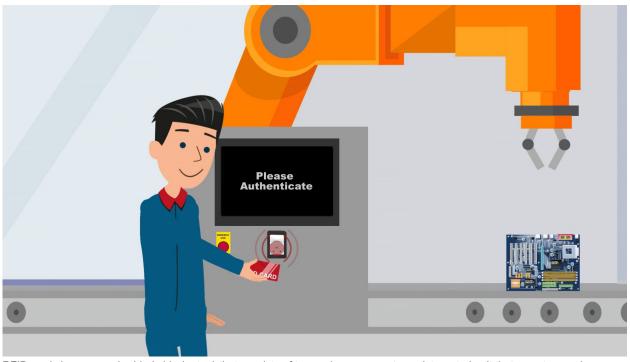# AUTHENTICATION SOLUTIONS FOR THE MODERN FACTORY

RFID cards have an embedded chip (or tag) that consists of two main components: an integrated unit that can store and process information, and an antenna to send or receive a signal.

An authentication solution based on radio frequency identification (RFID) helps to improve security in factories without compromising productivity. Whether it's a robot controller or an industrial truck, access can be restricted to authorized personnel. Elatec offers appropriate solutions here.

Safety is a top priority in production to protect people and assets. A forklift that falls into the wrong hands can quickly become a serious hazard and drive up costs. In complex factory environments, incorrect operation or even sabotage of production equipment can also have serious consequences, such as accidents, expensive machine damage or costly, unplanned downtime. So how can responsible parties still ensure that only authorized persons have access to the machines and vehicles? A secure, simple and efficient solution is a user authentication and access control system based on RFID. The basis for this already exists in most companies: the classic employee ID card, which is equipped with an RFID chip—and which employees already carry with them, for example, to gain access to the factory premises. A key fob (i.e., a key ring with an integrated RFID transponder) can also serve as an identification medium.

One challenge, however, is that a variety of card technologies are available on the international market, each with its own data formats, communication frequencies and security functions. For companies, this means that employee ID cards with different technologies may be in use. This is particularly common when multiple sites are operated nationally or internationally. However, most readers are only capable of reading a few card technologies. A solution is offered by multi-frequency readers, such as those offered by Elatec. These readers are compatible with more than 60 common transponder technologies worldwide and are certified in over 110 countries.

Requirements and IT infrastructures change over time and make adjustments necessary. Only with a flexible system that provides for optimizations, adaptations and upgrades will companies be on the safe side in the future. For manufacturing companies, the option of mobile remote configuration is important. This means that all installed readers can be easily updated—regardless of their location and thus also across different company sites. This avoids downtime for machines or idle time for vehicles and saves costs for technicians, as they do not need to open and update every device individually.

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In cooperation with