

ACL805SUW-RDMF

Reader Installation Sheet

EN

Surface Mount Keypad with Mifare reader

Description

The **ACL805SUW-RDMF** is a Multiprotocol digital keypad and Mifare reader for access control applications with backlit keys and selectable output protocol. These surface mount readers includes a buzzer and a tri-color LED for state indication (access granted, access denied or idle). ACL805SUW-RDMF is capable of reading Mifare cards/fobs (13.56 MHz).



Figure 1: Angled front view

Mounting

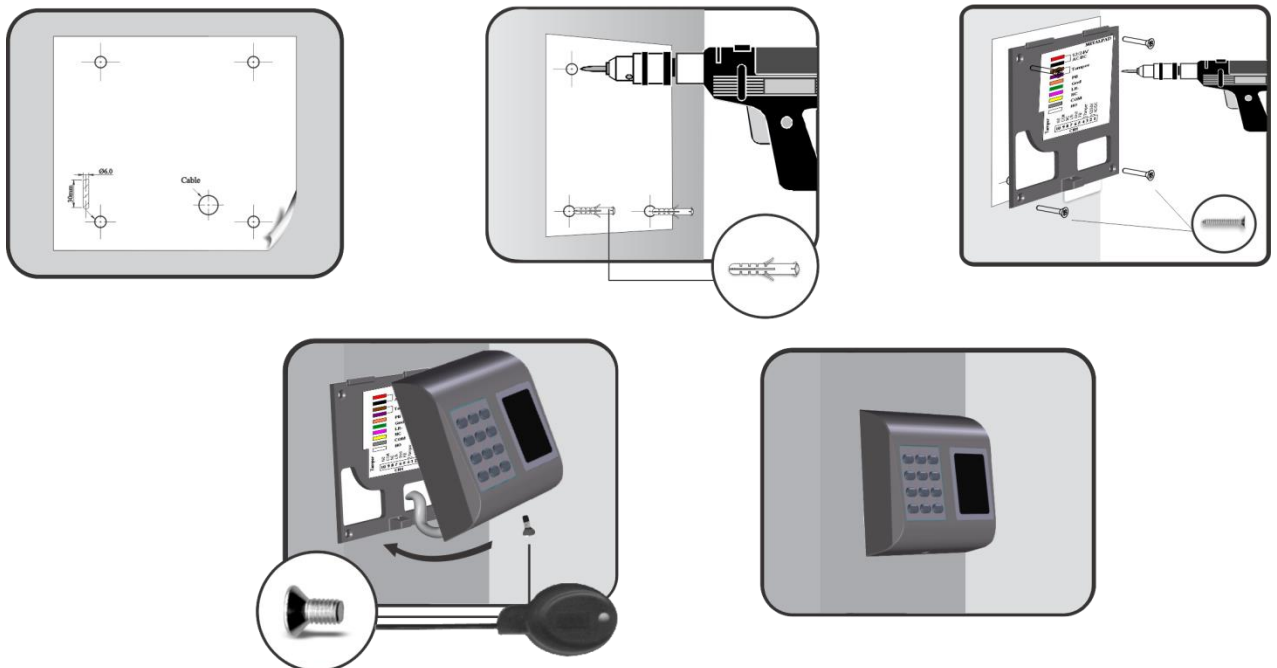


Figure 2: Mounting instructions

Wiring

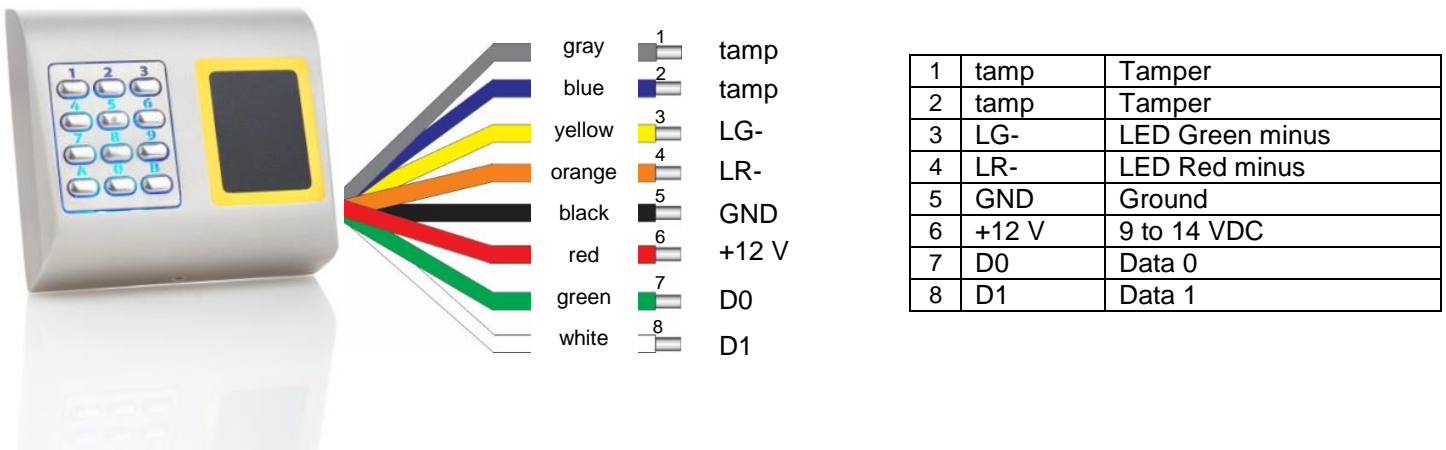


Figure 3: Wiring instructions

Specifications

| | |
|-------------------------|--|
| Operating voltage | 9 to 14 VDC |
| Current consumption | 210 mA at 12 VDC |
| Interface Mifare Reader | Wiegand 32 or 56 bit, according to the ID length of the card |
| Wiegand 32 description | 32 data bits Pulse width: 100 µs Pause: 1 ms |
| Wiegand 56 description | 56 data bits Pulse width: 100 µs Pause: 1 ms |
| Interface Keypad | Wiegand 26, 30, 34, 40, 42, 58 bit, 8 bit per key, 6 bit per key, 4 bit per key |
| Wiegand 26 description | even parity + 24 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 13 P2 = odd parity calculated over the bits 14 to 25 |
| Wiegand 30 description | even parity + 28 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 15 P2 = odd parity calculated over the bits 16 to 29 |
| Wiegand 34 description | even parity + 32 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 17 P2 = odd parity calculated over the bits 18 to 33 |
| Wiegand 40 description | even parity + 38 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 20 P2 = odd parity calculated over the bits 21 to 39 |
