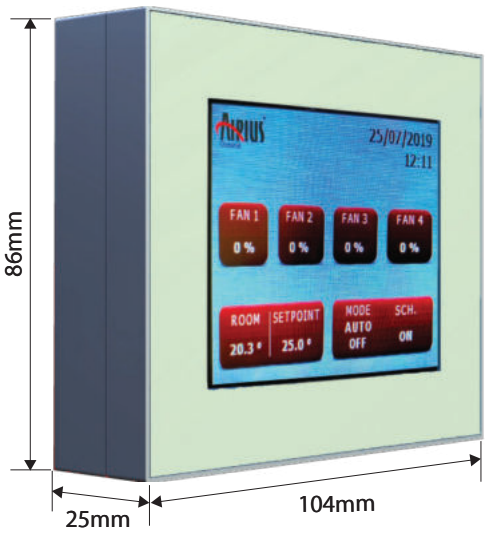
Touch Screen EC Fan Controller
Technical & Installation Guide

Wall Mounted Programmable Touch Screen Control Wiring
TS-01 - 230v 50/60Hz. 1Ph.



Specifications

Operating voltage	24V DC ONLY (By Others)
Mounting	Surface mount backbox option
Display	3.5" Resistive touch-screen 320x240 pixel resolution 65K colors
Operating Temperature	5..50 ºC
Storage Temperature	-25..+75 ºC
Relative Humidity	%5...95 rh, non-condensing
Weight	165 gr (225 gr with packaging)
Protection	IP30 according to EN 60529
Connections	Screw terminals, max 1 mm² (26-16 AWG)
Programming Port	Standard Micro USB cable

Touch Screen Pin Code: 2474

The Airius Touch Screen Controller Description

Overview *The Airius Touch Screen Controller is a programmable room controller ideal for managing Airius EC fans.*

The unit has no on-board inputs & outputs, but is able to connect to a multitude of external IO, due to multiple communication ports and protocols. Integrated temperature sensor is standard.

Display / User Interface *3.5" resistive color touch-screen. 65K colors.*

Powered by SEDONA Framework

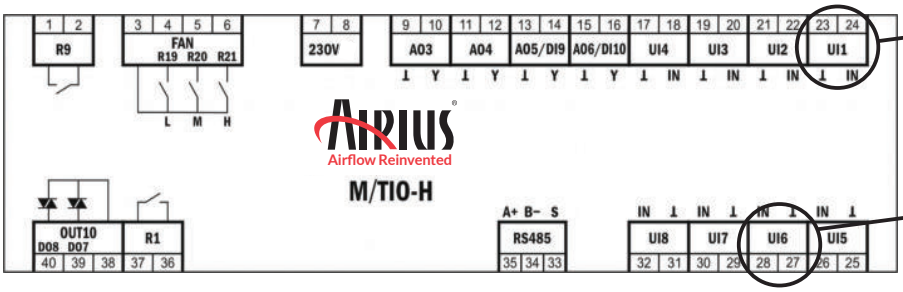
The Sedona Framework™ provides a complete software platform for developing, deploying, integrating, and managing pervasive device applications at the lowest level.

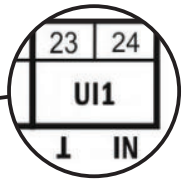
It brings the power of programmable control and the Internet down to extremely inexpensive devices.

The Sedona Framework distributes decision making control and manageability to any device and brings intelligence and connectivity to the network edge and back.

