

RFID smartcard reader



What is RFID?

Radio-Frequency Identification technology permits contactless communication between a smartcard and a card reader. The number of systems which support this radio technology is on the increase. For example: contactless payments using cash or credit cards, time recording, access control, animal identification, goods and inventory management. Besides employee ID cards and electronic passports, the new electronic ID card communicates with the reader via RFID.

This modern technology simplifies smartcard handling and facilitates the use of many new applications.

The new ID card

Besides its official function as identification, the new ID card (nID) also serves for identification on the Internet. The socalled electronic proof of identity (eID) significantly increases the security and convenience of authentication on the Internet. The requisite personal data of the ID card holder are stored in the RFID chip enabling one to prove ones identity electronically, for example when shopping Online or when visiting an Online town hall. It goes without saying that data can only be read out if the ID card holder has released them by entering a PIN.

Furthermore the nID can only be used for a qualified electronic signature (eSign) in compliance with the Digital Signature Act. Therefore, for example documents can be signed electronically with a legally-binding signature without the necessity of a handwritten signature.



cyber**Jack[®] RFID** smartcard reader for the nID in the overview







| Designation | cyber Jack® RFID basis | cyber <i>Jack</i> ® RFID standard | cyber <i>Jack</i> ® RFID komfort |
|--|--|--|-------------------------------------|
| Reader category according to TR-03119 | Basic reader | Standard reader | Comfort reader |
| Contactless interface ISO/IEC 14443 | Yes | Yes | Yes |
| Contact interface: ISO/IEC 7816 | No | Yes | Yes |
| PC interfaces | USB 2.0, CCID, PC/SC | USB 2.0, CT-API, PC/SC, SECODER | USB 2.0, CT-API, PC/SC, SECODER |
| Plug & play, no installation required | Yes (CCID) | No | No |
| LC display / number of characters | No | Yes / 2 x 16 alphanumerical | Yes / 2 x 16 alphanumerical |
| Display backlight | | No | Yes |
| Secure PIN input / number of keys | No / 0 | Yes / 16 | Yes / 16 |
| Security status display | LED (green) | LED (green/yellow/blue) | LED (green/yellow/blue) |
| Terminal authentication with EAL4+ module (for nID QES) | No | No | Yes |
| BSI quality seal | Yes | Yes | Yes |
| ZKA (Central Loan Committee, German) secoder approval | No | Yes | Yes |
| Security check ITSEC E2 / high | No | Yes | Yes |
| Confirmation in compliance with Signature Act / Signature Regulations for contact cards | No | Yes | Yes |
| Confirmation in compliance with the Signature Act / Signature Regulations for nID QES | No | No | Yes |
| Secure firmware update | Yes | Yes | Yes |
| Supported operating systems | Windows 2000 / XP / Vista / W div. terminal servers | /indows 7 / Server 2003 - 2008 R2, L | .inux, Mac OS X, |
| Conformity | CE, conforms to RoHS, and WEEE. | Central Loan Committee (ZKA), W and WEEE. | /HQL, CE, conforms to RoHS, |

Serviceable cards and applications

| Designation | cyber <i>Jack</i> ® RFID basis | cyber Jack[®] RFID standard | cyber <i>Jack</i> ® RFID komfort |
|---|--------------------------------|---|-------------------------------------|
| Serviceable cards* | | | |
| | | | |
| nID (via ID cardApp) | Yes | Yes | Yes |
| Other RFID cards in compliance with ISO/IEC 14443 | Yes | Yes | Yes |
| Bankcards (Online banking, cash card) | No | Yes | Yes |
| Signature cards in compliance with ISO/IEC 7816 | No | Yes | Yes |
| Electronic health insurance card | No | Yes | Yes |