| Wiegand 42 description | even parity + 40 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 21 P2 = odd parity calculated over the bits 22 to 41 |

| | |
|-----------------------------------|--|
| Wiegand 58 description | even parity + 56 data bits + odd parity Pulse width: 100 µs Pause: 1 ms P1 = even parity calculated over the bits 2 to 29 P2 = odd parity calculated over the bits 30 to 57 |
| Wiegand 8 bit per key description | 8 data bits (sent on each key press) Pulse width: 100 µs Pause: 1 ms |
| Wiegand 6 bit per key description | 6 data bits (sent on each key press) Pulse width: 100 µs Pause: 1 ms |
| Wiegand 4 bit per key description | 4 data bits (sent on each key press) Pulse width: 100 µs Pause: 1 ms |
| Read range | Up to 6 cm, depending on the card type |
| PIN Code length | 1 to 8 digits |
| LED control | Yes, by wires |
| LED | Green : Externally controlled Red : Externally controlled Orange : Idle, Key press and Menu |
| Tamper | Yes |
| Cable distance | 50 m according to Wiegand standard |
| Panel connection | Cable, 1 m |
| Material of design housing | ABS |
| Dimensions (W x H x D) | 100 x 94 x 30 mm |
| Operating Temperature | -20 to +50°C |
| Relative humidity | 0 to 95% noncondensing |
| IP rating | IP65 |
| Color | -S = Silver, -G = Grey |
| Weight (shipping) | 550 g |
| Weight (product) | 250 g |

Backlight and Buzzer



1. Backlight in idle mode Orange ON/OFF
2. Buzzer on card read ON/OFF

Settings in TruPortal Software

Go to System Administration/Card Formats.

Create custom Wiegand Format for Wiegand 56 bit and Wiegand 32 bits.

The reader will send the Wiegand format according to the card format. If the card presented has 56 bit number, the reader will send Wiegand 56 bit. If the card presented has 32 bit number, the reader will send Wiegand 32 bit.

