Railway maintenance depots

SAFEMASTER STS

The key to more safety

Solutions for railway depots and workshops

DOLD

Our experience. Your safety.

Railway depots – Safeguarding of working platforms

In depots and maintenance plants for railway technology, danger zones on trains must be protected with isolating protective devices. These are large-area installations over several levels and maintenance personnel are often exposed to the following hazards during maintenance work:

- Electric shock
- Danger of falling
- Danger of being locked in
- Fire hazard

Safeguarding these extensive depots with electrical components requires a large amount of wiring, which can be prone to faults. There are currently no specific standards for railway maintenance depots. However, working platforms and machines are generally planned in accordance with the requirements of the Machinery Directive 2006/42/EC. The safety devices must generally achieve a Performance Level d or PL e in accordance with EN ISO 13849-1.

Challenge

In maintenance depots the high voltage must be switched off via manual operating points or control systems. In addition it must be ensured that there is no danger of falling (in pits, lifting platforms and roof-mounted work platforms), operating sequences must be adhered to particularly when accessing the train roof. It is often necessary for operating personnel to put on safety harnesses, use extend folding steps and ground / earth overhead lines using telescopic rods. Due to the size of these installations and the different access levels, it must be ensured that when the train is moved the maintenance personnel have all left the danger areas and that all maintenance and safety doors are closed. In addition any locked in operators must have a means to escape.

Solution

With the SAFEMASTER STS safety switch and key transfer system, predefined processes can be enforced, this is achieved by the key transfer function. SAFEMASTER STS offers various protection options for plants such as railway workshops / depots (see examples) and combines the advantages of safety switches, guard locks, key transfer and command functions all in a single system. The ability to protect access and safety doors mechanically and without wiring saves installation cost and increases the availability and ergonomics of the plant, so improving productivity.

Advantages

- Protection against being locked in
- Wireless, mechanical protection
- Modular, expandable system

Example 1

SAFEMASTER STS can integrate both mech functions. This increases usability, ensures faster areas and allows reduced wiring.

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Example 2

After the overhead lines have been isolated, a key is removed and the working platforms can then be accessed. Maintenance personnel must then remove a protection key to unlock the access door. The doors can also be equipped with escape releases so that everyone can leave the danger zone if a door is closed behind them and then leave the hazardous area as quickly as possible in case of danger.

Example 3

SAFEMASTER STS makes it easy to integrate the additional equipment required for depot maintenance work, such as hooks for catching safety catches, stepladders or brake pads, directly into the safety concept. Stand alone mechanical locking modules enables simple retrofitting without the need for wiring. The Risk of material damage and personal injury due to the possibility of incorrect operation is now avoided.

VIDEO

+ Info

SAFEMASTER STS combines the advantages of safety switches, guard locks, key transfer and command functions in a single system. The new fibre reinforced polymer (FRP) variant impresses with its sleek functional design and its ability to be combined with the the established stainless steel system.
You can select the FRP variants for the control panel and use the robust stainless steel versions in rough environmental conditions.

SAFEMASTER STS
– Modular safety switch and key transfer system

SAFEMASTER STS is tested and approved according to statutory requirements, and as a stand alone or monitored system is suitable for use in safety applications up to Cat. 4 / PL e in accordance with EN ISO 13849-1.

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