RADIO KEY®

Dual Technology Smart Readers

RKDT-SR-S (Switchplate) / RKDT-SR-M (Mullion)

The Radio Key® RKDT dual technology Smart Readers feature compact, weather-resistant, surface mounted housings. They are available in either mullion mount (RKDT-SR- M) or switchplate (RKDT-SR-S) form factors.

The RKDT-SR reader adds HID prox card compatibility to the SK-NET™ System using the NOVA.16 Controller. It can be used where HID® and Secura Key cards are combined at the same facility, or where customers are transitioning from HID® to Secura Key. The RKDT-SR works with Secura Key 26 or 32- bit cards, as well as HID passive cards with non-proprietary 26–37 bit "pass-through" formats. NOVA.16 accepts formats with 16 ID bits.

The RKDT-SR reader connects to the NOVA.16 Controller via the RS-485 peripheral bus, which supports up to 16 readers. The RKDT-SR obtains data communications and 12VDC power from the NOVA.16, but it has all the inputs and outputs required to monitor and control a door or gate. The reader sends card data and input status changes to the Controller, and receives access granted, access denied, and output control commands from the Controller. All door connections (Strike/Latch, REX, Door Monitor, aux inputs and outputs) are made locally at the Smart Reader. Cable "Home Runs" from the door location back to the NOVA.16 Controller are not required.

The RKDT-SR-S has a switchplate configuration which fits a standard J-box. It includes a convenient wiring harness, which allows the reader to be plugged in when the installation is completed.

The RKDT-SR-M has a mullion-mount housing which fits a standard door frame. It includes a convenient wiring harness, which allows the reader to be plugged in when the installation is completed.

Both models have a solid-state relay, plus four inputs and two open collector logic outputs, allowing access control without panels or additional hardware. Both models are UL 294 listed and FCC/CE approved.

OEM APPLICATIONS

e*Tag® Smart Readers are designed to work with custom software applications developed by original equipment manufacturers and systems integrators. Up to 100 units can be connected via RS-485 to a PC or microcontroller for a host-validated peer-to-peer system. The reader can send information to the host without being polled, eliminating the requirement for constant polling of the network.

When a card is presented to the reader, its ID number is sent in ASCII format to the host. Input status changes are also sent to the host for processing. The host can then send commands back to the smart reader, based on the application, including timed relay, LED, and beeper activations. The Host can latch or activate up to 1 hour and delay up to 1 hour. The reader can be host programmed with Input/Output Linking: Card can activate Relay and/or Outputs 1 & 2; Inputs 3 & 4 can activate Relay, timed: 0-255 sec. Inputs 1 & 2 can activate Outputs 1 & 2, timed: 0-255 sec.

Features:

- Reads Secura Key and HID-Formatted Proximity Cards

- Mullion housing allows indoor/outdoor door frame Mounting

- Switchplate housing allows indoor/outdoor J-box Mounting

- Four Inputs to Monitor Contact Closures

- Two open collector outputs to control external devices

- Solid State Relay to control door strike or other devices

- Host Controlled LED (Red/Green) and buzzer

- Connect up to 100 units on RS-485 Multi-drop Network

RADIO KEY®
SPECIFICATIONS

Dual Technology
Smart Card Readers

	RKDT-SR-S Switchplate Style	RKDT-SR-M Standard Mullion
Dimensions (H, W, D)	4.50" x 3.2" x 0.84" (11.43 x 8.12 x 2.13 cm)	4.38" x 1.74" x 0.9" (11.12 x 4.19 x 2.28 cm)
Mounting	U.S. Single Gang Box, Wall, Post	Standard Door frame
Weight	7.84 oz (222.26 gm)	3.42 oz (97.009 gm)
Material	Lexan®	Lexan®
Color	Black	Black
Power Requirements	150 mA Max @ 5-14 VDC	
Bi-Color LED	Red/Green, Host Activated, Configurable	
Buzzer Control	Host Activated	
Communications	RS-485 Secura Key "SR" Protocol	
Cable Distance	4,000 ft. total system	
Cable Required	Communication: 2 twisted-pair, 22-24 AWG or CAT-5; I/O: 2-10 conductor, 22-24 AWG	
Power	Double-up unused pairs in CAT-5 cable for 12VDC power, or run additional 18/2 cable, or use Coleman 97395-06-23 Siamese cable (CAT-5 + 18/2)	
Card Compatibility	Secura Key RKCI-02 ISO, RKCM-02 Clamshell, RKKT-02 Keytag, plus HID Proximity cards and keytags with non-proprietary pass-through formats, 26 – 37 bits NOVA.16 accepts formats with 16 ID bits.	
Regulatory Approvals	UL / cUL294, Part 15 Class B FCC, CE Mark, Canada Radio	
Read Range	RKCM-02 Molded Card up to 4.5" (11.4 cm) RKCI-02 ISO Card up to 2.5" (6.3 cm) RKKT-02 Key Tag up to 3.5" (8.8 cm)	RKCM-02 Molded Card up to 6.5" (16.5 cm) RKCI-02 ISO Card up to 3.5" (8.8 cm) RKKT-02 Key Tag up to 5.0" (12.7 cm)
2 Open Collector Outputs	Rating: 20 VDC @80 mA	
1 Solid State Relay	Rating: 60V max - 1.0A AC/ 2.0A DC	
4 Contact Inputs	Ground to Activate	
Frequency	125 kHz	
Temperature Range	-40° to +70°C (-40° to +158°F)	
Relative Humidity	0 to 100% (non-condensing)	0 to 95% (non-condensing)
Warranty	These Secura Key products are warranted against defects in materials and workmanship for two years. Secura Key will replace any Secura Key manufactured product that fails to perform as intended. This warranty does not include freight, taxes, duties, or installation expenses. See price list for complete terms and conditions.	

ORDERING

READERS
RKDT-SR-M   RS485, Radio Key® & HID Proximity (Mullion/Door Frame)
RKDT-SR-S   RS485, Radio Key® & HID Proximity (Switchplate/J-Box)

PANELS:
NOVA.16 Multi-Reader Control Panels
SK-MRCP-LE   NOVA.16-control panel, large enclosure
SK-MRCP-NE   NOVA.16-control panel, no enclosure
SK-MRCP-PCBA   NOVA.16-control panel, no enclosure, no connectors

Relay Control Boards
Use with open-collector outputs
Recommended: ELK-924 Sensitive Relay; Altronix RBSN or RBSNTTL
                          (Contact your distributor)

CARDS/TAGS
RKCI-02   ISO Cards, 26 or 32 bit Wiegand data
RKCM-02   Clamshell Cards, 26 or 32 bit Wiegand data
RKKT-02   Keytags, 26 or 32 bit Wiegand data
Custom Graphics are available for ISO cards