32bit raw

Format Type: 32 Bit 14443 cascade 1

Facility Code: 0

Total Bit Length: 32

| Data Field: | Starting Bit: | Bit Length: |
|---------------|---------------|-------------|
| Card Number | 0 | 32 |
| Facility Code | 0 | 0 |
| Issue Code | 0 | 0 |

| Parity Type: | Start Offset: | Length: | Check Bit Offset: |
|--------------|---------------|---------|-------------------|
| Even | 0 | 0 | 0 |
| Odd | 0 | 0 | 0 |

56 bit raw

Format Type: Custom

Facility Code: 0

Total Bit Length: 56

| Data Field: | Starting Bit: | Bit Length: |
|---------------|---------------|-------------|
| Card Number | 0 | 56 |
| Facility Code | 0 | 0 |
| Issue Code | 0 | 0 |

| Parity Type: | Start Offset: | Length: | Check Bit Offset: |
|--------------|---------------|---------|-------------------|
| Even | 0 | 0 | 0 |
| Odd | 0 | 0 | 0 |

Settings in pcProxConfig Software

Select Mifare CSN (Philips, NXP) as card type.

Use these settings in the pcProxConfig Software when reading Mifare Card via the TP-RDR-LRN desktop Reader.

pcProxConfig | pcProx® and pcProxPlus® Enroll Configuration Utility for USB, Serial & Ethernet Readers

File Connect Device Navigation View Card Analyzer Help

Connect Disconnect Write Active

pcProxPlus Configuration # 1 MIFARE CSN (Philips, NXP) High priority

Connect Timing SDK Format Secure Bluetooth®

Data format / Delimiters Extended / Hashing

Data format: **ABC 123 : 987654321XYZT GN**

Wiegand to keystroke data format

Parity bits

Strip leading bit count: 0

Strip trailing bit count: 0

Send FAC Send FAC as hexadecimal number

Send ID Send ID as hexadecimal number

ID field bit count: 64

Fix length FAC / ID fields

FAC digits: 3

ID digits: 5

Advanced settings

Only read cards with this bit count: 64

Display hexadecimal in lowercase (a-f)

Use numeric keypad for 0-9 (European)