Serviceable applications* (examples)

| Contactless cards (ISO/IEC 14443) | | | |
|--|-----|-----|-----|
| | | | |
| eID | Yes | Yes | Yes |
| nID QES (EGVP, ELSTER,) | No | No | Yes |
| VDV application (Association of German Transport Companies) | Yes | Yes | Yes |
| Time recording | Yes | Yes | Yes |
| Contact cards (ISO/IEC 7816) | | | |
| FinTS / HBCI | No | Yes | Yes |
| Secoder banking | No | Yes | Yes |
| FES / QES (EGVP, ELSTER,) | No | Yes | Yes |

*For these applications you may need additional software and/or smartcards from third-party vendors. You can obtain home-banking smartcards from your bank, signature cards from trust centres (other info at www.reiner-sct.com).

The basic reader for beginners

The cyber**Jack® RFID basic** was primarily designed for using electronic proof of identity by means of the new ID card, where the nID can be used as identification on the Internet.

After the PIN is entered on the PC keyboard the RFID reader builds up a secure connection between the web application and the nID. Authorised eBusiness and eGovernment service providers are permitted to read out personal data stored on the nID which are thus released for the purpose of identification and authentication. A typical use case for this is, for example, for inputting addresses and verifying identities by means of nID in dealings with an Internet shop in order to set up a customer account and to shop there.

Besides the applications of the nID, the reader also assists all other RFID applications, such as eTicketing with RFID cards.

For convenience the nID can also be inserted into the reader at a 45° angle.

cyberJack® RFID basis

Entering the world of RFID

The product at a glance:

- Plug & play, no installation required
- Updateable
- BSI quality seal
- Free support in the Online forum



The universal standard reader

The cyber**Jack® RFID standard** supports contactless RFID smartcards for applications such as the eID with the nID, cash card or eTicketing. Using contact smartcards it supports, for example, Online banking via HBCI/FinTS, secoders and EBICS as well as cash cards and qualified electronic signatures.

The cyber**Jock® RFID standard** meets the strict requirements of the current ZKA (Central Loan Committee) standard and for Online banking it is a security-class 3 card reader.

The cyber**Jack® RFID standard** fully supports the PACE protocol of the nID and, if the eID function is used prior to data access, it clearly indicates the authorisations and the authorised persons on the display.

The cyber**Jack® RFID standard** possesses secure, certified PIN entry for the eID function of the nID via PACE protocol as well as for all other contact smartcards.

cyberJack® RFID standard

Security and mobility

The highlights at a glance:

| – LC display |
|--|
| - Certified secure PIN input |
| – Updateable |
| – ZKA (Central Loan Committee, German) secoder approval |
| - TÜV-IT and BSI-certified |
| Confirmation in compliance with Signature Act /Signature Regulations for contact cards |
| |

BSI quality seal

Free support



The comfort reader for full nID assistance

winner 2009

The cyber Jack[®] RFID komfort combines excellent design with extensive functions. It supports almost all contact smartcard applications, such as Online banking via HBCI / FinTS, secoders and EBICS as well as cash cards and qualified electronic signatures. Equally, cyber Jack® RFID komfort also supports contactless RFID smart cards and all their functions with maximum security, for example, the nID in conjunction with the ID cardApp.

Thanks to the fact that the authorised person and the authorisations are displayed on the big, illuminated LC display, you have full control over release of your personal data. Thanks to the secure PIN input via your own keyboard, the secrecy of your PIN is guaranteed at all times.

The modular firmware management permits the use of the cyberJack[®] RFID komfort in many applications; therefore, purchasing a single reader gives you a secure investment for multifunctional use over many years.

cyberJack® RFID komfort

Design, convenience and security

The highlights at a glance:

- Illuminated LC display
- Certified secure PIN input
- Capable of multiple functions (e.g. Online banking, ELSTER)
- Updateable
- ZKA (Central Loan Committee, German) secoder approval
- TÜV-IT and BSI-certified
- Confirmation in compliance with the Signature Act / Signature Regulations
- Integrated security module in compliance with EAL 4+
- BSI quality seal
- Free support





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