



SAMPLE SPECIFICATIONS FOR ARCHITECTS AND SPECIFYING ENGINEERS

LOW FREQUENCY (LF), DUAL TECHNOLOGY PROXIMITY CARD SMART READERS

The following document contains sample specifications for Secura Key Proximity Card and Smart 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 Proximity cards and Smart Readers.

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

Models covered include the **RKDT-SR-M** and **RKDT-SR-S**, as well as Secura Key Proximity Cards and Key Fobs.

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 Proximity Smart Readers, or equivalent, as shown on the drawings. Smart Readers shall communicate with the Access Control Panel using RS-485 bi-directional communications, and shall monitor and control all devices at the door or gate location eliminating “home-run” cabling extending from each door location to the control panel. Smart Readers require only RS-485 data and 12VDC power from the control panel. Card readers shall be available in the following configurations:

1. (RKDT-SR-M) – Proximity Card Reader, Door Frame or Mullion Mounting Applications:
 - a. Provide mullion style proximity card readers for doorframe or mullion mounting, and where shown on plans.
 - b. The reader shall be of potted Lexan® 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: 125 KHz
 - e. The reader shall have an approximate read range of up to 6” when used with the compatible molded clamshell type access card, or up to 5” 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 26-bit or 32-bit Secura Key formatted access control data from any Secura Key Proximity card or equivalent, and from most HID Proximity cards or equivalent with non-proprietary formats, and transmitting that data to the control panel via RS-485 using Secura Key SR protocol.
 - h. The reader shall transmit card data, and input circuit voltages and status data to the control panel, and shall receive and execute commands from the control panel to activate outputs and operate red and green LEDs and the internal Beeper.
 - i. The reader shall have four separate input points for connecting switch contacts from devices such as Request-to-Exit pushbuttons, Exit PIRs, magnetic reed switches for door monitoring, status outputs from Magnetic Locks and and “crash bars” and other monitoring devices which provide a switch closure.
 - j. The reader shall have a solid-state latch output for connection to magnetic locks, electric strikes, electrified locksets, and gate controllers, as well as two open collector Auxiliary Outputs which can be connected through interposing relays to devices which can be operated by a contact closure, such as strobes, horns, sounders, camera inputs, lighting controllers or HVAC systems, in response to various types of access control transactions, card badging’s within a pre-defined range, valid periods of specified time zones, or status changes of the input points described above.
 - k. The reader shall have a bi-color (red/green) LED, activated by host command from the control panel.
 - 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 three-year warranty against defects in materials and workmanship.
 - n. Color shall be black.
 - o. Secura Key Radio Key RKDT-SR-M, or equivalent, compatible with selected card media.
2. (RKDT-SR-S) – Proximity Card Reader, Wall Mounting (Single-Gang Mounting Applications):
- a. Provide “single-gang” mounting style proximity 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: 125 KHz
 - e. The reader shall have an approximate read range of up to 8” when used with the compatible molded clamshell type access card, or 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 26-bit or 32-bit Secura Key formatted access control data from any Secura Key Proximity card or equivalent, and transmitting that data, and transmitting that data to the control panel via RS-485 using Secura Key SR protocol.
 - h. The reader shall transmit card data, and input circuit voltages and status data to the control panel, and shall receive and execute commands from the control panel to activate outputs and operate red and green LEDs and the internal Beeper.
 - i. The reader shall have four separate input points for connecting switch contacts from devices such as Request-to-Exit pushbuttons, Exit PIRs, magnetic reed switches for door monitoring, status outputs from Magnetic Locks and and “crash bars” and other monitoring devices which provide a switch closure.
 - j. The reader shall have a solid-state latch output for connection to magnetic locks, electric strikes, electrified locksets, and gate controllers, as well as two open collector Auxiliary Outputs which can be connected through interposing relays to devices which can be operated by a contact closure, such as strobes, horns, sounders, camera inputs, lighting controllers or HVAC systems, in response to various types of access control transactions, card badging’s within a pre-defined range, valid periods of specified time zones, or status changes of the input points described above.
 - k. The reader shall have a bi-color (red/green) LED, activated by host command from the control panel.
 - 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 3-year warranty against defects in materials and workmanship.
 - n. Color shall be black,

- o. Secura Key (RKDT-SR-S), or equivalent, compatible with selected card media.

B. ACCESS CARDS (CREDENTIALS)

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

1. (RKCI-02) 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 125 kHz proximity technology. 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 three years, or if multiple technologies are used: with a 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 SIA standard Wiegand card data, at the factory.
 - 5) The card shall not carry any identification showing the location of the property unless otherwise specified herein. 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 125 KHz Proximity 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. (RKCM-02) Molded Access Card
 - a. Molded 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, for applications where the card must withstand rough use (such as factory, warehouse, transportation, etc.)
 - b. The card shall meet the following criteria:
 - 1) The card shall meet ISO 7810 specifications for length and width, and shall be no more than 0.65” thick, and shall have a recessed area on one side which can accept an adhesive-backed field-printable PVC cover, which shall be in a form suitable for direct 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 three years.
 - 4) Provide (specify quantity), access cards, compatible with the specified card readers. Cards shall be encoded with SIA standard Wiegand card data, at the factory.
 - 5) The card shall not carry any identification showing the location of the property unless otherwise specified herein. The card shall not carry any identification showing the location of the property unless otherwise specified herein.
 - 6) The card shall include a molded slot punch on one end, allowing it to be hung from a strap clip in a vertical orientation.
 - 7) The card shall be available with a 125 KHz Proximity chip and antenna.
 - c. Provide (specify quantity) (badge protectors with clips or other accessories), of a type acceptable to the Architect.
3. (RKKT-02) Access Key Fob
 - a. Access Key Fobs shall be used with access readers using 125 kHz proximity technology to gain entry to access controlled portals (e.g.; doors, gates, turnstiles) and to hold information specific to the user.
 - b. The Key Fob shall be constructed of durable injection molded ABS plastic, with a slot molded into one end, 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 fob.
 - d. Provide (specify quantity) key fobs compatible with the specified card readers.
 - e. The key fob shall not carry any identification showing the location of the property unless otherwise specified herein.
 - f. The key fob shall be warranted against defects in materials and workmanship for three-years

End of Section