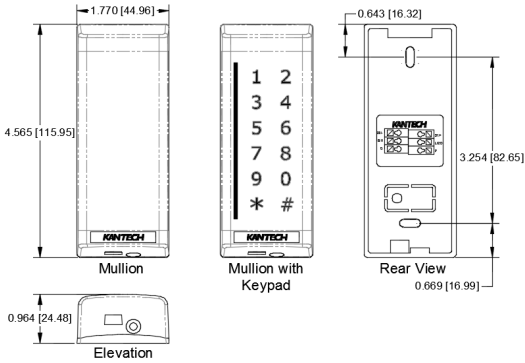


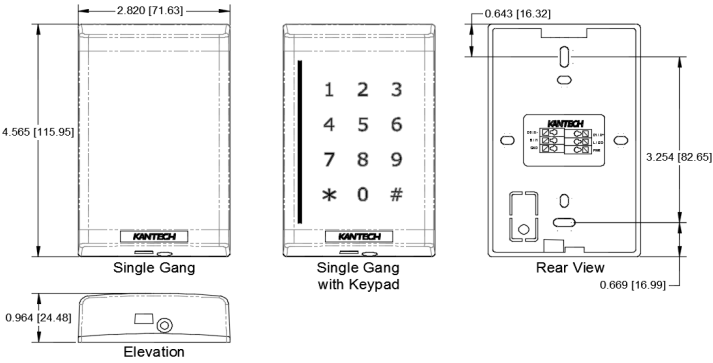
KANTECH

SmartCard Reader

Mullion



Single Gang



Technical Specifications									
Model	KT-MUL-MT-KP / KT-MUL-MT			KT-MUL-SC-KP / KT-MUL-SC		KT-SG-MT-KP / KT-SG-MT		KT-SG-SC-KP / KT-SG-SC	
Typical Read Range 13.56 MHz MIFARE Plus X, encrypted sector, ID-1 Credentials (Cards)	Up to 1.2"					Up to 1.6"			
Typical Read Range 125 kHz ioProx ID-1 Credentials (Cards)	Up to 1.8"		-		Up to 2.0"		-		
Input Voltage	5VDC to 15VDC								
Power Consumption @ 12V	175mA	70mA	160mA	70mA	175mA	70mA	160mA	70mA	
Operating Humidity	0 to 95% non-condensing								
Operating Temperature	-40C to +70C (-40F to +158F)								
Environmental Rating	IP57								
Dimensions (H.W.D.) mm	115.8 x 44.6 x 24.7					115.8 x 71.5 x 24.7			
Dimensions (H.W.D.) in	4.56 x 1.75 x 0.97					4.56 x 2.81 x 0.97			
Weight	108g (0.24lb)	106g (0.23lb)	105g (0.23lb)	103g (0.23lb)	173g (0.38lb)	166g (0.37lb)	170g (0.37lb)	161g (0.35lb)	
Housing	Polycarbonate, Smoked Black								
RF Technologies	13.56 MHz and 125 kHz		13.56 MHz		13.56 MHz and 125 kHz		13.56 MHz		
Capacitive Touch Keypad with backlighting	x		x		x		x		
LED Indicator	Multi-Color Bar: Red, Green, Yellow, Blue, Configurable								
Sounder	Integrated								
Tamper	Optical								
Inputs	Wiegand or RS-485: LED and Buzzer RS-485: 2 to 4 (configurable, using double device)								
Output	RS-485: 1 supervised, open-drain, up to 750mA								
Wiring Terminal	6 Screwless Poles								
Mounting	Mullion				North American Single Gang				
Communication	RS-485 Bus AES-128 Encrypted or Wiegand								
Wiegand Formats	26-bit / 34-bit / Kantech XSF / Kantech SSF								
Supported Credentials	13.56MHz	MIFARE Plus X and ISO/IEC 14443A							
	125kHz	ioProx	-		ioProx		-		
Cabling	3 Twisted pairs AWG 22 unshielded, up to 250' (75m)								
Security	Supports AES-128 Encryption between the Credential and the Reader as well as between the Reader and the Access Controller								
Firmware	Fully upgradable via RS-485								
Certifications	FCC, CE, UL, NIST, FIPS 197, RoHS, WEEE								
Flammability Rating	UL94 V-0								
Warranty	Limited Lifetime								