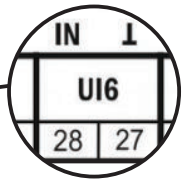
Input Output Module For Airius Touch Screen Controller

- Compact Modbus RTU input/output module for the Airius room controller
- Real-time clock



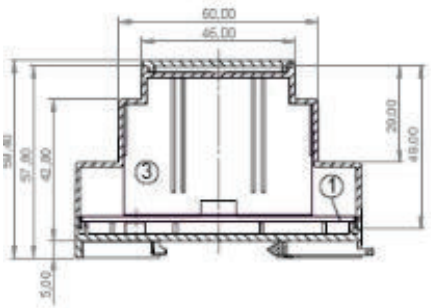


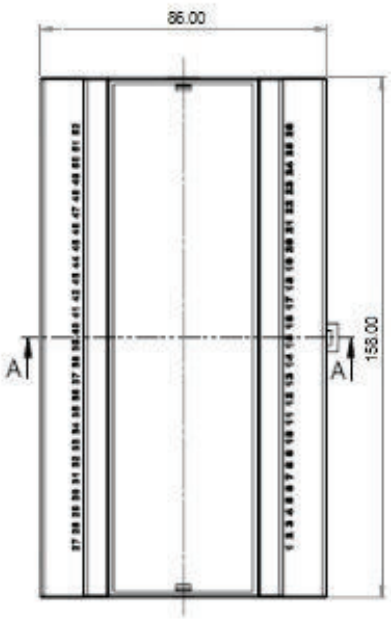
Fire Alarm Connection
(By Others): UI1



Indoor Secondary
Temperature Sensor
Connection: UI6

Dimensions (mm)





Specifications

Operating Voltage	230 VAC +10% -5%, 50/60Hz
Power Consumption	Max 3.5 VA (including Airius touch screen, excluding field devices)
Operating Temperature **Storage Temperature**	5..50 °C -25..+75 ˚C
Weight (net / gross)	400 gr / 530 gr 750 gr / 890 gr (aux. 24V DC output versions)
Dimensions	158 x 86 x 60 mm
Installation	Standard 35 mm rail mount
Protection	IP30 according to EN 60529
Connections	Screw terminals, max 1.5 mm² (AWG 16)
Universal Inputs	8 inputs (see table for sensor signal compatibility)
Relay Output	4 Relays, 230 VAC / 5A 1 Relay, 230 VAC / 10A
Triac Outputs	2 Triacs, 0.1A@230 VAC 0.5A@24 VAC
Modulating Outputs	4 outputs 0(2)-10 VDC, 2mA max (2 configurable as digital in)
Expansion Port	Ribbon cable connection to max 2 relay module (RK4)

M/TIO Description

General

M/TIO modules provide a compact input/output solution for Modbus RTU master controllers.

The unit has incredibly flexible input / output configuration that allows many applications to becontrolled by a single device.

A combination with any Modbus wall unit greatly simplifies installation on the wall-unit side, as the IO module can be located close to the terminal unit being controlled, with only communication wiring into the wall unit. The mains powered versions eliminate the need for additional power supplies or transformers further reducing cost and installation labor.

M/TIO also hosts a battery backed-up real-time-clock.

Universal Inputs

8 inputs are provided, configurable as below:

	Pt1000	NTC	0-10 VDC	Voltage Free Contact
In 1		✓		✓
In 2		✓		✓
In 3		✓		✓
In 4		✓		✓
In 5	✓			✓
In 6	✓		✓	✓
In 7	✓		✓	✓
In 8	✓		✓	✓

Relay Outputs

5 relay outputs are provided. Each relay can be used independently, and a specific set of three can be configured for 3-speed fan control.

Triac Outputs

2 triac outputs are provided with flexible configuration options, allowing control of on/off thermoelectric (PWM) or floating actuators or relays. The triacs can be independently configured to control different loads. However, due to internal connections, all loads must be supplied from the same AC voltage. Floating (three-position) configuration requires use of both triacs.

Modulating Outputs

Four 0-10VDC analog outputs are provided for controlling modulating valve or damper actuators. Two of these can be configured to function as digital inputs.

