SUCCESS STORY

Nationwide compatibility of emergency power supplies

The Fire and Rescue Service of the Czech Republic relies on easy to use Stäubli 16BL connectors to deal with emergency power supply and unexpected outages.

Power outages as a possible treat
In the Czech government document “Concept for the Protection of the Population until 2020 with a View to 2030”, large-scale power outages were assessed as a possible threat to the Czech Republic. It is therefore essential for the authorities to increase the energy resilience of the Czech Republic and to be as prepared as possible for power blackouts, unexpected outages and other possible threats causing disruption of the power supply.

One of the operative institutions dealing with possible power outages is the Fire and Rescue Service of the Czech Republic. It already has experience in dealing with power supply after many natural disasters, such as hurricane Herwart in 2017. Alternative power sources are also used for events such as the tornado in 2021 that disrupted power supply in Moravia, or also more common events caused by wind lines or icing that may disrupt the operation of crisis infrastructure facilities.

The situation
To ensure rapid power restoration, the Fire and Rescue Service is deploying mobile Zeppelin emergency containers. Equipped with a diesel generator, a control cabinet, a terminal box and cabling, the containers

Industrial Connectors: Single-pole industrial connector 16BL

Application:
- Emergency power supply with mobile generators
- Easy handling and fast commissioning
- High safety properties: IP2X, bayonet locking, color and mechanical coding, locking pin
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provide all the connection equipment needed to bridge power outages, including cabling in different cross-sections. In a crisis situation, it is important that the connection solution used is as simple as possible and can be handled by all employees, even in harsh conditions.

The advantages
For safe and fast connection to external buildings, the fire departments decided to use Stäubli’s 16BL high current single-pole industrial connectors for various reasons.

The system is designed to meet the demanding requirements of power supply and industrial applications, with a focus on safe and easy handling for the user. These properties are particularly significant for fire departments and rescue services, where the connectors are often plugged in stressful scenarios and by personnel without electrical engineering knowledge. Thanks to visual and mechanical coding of the connector, no professional competence in electrical engineering is required to work with the 16BL connectors, according to Decree 50. Furthermore, an innovative, robust locking mechanism prevents mating errors and guarantees safe handling in public, even with gloves.

By using the same connector system throughout the country, Czech authorities, fire departments and utility companies can work more closely together. Having a single, standardized connector system for all emergency power supply units in the country saves crucial time in case of an outage, as personnel is used to work with it. It also facilitates interchangeability of gear between departments.

The endorsement
“We chose Stäubli as our connector supplier mainly because using their connectors is amazingly simple, and even a layman in gloves can use them in the dark. The connection and disconnection are very intuitive, and the big advantage is that the person who works with the connectors does not need to be an electrician. Not all fire brigades have electricians among their members,” says Milan Bzonek, electrical engineer of the Fire Brigade of the Moravian-Silesian Region.

“In addition the Fire and Rescue Service of the Czech Republic highly recommends nationwide standardization and compatibility of backup sources and connection points. Connecting a Stäubli connector takes a few seconds, while an older connection solution can take up to 15 minutes, require special tools and can only be done by a person with electrical training,” he adds.