

O X Y G E N 8

INSTALLATION MANUAL VENTUM SERIES

Table of Contents

1. General Information	3		
2. Installation	4		
2.1 Unwrapping the Product	4		
2.2 Assembly	4		
2.3 Weights	5		
2.4 Installation	5		
2.4.1 Ceiling Mount	5		
2.5 Installation of Accessories	7		
2.5.1 Coupled Accessories	7		
2.5.2 Decoupled Accessories	9		
2.6 External Sensors	10		
2.6.1 Supply Air Temperature Sensor	10		
2.6.2 Pressure Sensor	10		
2.6.3 CO2/VOC Sensor	11		
2.6.4 Combination Temperature /Humidity Sensor	12		
3. Access Requirements	13		
4. Lifting Requirements	13		
5. Electrical Hook-Ups	14		
5.1 Electrical Information	15		
5.2 1PH Electrical Hook Up (2 Fans)	16		
5.3 3PH Electrical Hook Up (2 Fans)	17		
5.4 Fan Connection Single Phase	18		
5.5 Fan Connection Three Phase	19		
5.6 Electrical Control Box Guidelines	20		
6.0 Wiring Diagrams	21		
6.1 Ventum 240V, Single Phase, S1	22		
6.2 Ventum 240V, Single Phase S2	23		
6.3 Ventum, Three Phase, S1	24		
6.4 Ventum, Three Phase, S2	25		
		6.5 Field Wiring, DX Coil, EKE	26
		6.6 Field Wiring, DX Coil, Electric Reheat, EKE	27
		6.7 Field Wiring, Electric Preheat, DX Coil Electric Reheat, EKE	28
		6.8 Field Wiring, Electric Preheat, DX Coil, EKE	29
		6.9 Field Wiring, Damper Wiring	30
		6.10 Field Wiring, Electric Reheat Wiring	31
		6.11 Field Wiring, Electric Preheat, Electric Reheat Wiring	32
		6.12 Field Wiring, Electric Preheat Wiring	33
		6.13 Field Wiring, Cooling Water Coil	34
		6.14 Field Wiring, Humidity Control	35
		6.15 Field Wiring, Combi Coil	36
		6.16 Field Wiring, Hydronic Preheat	37
		6.17 Field Wiring, Occupancy Mode	38
		6.18 Field Wiring, Hydronic Reheat	39
		6.19 Field Wiring, Fire Alarm	40
		6.20 Field Wiring, DX Coil, Hydronic Reheat EKE, Bypass	41
		6.21 Field Wiring, CO2 Control, External Bypass	42

1.0 General Information

This manual includes important instructions for safe connection of the Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV). Before connecting the unit, please read carefully and follow all of the instructions below! The manufacturer reserves the right to make changes, including changes in the technical documentation, without previous notification. Please keep this manual for future reference. Consider this manual a permanent part of the product.

This manual will show the manufacturers' recommended installation method. Please note that local codes and regulations may override these recommendations. The installation must follow local codes and standards.

The National Electric Code (NEC), the National Fire Protection Agency (NFPA), and the Canadian Electrical Code (CEC) must be followed. Installation of this product must be performed by a qualified and accredited professional in conformance with local and national codes, standards and licensing requirements.

Warnings and Caution

Warnings and cautions appear at the appropriate sections throughout this manual. Please read these sections carefully.



Warning

This sign indicates a potentially hazardous situation, which could result in death or serious injury if not avoided.



Caution

This sign indicates a potentially hazardous situation, which may result in minor or moderate injury if not avoided. It may also alert against unsafe practices.

Caution

This label indicates a situation that may result in equipment or property damage only accidents.

2.0 Installation

2.1 Unwrapping the Product

When removing the shrink wrap, be cautious with knives and sharp tools to prevent scratching the paint.

The HMI, pressure sensor, external duct pressure sensor and all other optional field components will be found in the electrical box or fan compartment. They are secured there for transport and to easily find them on the job site.

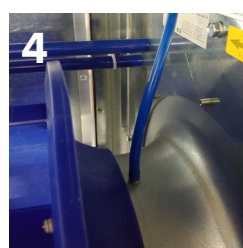
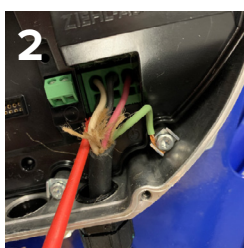


2.2 Assembly

Remove the middle panel for wiring access. Fans and filters are accessible via the bottom doors. Fans should be pre-wired and no assembly is required.

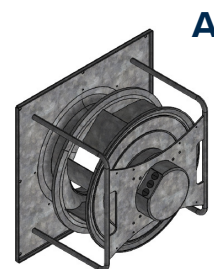
Use the following steps to disassemble the fan section from the core section.

1. Remove the cover from the fan.
2. Undo the screw terminals that are holding the power wires and the communication wires.
*See back of manual for electrical drawings.
3. Loosen the cable glands and pull the wires out of the motor.
4. Pull the pressure tube from the nozzle port on the fan bell mouth.
5. Push the pressure tube and all cables back into the core section, through the rubber grommets that are on the fan wall.
6. Repeat steps 1 – 5 for the other fan.

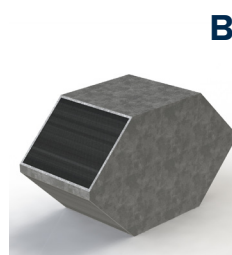


2.3 Weights

Model	Fan (A) lbs.	Core (B) lbs.	Total Weight lbs.
H05	27	13	450
H10	28.7	13	620
H15	37.5	22	720
H20	37.5	22	820
H25	48.5	64	1130
H30	48.5	64	1300



A



B

2.4 Installation

2.4.1 Ceiling Mount

Ventum is available exclusively for ceiling mount/horizontal applications with inner and outer brackets only. The hanging brackets are supplied loose with the necessary hardware to install them. They are not shipped assembled due to the variability of installation access on job sites. The front panel of the unit must be removed to slide the core into the unit.

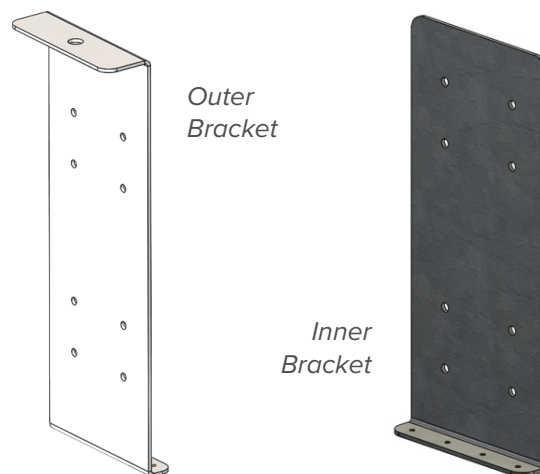
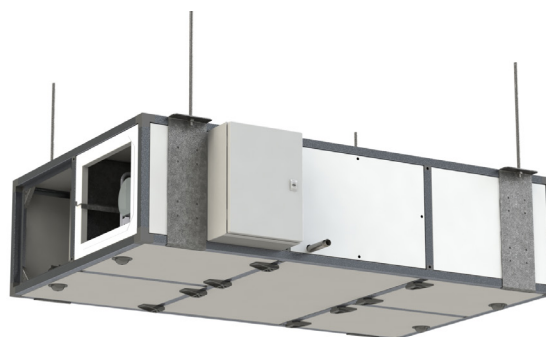
Each hanging bracket is composed of two pieces: an inner component and an outer component. The units are designed to have four sets of brackets to support the unit.

Note Depending on the ducted opening location selected during the design phase, the location of the brackets will vary. Please consult your submittal drawings for specific locations.



Warning

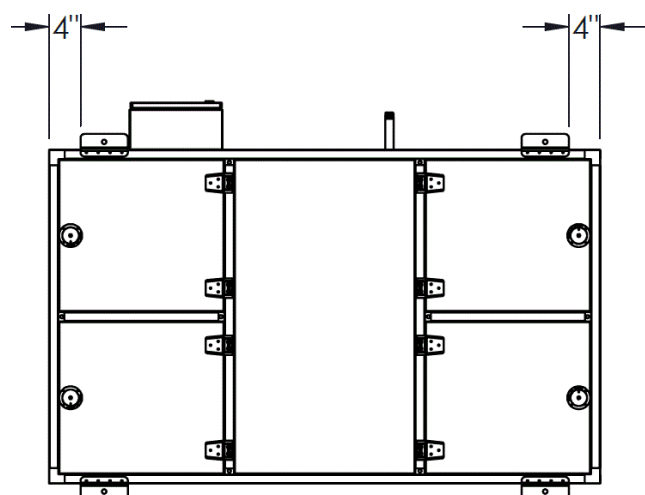
The unit must be installed with both the inner and outer bracket. Each unit must also have all four brackets installed to meet these guidelines.

Outer
BracketInner
Bracket

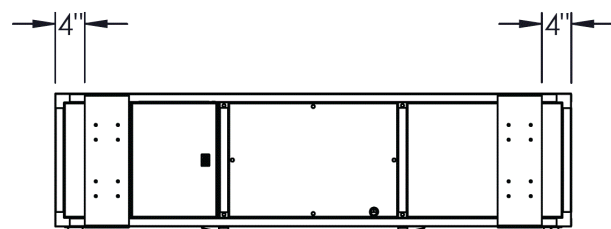
Ceiling Mounted Unit

Assembly of Hanging Brackets

1. Locate the position of the brackets on the outside of the unit.

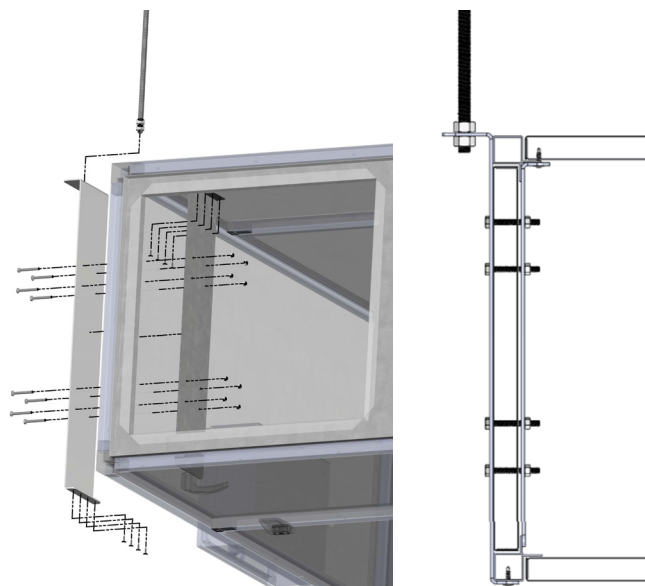


BOTTOM VIEW



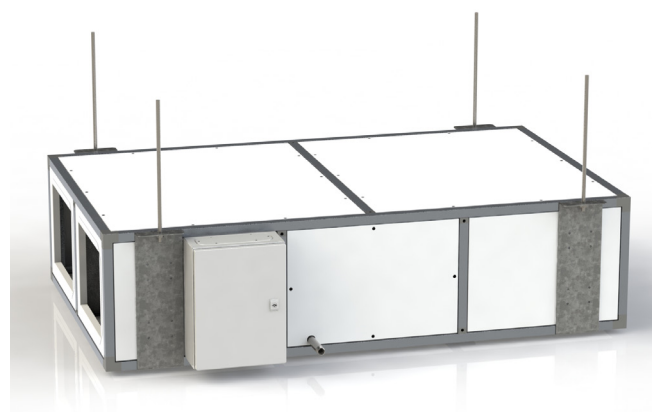
FRONT VIEW

2. Mark the 8 hole locations and drill to allow for the 1/4" bolt. 32 - 1/4" bolts, 32 - 1/4" lock nut, 32 - 1/4" washers and 64 - 1/4" washers have been provided with the unit.
3. Assemble the hanging bracket by aligning the 8 holes of the outer bracket through the unit and with the inner bracket. Note: the inner component should be oriented so that its flange is pointing to the ceiling, and the outer bracket has the single hole pointing to the ceiling.