Expansion Port

Up to two RK4 modules can be connected to the device with a ribbon cable, providing a total of 8 additional relay outputs

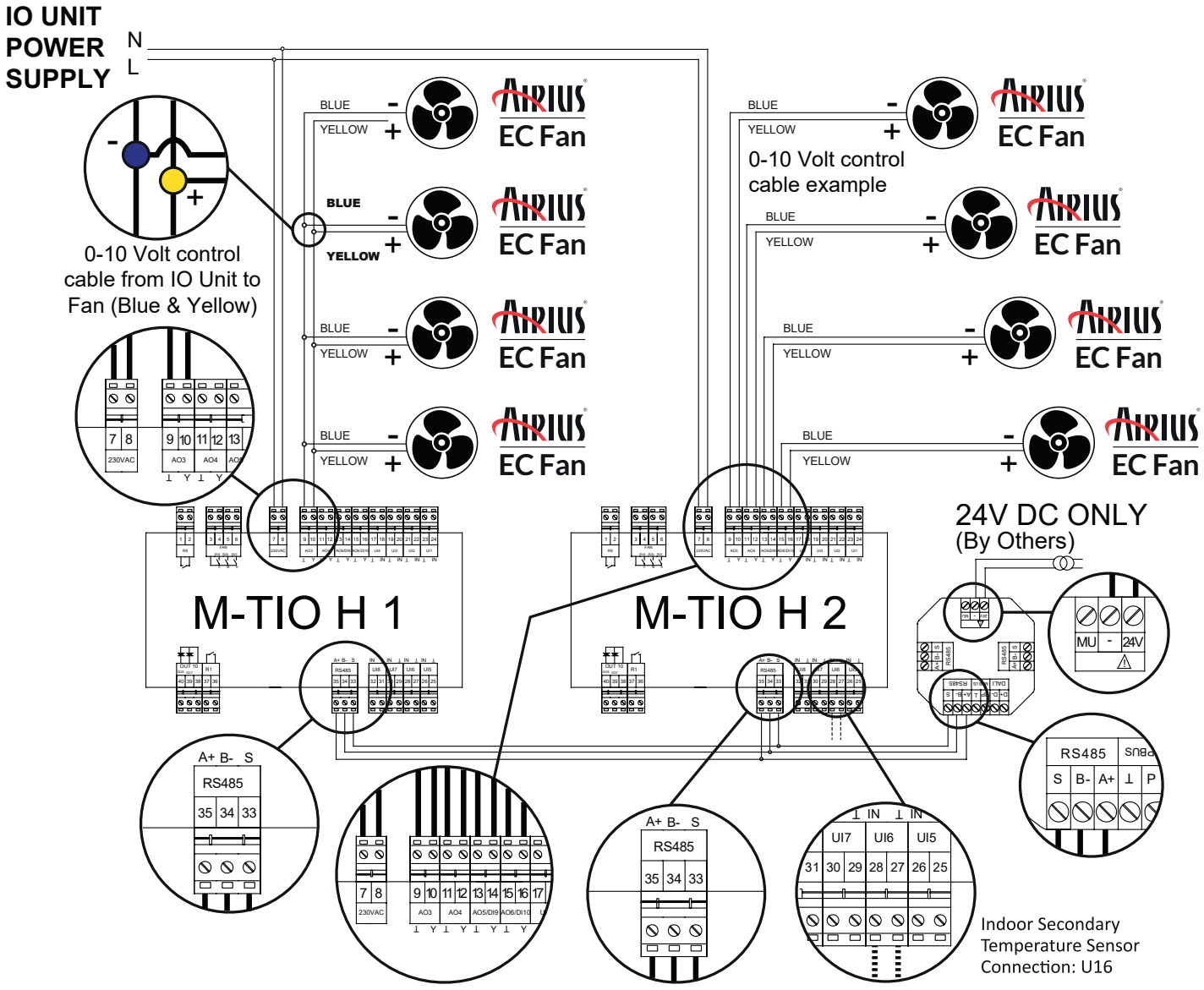
Real Time Clock

4 time-schedules can each be independently associated with a relay output through configuration parameters. Each schedule allows 28 sets of start/stop times per day of the week.