AZERTY keyboard shift lock

FAC extended precision math on

ID extended precision math on

Reverse Wiegand bytes

Reverse Wiegand bits

Invert Wiegand bits

Emulate ProxPro - append serial checksum

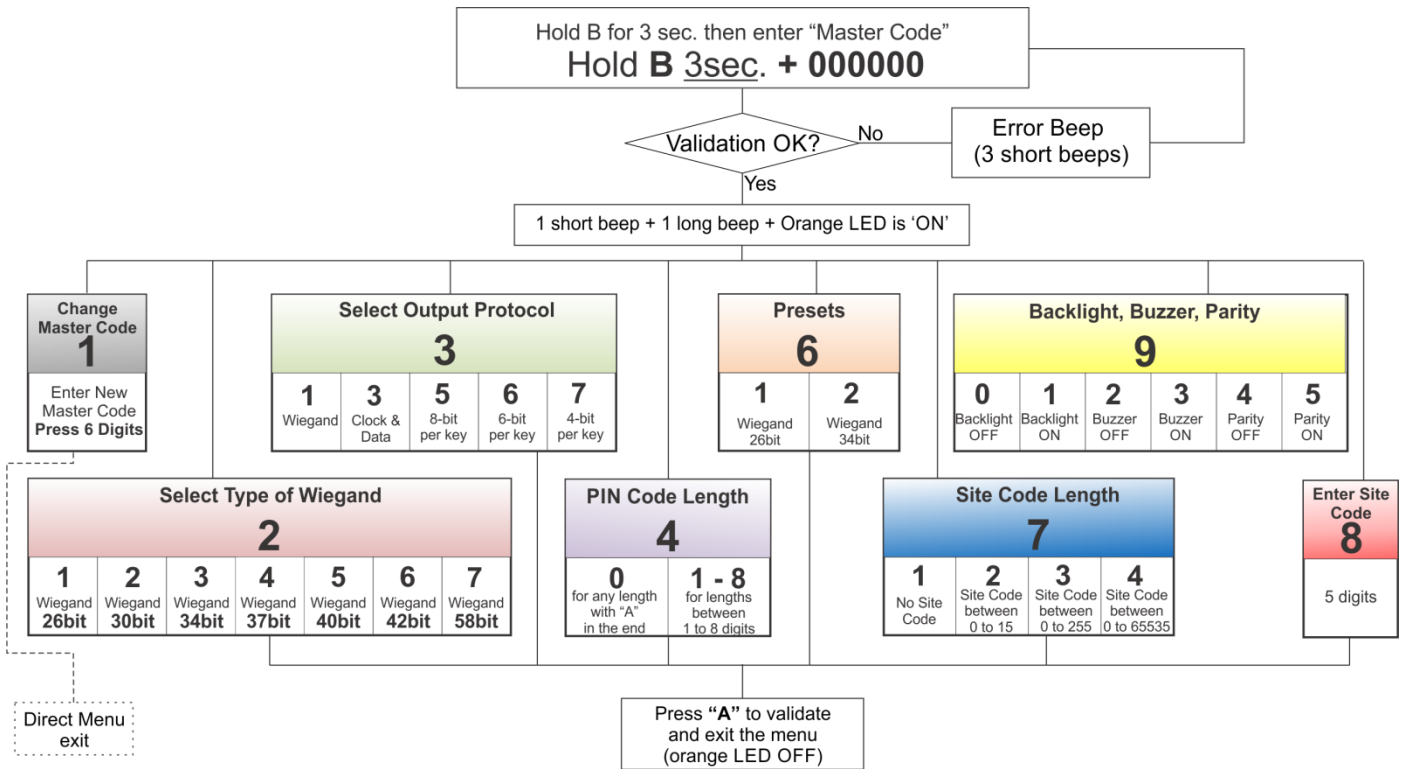
Output test area

Auto GetID Auto focus Auto clear Clear T

36066044494884612
36061775292687620

USB #01 LUID:0/0x0000

Keypad programming flowchart



Entering Menu is always done with B(3 s) + 000000 if the Master Code is not changed.

Submenu 1 - Change Master Code. The Master Code must be 6 digits. After enrolling new Master Code the ACL875W automatically exits the Menu and the new master code must be typed to enter the menu.

Submenu 2 - Select Type of Wiegand. The Wiegand selected must be the same as the controller's Wiegand Input where the ACL805SUW-RDMF Keypad is being connected. Example: If you use a controller that recognizes Wiegand 34 bit, then enter the menu of ACL805SUW-RDMF, press 2, then press 3.

Submenu 3 - Select Output Protocol. Keypad have the following outputs:

3-1 Single Wiegand - Keypad will send code in wiegand format

3-3 Clock & Data - Keypad will send the code in Clock & Data format

3-5 8 bit per key - Each key press will be sent as 8 bit data immediately. Key press will be sent as following table:

| Key | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| Wiegand output | 240 | 225 | 210 | 195 | 180 | 165 | 150 | 135 | 120 | 105 | 90 | 75 |

3-6 6 bit per key - Each key press will be sent as 6 bit data immediately.

3-7 4 bit per key - Each key press will be sent as 4 bit data immediately.

Submenu 4 - PIN Code Length. If "0" is selected, then any PIN Code with any length can be sent, but the PIN Code is typed with "A" for confirmation (ex. 123 + A). If 1 to 8 is selected the PIN Code length is set by the number selected.

Submenu 6 - Presets. The Presets are set of preprogrammed parameters for easy programming.

6-1 "Wiegand 26 bit Normal" - Type: Wiegand 26 bit; Output: Single Wiegand; PIN Length: 4 digits;

6-2 "Wiegand 34 bit Normal" - Type: Wiegand 34 bit; Output: Single Wiegand; PIN Length: 4 digits;

Submenu 7 - Site Code Length. Set the code length sent to Host. Default is "0". To be used only in specific cases.




Submenu 8 - Enter Site Code. Put the site code always in 5 digit format (ex. 00170).

Submenu 9 - Turns ON/OFF the backlight in idle mode, buzzer on key press, parity bit.

Reset Master Code

1. Disconnect Power
2. Press and hold “A” and reconnect Power.
3. Hold the “A” Key for at least 3 seconds.

Default Master Code: **000000**

| | |
|--|---|
| Manufacturer | UTC Fire & Security Americas Corporation, Inc. 1275 Red Fox Rd., Arden Hills, MN 55112-6943, USA Authorized EU manufacturing representative: UTC Fire & Security B.V. Kelvinstraat 7, 6003 DH Weert, Netherlands |
| Version | This document applies to ACL805SUW-RDMF hardware |
| Certification and Regulatory information |   This product herewith complies with requirements of EMC directive 2014/30/EU, Radio Equipment Directive 2014/53/EU. In addition it complies with RoHS directive EN50581:2012 |
| Contact information | https://firesecurityproducts.com or www.interlogix.com |
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