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HID Global is focused on creating customer value as the trusted source for products, services and know-how related to the delivery of secure identity.
SmartID™ Readers
13.56 MHz MIFARE® and DESFire® Contactless Cards and Readers

SmartID Contactless Smart Card Readers are completely compatible with the requirements of ISO 14443A (MIFARE/DESFire) and are a perfect choice for access control, data storage solutions and multiple applications. The open architecture and highly customizable platform enables adaptation to an assortment of card population scenarios. Adding to the security and flexibility of tailored ISO 14443 applications, a wide variety of form factors and multi-factor authentication product is available, including keypad and biometric readers. Choose from a full range of HID’s 13.56 MHz offerings encompassing the industry’s broadest range of open standard contactless smart card products, available from over 40,000 resellers worldwide.
SmartID™ Readers

Did You Know...
The SmartID reader offers the ultimate choice in interoperability and programmability. 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.

SmartID Mullion - S10
ISO 14443A Contactless Smart Card Reader

Base Part Number • 8030
• Reads data from any Smart Card including HID MIFARE
• Can be configured for almost any custom card population
• Choose from a variety of reader outputs, including Wiegand, Clock-and-Data, RS232, RS485 and RS422.
• Reader firmware loaded from smart card makes upgrades and maintenance painless
• Dimensions: 5.59” x 1.81” x 0.98” (14.2 x 4.6 x 2.5 cm)
• Read Range: up to 1.18” (3.0 cm)
• Additional accessory (p/n 8090AS) turns reader into single-gang electrical mount

SmartID Mullion Keypad - SK10
ISO 14443A Contactless Smart Card Keypad Reader

Base Part Number • 8031
• Reads data from any ISO 14443A (MIFARE/DESFire) Contactless Smart Card
• Can be configured for almost any custom card population
• Choose from a variety of reader outputs, including Wiegand, Clock-and-Data, RS232, RS485 and RS422.
• Keypad offers dual-factor authentication
• Reader firmware loaded from smart card makes upgrades and maintenance painless
• Dimensions: 5.59” x 1.81” x 0.98” (14.2 x 4.6 x 2.5 cm)
• Read Range: up to 1.18” (3.0 cm)
• Additional accessory (p/n 8090AS) turns reader into single-gang electrical mount
SmartTOUCH - SB10
ISO 14443A Contactless Smart Card Biometric Reader
Base Part Number • 800-8050*

- Biometric authentication in conjunction with data from any ISO 14443A (MIFARE/DESFire) Contactless Smart Card
- Can be configured for almost any custom card population
- Choose from a variety of reader outputs, including Wiegand, Clock-and-Data, RS232, RS485 and RS422.
- Field fingerprint enrollment at the reader for simplicity and convenience
- Dimensions: 7.58” x 1.99” x 1.69” (19.25 x 5.05 x 4.3 cm)
- Read Range: up to 1.18” (3.0 cm) MIFARE
- Additional accessory (p/n 500-8095) turns reader into single-gang electrical mount

SmartTOUCH Keypad - SBK10
ISO 14443A Contactless Smart Card Biometric Keypad Reader
Base Part Number • 800-8055*

- Biometric authentication in conjunction with data from any ISO 14443A (MIFARE/DESFire) Contactless Smart Card
- Can be configured for almost any custom card population
- Three-factor authentication finger + card + pin
- Field fingerprint enrollment at the reader for simplicity and convenience
- Dimensions: 7.58” x 1.99” x 1.69” (19.25 x 5.05 x 4.3 cm)
- Read Range: up to 1.18” (3.0 cm) MIFARE
- Additional accessory (p/n 500-8095) turns reader into single-gang electrical mount

* Multiple base part numbers available depending upon application.
The SmartTOOLS™ desktop card programmer suite is a flexible, highly secure and stylish Contactless Smart Card programmer, ideal for customers that require access card programming and/or reader customization for new or existing installations. The SmartTOOLS software suite offers two software packages:

ProxBurn CP100, part number 501-7753
ReaderTOOLS CP101, part number 501-7756

ProxBurn is a card programming suite for MIFARE cards that allows the user to program 32-bit Wiegand card numbers and flexible Clock-and-Data card formats up to 10 digits using site specific security keys for MIFARE and DESFire cards. ReaderTOOLS is a SmartID reader configuration tool. ReaderTOOLS allows users to create configuration cards that customize the behavior of any SmartID reader. Using an existing key management process, ReaderTOOLS enables customers to secure readers with site specific keys known only to the site manager. After creation of configuration cards, site managers configure readers by placing the configuration card in front of the reader. After configured, SmartID readers will read, process and output custom programmed MIFARE data.

ProxBurn and ReaderTOOLS are both available for Windows® 2000/XP/2003. Software licenses and/or NDAs are required for use.