Wiring Diagram - 4 Or 8 Fans Or Groups Of

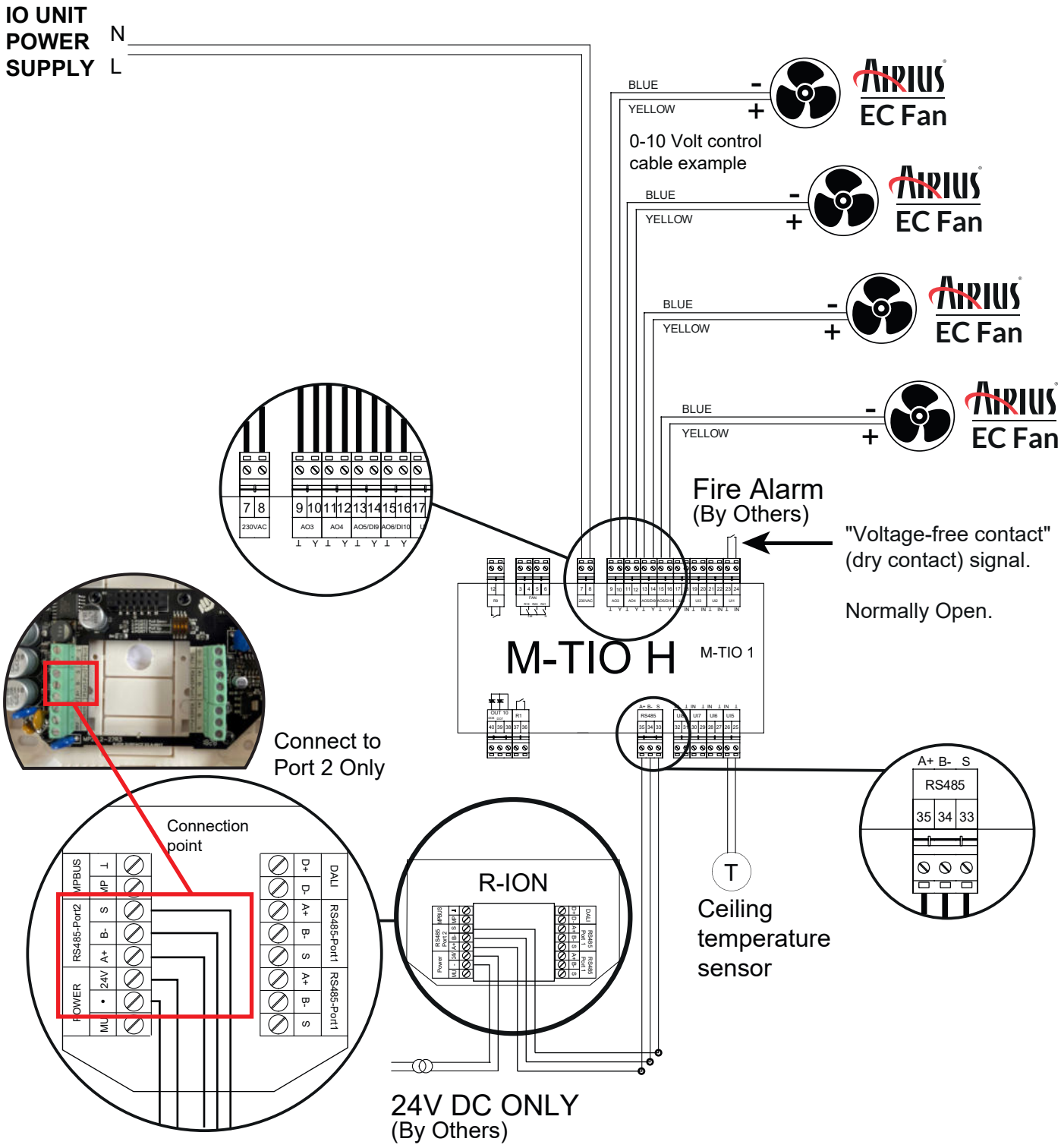
NOTE: *When using more than four fan Zones (an 8 zone touch screen) 2 x MTIOH units need to be connected to the touch screen as per below details;The MTIOH units must be addressed correctly.*

Fan zones 1-4 use -ADDR-1(maybe noted on MTIO unit)or MTIO-1 as per the graphics below and for zones 5-8 MTIO-2 (maybe noted on MTIO as ADDR-2). These are supplied pre-addressed but the addressing can also be changed on the touch screen using the manufacturer supplied higher level pin code.

