution of Oceanography. As an engineering group at IGPP, the Ocean Bottom Seismology Lab specializes in recording vibrations on the ocean floor. The instruments are deployed in deep water, using varying methods of collecting measurements to discover fault lines under the ocean that can otherwise not be detected by land-based seismometers.

The main focus was to reduce clutter in the box. Thus, the customer had a specific concept in mind of how the electronic circuits of the keypad were to be arranged.

It was imperative to ensure operation with waterproof coating as the communication device is frequently exposed to wet conditions including splashing water on the deck of a boat. In other words, reliable operation needed to be possible under all anticipated conditions as it is crucial to retrieve the recorded measurements for further analysis.

Experienced engineering at Hoffmann + Krippner Inc regarding fully customized control units allowed for the accommodation of the specific requirements placed by the Ocean Bottom Seismology Lab.

As the control panel is frequently exposed to splash water on the boat where it is operated, waterproof coating was of particular concern. If it was to experience water damage, communication would be interrupted, making it impossible to retrieve the instruments from the ocean floor. The control panel was equipped with proper coating according to NEMA 4X.

The electronic circuits of the keypad were designed and arranged in accordance with their individual requirements and preferences, mounting all electronics on the back of the board. Hoffmann + Krippner Inc. additionally provided studs and standoffs placed in the desired location for convenient operation.

Hoffmann + Krippner Inc. was able to implement all requirements into one simple and reliable design, allowing for intuitive operation. The operating element was transformed into one compact solution, significantly reducing clutter.

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Innovative Technologies

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We are pioneers in membrane keyboard technology and a market leader in complex input systems. Innovation and high quality have formed our basic philosophy since the company was established in 1972.

As a family-owned medium-sized company, we produce exclusively in Germany. Innovative product development and the extensive know-how of our employees allow us to develop and produce comprehensive input device systems, including housing, electronics and software for a wide range of clients.

Our strengths benefit our customers through a broad range of innovative top-level engineering. Our long-standing expertise as a leading manufacturer of customized input devices and keyboards in Europe results in high-quality solutions for our customers, world-wide.

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