

Button use

UNLOCK 1	Emergency/check Unlock Relay 1, without using software
UNLOCK 2	Emergency/check Unlock Relay 2, without using software
RST / POWER	Time controlled press
When Powered:	
5" > hold time > 3"	Switch RoomController to Acces Point Mode Change Mode notification via Led Blink Change
hold time > 10"	Poweroff RoomController
press 3 times in 4"	Reset to Factory configuration
When Powered Off:	
hold time > 3"	SwitchOn RoomController

LED description

Boot

	Green Yellow	Fixed	Booting RoomController
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Online mode

	All Led	Blinking fast (Freq. 1/10")	Network or Internet IOT not available
	Each Led	Rotating LED (Freq. 1/2")	Network available, Internet available Waiting for configuration download
	All Led	Blinking heartbeat (Freq. 3")	Network available, Internet available Configuration downloaded Roomcontroller Application active

Access point mode

	Each Led	Rotating slow (Freq. 1")	Access Point mode active Configuration Application active
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Installation notes

It is recommended to :

- Insert a switch before power supply
- Connect power supply before turning on
- Use a fuse 12V $\overline{=}$ / 1A on power line
- Use shielded cables on dry contacts
- Use shielded cables on Wiegand connections.

NEXTWORKS
ENGINEERING FORWARD



Access Controller Type AC-0440-X Datasheet



Form Factor	DIN Rail Mounting, 4U H53 Module
Dimensions	90 x 70 x 60 mm
DC Input Voltage	7.5-24VDC
Architecture	ARMv6
Wiegands	2x Readers, configurable 26-40 bit
Electric Contacts	3x configurable NO/NC
Relay Outputs	2x configurable NO/NC Max 6A @ 50VAC / 6A @ 120VDC
Expansions	3x external relay drivers, 1x UART, 1x USB, 1x I $\overline{2}$ C
LAN	Ethernet 802.3
WiFi	WiFi 802.11n
Bluetooth	Low Energy 4.2
External Antenna	RP-SMA connector (optional)
Buttons	Power/Reset, Force output 1, Force output 2
Power Consumption	Max 500mA @ 12V $\overline{=}$
IoT Protocols	AMQP, MQTT, REST
Certifications	CE, Azure IoT



TTL Logic Level Configuration Jumper

I/O logic level selector jumper 3.3V $\overline{=}$ (default) or 5V $\overline{=}$ setup:

1. Access the voltage selector jumper remove the cover on the Ethernet side of the device
2. Using a small screwdriver or your finger, simply switch the jumper to left to setup 3.3V $\overline{=}$ or to the right to select 5V $\overline{=}$

Note: TTL configuration is only valid for setting Output levels when the device is Master, when the device is Slave input levels can be any voltage up to 12V.



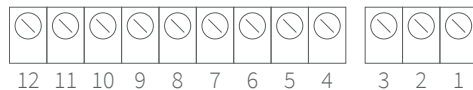
Connection layout



Bank 1



Bank 2



Connection specifications

Bank 1

Espansions

1	SDA	I2C Protocol Serial Data, 2.2 K Ω
2	SCL	I2C Protocol Serial Clock, 2.2 K Ω
3	+5V	5Vdc Output Power max 200mA
4	GND	I2C and UART Common Ground
5	TXD	UART Protocol Transmit, 10K Ω
6	RXD	UART Protocol Receive, 10K Ω

Wiegand Reader's Inputs

7	GND	Wiegand Reader 1 Ground
8	WD0-1	Wiegand D0 Reader 1
9	WD1-1	Wiegand D1 Reader 1
10	WD0-2	Wiegand D0 Reader 2
11	GND	Wiegand Reader 2 Ground
12	WD1-2	Wiegand D1 Reader 2

Note: Wiegands D0/D1 can also be configured as Pulled-up GPIO, 10K Ω , 0,5mA / 5V $\overline{=}$

General Purpose I/O Pulled-up Contacts

13	GND	GPIO 3 Ground
14	I/O3	GPIO 3 TTL Signal or Dry Contact , 10K Ω , Max 0,5mA / 5V $\overline{=}$
15	GND	GPIO 2 Ground
16	I/O2	GPIO 2 TTL Signal or Dry Contact , 220 Ω , Max 22mA / 5V $\overline{=}$
17	GND	GPIO 1 Ground
18	I/O1	GPIO 1 TTL Signal or Dry Contact , 220 Ω , Max 22mA / 5V $\overline{=}$

Note: GPIO 1 and GPIO 2 are PWM capable

Bank 2

1	VDD	Power Input Min 7.5V $\overline{=}$ Max 24V $\overline{=}$
2	GND	Power Input Ground
3	REL-COM	External Relays Common Ground
4	RELAY-5	External Relay Driver, Max 100mA
5	RELAY-4	External Relay Driver, Max 100mA
6	RELAY-3	External Relay Driver, Max 200mA
7	NO-1	Internal Relay 1, Normally Open, Max 6A / 50V~, 6A / 30V $\overline{=}$
8	COM	Internal Relay 1 Ground
9	NC-1	Internal Relay 1, Normally Closed, Max 6A / 50V~, 6A / 30V $\overline{=}$
10	NC-2	Internal Relay 2, Normally Closed, Max 6A / 50V~, 6A / 30V $\overline{=}$
11	COM	Internal Relay 2 Ground
12	NO-2	Internal Relay 2, Normally Open, Max 6A / 50V~, 6A / 30V $\overline{=}$