

SmartTRANS® SPI0 and SPK10 Readers

13.56 MHz Contactless and 125 kHz Proximity Card Readers • 8110, 8101, 8140, 8141

- ▶ **HID or Indala Prox Compatibility** – Fully compatible with all HID or Indala Prox card formats.
- ▶ **Migration to Custom Configuration** – Migrate from 125 kHz cards to 13.56 MHz, including custom DESFire and MIFARE configurations
- ▶ **Open Architecture Design** – ISO 14443A DESFire®/MIFARE® Contactless smart card, compatible for broad card interoperability.
- ▶ **Field Upgradeable** – Use cards or a serial connection to upgrade reader firmware and/or field configuration



ACCESS flexibility

The SmartTRANS ISO 14443 and 125 kHz reader is a flexible, highly secure and stylish dual-technology contactless smart card reader ideal for customers migrating from the most popular 125 kHz readers to 13.56 MHz ISO 14443 smart cards. Designed for a wide variety of applications from entry level access control to secure ID management, the reader family is completely configurable for every access control application challenge.

The SmartTRANS reader offers the ultimate choice in interoperability and programmability. Its unique capabilities, such as reading any DESFire® application data file or MIFARE® sector, meet all installation requirements. Combined with the capability of reading 125 kHz HID Prox and AWID or 125 kHz Indala Proximity, SmartTRANS enables migration paths from 125 kHz to 13.56 MHz and/or interoperability among multiple card populations.

SmartTRANS readers offer one of the broadest ranges of card compatibility in the industry and can be configured as a specific solution for each project (see specifications chart on opposite side for specific compatibilities). The SmartTRANS reader is available with or without keypad, adding an extra layer of protection for higher security installations.

- ▶ Configuration cards can further personalize reader configurations to best match installation requirements.
- ▶ Wide voltage span (5 - 24 VDC).
- ▶ Wiegand or Clock-and-Data outputs easily interface with existing access control panels.
- ▶ Communications configurable to RS232, RS485 and RS422 for read only and read/write applications.
- ▶ FlexSmart® MIFARE/DESFire format capability*
- ▶ 13.56 MHz compatible with HID MIFARE (read-only) applications run on 6055, 6074, 6075 and 6071 readers.

* Excludes FlexSmart® dual sector support

Features

Mounting

The reader easily mounts on a door mullion or single-gang electrical box (using the electrical box cover plate accessories). An LED flashes green and the beeper sounds when reader is presented with MIFARE® and DESFire® or other reader application compatible card. The multiple LEDs and beeper can also be controlled by the host system.

Security

DESFire
Contactless smart card and reader platform according to ISO 14443 level 4. Featuring DES and 3DES Encryption on all RF data transmission. The card structure provides multi-application functionality, whereby each application is secured up to 14 different user-definable security keys for read and read/write access. Readers and cards must have matching security keys

MIFARE
Contactless smart card and reader platform according to the ISO 14443A. The card structure provides multi-application

functionality, whereby each application is secured for read and read/write by security keys. All RF data transmission between card and reader is encrypted using NXP crypto1 algorithm. Readers and cards must have matching security keys. **Looking for AES encryption with EVI? Search HID Global's website for "High Frequency Migration Readers".**

Easily Interfaced

The SmartTRANS® Reader line provides flexible configurable output formats and output protocols. Reader communication supported: Wiegand, Clock-and-Data, ISO 7811 Clock-and-Data ABA Track 2 Emulation, RS232, RS422, RS485 or custom format output.

Indoor/Outdoor Design

Rugged, weatherized polycarbonate enclosure, designed to withstand harsh environments, provides reliable performance and resistance to vandalism.

* Base Model Numbers

8100D SmartTRANS Mullion SPK10 HID Prox and AWID
8101D SmartTRANS Mullion Keypad SPK10 HID Prox and AWID
8140D SmartTRANS Mullion SPK10 Indala Proximity
8141D SmartTRANS Mullion Keypad SPK10 Indala Proximity

Dimensions

5.59" x 1.81" x 0.98" (14.2 x 4.6 x 2.5 cm)

Read Range

DESFire® or MIFARE® Card: Up to 1.5" (3.8 cm)[†]
HID Prox/AWID: Up to 1.3" (3.2 cm)
Indala Proximity: Up to 1.3" (3.2 cm)

Mounting

Ideally suited for mullion-mounted door installations, any flat surface or over single-gang electrical box. (see "Accessories" for more information).

Power Supply

5 - 24 VDC

Current Draw

79 mA AVG, 96 mA PEAK (@ 12 VDC)

Operating Temperature

-13° F to 149° F (-25° C to 65° C)^{††}

Operating Humidity

0 – 95% non-condensing

Environmental

IP55

Transmit Frequency

13.56 MHz and 125 kHz

13.56 MHz Application

DESFire 0.6, MIFARE Classic (Sector), MIFARE Classic (CSN)

Reader Outputs

Wiegand, Clock-and-Data, ISO 7811 Clock-and-Data ABA Track 2 Emulation, RS232, RS485, RS422 or custom format output

Cable Distance

Wiegand 500 ft (150 m) (18 AWG / 1.02 mm / 0.82 mm²), Clock-and-Data 82 ft (25 m) (22 AWG / 0.65 mm / 0.33 mm²), RS232 15 ft (4.6 m) (24 AWG / 0.51 mm / 0.20 mm²), RS485/RS422 4000 ft (1219 m) (24 AWG / 0.51 mm / 0.20 mm²)

** Card Compatibility

13.56 MHz: Read-only MIFARE, DESFire
125 kHz: Read-only HID Prox and AWID, or Indala Proximity

Certifications

UL294/cUL (US), FCC Certification (US), IC (Canada), CE (EU), C-tick (Australia, New Zealand), SRRC (China), MIC (Korea), NCC (Taiwan), iDA (Singapore), RoHS, IP55

Housing

UL94 Polycarbonate

Color

Silver

Accessories

8090AS Single-gang Electrical Box Cover
9287AS Spacer Kit
0300A Tamper Switch
0055A Screw Cover
0056A Black Plexiglass Cover

Termination

Terminal Strip

Works With

I45x SmartID® DESFire Credentials***
I43x/I44x SmartID MIFARE Credentials***
I3xx HID Prox Credentials****
FPxx Indala Proximity Credentials*****
82000 EdgePlus® E400 Single Door Controller****
70100 VertX® V100 Door/Reader Interface****
72000 VertX V2000 Reader Interface/Network Controller****

Family Model

810XD, 814XD

Warranty

Warranted against defects in materials and workmanship for life. (See complete warranty policy for details.)

* Additional configuration format must accompany all reader orders. See 13.56MHz How To Order Guide (HTOG) for more details.

** Compatibility based on selected application

*** See 13.56MHz HTOG for more details.

**** See Network Access Solutions HTOG for more details.

† Read range measured using HID DESFire & MIFARE Credentials (optimized tuning). Keys and Fobs not recommended for use with this reader.

†† -20° F (-4° C) is lower temperature bound for keypad readers

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ACCESS experience.

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