

# SAWIC

Biometric Smartcard for  
Airport Workers Identification Credentials

## Biometric Physical Access Control to support High Security requirements

The BRS SAWIC system has been designed to meet the demanding security requirements of international airports. The solution is based on the TWIC guidelines issued by the US Transportation Security Administration and provides biometric fingerprint templates held on a PIV compatible smartcard with online authentication to an enterprise-wide physical access control system (PACS).

The BRS BioLock + Smart Reader can operate in indoor environments or in outdoor environments exposed to the weather due to its IP65 rating.

The SAWIC smartcard uses the ISO/IEC 14443 contactless interface to provide both high transaction throughput and high data integrity.



Smartcard reader

## Biometric Fingerprint Templates

Two fingerprint templates are stored on the card together with an electronic signature, and encoded using a private key provided by the PACS.

### Verification

Two verification modes are supported:

- Mode 1 – CHUID Verification, when requesting access from a secure zone to an insecure zone; and
- Mode 2 – CHUID Verification + Biometric User Authentication, when requesting access from an insecure zone to a secure zone.



BioLock combined with Smartcard reader

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### Hardware + Software Specifications

#### SPECIFICATIONS

##### Fingerprint Reader

BRS BioLock+ Reader model No. BL0004v01

- a touch type sensor utilizing RF scanning technology
- supports communications via 10BaseT and Wiegand
- installed on the non-secure side of the door while the secure I/O board (SIOB) is located on the secure side
- connection between the SIOB and Reader head is encrypted by a secure pairing, and when broken can only be re-enabled by resetting the pairing from the secure side of the building
- fully configurable Wiegand output formats including lengths 16-75, Bit positions, LSB or MSB ordering, Parity
- Single factor authentication involving 1:2 match between a presented fingerprint and a template stored on the smartcard is provided with a matching read speed of less than 1 second
- remote access and internal log accessible via internal web interface
- NTP (Network Time protocol) and configurable TCP ports and IP address
- seamless integration with the BRS SmartCard Reader (BL0045v01) to provide contactless smartcard operation.

##### Smartcard Reader

BRS Smartcard Reader model No. BL0045v01

- 13.56MHz Contactless type smartcard
- communication between the smart-card and SmartCard Reader complies with ISO/IEC 14443 (types A and B) and has data transfer rates of at least 106Kbps, 212Kbps and 424Kbps
- the ability to read and write to the smartcard is supported
- reliable read range of up to 6cm when communicating
- modular by design and has the ability to operate as a standalone reader when in Mode 1 – CHUID Verification, or operate as an integral part of the BioLock when operating in Mode 2 - CHUID Verification + Biometric User Authentication
- in Mode 1, the Reader is configured with an attached blanking plate (BRS part number CP0022v01)
- In Mode 2, the Reader has a seamless integration with the BRS BioLock (BL0004v01) to provide contactless smartcard with biometric 1:2 matching
- messages are transmitted via a Wiegand output from the Reader to the PACS as a 75-bit "transparent mode" format (as per FIPS 201-1)

##### Card Specifications

BRS Contactless SmartCard model No. CP0115v01

- 13.56 MHz contactless smartcard conforming to communications protocol ISO 14443/1-4 Types A or B
- minimum of 64kb EEPROM user memory
- PIV compatible
- blank white and printable
- magnetic stripe not required

For further information please contact: Bio Recognition Systems Pty Ltd

PO Box 4102, Lane Cove 1595 Australia

Ph: +61 2 9882 8600

Fax: +61 2 9427 2503

Email: [sales@brsgrp.com](mailto:sales@brsgrp.com)

Web: [www.brsgrp.com](http://www.brsgrp.com)



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