Compatible Access Control Units:	
Wiegand XSF	KT-300, KT-400 and KT-1
Wiegand SSF	KT-300, KT-400 and KT-1
RS485	KT-400 and KT-1

Mounting Instructions

Follow these instructions to install the reader:

1. Pull the controller's wires in the wall through the hole in the mounting bracket.
2. Affix the mounting plate to the wall using two screws (#6-32).
3. If a higher level of tamper detection is desired, cut the plastic tamper tab from the mounting bracket.
4. Secure the white reflector tab back into the mounting plate hole with a screw. (#6-32).
5. After having wired the reader as per the drawings below, insert the top hook of the cover into the mounting plate tab and complete the procedure by pressing the bottom part into place until the bottom hook is in place.
6. If a more secure installation is desired, install the provided screw at the bottom of the reader. You may also use the provided security screw instead for an even safer installation. (#6-32).

Models:KT-MUL-MT and KT-MUL-MT-KP
FCC ID: V8515KTMULMTKP
IC: 5690B-KTMULMTKP

Models: KT-SG-MT and KT-SG-MT-KP
FCC ID: V8515KTSGMTKP
IC: 5690B-KTSGMTKP

Models: KT-MUL-SC and KT-MUL-SC-KP
FCC ID: V8515KTMULSCKP
IC: 5690B-KTMULSCKP

Models: KT-SG-SC and KT-SG-SC-KP
FCC ID: V8515KTSGSCKP
IC: 5690B-KTSGSCKP

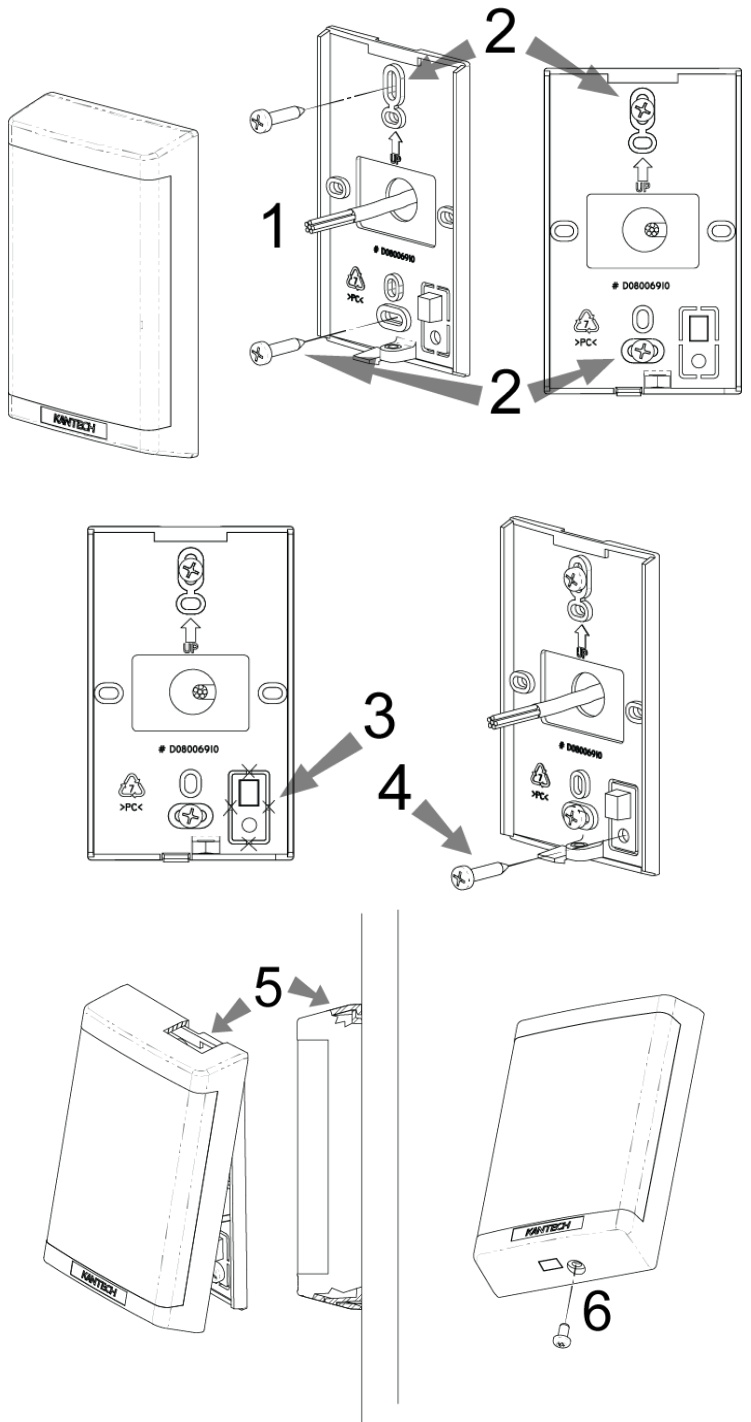
FCC COMPLIANCE STATEMENT

CAUTION: Changes or modifications not expressly approved by KANTECH could void your authority to use this equipment.

