

ACL805SUW-RDMF - Surface Mount Keypad with Mifare Reader - Installation Manual



Description / Operation

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).

The ACL800SUW-RDMF has an automatic Wiegand output (32 or 56 bit) and is capable of reading Mifare cards/fobs (13.56 MHz).

Specifications

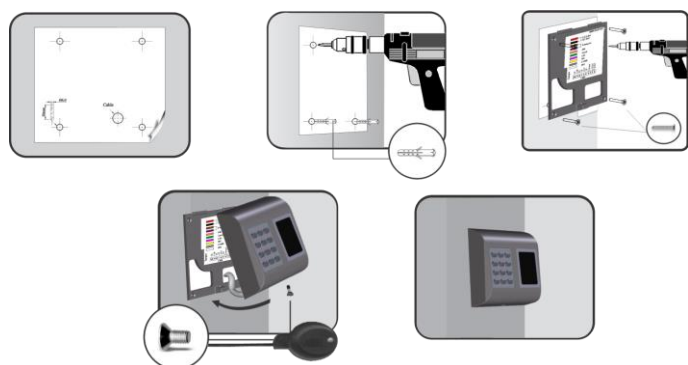
Operating voltage	9 to 14 VDC
Current consumption	110 mA at 12 VDC
Interface Mifare Reader	Wiegand 32 or 56 bit, according to the ID length of the card
Wiegand 32 description	32 data bits Pulse width: 100 μ s Pause: 1 ms
Wiegand 56 description	56 data bits Pulse width: 100 μ s Pause: 1 ms
Interface Keypad	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 μ s 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 μ s 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 μ s 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 μ s 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 μ s 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 μ s 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 μ s 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
Operating frequency	13.56 MHz
Card technology	CSN only for the technology : Mifare Classic, Mifare Plus, Mifare Ultralight, Mifare DESFire EV1/EV2
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

Mounting

Figure 1: Mounting instructions



WIRING

Figure 2: Wiring instructions

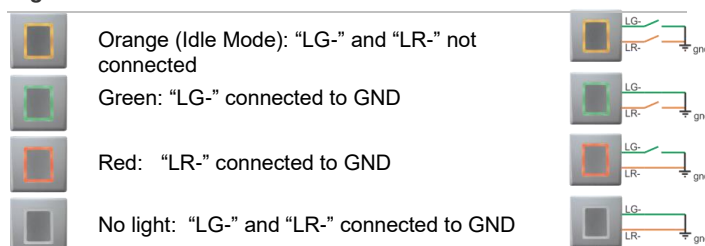


1	tamp	grey	Tamper
2	tamp	blue	Tamper
3	LG-	yellow	LED Green minus
4	LR-	orange	LED Red minus
5	GND	black	Ground
6	+ 12 V	red	9 to 14 VDC
7	D0	green	Data 0
8	D1	white	Data 1

Tricolor LED and DIP switch

LED

Figure 3: Led



Backlight and buzzer

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

Configuration # 1 | Mifare CSN (Philips, NXP) | High priority

Data format: Delimiters Extended Hashing

ABC123:987654321XYZT 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:

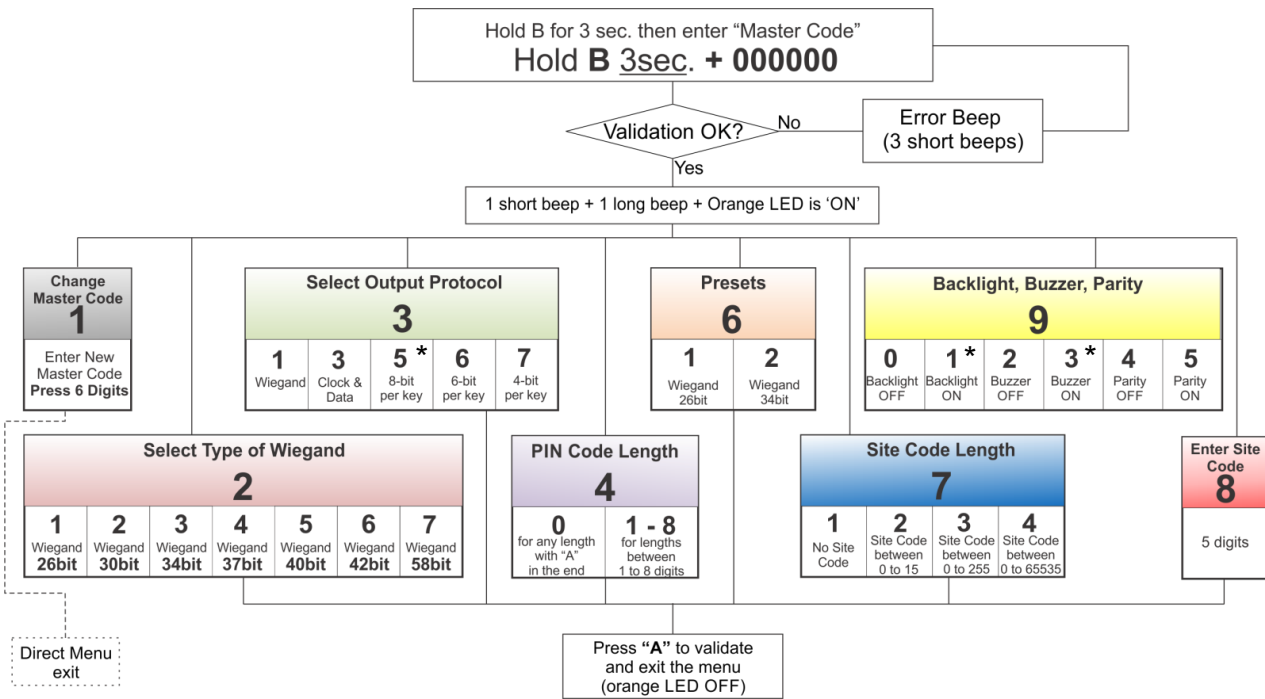
Output test area

Auto GetID: Auto focus: Auto clear: Clear:

36066044494884612
36061775292687620

USB #01 LUID:0/0x0000

Keypad programming flowchart



Default values marked with *

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

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

per key -

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**

Regulatory information

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Manufacturer	Interlogix. 2955 Red Hill Avenue, Costa Mesa, CA 92626 5923, USA Authorized EU manufacturing representative: UTC Fire & Security B.V. Kelvinstraat 7, 6003 DH Weert, The Netherlands
Certification	  
European Union directives	This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.
	2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info .
	2013/56/EU & 2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info .
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