DATA SHEET

Description

The ICON network access controller allows you to control access to your building with electromagnetic or electromechanical locks. It automates vehicle access, tracks time and attendance, and more.

The controller provides several connectivity options, including Wi-Fi or Ethernet + power over Ethernet (POE), and can support up to two Wiegand readers or four RS-485-connected readers with Open Supervised Device Protocol (OSDP) support for next-generation secure readers.

With one relay and one controllable open collector output, it can control locks or other devices, and it has four programmable inputs for connection of exit buttons, controlled access point sensors, and "panic buttons" that sound alarms and automatically lock doors in an emergency.

The controller has an open architecture that allows it to integrate with cloud or local access-control systems, and it can be quickly integrated into any customer solution using the built-in Message Queuing Telemetry Transport (MQTT) low-code application programming interface (API).

Device Specifications

Device info

Model	ICON
Processor	ESP32-S3
Over-the air (OTA) update	Yes
Built-in web server	Yes
Message Queuing Telemetry Transport (MQTT) application programming interface (API) provided	Yes
Users	30 000
Events	450 000

Communications

Wi-Fi	802.11 b/g/n 2.4 GHz
Ethernet	RJ-45 (10/100Mbit)
Wiegand Reader ports	2
OSDP via RS-485 port	1

Physical connections

Inputs	4
Outputs	1 Relay/1 AUX Out
Tamper G-sensor	Built-in

Electrical characteristics

Input voltage	12-24 VDC +/- 10 % PoE IEEE802.3/802.3af: 2 A (24W)
Operation current (MAX) 12 VDC	0.5 A (6 W)
Operation current (AVG) 12 VDC	0.13 A (1.56 W)
Switching current (MAX) 12 VDC auxilary (AUX) out	0.2 A (2.4 W)
Relay contact rating 30 VDC	1.5 A (45 W)
Output short-circuit protection	Yes
Power supply reverse polarity protection	Yes

Work distance

RS-485*	3280 ft (1000 m)
Wiegand	328 ft (100 m)
Wi-Fi 2.4 GHz (open space)	33 ft (10 m)
Ethernet RJ-45 (10/100 Mbit)	328 ft (100 m)

Environmental requirements

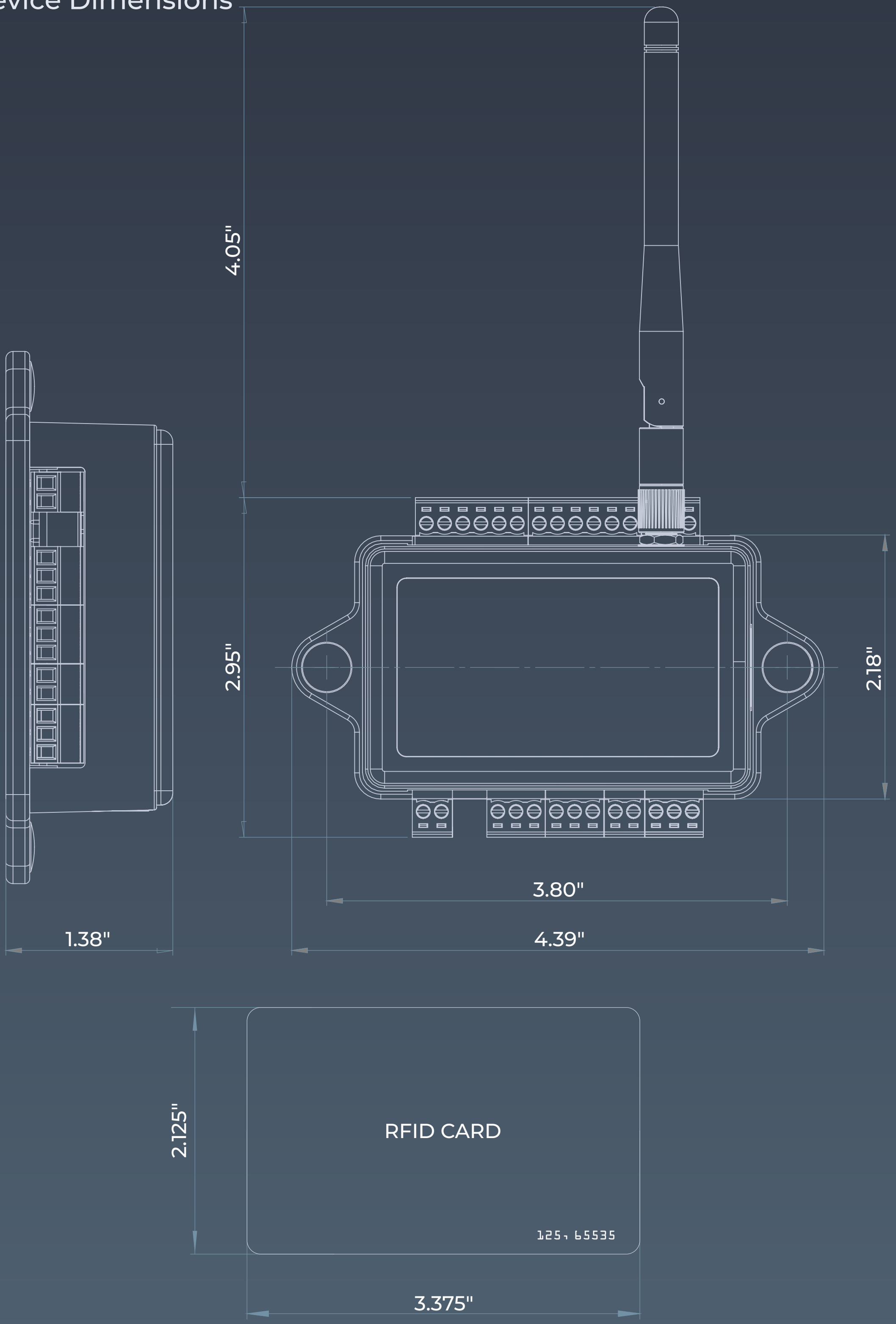
Operating temperature	-22°F ~ 158°F (-30°C ~ 70°C)
Ingress Protection rating	IP50