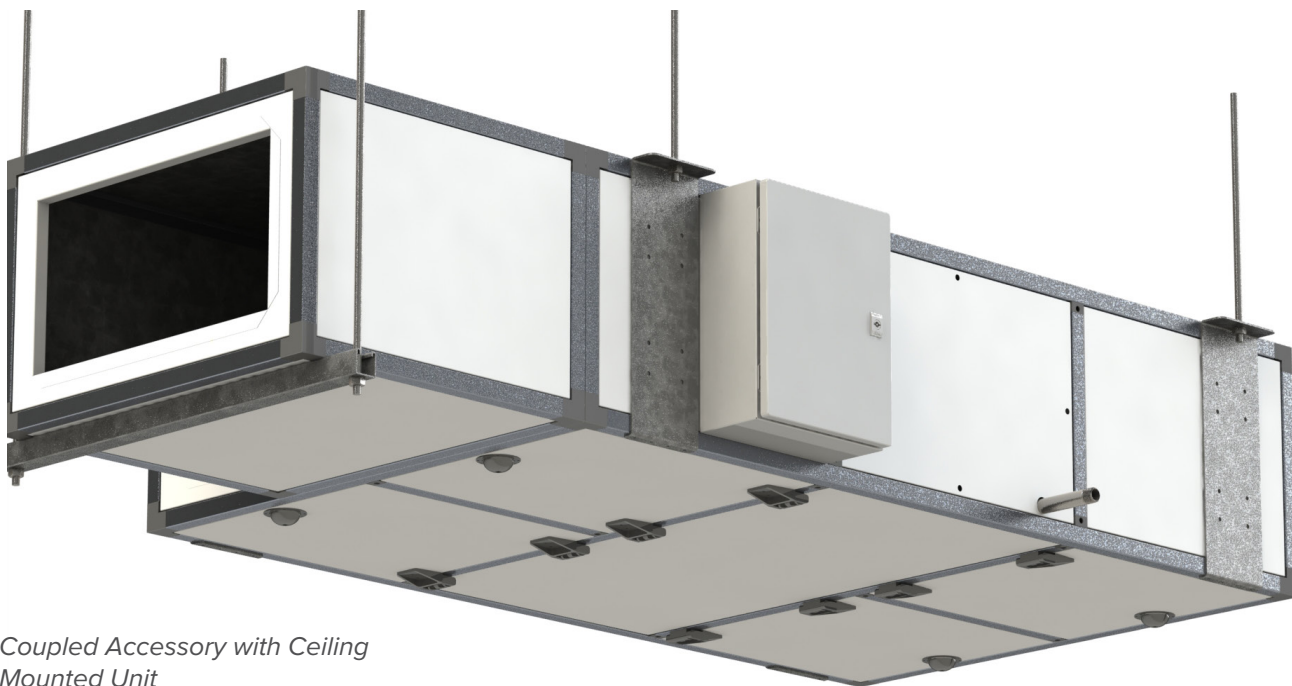
Bracket Alignment

4. Install the 8 bolts. **Caution** - Do not over tighten and crush the panel.
5. Install 4 tek-screws in the flange portion of the inner bracket and secure it to the top casing of the unit.
6. Install 4 tek-screws in the lower flange of the outer bracket to secure it to the bottom frame of the unit.
7. Repeat steps 1 through 6 for the remainder of the brackets.
8. The hole in the outer brackets are designed for a 1/2" threaded rod to hang the units by.

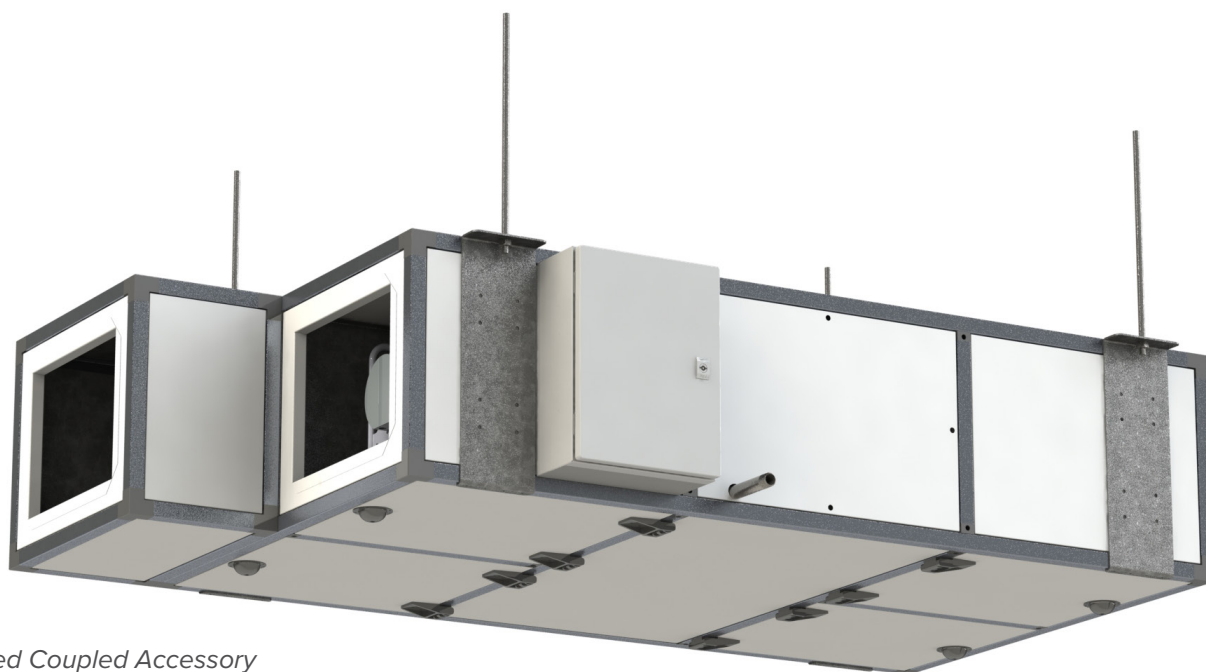


2.5 Installation of Accessories

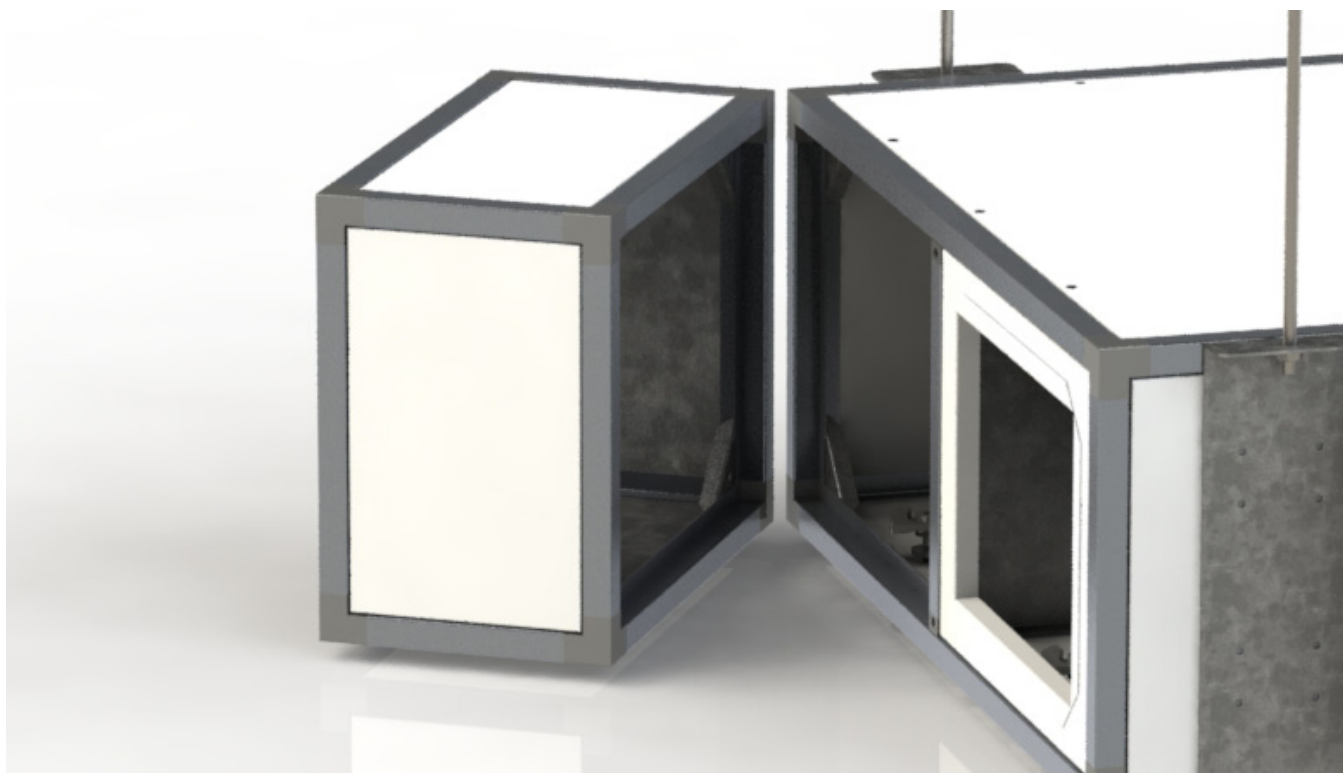
2.5.1 Coupled Accessories



Coupled Accessory with Ceiling Mounted Unit



Mounted Coupled Accessory

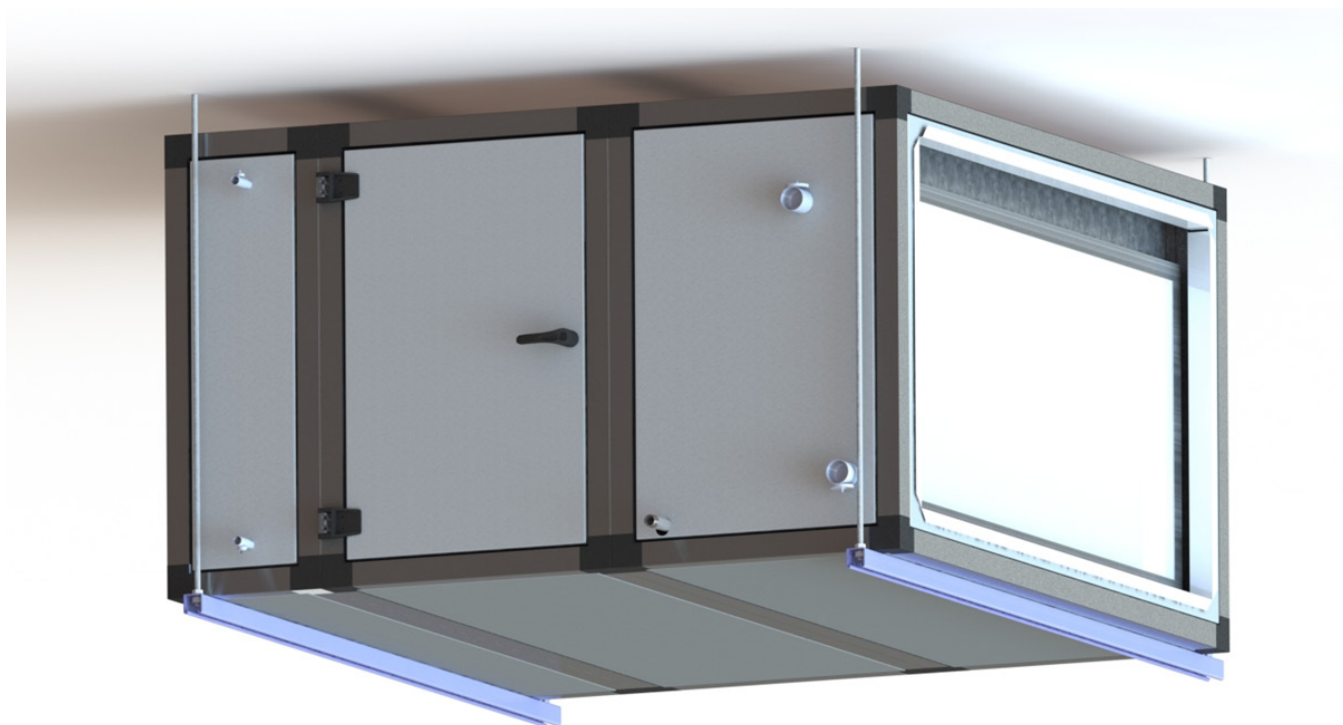


Corner brackets come pre-installed with each Ventum unit. Accessories should be independently supported with Unistrut on the end farthest from the unit. Base mounted accessories that are connect to a duct connection in the lower position of the unit will come with matching base rails.

