

## Operational Description PRD5/2 HID SF2F and KPD5/2 HID SF2F

The PRD5/2 HID SF2F and KPD5/2 HID SF2F readers are part of a RFID (Radio-Frequency Identification) System that uses an inductive process to transmit information between transponders and reader. The reader itself consists of a reader electronic and an attached antenna. The transceiver of the reader creates an electromagnetic field that supplies the transponder with energy. The tension induced in the transponder enables to charge a capacitor, which supplies the transponder chip with energy. The activation frequencies are 13.56 MHz (ISO14443 and ISO15693) and 125 kHz. These frequencies are cyclically switched on and off. At these frequencies the reader is sending data to the transponder by switching the field on and off. The transponder then starts to modulate the field to send data to the reader (load modulation). The resulting modulation is related to the digital information in the transponder memory. The receiver unit of the reader electronic extracts this modulation of the transponder from the activation frequency and send it to the demodulation unit where the information is decoded. The received information is processed and sent via interface to a computer, where it can be processed by applications.

Additional to this function the KPD5/2 HID SF2F reader contains a 12 digit keypad ('0'-'9', Clear and Enter). Every key press will be decoded, processed and sent via interface to a computer, where it can be processed by applications.