



SAMPLE SPECIFICATIONS FOR ARCHITECTS AND SPECIFYING ENGINEERS

HIGH FREQUENCY (HF) CONTACTLESS SMART CARD READERS

The following document contains sample specifications for Secura Key High Frequency (HF) Contactless Smart Card and Reader products. They are written using industry standard formatting and language.

These specifications are for use by architects, consultants, and specifying engineers who are preparing bid specifications for access control, building management and security systems.

The electronic version of these specifications may be copied into the appropriate sections of a complete bid specification by using the “cut and paste” method.

The specifications are written to highlight unique and powerful features of Secura Key Contactless Smart cards and readers.

Section headings mention specific models only for clarity – these may be deleted after insertion into the complete specification.

Models covered include the **ET-WXM**, **ET-WXS**, **ET-RO-W-D-W**, and **ET-RO-W-M** as well as Secura Key Contactless Smart Cards and Key Tags.

Please see the Secura Key website www.securakey.com if you require technical specifications or additional information on these products.

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1.1 ACCESS CONTROL EQUIPMENT

A. **ACCESS CONTROL READERS:** Provide Secura Key Contactless Smart Card readers, or equivalent, as shown on the drawings. Card readers shall be available in the following configurations:

1. (ET-WXM) – Contactless Smart Card Reader, Door Frame or Mullion Mounting Applications:
 - a. Provide mini-mullion style Contactless Smart card readers for doorframe or mullion mounting, and where shown on plans.
 - b. The reader shall be of potted, ABS material, sealed for weather resistance.
 - c. The reader shall be UL/C 294 listed, and shall have the following regulatory approvals: FCC, CE.
 - d. Transmit Frequency: 13.56 MHz
 - e. The reader shall have an approximate read range of up to 4” when used with the compatible ISO CR-80 type access card.
 - f. The reader shall require that a card, once read, must be removed from the RF field for one second before it will be read again, to prevent multiple reads from a single card presentation and anti-passback errors.
 - g. The reader shall be capable of reading access control data from any Secura Key Contactless Smart card or equivalent, and transmitting that data in SIA standard Wiegand format.
 - h. The reader shall have a Wiegand output port and shall operate under internal control for read-only access control applications.
 - i. The reader shall have separate terminal control points for green and red LED indications, and for the audible indicator.
 - j. The reader shall have a bi-color (red/green) LED, and an amber indication shall also be possible by activating both the red and green LED control points simultaneously.
 - k. The reader shall have a piezoelectric audio sounder capable of providing audible indication that a card has been read, as well as other indications under host control.
 - l. The reader shall have a hold input, which when asserted shall buffer a single card read, until the line is released. This input may be used for special applications.
 - m. The reader shall have a three-year warranty against defects in materials and workmanship.
 - n. Color shall be black.
 - o. Secura Key (ET-WXM) or equivalent, compatible with selected card media.

2. (ET-WXS) – Contactless Smart Card Reader, Wall Mounting (Single-Gang Mounting Applications):
 - a. Provide “single-gang” mounting style Contactless Smart card readers for wall mounting, Vehicle Stanchions and Pedestals, and where shown on plans.
 - b. The reader shall be of potted, polycarbonate material, sealed for weather resistance.
 - c. The reader shall be UL/C 294 listed, and shall have the following regulatory approvals: FCC, CE.
 - d. Transmit Frequency: 13.56 MHz
 - e. The reader shall have an approximate read range of up to 6” when used with the compatible ISO CR-80 type access card.
 - f. The reader shall require that a card, once read, must be removed from the RF field for one second before it will be read again, to prevent multiple reads from a single card presentation and anti-passback errors.
 - g. The reader shall be capable of reading access control data from any Secura Key Contactless Smart card or equivalent, and transmitting that data in SIA standard Wiegand format.
 - h. The reader shall have a Wiegand output port and shall operate under internal control for read-only access control applications.
 - i. The reader shall have separate terminal control points for green and red LED indications, and for the audible indicator.
 - j. The reader shall have a bi-color (red/green) LED, and an amber indication shall also be possible by activating both the red and green LED control points simultaneously.
 - k. The reader shall have a piezoelectric audio sounder capable of providing audible indication that a card has been read, as well as other indications under host control.
 - l. The reader shall have a hold input, which when asserted shall buffer a single card read, until the line is released. This input may be used for special applications.
 - m. The reader shall have a three-year warranty against defects in materials and workmanship.
 - n. Color shall be as selected by the Architect (beige or black).
 - o. Secura Key (ET-WXS), or equivalent, compatible with selected card media.
3. (ET-RO-W-M) – Contactless Smart Card Reader, Door Frame or Mullion Mounting Applications:
 - a. Provide standard mullion style Contactless Smart card readers for doorframe or mullion mounting, and where shown on plans.
 - b. The reader shall be of potted, ABS material, sealed for weather resistance.
 - c. The reader shall be UL/C 294 listed, and shall have the following regulatory approvals: FCC, CE.
 - d. Transmit Frequency: 13.56 MHz