Accessories that are to be connected to a duct connection in the upper position will need to be supported externally.

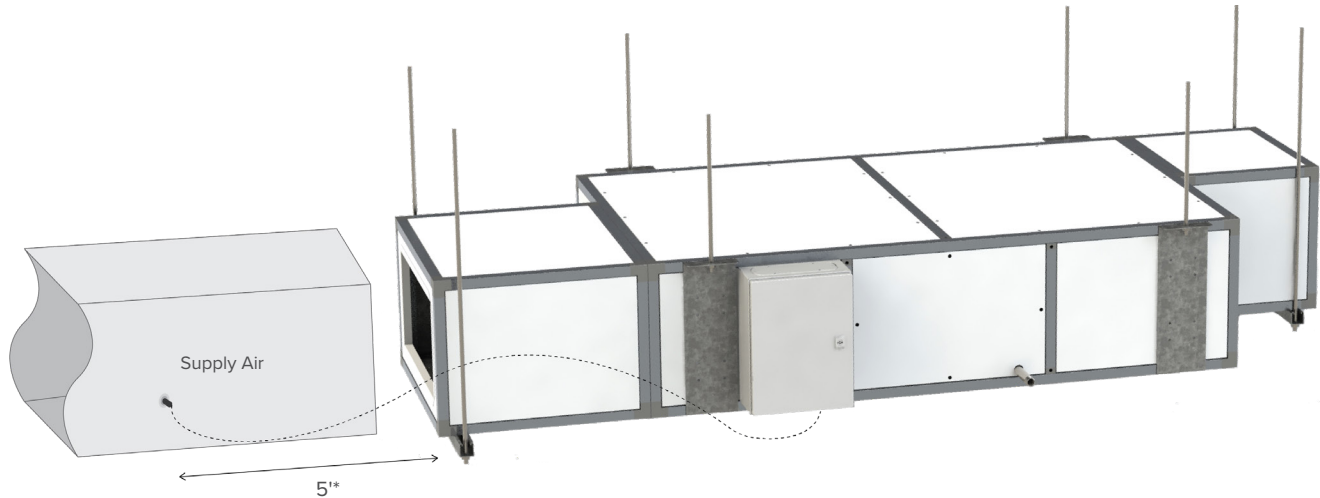
2.5.2 Decoupled Accessories

Ceiling hung decoupled accessories will not come with hanging brackets and can be supported in the ceiling with horizontal brackets and threaded rod or equivalent.



2.6 External Sensors

2.6.1 Supply Air Temperature Sensor

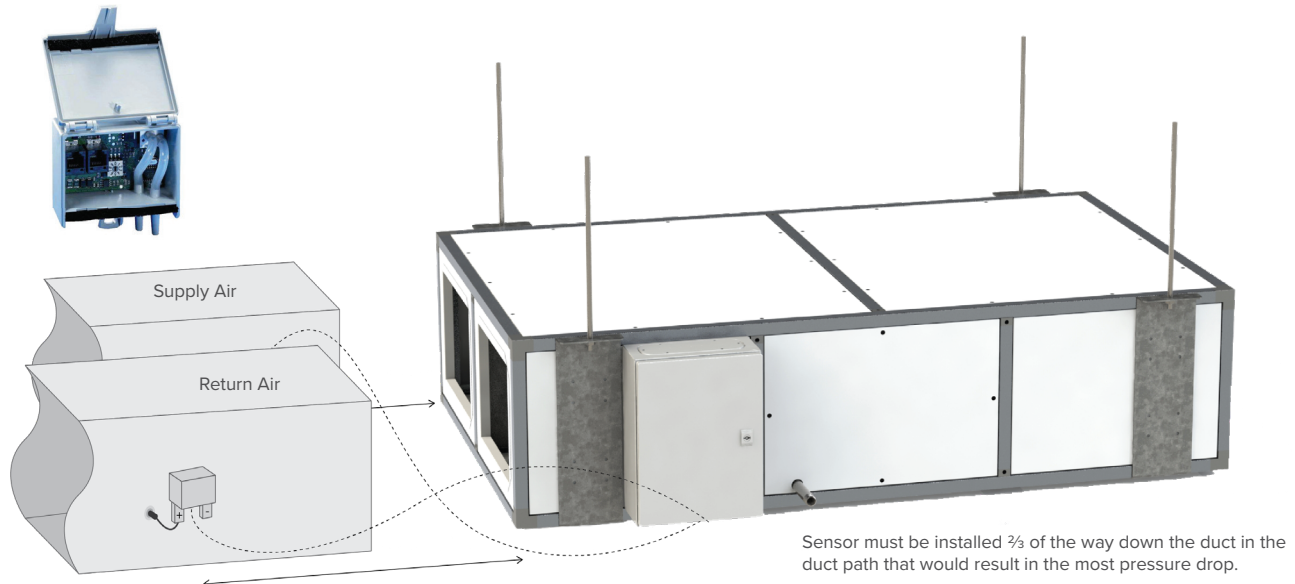


*Sensor must be installed a minimum of 5' from the heating or cooling module.

TTH-6202 sensors are installed in the ventilation duct using the accompanying bracket, which must be attached to a firm, level surface by means of two screws. The supply voltage is provided via the Modbus connection. TTH-6202 has a pre-fitted cable,

which is equipped with a standard RJ12 connector. The cable may be extended up to 50 m using a Category 3 extension cable. The sensor must be mounted according to, and must be aligned parallel to the air flow in the center of the duct.

2.6.2 Pressure Sensor

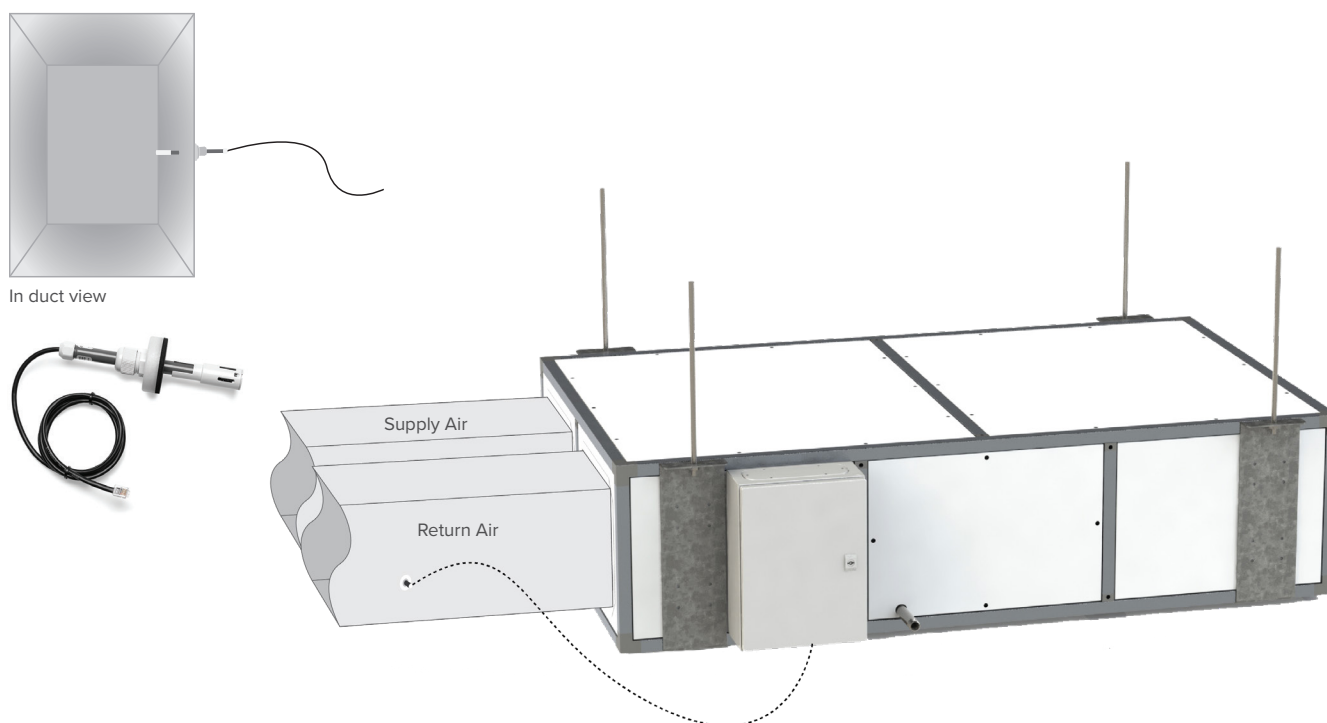


Sensor must be installed $\frac{2}{3}$ of the way down the duct in the duct path that would result in the most pressure drop.

The enclosure is opened without the use of tools by pressing the snap lock at the side of the tube connectors. PTH-6202 is attached onto a level surface by 2 screws, which are screwed into a solid surface. PTH-6202 can be fitted in all directions without accuracy being affected. PTH-6202 also functions with only one tube fitted to the connectors (+ or -). However, two tubes should always be fitted to ensure a suitable enclosure rating, if the connectors do not face downwards. Pressure is supplied to the measurement unit by tubes, the highest pressure being connected to the '+ connector' and the lowest

pressure to '- connector'. The pressure tubes must be as short as possible and must be secured in position to prevent vibration. To obtain the best possible results, pressure must be measured where there is least risk of turbulence, i.e. in the center of the ventilation duct and at a distance of at least twice the width of the duct from bends and six times the width from branches. If there is a risk of condensation forming in connection tubes, PTH-6202 is to be located in such a way that condensate fluids cannot flow back into the pressure transmitter.

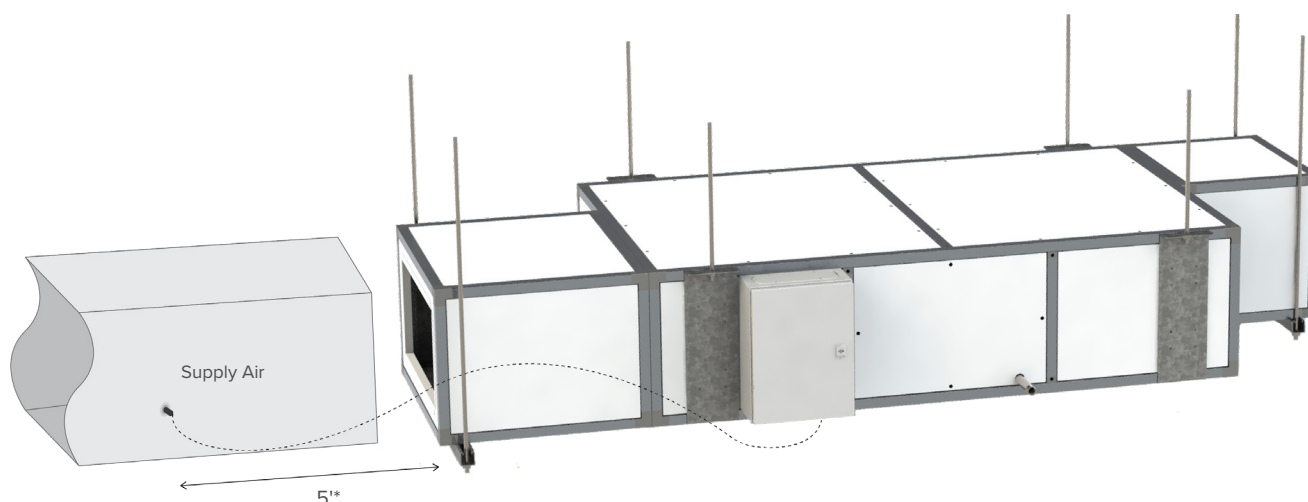
2.6.3 CO₂/VOC Sensor



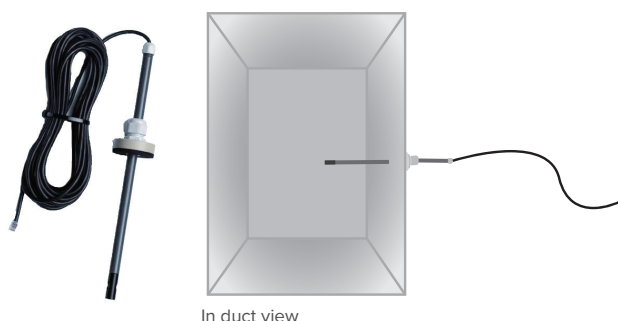
VTH-6202 sensors are installed in the ventilation duct using the accompanying bracket, which must be attached to a firm, level surface by means of two screws. The 18-30 V DC supply voltage (24 V DC nominal voltage) is provided via the Modbus connection. VTH-6202 has a pre-fitted 7000 mm cable, which is equipped with a standard RJ12 connector. The cable may be extended to as much as 50 m without any negative effects on measuring accuracy. The surrounding EMC environment must, however, be taken into account and must be capable of being defined as

low. To extend the cable, use a crossover Category 3 extension cable, RJ12-RJ12, 6P6C. The sensor should be installed in such a way that the air flow in the duct can pass unhindered through the measuring hole at the end of the sensor, which should be aligned parallel to the air flow. Although the VTH-6202 is not affected by the position in which it is installed, it should not be installed in an upright position with the cable downwards as this may cause moisture to accumulate in the sensor.