**ProxBurn - CP100**
**Card Programmer**

*Base Part Number* • 501-7753
- Programs 32-bit Wiegand card numbers (MIFARE only)
- Programs up to 10 Clock-and-Data ABA digits
- Programs access cards with site specific security keys
- RS232 connection to computer

**ReaderTOOLS - CP101**
**Configuration Card Programmer**

*Base Part Number* • 501-7756
- Programs SmartID Reader Configuration Cards
- Allows users to setup secure site specific reader keys
- Enables users to configure a multitude of reader settings
- Configure any SmartID reader
- USB connection to computer
# SmartID™ Reader Specifications

<table>
<thead>
<tr>
<th></th>
<th>SmartID™ Mullion S10</th>
<th>SmartID™ Mullion Keypad SK10</th>
<th>SmartTOUCH™ SB10</th>
<th>SmartTOUCH™ Keypad SBK10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base Model Number</strong></td>
<td>8030</td>
<td>8031</td>
<td>800-8050</td>
<td>800-8055</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>5.59” x 1.81” x 0.98” (14.0 cm x 4.6 cm x 2.5 cm)</td>
<td>7.58” x 1.99” x 1.69” (19.5 cm x 5.0 cm x 4.5 cm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>4.3 oz (122 g)</td>
<td>5.5 oz (157 g)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Read Range</strong></td>
<td>1.18” (3.0 cm)</td>
<td>Up to 1.18” (3.0 cm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>Mullion or Single-gang electrical box**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>5-24 VDC</td>
<td>8-24 VDC regulated</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current Requirements</strong></td>
<td>68 mA / 82 mA (@12 VDC)</td>
<td>208 mA / 417 mA (@12 VDC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Termination</strong></td>
<td>Terminal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output Formats</strong></td>
<td>Wiegand, Clock-and-Data</td>
<td>RS232, RS485, RS422</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tamper</strong></td>
<td>Option</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Indoor/Outdoor</strong></td>
<td>Both</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Additional Technologies</strong></td>
<td>N/A</td>
<td>Fingerprint Sensor</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Warranty</strong></td>
<td>Lifetime</td>
<td>One Year</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Multiple base part numbers available depending upon application
** Single-gang mounting requires purchase of additional accessory
**MIFARE® Card**  
*13.56 MHz Contactless Smart Card*  
**Base Part Number** • 1430  
- Credit card-thin MIFARE 1K ISO card provides high security with mutual authentication, data encryption and unique 32-bit serial number  
- Ideal for diverse applications such as access control, cashless vending, public transportation, corporate and campus applications, event ticketing, customer loyalty and photo ID cards  
- Photo ID compatibility allows printing directly to the card with a direct image or thermal transfer printer  
- Cards can be produced with visual security and anti-counterfeiting features such as holograms, ultra-violet fluorescent inks, micro-printing or a custom logo  
- Also Available in Composite Polyester / PVC, MIFARE 4K and magnetic stripe versions

**MIFARE®/Prox Combo Card**  
*13.56 MHz Contactless Smart Card*  
**Base Part Number** • 1431  
- Combine MIFARE 1K and proximity technologies to add smart card applications, such as cashless vending, corporate and campus applications, event ticketing, customer loyalty and photo ID cards, to access control systems  
- Provides high security with mutual authentication, data encryption and unique 32-bit serial number and supports all HID proximity card formats, including Corporate 1000  
- Photo ID compatibility allows printing directly to the card with a direct image or thermal transfer printer  
- Cards can be produced with visual security and anti-counterfeiting features such as holograms, ultra-violet fluorescent inks, micro-printing or a custom logo  
- Also Available in Composite Polyester / PVC and MIFARE 4K versions

**DESFire® Card**  
*13.56 MHz Contactless Smart Card*  
**Base Part Number** • 1450  
- Proven, Reliable Technology - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.  
- Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.

**DESFire®/Prox Combo Card**  
*13.56 MHz Contactless Smart Card*  
**Base Part Number** • 1451  
- Proven, Reliable Technology - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.  
- Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.  
- True Credit Card Thickness - Use with all direct image and thermal transfer printers.
MIFARE® Key fob
13.56 MHz Contactless Smart Card
Base Part Number • 1434
• High Security - MIFARE technology ensures mutual authentication, data encryption and unique 32-bit serial number.
• Proven, Reliable Technology - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.
• Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.
• Multiple Memory Types - Available in MIFARE 1K and 4K.

DESFire® Key fob
13.56 MHz Contactless Smart Card
Base Part Number • 1454
• High Security - DESFire technology includes mutual authentication, DES and triple-DES data encryption, and unique 56-bit serial number.
• Proven, Reliable Technology - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.
• Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.

MIFARE® Adhesive Tag
13.56 MHz Contactless Smart Card
Base Part Number • 1435
• High Security - MIFARE technology ensures mutual authentication, data encryption and unique 32-bit serial number.
• Proven, Reliable Technology - Offers extremely consistent read range. Use is unaffected by body shielding or variable environmental conditions, even when close to keys and coins.
• Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.
• Multiple Memory Types - Available in MIFARE 1K and 4K.

