



SUCCESS STORY



Safe charging at the pier

The Brno Reservoir is a destination of excursion and recreational area to locals and visitors with electrically powered passenger ships. The nightly charging process is carried out safely and reliably with the latest generation of Stäubli connectors.

Environment friendly shipping

Brno is the second-largest city in the Czech Republic after the capital Prague, with many sights. A nice excursion is a boat trip on the Brno Reservoir which is part of the popular recreational area for both locals and visitors. The shipping on the reservoir dates back to 1946.

Today, the Brno City Transport Company, Inc. exclusively operates the fleet by using electric propulsion. The company currently manages seven ships carrying 245,000 passengers during the season, from mid-April to mid-October.

Already for 70 years, navigation on the Brno Reservoir has been battery-powered. This environmentally conscious passenger transport significantly supports air and water quality and also contributes to noise reduction in the Brno recreational area.

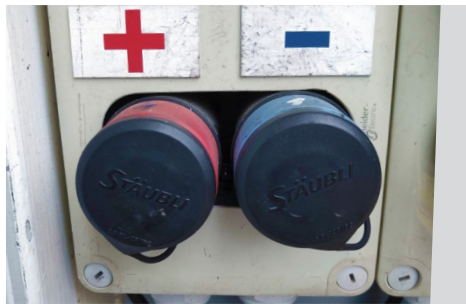
Electrification is stipulated by a decree on water reservoirs and water courses from 2015, which prohibits the transportation by vessels equipped with combustion engines.

Industrial Connectors: Single-pole industrial connector 16BL

Application:

- Battery charging in wet environment
- Easy handling and fast commissioning
- Proven reliability (IP68, IP69)
- High safety properties: IP2X, bayonet locking, color and mechanical codings, locking pin

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The situation

The vessels' batteries are being charged overnight with a maximum charge time of 11 hours, allowing the ships to sail fully battery powered the entire following sailing-day for 100 km. The traction lead batteries have a capacity of 1240 Ah and are located in the ship's lower deck where they are charged with liquid electrolyte. The charging station is located onshore and is equipped with single-pole plugs. In the course of modernizing the infrastructure and improving the safety of the charging connection the former Stäubli connectors, that were once supplied by the vessel manufacturer, were now replaced by the follow-up product of Stäubli: the single-pole connector 16BL.

The advantages

The color and mechanical coding of this new generation provides high safety and reduces any risk of wrong connection. With protection class IP68 and IP69 in mated state, the 16BL connection is the perfect fit for use in wet environments. The unique

MULTILAM contact technology implemented in the 16BL connectors ensures a high level of occupational safety as well as the required high performance. Withstanding 5'000 mating cycles, the 16BL connector does not only offer the highest reliability and durability, in the long run it reduces maintenance costs.

The endorsement

"In 2017, we renovated our charging station and there was the opportunity to improve safety and prevent poor connection", explains Martin Ecler, Head of Shipping Transport Division. "At that time, Stäubli was launching the new types of single-pole industrial connectors which, thanks to mechanical coding, prevent a wrong connection or pole reversal, and at the same time have IP68 and IP69 protection, a strong requirement due to the ubiquity of water on a pier. Stäubli also aims to ensure the safety of the staff who handle the connectors by means of applying the IP2X touch protection in their disconnected state."

Customer benefits

- Increased connection quality
- Staff safety during handling
- Improved connection safety and reduced risk of wrong connection

About Stäubli

Stäubli is a global mechatronics solution provider with three core activities: Connectors, Robotics and Textile. The international Group has a presence in 29 countries.

Stäubli Electrical Connectors is a specialist for advanced contact technology and technically mature solutions with a product portfolio ranging from miniature connectors up to high-power connectors for various industries.

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