2.6.4 Combination Temperature/ Humidity Sensor



*Sensor must be installed a minimum of 5' from the heating or cooling module.



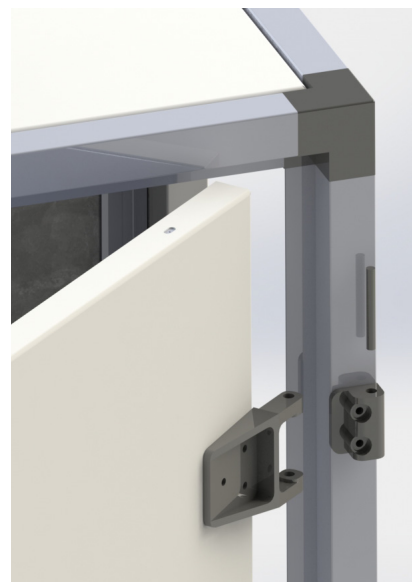
HTH-6202 sensors are installed in the ventilation duct using the accompanying bracket, which must be attached to a firm, level surface by means of two screws. The 18-30 V DC supply voltage (24 V DC nominal voltage) is provided via the Modbus connection. HTH-6202 has a pre-fitted 7000 mm cable, which is equipped with a standard RJ12

connector. The cable may be extended to as much as 50 m without any negative effects on measuring accuracy. The surrounding EMC environment must, however, be taken into account and must be capable of being defined as low. To extend the cable, use a crossover Category 3 extension cable, RJ12-RJ12, 6P6C. The sensor should be installed in such a way that the air flow in the duct can pass unhindered through the measuring hole at the end of the sensor, which should be aligned parallel to the air flow. Although HTH-6202 is not affected by the position in which it is installed, it is advisable not to install the sensor in an upright position with the cable downwards as this may cause moisture to accumulate in the sensor. It is important that HTH-6202 is installed in such a way that the measuring hole is positioned at the center of the duct.

3.0 Access Requirements



Unit with doors open



Door with removed hinge pin

Top of Unit

The National Electrical Code (NEC) requires 36 inches of clearance from an electrical connection. For Ventum, with a front-mounted electrical box, the 3' must be measured from the front of the box. The unit should be mounted such that the bottom doors remain accessible.

4.0 Lifting Requirements

Units can be lifted by mounting angles. Lifting directly from the frame is not recommended.

5.0 Electrical Hook Ups

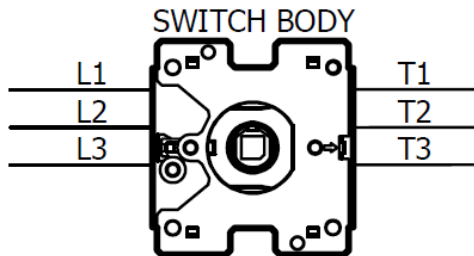


Warning

Hazardous voltage, disconnect all electrical power, including remote disconnects and discharge all motor start/run capacitors before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be accidentally re-engaged.

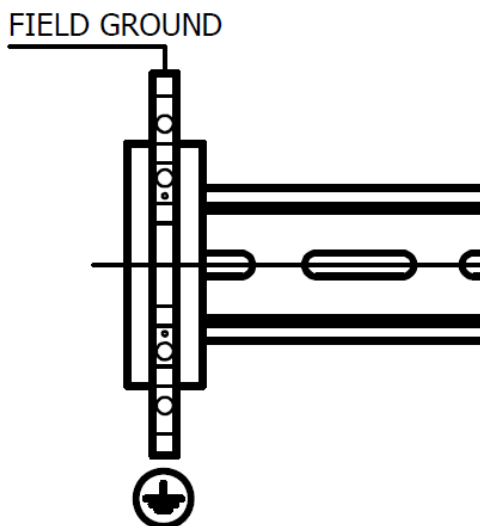
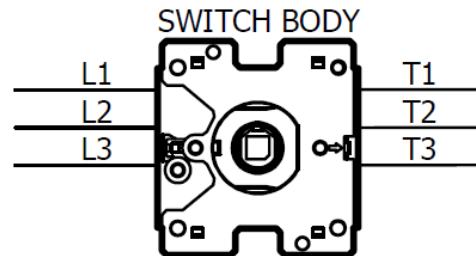
3 phase, 4 wire, 208V, 460V -10% - +15%, 60Hz

Recommended fuse diagram



1 phase, 3 wire, 240V -10% - +15%, 60Hz

Recommended fuse diagram



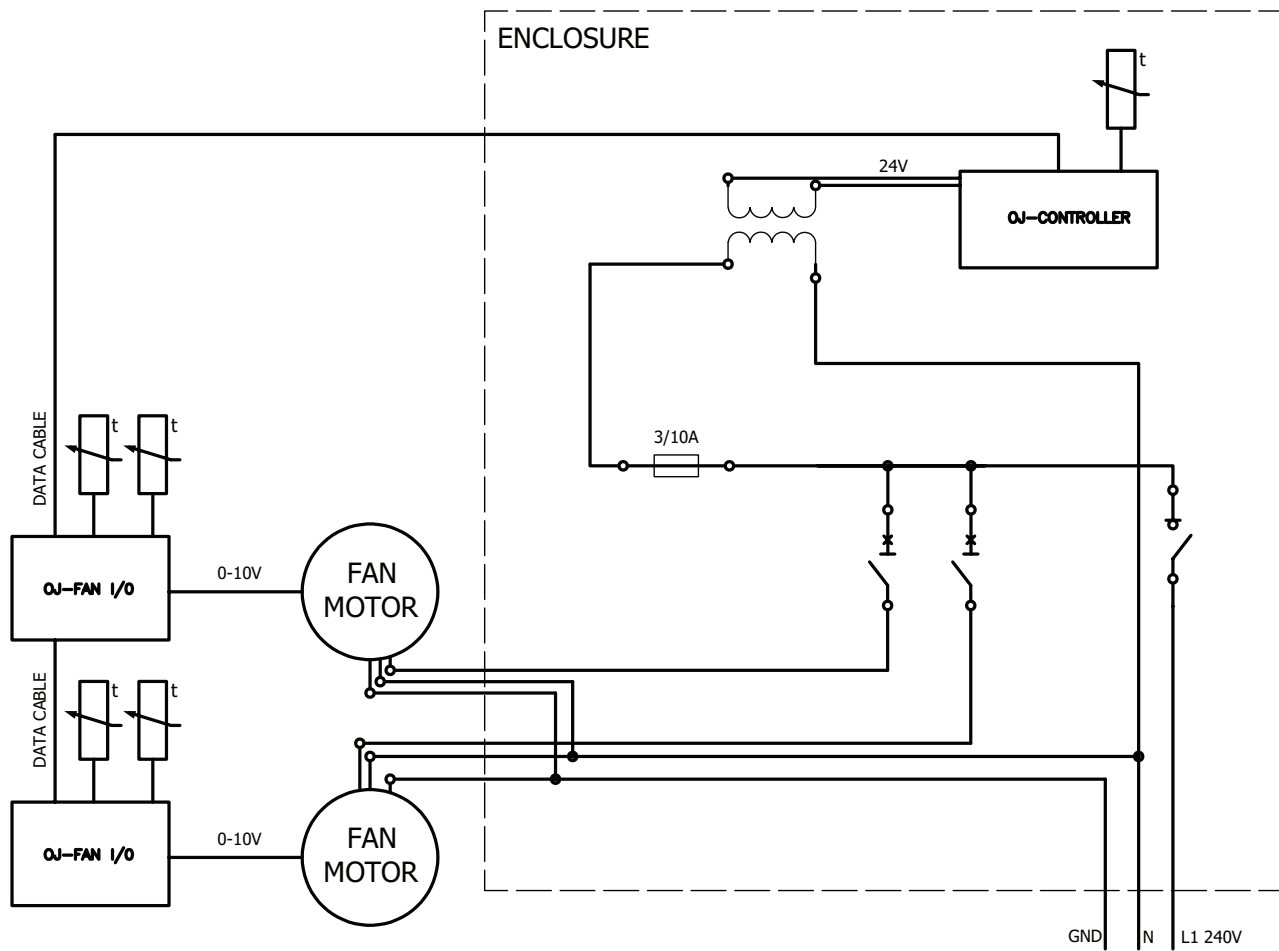
Note: Larger units are complete with a grounding lug that is used in place of the ground terminal shown above.