DESFire® Adhesive Tag
13.56 MHz Contactless Smart Card
Base Part Number • 1455
• High Security - DESFire technology includes mutual authentication, DES and triple-DES data encryption and unique 56-bit serial number.
• Fast Processing and Data Communication - Transaction times are less than 100 milliseconds for a typical secure ticketing transaction.
• Upgrade Tool - Provides the security of DESFire contactless read/write technology in a small, disk-shaped package.
<table>
<thead>
<tr>
<th>Base Part Number</th>
<th>MIFARE® Card</th>
<th>MIFARE® / HID Prox Combo Card</th>
<th>DESFire® Card</th>
<th>DESFire® / HID Prox Combo Card</th>
</tr>
</thead>
<tbody>
<tr>
<td>1430</td>
<td>PVC 1k Card</td>
<td>1431 PVC 1k Card</td>
<td>1450 PVC Card</td>
<td>1451 PVC Card</td>
</tr>
<tr>
<td>1440</td>
<td>PVC 4k Card</td>
<td>1441 PVC 4k Card</td>
<td>1456 Composite PET/PVC Card</td>
<td>1457 Composite PET/PVC Card</td>
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<tr>
<td>1436</td>
<td>Composite PET/PVC 1k Card</td>
<td>1437 Composite PET/PVC 1k Card</td>
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<tr>
<td>1446</td>
<td>Composite PET/PVC 4k Card</td>
<td>1447 Composite PET/PVC 4k Card</td>
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<tr>
<td>Read Range: *</td>
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<td></td>
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<tr>
<td>MIFARE</td>
<td>Up to 4.0” (10.0 cm)</td>
<td>N/A</td>
<td></td>
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<tr>
<td>DESFire</td>
<td>N/A</td>
<td>Up to 4.0” (10.0 cm)</td>
<td>N/A</td>
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<tr>
<td>Indala Prox</td>
<td>N/A</td>
<td>Up to 4.5” (11.5 cm)</td>
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<td>Up to 4.5” (11.5 cm)</td>
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<tr>
<td>Memory Size/ Application Areas</td>
<td>1k Byte (8k bits) or 4k Bytes (32k bits)</td>
<td>4k Bytes (32k bits)</td>
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<td></td>
</tr>
<tr>
<td>HID Proximity 125 kHz</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Contact Smart Chip Module Embeddable</td>
<td>Yes***</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Wiegand Strip</td>
<td>No</td>
<td></td>
<td></td>
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<tr>
<td>Magnetic Stripe</td>
<td>Optional</td>
<td></td>
<td></td>
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<tr>
<td>Printable ***</td>
<td>Yes</td>
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<tr>
<td>Standard HID Artwork</td>
<td>Optional</td>
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<tr>
<td>Slot Punch</td>
<td>Vertical optional</td>
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<tr>
<td>Visual Security Options</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Additional Security Options</td>
<td>Corp 1000</td>
<td></td>
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<tr>
<td>Warranty</td>
<td>Lifetime</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

* Dependent upon installation conditions.
** Contact smart chip module not included. Ask about HID’s SMARTS Program for off-the-shelf contact smart chip embedded cards.
*** Some types of printing processes can take these credentials out of ISO compliance for thickness. Consult factory for more information.
<table>
<thead>
<tr>
<th></th>
<th>MIFARE® Key fob</th>
<th>DESFire® Key fob</th>
<th>MIFARE® Adhesive Tag</th>
<th>DESFire® Adhesive Tag</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1434</strong>: 1k Key fob</td>
<td>1444: 4k Key fob</td>
<td>1435: 1k Tag</td>
<td>1445: 4k Tag</td>
<td>1454: 1k Tag</td>
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<tr>
<td>Read Range: *</td>
<td>MIFARE</td>
<td>Up to 4.0˝ (10.0 cm)</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td></td>
<td>DESFire</td>
<td>N/A</td>
<td>Up to 2.0˝ (5.0 cm)</td>
<td>N/A</td>
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<tr>
<td>Memory Size/ Application Areas</td>
<td>1k Byte (8k bits) or 4k Bytes (32k bits)</td>
<td>4k Bytes (32k bits)</td>
<td>1k Byte (8k bits) or 4k Bytes (32k bits)</td>
<td>4k Bytes (32k bits)</td>
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<td>Yes</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Contact Smart Chip Module</td>
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<td>Yes</td>
<td>No</td>
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<tr>
<td>Embeddable</td>
<td>Yes**</td>
<td>No</td>
<td>Yes**</td>
<td>No</td>
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<tr>
<td>Wiegand Strip</td>
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<td>No</td>
<td>No</td>
<td>No</td>
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<td>Optional</td>
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<td>Printable ***</td>
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<td>Visual Security Options</td>
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<td>Lifetime</td>
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