

# ProEH

## Hybrid Station Interlocking System



- The basis is safety PLC HIMA
- Safety on SIL4 level
- Enable connection to various types of outdoor components
- Support of the multi-operator workplace
- It allows a connection of existing interfaces with an electronic interfaces
- Ideal for gradual change from relay interlocking system to the electronic station interlocking systems
- Integrated line signalling system



## Description of the System

ProEH is an electronic hybrid station interlocking system, which is designed for both sidings and national railways.

The heart of the system is the safety PLC HIMA in various versions, which ensures safety at SIL4 level. HIMA, as a commonly available COTS component, allows the operator to significantly reduce initial costs and maintenance costs through the planned life of the system.

The connection to the outdoor components is in most cases provided by existing relay blocks. Therefore, the installation is suitable for places with existing relay interlocking systems, alternatively, the acquired relay interface is available.

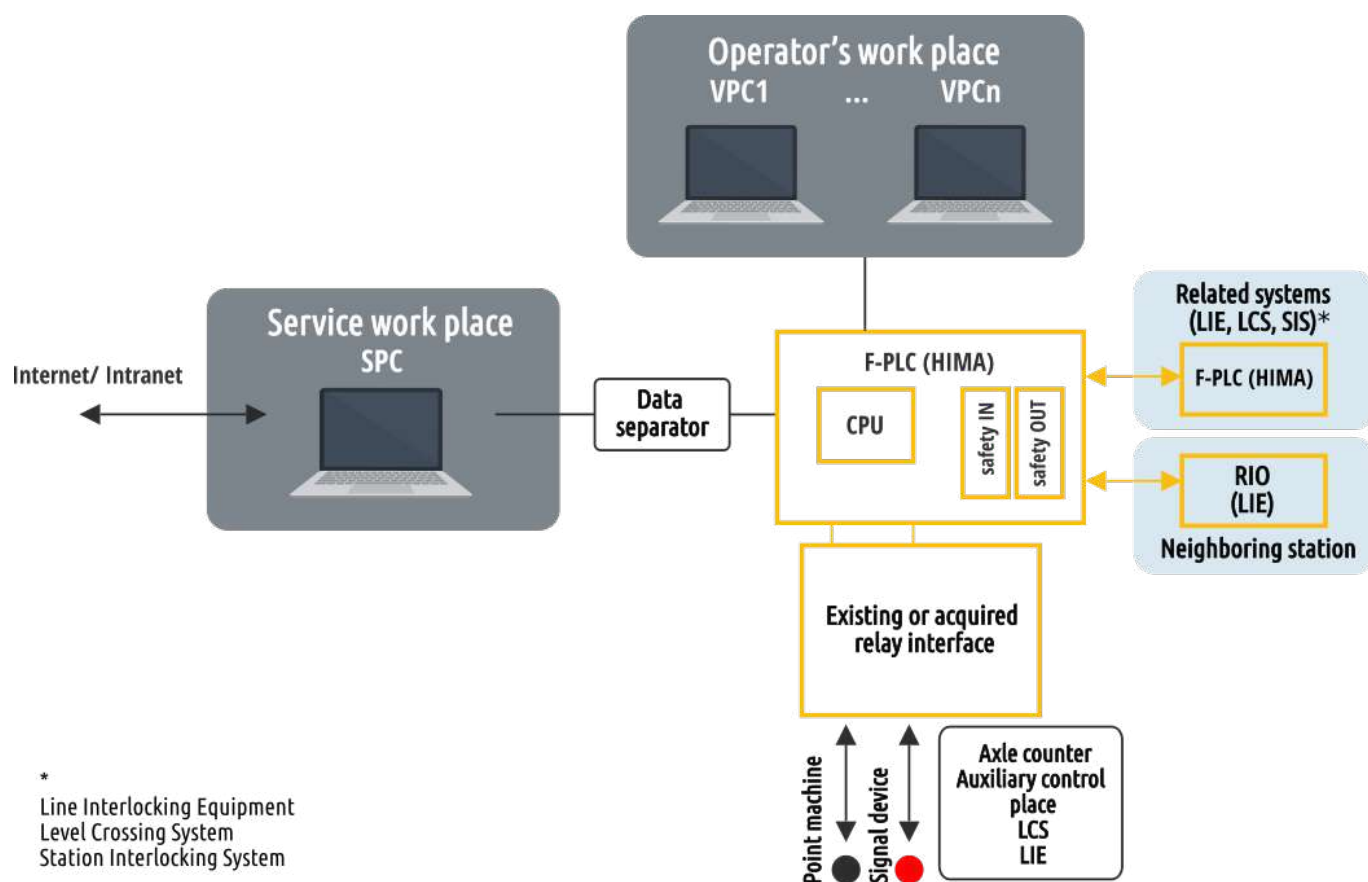
Only the connection to outdoor components in relay blocks is preserved, but the system logic is newly integrated into HIMA. This solution enables the operator to reduce the initial costs of the acquisition of electronic interlocking system and also enable the subsequent gradual replacement of relay blocks with electronic interfaces. The system can be equipped with an integrated line permission, which is located in the neighbouring station.

The system can be controlled from one or more operator workplaces. Each operator workplace is equipped with a visual computer VPC with corresponding number of monitors. All the safe operations are solved through the safety PLC HIMA, which can be fully doubled in case of increased requirements for availability. Safety is ensured at level SIL4.

In most cases, existing relay blocks or relay blocks obtained from other projects are used to connect outdoor elements. This allows the deployment of a fully electronic part on an existing relay interlocking system and to gradually upgrade it in the future. For the connection to neighbouring systems data connections can be used. In the case of using the integrated line permission, the modules of remote IN/OUT (RIO) are installed into the neighbouring station.

The system can be optionally equipped with a service computer SPC, which provides cybernetically secure data connection ProEH with external (public or company) data network, through which it is possible to transfer information about operating data or receive data in a predefined scope (e.g. the number of the train).

## ProEH System Architecture:



**INTERSignal**  
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- **Customized solution**
- **Tradition & Experience**
- **Innovative approach**

We build on experience and background of the traditional supplier – company Kumat. We add an innovative approach to the projects and a new generation of IT systems.

We offer clever solutions in top quality for an unbeatable price on the market. Under the brand **INTERSignal** we supply comprehensive systems for securing railways using unique know how.

On the Czech market, we represent systems and individual components for railway infrastructure from renowned foreign manufacturers.



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