5.1 Electrical Information

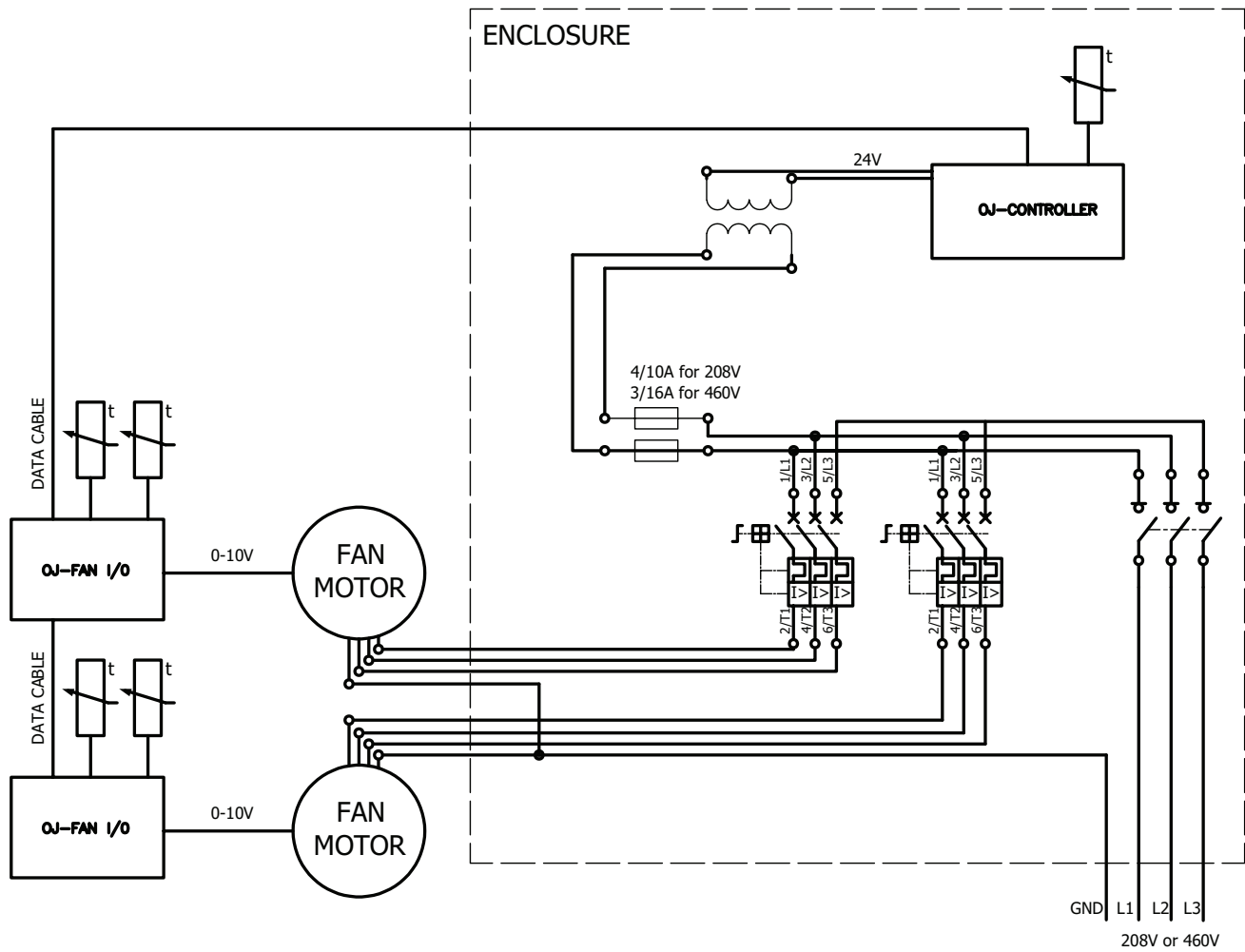
Model	Airflow	Nom. V.	Motor kW	SA Fan Qty.	SA Fan FLA	SA Fan FLA Total	RA Fan Qty.	SA Fan FLA	SA Fan FLA Total	Tnsfmr FLA	Fuse Size	FLA	MCA	MROP D	Rcmd Fuse
H05	600	240	0.5	2.5	2.5	0.29	5.39	5.91	8.41	15A	3/10	5.29	5.91	8.41	15A
H10	1000	240	0.78	3.9	3.9	0.29	8.09	9.06	12.96	15A	3/10	8.09	9.06	12.96	15A
H15	1350	208	2.0	6.0	6.0	0.33	12.33	13.83	19.83	15A	4/10	12.33	13.83	19.83	15A
H15	1350	460	2.5	4.0	4.0	0.14	8.14	9.14	13.14	15A	3/16	8.14	9.14	13.14	15A
H20	1800	208	2.0	6.0	6.0	0.33	12.33	13.83	19.83	15A	4/10	12.33	13.83	19.83	15A
H20	1800	460	2.5	4.0	4.0	0.14	8.14	9.14	13.14	15A	3/16	8.14	9.14	13.14	15A
H25	2250	208	2.7	8.6	8.6	0.33	17.53	19.68	28.28	25A	4/10	17.53	19.68	28.28	25A
H25	2250	460	3.7	5.8	5.8	0.14	11.74	13.19	18.99	15A	3/16	11.74	13.19	18.99	15A
H30	3000	208	2.7	8.6	8.6	0.33	17.53	19.68	28.28	25A	4/10	18.33	20.58	29.58	25A
H30	3000	460	3.7	5.8	5.8	0.14	11.74	13.19	18.99	15A	3/16	10.94	12.29	17.69	15A

5.2 Single Phase Electrical Hook-Up (2 Fans)

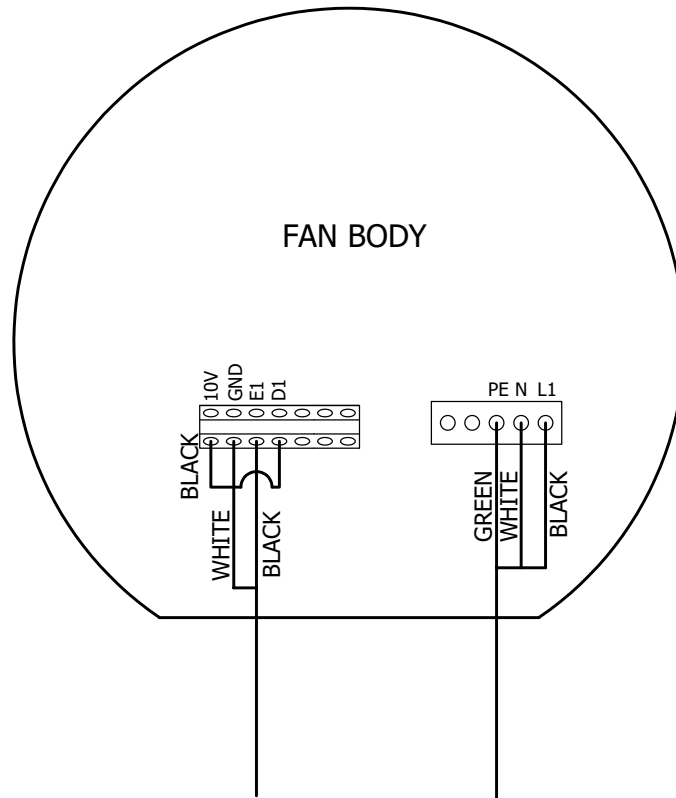
Attention: Single phase electric consists of single Line, Neutral and Ground OR two hot lines and Ground (Line 1, Line 2 and Ground) based on voltage availability.



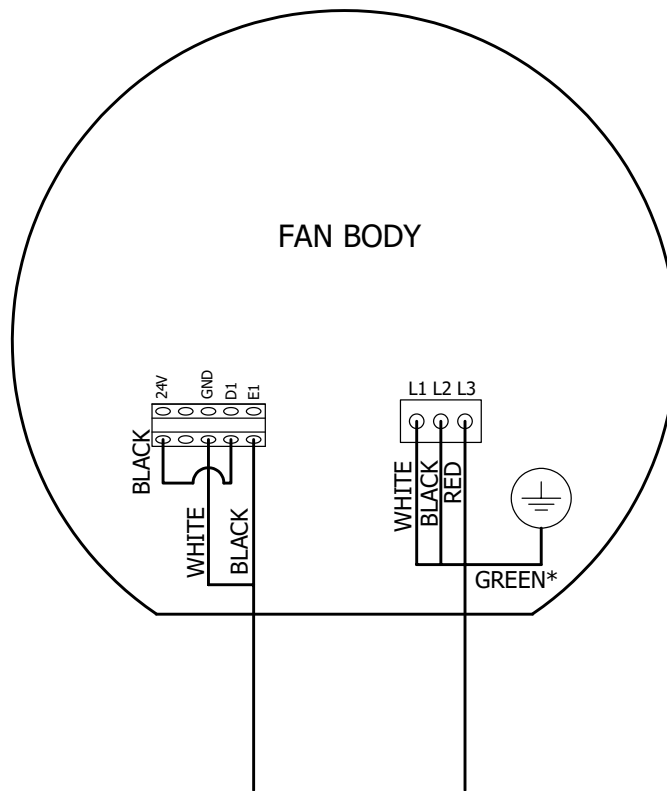
5.3 Three-Phase Electrical Hook-Up (2 Fans)



5.4 Fan Connection - Single Phase



5.5 Fan Connection - Three Phase



5.6 Electrical Control Box Connection Guides

1. Verification of Unit Compatibility

Prior to installation, ensure that the information on the unit's nameplate matches the power supply specifications. In cases where single-point power wiring connections are specified, the power source for the external control box shall originate from the electrical heater. Make all necessary connection terminations to the primary terminal block. Detailed wiring diagrams, specific to the unit, can be found in this manual, illustrating both factory and field wiring configurations.

2. Overcurrent and Short Circuit Protection

All units require the provision of field-supplied electrical overcurrent and short circuit protection. Ensure that the selected protective device does not exceed the Maximum Recommended Overcurrent Protection (MROP) specified on the unit's nameplate. Local electrical codes may also mandate the presence of a disconnect switch within visible range of the unit. However, it is advisable not to install field-supplied overcurrent protection or disconnect switches on the unit itself.

3. External Control Panel

In cases where an external control box is utilized, properly route the conduit away from potential hazards, sharp edges, or occupied areas, and ensure it is securely fastened at intervals not exceeding 3 feet unless otherwise specified by local codes and standards. Use the appropriate hardware for the conduit diameter and appropriate fasteners for anchoring into the wall material.

4. Flex Conduit

The unit is equipped with the necessary length of flexible conduit for connecting the external control box to the unit. It is crucial not to modify or extend this conduit.



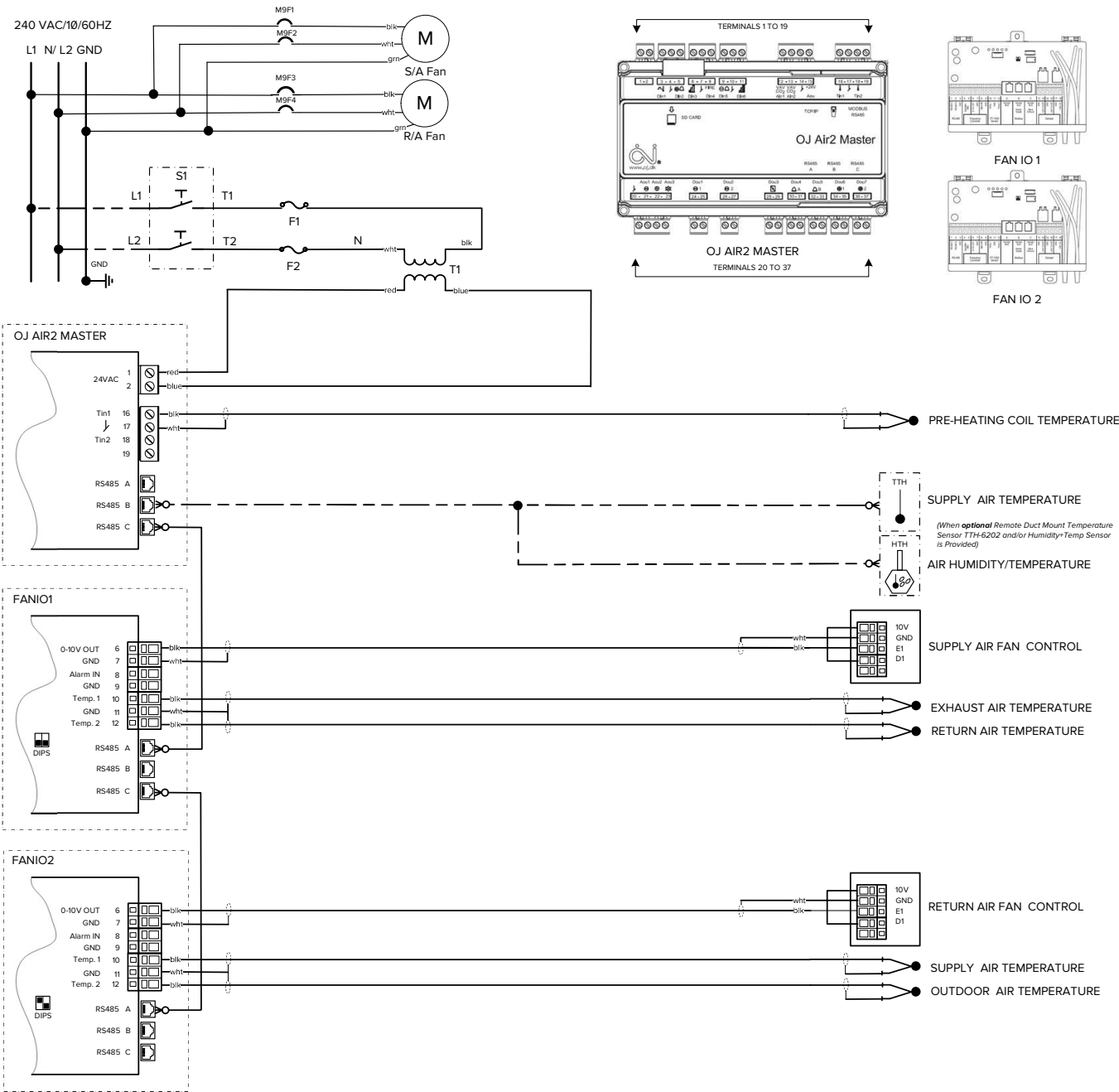
5. Compliance with Electrical Codes

It is imperative to adhere to the access clearance, mounting height, and other installation requirements stipulated by the National Electrical Code (NEC) and any applicable local codes and standards for safety and ease of maintenance.