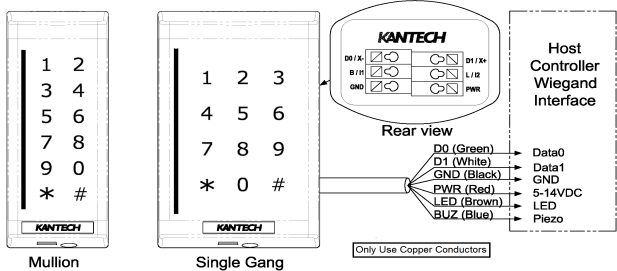
This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna
- Relocate the alarm control with respect to the receiver
- Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

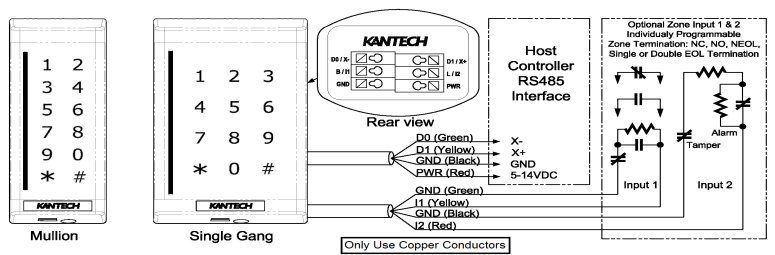
If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC useful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402, Stock # 004-000-00345-4.
INDUSTRY CANADA STATEMENT
CAN-ICES-3(B)/NMB-3(B)



Wiring Chart via Wiegand



Wiring Chart via RS485



Wiring Chart via RS485 (Lock Wiring)

UL294 Performance Levels:

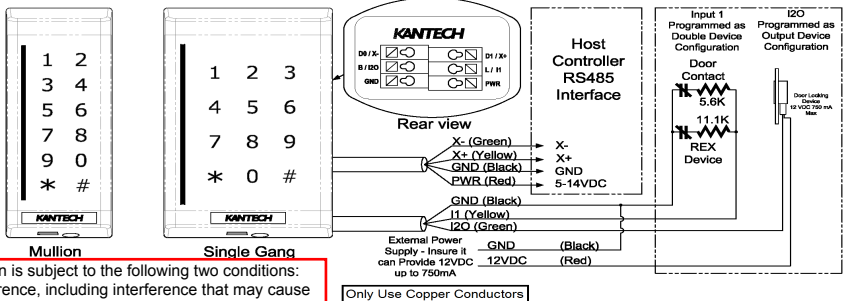
Destructive Attack: Level I (no attack test)

Line Security: Level III (AES128 line security)

Endurance: Level IV (100,000 cycles)

Standby Power: Level I (no integral standby power)

Installation location and wiring methods shall be in accordance with the National Electrical Code, ANSI/NFPA 70. There is no maintenance required and there are no replacement parts required for these devices.



This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This device complies with Part 15 Class B of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation. This class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations CAN ICES-3 (B) / NMB-3 (B).

Mullion
FCC ID: V8515KTMULMTKP
IC: 5690B-KTMULMTKP

Single Gang
FCC ID: V8515KTSGMTKP
IC: 5690B-KTSGMTKP

