Access Controller Type AC-044X

English

Datasheet
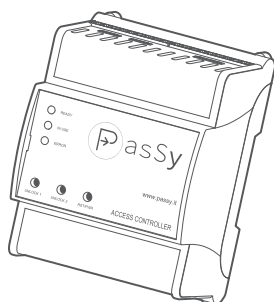
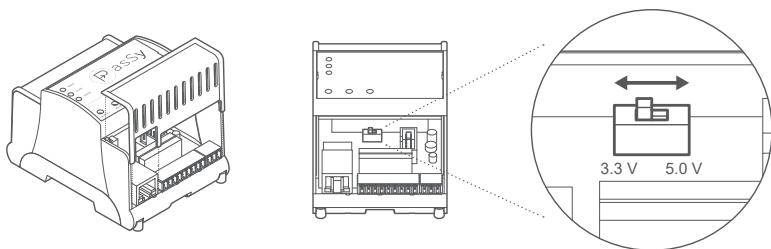|	
Form factor	DIN rail mounting, 4U H53 module
Dimensions	90 x 70 x 60 mm
DC input voltage	7.5–24V⎓ (1.5A / 7.5-12V⎓, 1A / 12-24V⎓)
Architecture	ARMv6
Wiegands	2x readers, configurable 26-40 bit
Dry contact inputs	3x configurable NO/NC
Relay outputs	2x configurable NO/NC, max 6A / 50V~, 6A / 30V⎓
Expansions	3x external relay drivers, 1x UART, 1x USB, 1x I2C
LAN	Ethernet 802.3
WiFi	WiFi 802.11n
Bluetooth	Low Energy 4.2
Buttons	Power/Reset, Force output 1, Force output 2
Power consumption	6W
IoT protocols	AMQP, MQTT, REST
Certifications	CE, Azure IoT
Wireless locks	SimonsVoss, SmartIntego

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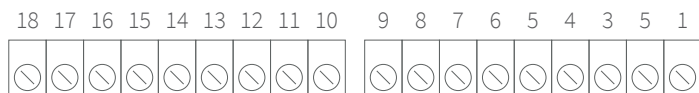
TTL logic level configuration selector

I/O logic level 3.3V⎓ (default) or 5V⎓ selector setup:

1. Access the voltage selector by removing the cover on the Ethernet side of the device
2. Using a smal l screwdriver or a finger, simply move the selector the to set the logic level: left for 3.3V⎓, right for 5V⎓

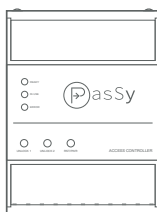*Note: TTL configuration is valid only for setting output levels (device as master), input levels can be any voltage up to 12V⎓.*
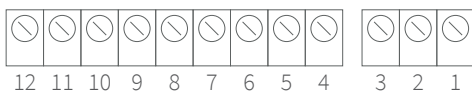

Connection layout

| 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 5 | 1 |

Bank 1

Bank 2

RJ45

| 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | | 3 | 2 | 1 |

Connection specifications

Bank 1

Espansions

1	SDA	I2C protocol, serial data, 2.2 KΩ
2	SCL	I2C protocol, serial clock, 2.2 KΩ
3	+5V	5V⎓ output power, max 200mA
4	GND	I2C and UART common ground
5	TXD	UART protocol, transmit, 10KΩ
6	RXD	UART protocol, receive, 10KΩ

Wiegand readers inputs

7	GND	Wiegand reader 1, ground
8	WD0-1	Wiegand reader 1, D0 — Pulled-up GPIO, 10KΩ, 0.5mA / 5V⎓
9	WD1-1	Wiegand reader 1, D1 — Pulled-up GPIO, 10KΩ, 0.5mA / 5V⎓
10	WD0-2	Wiegand reader 2, D0 — Pulled-up GPIO, 10KΩ, 0.5mA / 5V⎓
11	GND	Wiegand reader 2, ground
12	WD1-2	Wiegand reader 2, D1 — Pulled-up GPIO, 10KΩ, 0.5mA / 5V⎓

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⎓
15	GND	GPIO 2, ground
16	I/O2	GPIO 2, TTL signal or dry contact, 10K Ω, Max 0.5mA / 5V⎓
17	GND	GPIO 1, ground
18	I/O1	GPIO 1, TTL signal or dry contact, 220 Ω, Max 22mA / 5V⎓

Nota: GPIO 1 is PWM capable.

Bank 2

1	VDD	Power input, 7.5–24V⎓, min 1.5A / 7.5-12V⎓, 1A / 12-24V⎓
2	GND	Power input, ground
3	REL-COM	External relays common anode (A1)
4	RELAY-5	External relay driver, max 100mA (A2)
5	RELAY-4	External relay driver, max 100mA (A2)
6	RELAY-3	External relay driver, max 200mA (A2)
7	NO-1	Internal relay 1, normally open, max 6A / 50V~, 6A / 30V⎓
8	COM	Internal relay 1, common contact
9	NC-1	Internal relay 1, normally closed, max 6A / 50V~, 6A / 30V⎓
10	NC-2	Internal relay 2, normally closed, max 6A / 50V~, 6A / 30V⎓
11	COM	Internal relay 2, common contact
12	NO-2	Internal relay 2, normally open, max 6A / 50V~, 6A / 30V⎓

Warning: For voltages over 25V~ installation by qualified personnel is required within a secure electrical panel.

Buttons use

UNLOCK 1	Emergency/check unlock relay 1, without software use
UNLOCK 2	Emergency/check unlock relay 2, without software use

RST/PWR – ON:
- Hold 3 sec. — Enable/Disable access point mode (see LEDs)
- Hold 10 sec. — Power off Access Controller
- 3 times in 3 sec. — Reset to factory configuration

RST/PWR – OFF:
- Push — Power on Access Controller (if turned off with RST/PWR)

LED descriptions

Boot

Green	On	Booting Access Controller
Yellow	On	
Red	Off	

Green	On	Downloading configuration
Yellow	Pulsing	
Red	Off	

Green	On	Downloading configuration failed
Yellow	Pulsing	
Red	Pulsing	

Online mode

Green	On	Access Controller online
Yellow	Off	IOT and API connected
Red	Off	

Offline mode

Green	Blinking	Access Controller on local cache
Yellow	Off	
Red	Off	

Green	Blinking	Network connection error
Yellow	Off	
Red	Blinking	

Access point mode

Green	Blinking	Access point mode active
Yellow	Blinking	Configuration application active
Red	Blinking	

Installation notes

It is recommended to:
- Insert a switch before power supply
- Connect power supply before turning on
- Use a 12V⎓ / 1A fuse on power line
- Use shielded cables on dry contacts
- Use shielded cables on Wiegand connections