

# FlexSmart® Series Credentials

## MIFARE® Keyfob • I434, I444

- ▶ **Keyfob Flexibility and Convenience** - Contemporary design enables easy attachment to a key, badge clip or badge lanyard.
- ▶ **Rugged, Double-Sealed Construction** - Built to withstand harsh operating environments.
- ▶ **Customizable** - Can be customized by adding a company logo.



### ACCESS interoperability.

The rugged HID MIFARE Keyfob is ideally suited for a variety of applications and environments. These include vacation resorts, health spas, apartment buildings, club houses, as well as commercial offices where photo IDs are not required. The RF-programmable keyfob features the high quality and security benefits customers appreciate in HID FlexSmart 13.56 MHz MIFARE credentials. The Keyfob permits the encoding of a wide range of data and information. Securely separated sectors, each protected by a set of two keys and programmable access conditions, allow complex applications and provide for future expansion.

Manufactured to the highest quality standards, HID FlexSmart MIFARE products have the memory structure and capacity to store multiple applications on a single credential. The data on the keyfob is protected with encryption keys used in the mutual authentication process. Therefore, no important data will be shared until the keyfob and reader have been authenticated to each other.

#### Key Features

- ▶ **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.

# Features

## Long Life

Passive, no-battery design allows for 100,000 read/write operations.

## Rugged and Durable Design

Able to withstand harsh environments, the MIFARE® Keyfob® has double-sealed construction. Inner electronics are fully encapsulated in epoxy. Outer body is an ultra-sonic welded, polycarbonate material.

## Applications

Designed for vacation resorts, health spas, apartment buildings, locker rooms, gated communities, vehicle fleet management, and corporate environments.

## Memory Specification

1K Byte (8,192 bits) or 4K Bytes (32,768 bits)

Memory Sector 0 is used as the MIFARE® Application Directory (MAD)

- Unique 4 Byte (32 bit) ID per card (CSN)
- Each sector uses two encryption keys
  - Key "A" to read only
  - Key "B" to read/write
- Each encryption key is 6 Bytes (48 bits)

<b>Dimensions</b>	1.725" x 1.197" x 0.215" (4.38 cm x 3.04 cm x 0.55 cm)
<b>Weight</b>	0.191 oz. (5.4 g)
<b>Typical Maximum Read Range*</b>	Up to 2" (5.0 cm)
<b>Operating Temperature</b>	-40 to 158°F (-40 to 70°C)
<b>Operating Humidity</b>	5%-95% Non-condensing
<b>Operating Frequency</b>	13.56 MHz
<b>RF Interface</b>	ISO 14443 A, Parts 1-3
<b>Transaction Time</b>	< 100 ms
<b>Baud Rate</b>	106 kbps
<b>Memory Type</b>	EEPROM, 1Kbyte (8,192 bits) or 4 Kbytes (32,768 bits)
<b>Multi-Application Memory</b>	MIFARE 1K: memory arranged in 16 64-byte Sectors MIFARE 4K: memory arranged in 40 Sectors: 32 sectors of 64 bytes, 8 sectors of 256 bytes
<b>Write Endurance</b>	100,000 cycles min.
<b>Data Retention</b>	10 years min.
<b>Material and Finish</b>	Molded Polycarbonate, matte blue
<b>Card Marking</b>	Inkjet Standard, laser engraving optional
<b>Custom Graphics</b>	Optional
<b>Slot Punch</b>	Key Ring Hole
<b>Programming</b>	Factory or Field Programmable
<b>Part Number</b>	Model I434 MIFARE 1K Keyfob Model I444 MIFARE 4K Keyfob
<b>Description</b>	MIFARE Keyfob
<b>Warranty</b>	Lifetime - see Sales Policy for complete details

\*Dependent on local installation conditions.

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MKT-MIFARE-KEYFOB-DS-EN



## ACCESS experience.

[hidcorp.com](http://hidcorp.com)

### HID Global Offices:

**Corporate North America**  
9292 Jeronimo Road  
Irvine, CA 92618-1905  
U.S.A.  
Phone: (800) 237-7769  
Phone: (949) 598-1600  
Fax: (949) 598-1690

**Asia Pacific**  
19/F 625 King's Road  
North Point  
Island East  
Hong Kong  
Phone: +852 3160-9800  
Fax: +852 3160-4809

**Latin America**  
Circunvalacion Ote. #201 B  
Despacho 2  
Col. Jardines del Moral  
Leon 37160, Gto.  
Mexico  
Phone: +52 477 779 1492  
Fax: +52 477 779 1493

**Europe, Middle East & Africa**  
Homefield Road  
Haverhill, Suffolk  
CB9 8QP  
England  
Phone: +44 (0) 1440 714 850  
Fax: +44 (0) 1440 714 840