Wiring Diagrams

Wiring Diagram

Controller Details



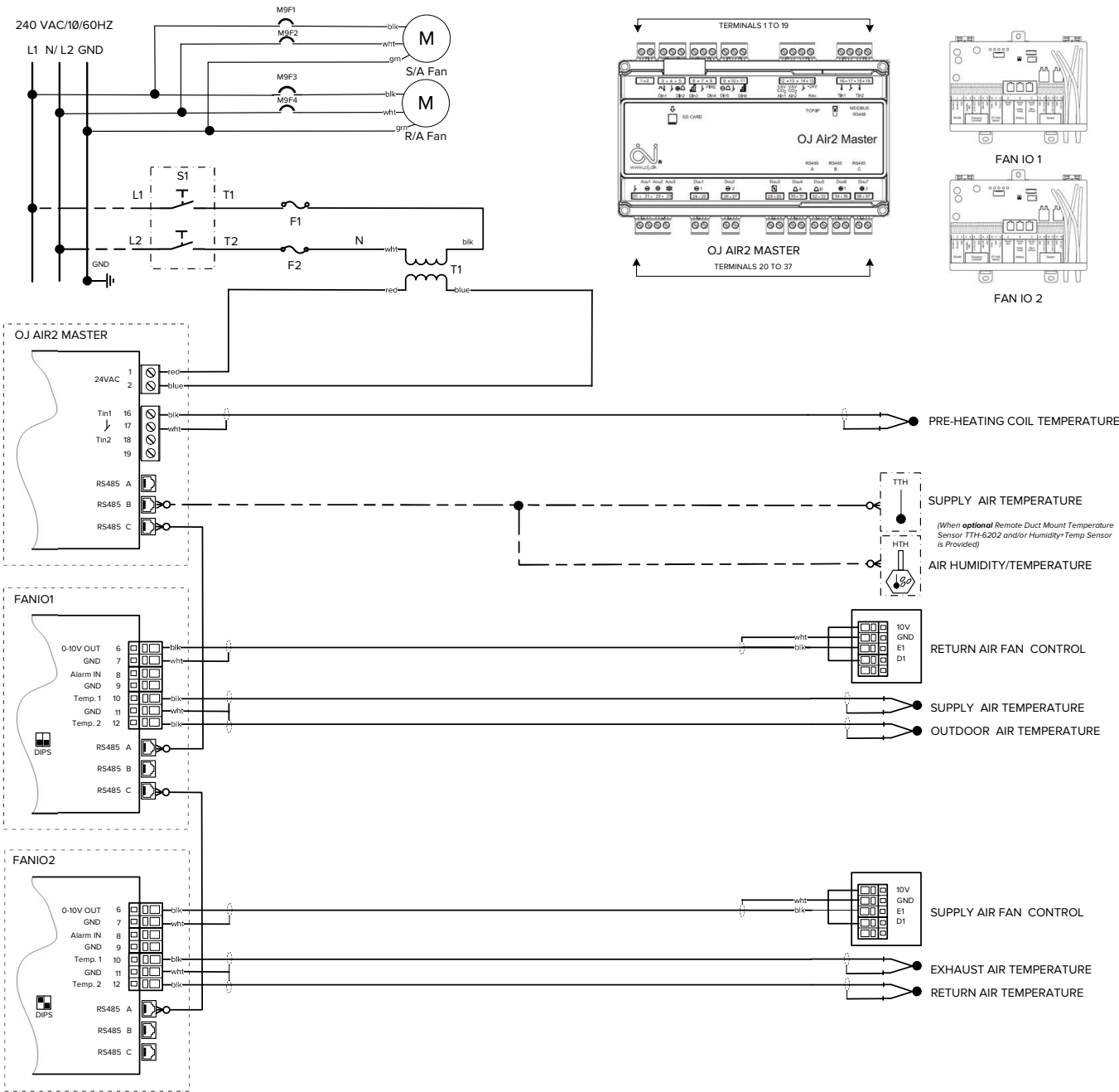
Legend

- Factory wired
- Communication/ RJ12
- Enclosed unit
- Field wiring required

DRAWN BY:	O X Y G E N 8		
IP			
APPROVED:	DRAWING TITLE:		
	NOVA/ 240V SINGLE PHASE/S1		
REVISION:	DRAWING NUMBER:		CONTROLLER:
1.1	028-05-0007-00		OJ
DATE:			

Wiring Diagram

Controller Details

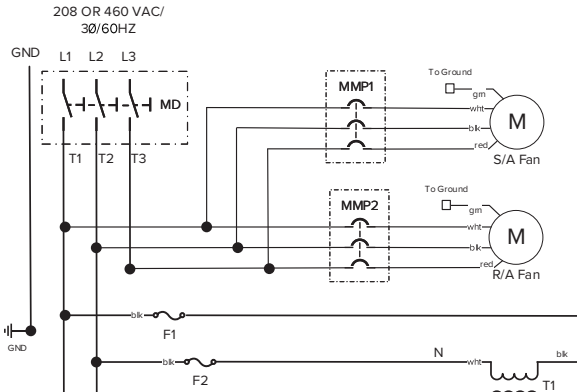


Legend

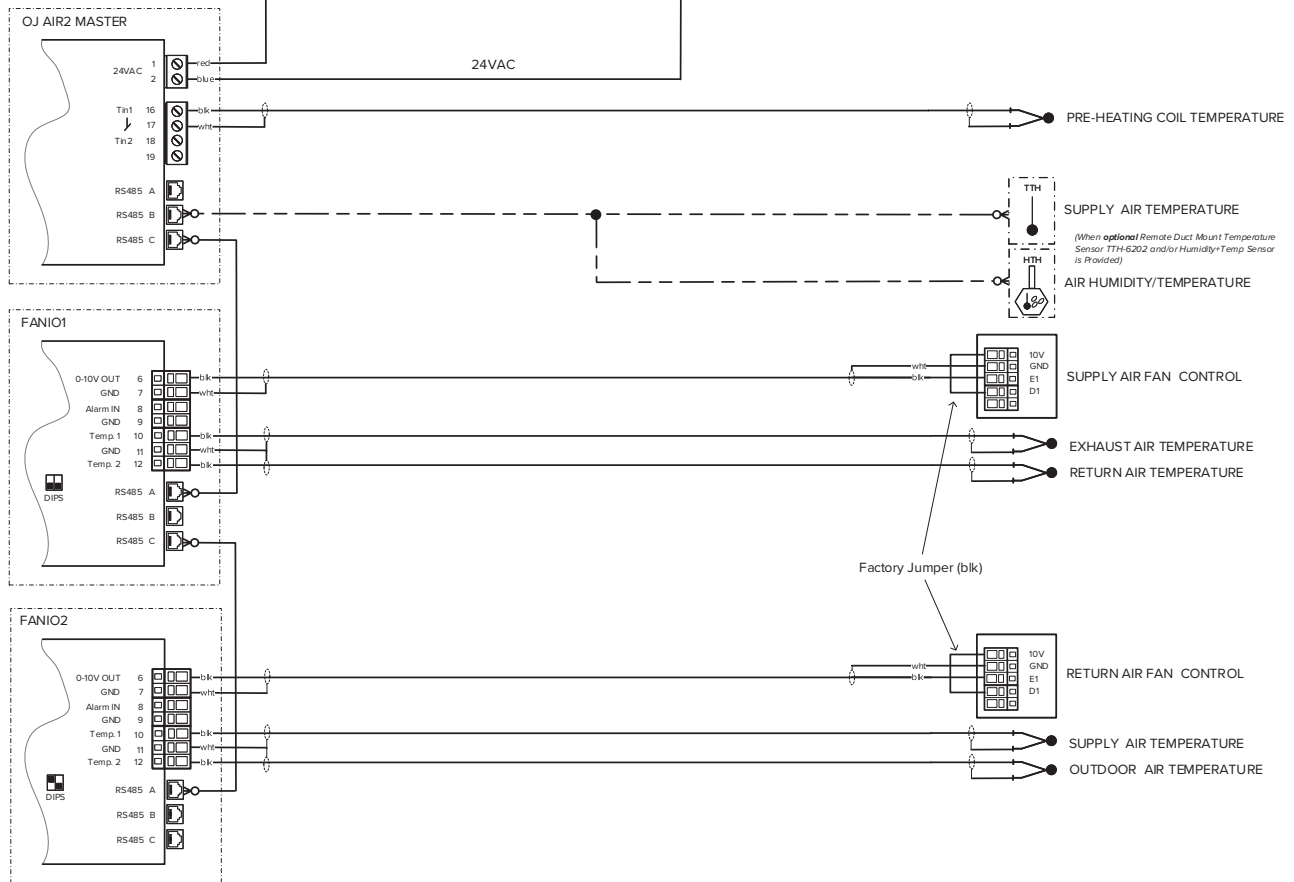
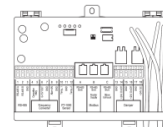
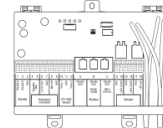
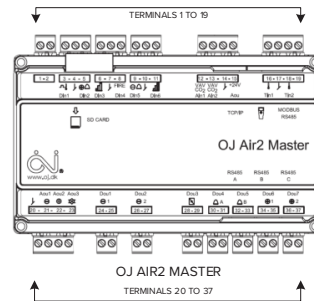
- Factory wired
- Communication/ RJ12
- Enclosed unit
- Field wiring required

DRAWN BY:	IP	O X Y G E N 8	
APPROVED:		DRAWING TITTLE:	
REVISION:	1.1	NOVA/ 240V SINGLE PHASE/ S2	
DATE:		DRAWING NUMBER:	028-05-0008-00
		CONTROLLER:	OJ

Wiring Diagram



Controller Details



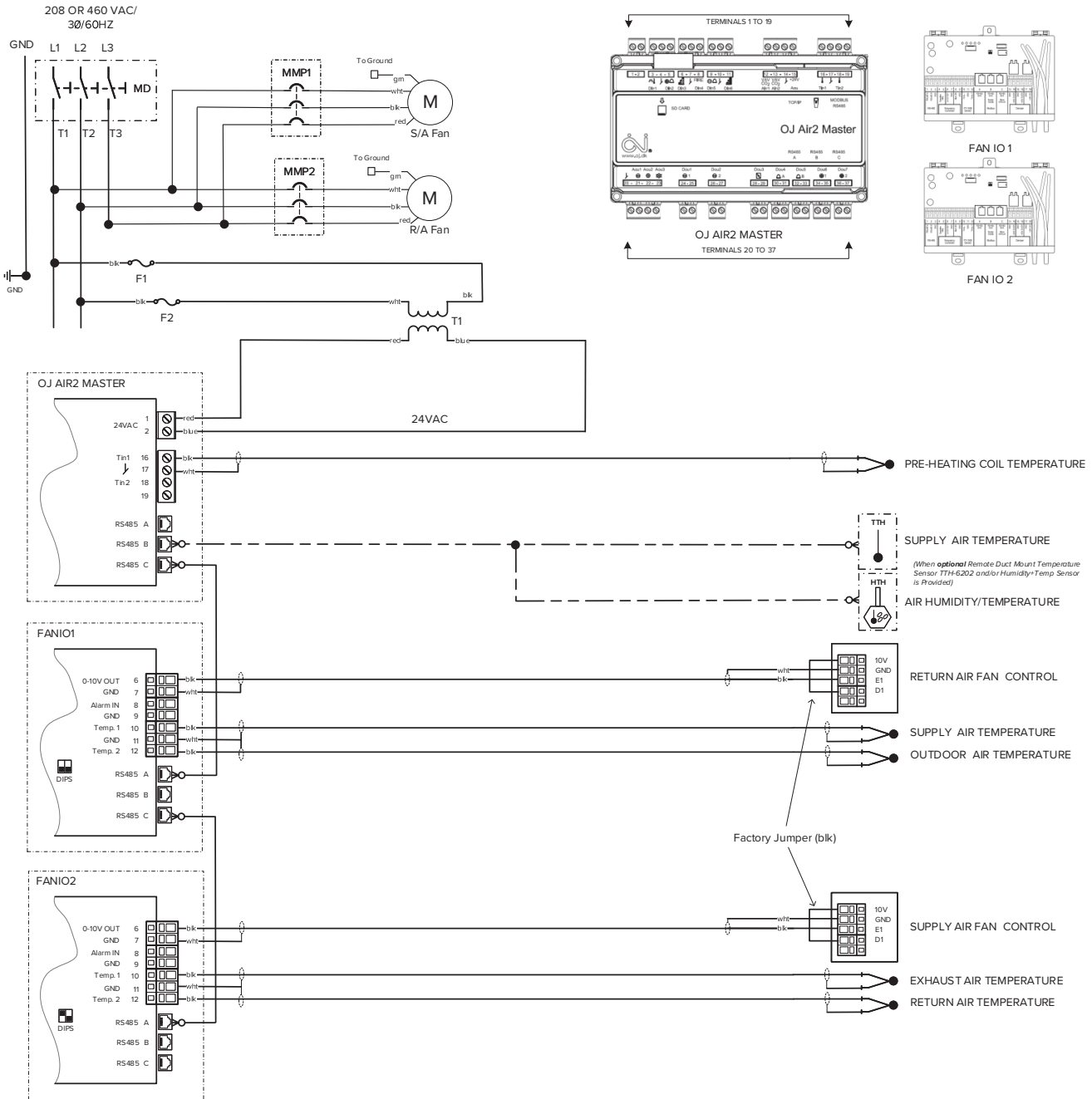
Legend

- Factory wired
- Communication/ RJ12
- - - - - Enclosed unit
- - - - - Field wiring required

