Identification – An introduction

IDENTIFYING IN INDUSTRIAL ENVIRONMENTS USING RFID AND BARCODE READERS

By using industrial identification systems you ensure that in an automated production process the right parts arrive at the right place at the right time and in the right quantity – for example in asset tracking, production control or intralogistics. These systems ensure quality and help you to reduce costs.

RFID
RFID systems are either ultra-high frequency (UHF), high frequency (HF) or low frequency (LF). They typically consist of three components: data carrier (for data storage), read/write head or antenna (for data transmission) and processor unit (for data communication).
- UHF provides communication with data carriers over up to 6 m of range with simultaneous reading of multiple data carriers (Multi-Tagging).
- HF with its high speed enables parts tracking at close range up to 400 mm. Data carriers are available with various properties (e.g. for high temperature, with large memory capacity and for attaching to metal).
- LF data carriers are ideal for challenging conditions, such as in metallic surroundings. They are therefore often used in tool identification.

Barcode Readers
Barcode readers read 1D and 2D barcodes. Their range is from a few millimeters up to several meters.

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