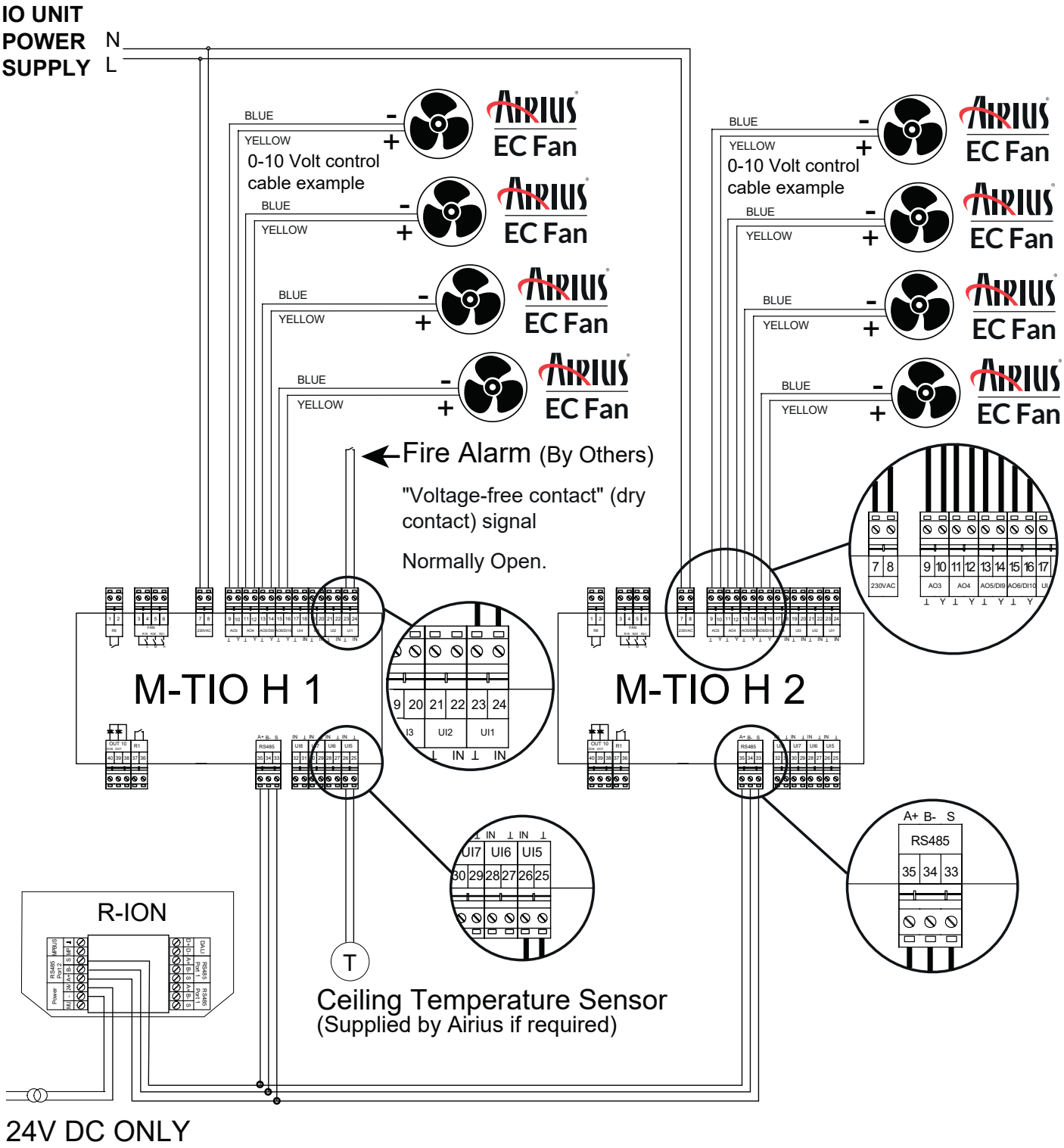


Please note: Up to 10 fans (subject to fan type) can be connected to one input channel.