DRAWN BY: IP	O X Y G E N 8		
APPROVED:	DRAWING TITLE: NOVA/ THREE PHASE/ S1		
REVISION: 1.0	DRAWING NUMBER: 028-05-0009-00		CONTROLLER: OJ
DATE: 2021-04-05	SCALE: NTS	SIZE: 8" x 11.5"	SHEET: 1 of 1

Wiring Diagram

Controller Details

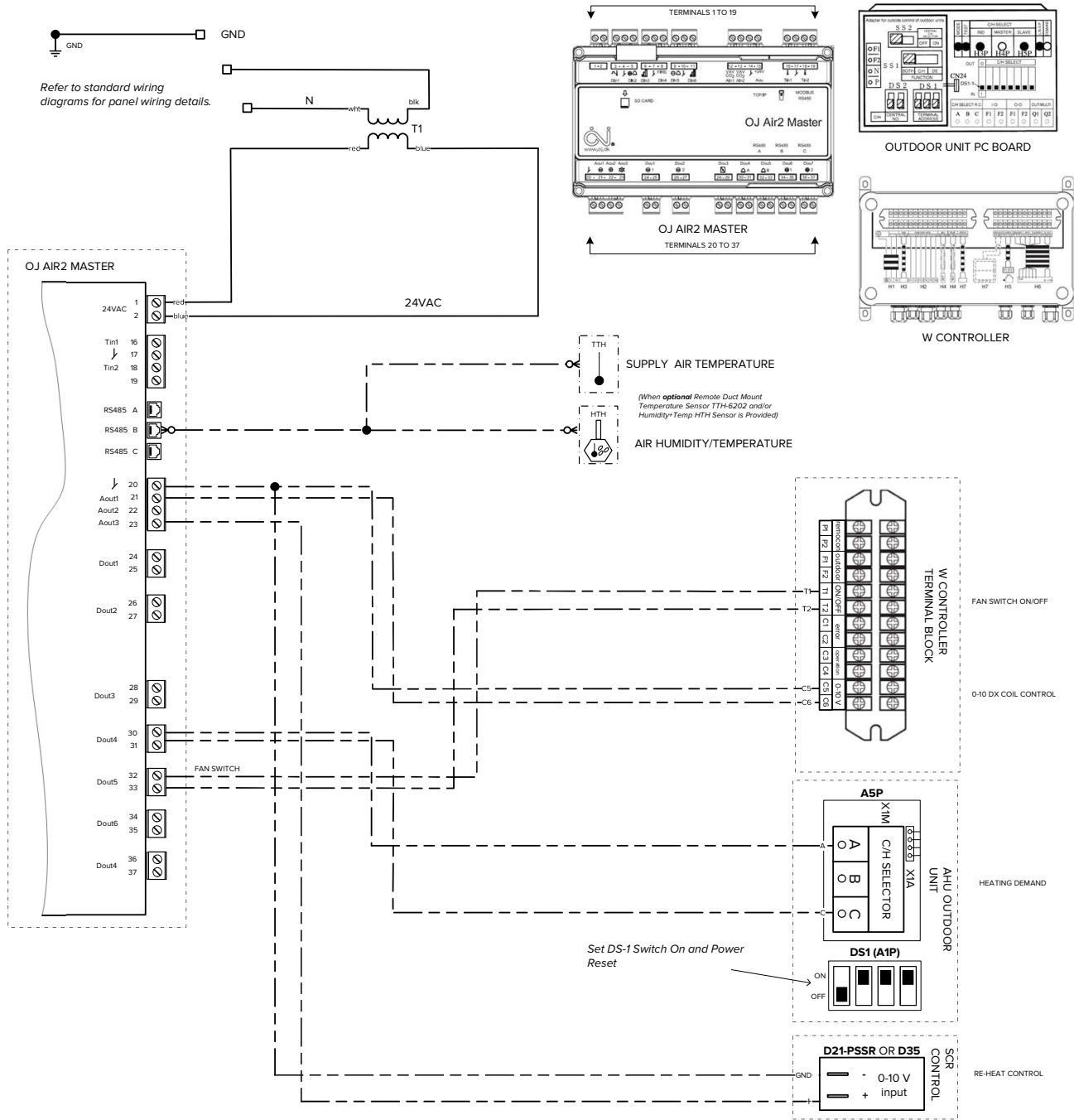


Legend

- Factory wired
- Communication/ RJ12
- - - - - Enclosed unit
- - - - - Field wiring required

DRAWN BY: IP	O X Y G E N 8		
APPROVED:	DRAWING TITLE: NOVA/ THREE PHASE/ S2		
REVISION: 1.0	DRAWING NUMBER: 028-05-0010-00		CONTROLLER: OJ
DATE: 2021-04-05	SCALE: NTS	SIZE: 8" x 11.5"	SHEET: 1 of 1

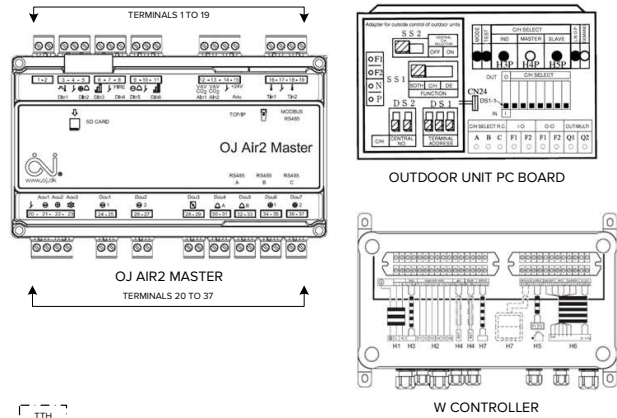
Wiring Diagram



Legend

- Factory wired
- o—o— Communication/ RJ12
- - - - - Enclosed unit
- Field wiring required

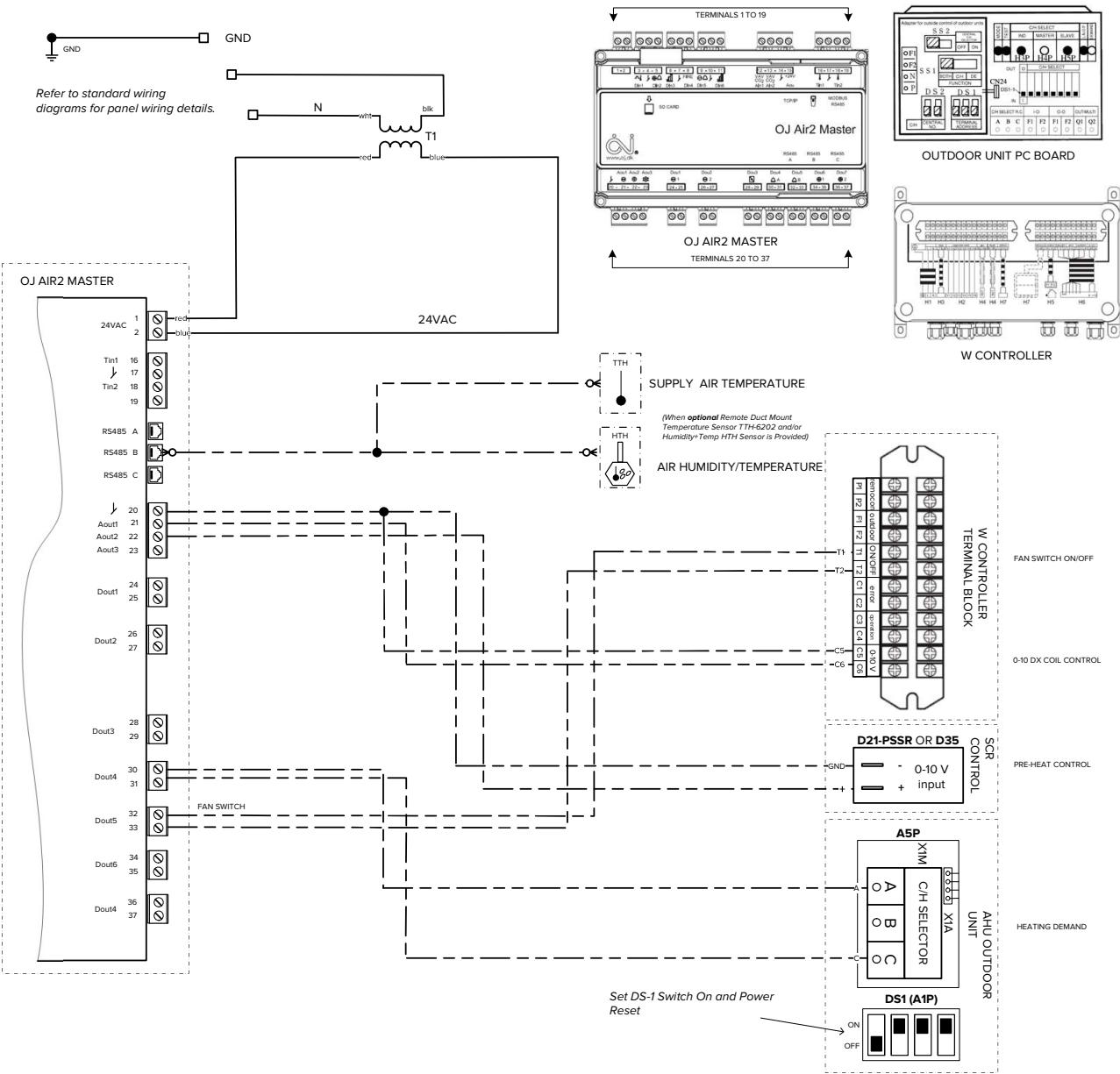
Controller Details



DRAWN BY: IP	O X Y G E N 8	
APPROVED:	DRAWING TITLE: VENTUM/ FIELD WIRING/ DX COIL/ ELEC. RE-HEAT (w/EKE)	
REVISION: 1.0	DRAWING NUMBER: 028-05-0019-01	CONTROLLER: OJ
DATE: 2021-09-30	SCALE: NTS	SIZE: 8" x 11.5"
		SHEET: 1 of 1