- e. The reader shall have an approximate read range of up to 4” when used with the compatible ISO CR-80 type access card.
 - f. The reader shall require that a card, once read, must be removed from the RF field for one second before it will be read again, to prevent multiple reads from a single card presentation and anti-passback errors.
 - g. The reader shall be capable of reading access control data from any Secura Key Contactless Smart card or equivalent, and transmitting that data in SIA standard Wiegand format.
 - h. The reader shall have a Wiegand output port and shall operate under internal control for read-only access control applications.
 - i. The reader shall have separate terminal control points for green and red LED indications, and for the audible indicator.
 - j. The reader shall have two bi-color (red/green) LEDs, and an amber indication shall also be possible by activating both the red and green LED control points simultaneously.
 - k. The reader shall have a piezoelectric audio sounder capable of providing audible indication that a card has been read, as well as other indications under host control.
 - l. The reader shall have a hold input, which when asserted shall buffer a single card read, until the line is released. This input may be used for special applications.
 - m. The reader shall have a three-year warranty against defects in materials and workmanship.
 - n. Color shall be black.
 - o. Secura Key (ET-RO-W-M), or equivalent, compatible with selected card media.
4. (ET-RO-W-D-W) – Contactless Smart Card Reader, Decorator Housing, Wall Mounting (Single-Gang Mounting Applications):
- a. Provide “single-gang” mounting style Contactless Smart card readers for wall mounting, and where shown on plans.
 - b. The reader shall be of ABS material, designed for indoor applications.
 - c. The reader housing shall be dimensionally and aesthetically compatible with Leviton Decora® style switch plates, so that it will be unobtrusive in an office environment.
 - d. The reader shall be UL/C 294 listed, and shall have the following regulatory approvals: FCC, CE.
 - e. Transmit Frequency: 13.56 MHz
 - f. The reader shall have an approximate read range of up to 4” when used with the compatible ISO CR-80 type access card.
 - g. The reader shall require that a card, once read, must be removed from the RF field for one second before it will be read again, to prevent multiple reads from a single card presentation and anti-passback errors.

- h. The reader shall be capable of reading access control data from any Secura Key Contactless Smart card or equivalent, and transmitting that data in SIA standard Wiegand format.
- i. The reader shall have a Wiegand output port and shall operate under internal control for read-only access control applications.
- j. The reader shall have separate terminal control points for green and red LED indications, and for the audible indicator.
- k. The reader shall have a bi-color (red/green) LED, and an amber indication shall also be possible by activating both the red and green LED control points simultaneously.
- l. The reader shall have a piezoelectric audio sounder capable of providing audible indication that a card has been read, as well as other indications under host control.
- m. The reader shall have a hold input, which when asserted shall buffer a single card read, until the line is released. This input may be used for special applications.
- n. The reader shall have a three-year warranty against defects in materials and workmanship.
- o. Color shall be as selected by the Architect (white).
- p. Secura Key (ET-RO-W-D-W), or equivalent, compatible with selected card media.

B. ACCESS CARDS (CREDENTIALS)

Provide (specify quantities) Secura Key Contactless Smart Card Credentials (or equivalent) in the following form factors:

- 1. (ETCI-04) Access Card
 - a. Access cards shall be used with access readers to gain entry to access controlled portals (e.g.; doors, gates, turnstiles) and to hold information specific to the user.
 - b. The card shall be available in single technology or multiple technology configurations using 13.56 MHz contactless smart card technologies. Single technology cards shall meet the following criteria:
 - 1) The card shall meet ISO 7810 specifications for length, width, thickness, flatness, card construction and durability, and shall be in a form suitable for direct two-sided dye-sublimation or thermal transfer printing on the specified badge printer.
 - 2) Presentation to the access control reader at any angle within a minimum of one (1) inch shall result in an accurate reading of the card.
 - 3) The card shall be warranted against defects in materials and workmanship for lifetime, or with an added magnetic stripe the card shall have a fifteen (15) month warranty.
 - 4) Provide (specify quantity), access cards, compatible with the specified card readers. Cards shall be encoded with

Wiegand card data, at the factory. Specify 26-bit or 32-bit data format.

- 5) The card shall not carry any identification showing the location of the property unless otherwise specified herein.
 - 6) The card shall be capable of accepting a slot punch, allowing it to be hung from a strap clip in either a vertical or horizontal orientation.
- c. Multiple technology cards shall support a 13.56 MHz contactless smart card chip and antenna plus an added Magnetic Stripe.
 - d. Provide (specify quantity) (badge protectors with clips or other accessories), of a type acceptable to the Architect.
2. (ETST-03) Access Key Tag
- a. Access Key Tags shall be used with access readers using 13.56 MHz contactless smart card technology to gain entry to access controlled portals (e.g.; doors, gates, turnstiles) and to hold information specific to the user.
 - b. The Key Tag shall be constructed of durable laminated PVC plastic, with a hole punched into one end (optionally reinforced by a brass eyelet), and shall be suitable for placement on a key ring.
 - c. Presentation to the access control reader at any angle within one (1) inch shall result in an accurate reading of the key tag.
 - d. Provide (specify quantity) key tags compatible with the specified card readers.
 - e. The key tag shall not carry any identification showing the location of the property unless otherwise specified herein.
 - f. The key tag shall be warranted against defects in materials and workmanship for three years.

End of Section