Airius Touch Screen Controller with Fire Alarm input (by others) and Ext temp sensor - 4 fans



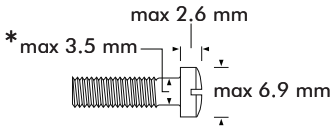
Airius Touch Screen Controller with Fire Alarm input (by others) and Ext temp sensor - 8 fans



STANDARD WALL BOX INSTALLATION

Fit base unit in flush-mounted box.

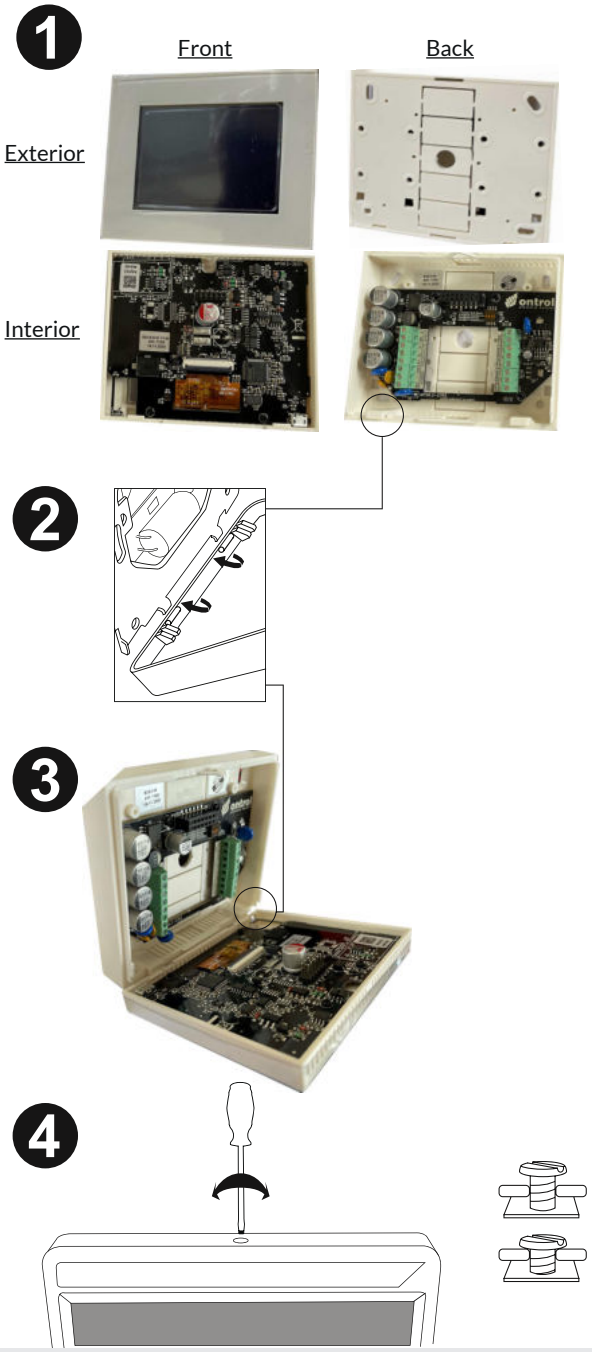
Fasten metal frame to wall box with two screws*.



Fit display unit's bottom side on the metal frame's hinges.

Rotate display unit up on to the base unit, making sure connection pins are aligned.

Tighten captive top screw with small screw-driver.



When removing display part

- Make sure to untighten the top fixing screw
- Pull only from the top, with two fingers on the sides
- Do not apply excessive force

INSTALLATION TIPS