Physical characteristics

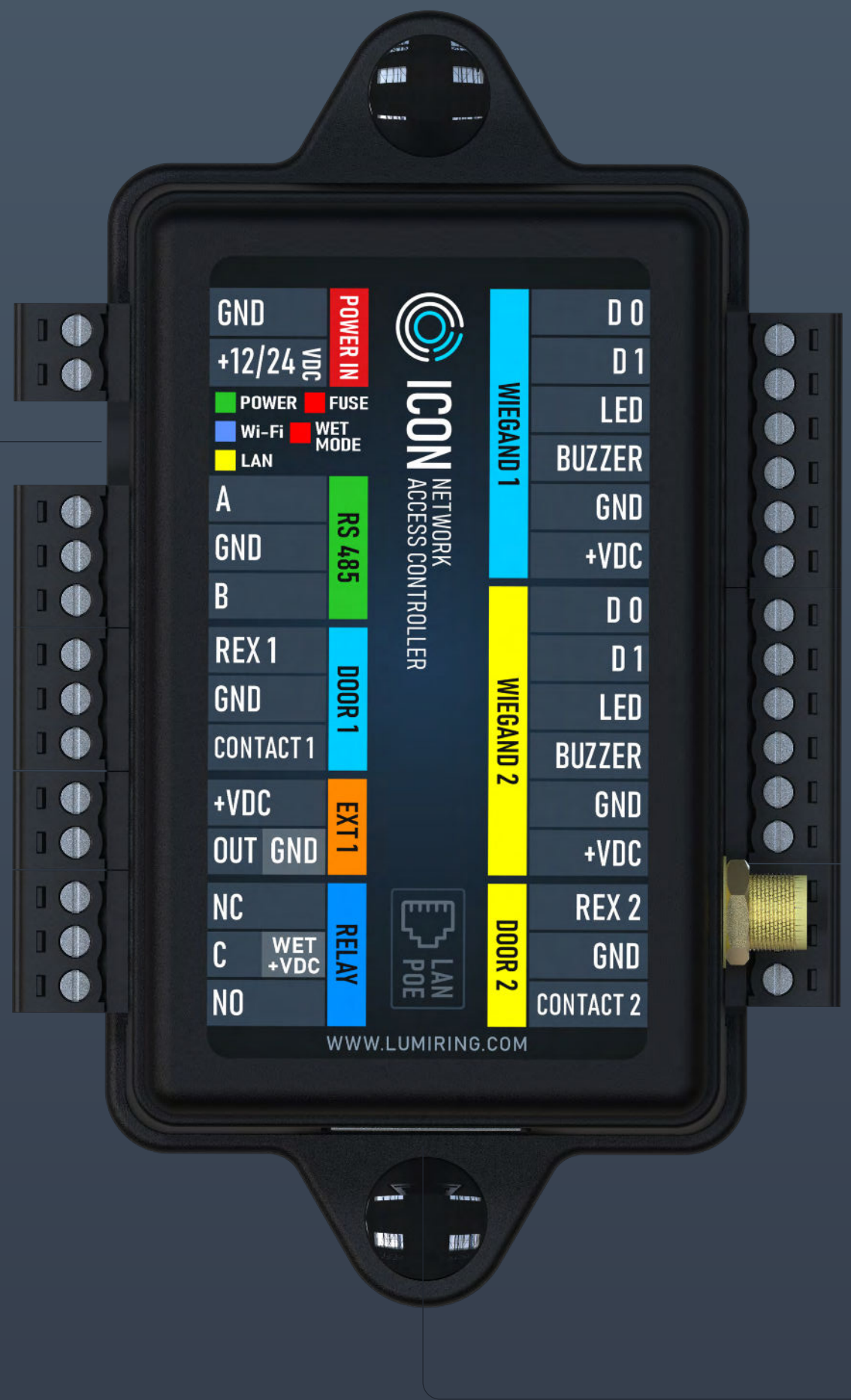
Housing material	ABS plastic UL94 V-0
Mounting method	Wall mount/Din rail mount (option)
Dimensions (length, width, height)	4.39" x 2.95" x 1.38" (111.5 x 75 x 35 mm) (excluding antenna)
Weight	4.84 oz (137 g)

* See general specifications for RS485 interface.

Device Dimensions



Device Connection Terminals



Power IN
GND
+VDC

LED Indication
Power/Fuse
Wi-Fi/Wet Mode
LAN

RS-485
RS-485 A+
GND
RS-485 B-

Door 1 IN
Door Position Sensor
GND
Request to Exit

Auxiliary (AUX) Out
+VDC
Out GND

Relay
NC
(Wet Mode + VDC) C
NO

Wiegand 1 IN
D 0
D 1
LED
Buzzer
GND
+VDC

Wiegand 2 IN
D 0
D 1
LED
Buzzer
GND
+VDC

Door 2 IN
Request to Exit
GND
Door Position Sensor

RJ-45 Ethernet Port
Local Area Network

The manufacturer reserves the right to modify the external pin assignments and their placement, as well as the appearance of the device without prior notice.
These changes may be made to improve functionality or ergonomics, or to comply with technical requirements and standards.
Users are advised to consult the latest versions of technical documentation and instructions before using the device.