Wiring Diagram

Controller Details



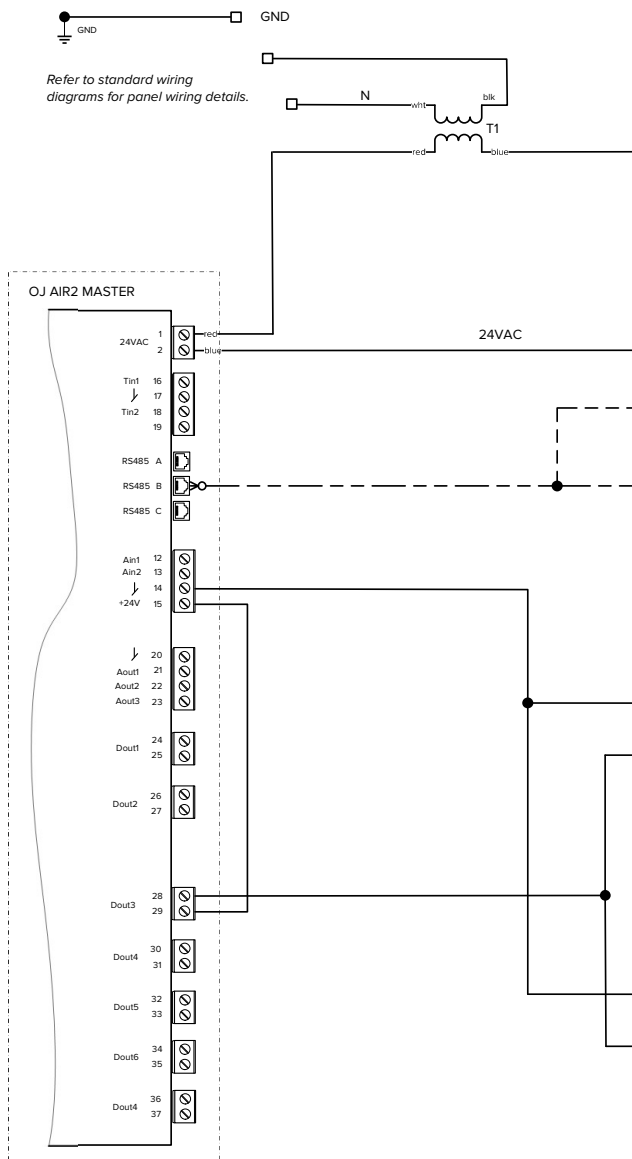
Legend

- Factory wired
- Communication/ RJ12
- Enclosed unit
- Field wiring required

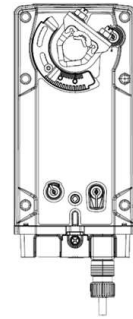
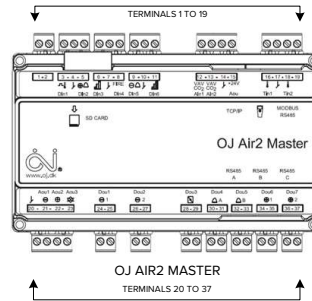
DRAWN BY: IP	O X Y G E N 8		
APPROVED:	DRAWING TITLE: VENTUM/ FIELD WIRING/ELEC. PRE-HEAT/ DX COIL (w/EKE)		
REVISION: 1.0	DRAWING NUMBER: 028-05-0019-03		CONTROLLER: OJ
DATE: 2021-09-30	SCALE: NTS	SIZE: 8" x 11.5"	SHEET: 1 of 1

6.9 Field Wiring, Damper Wiring

Wiring Diagram



Controller Details



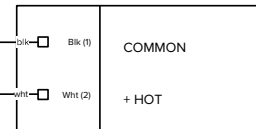
DAMPER ACTUATOR



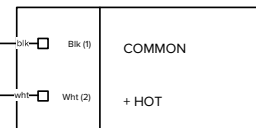
SUPPLY AIR TEMPERATURE

(When optional Remote Duct Mount Temperature Sensor TTH-6202 and/or Humidity+Temp HTH Sensor is Provided)

AIR HUMIDITY/TEMPERATURE



OUTDOOR AIR DAMPER LF TYPE



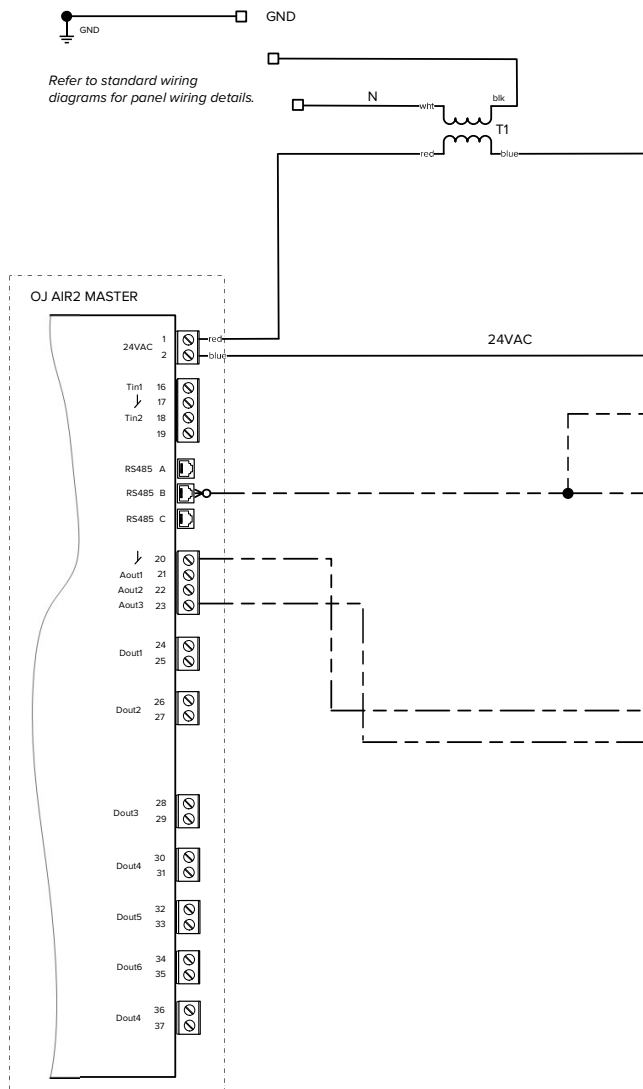
EXHAUST AIR DAMPER LF TYPE

Legend

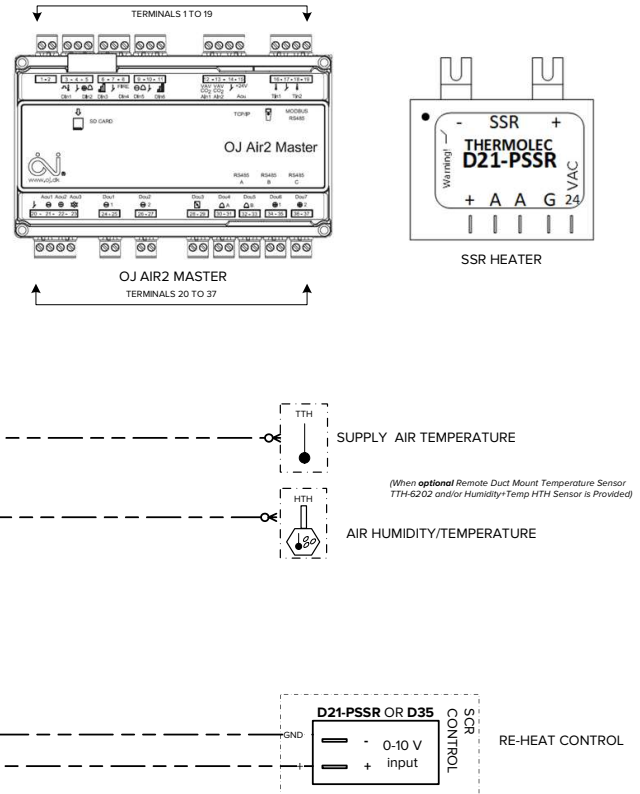
- Factory wired
- Communication/ RJ12
- Enclosed unit
- Field wiring required

DRAWN BY:	O X Y G E N 8		
IP			
APPROVED:	DRAWING TITTLE:		
	VENTUM/ FIELD WIRING/ DAMPERS (ON/OFF)		
REVISION:	DRAWING NUMBER:		CONTROLLER:
1.0	028-05-0020-00		OJ
DATE:	SCALE:	SIZE:	SHEET:
2021-09-30	NTS	8" x 11.5"	1 of 1

Wiring Diagram



Controller Details



NOTE: Refer to standard wiring diagrams for default controls wiring.

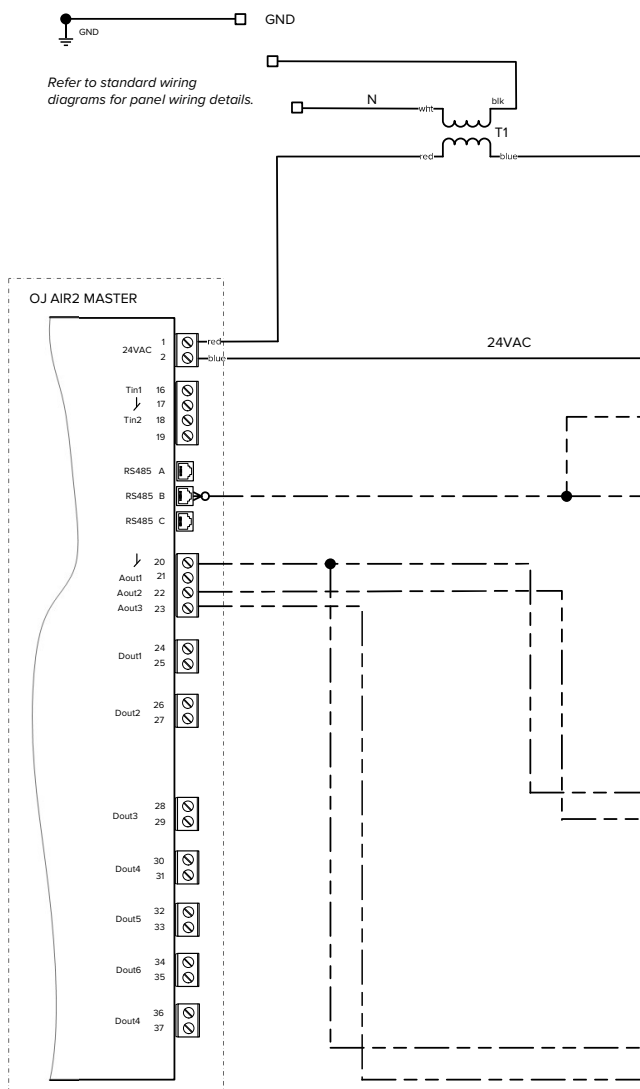
Legend

	Factory wired
	Communication/ RJ12
	Enclosed unit
	Field wiring required

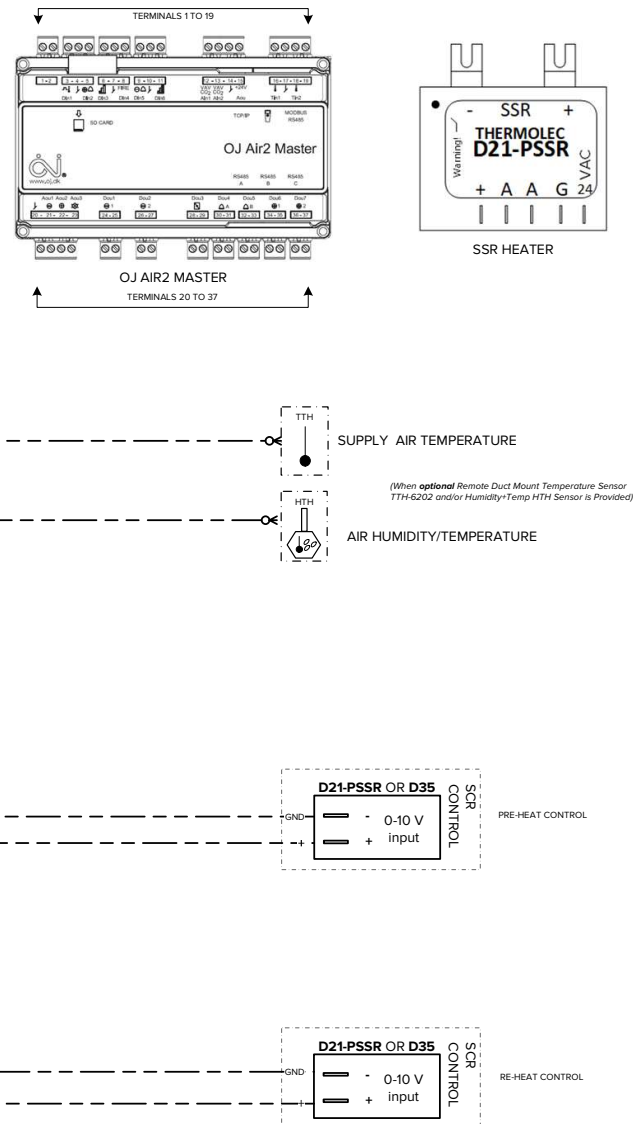
DRAWN BY: IP	O X Y G E N 8		
APPROVED:	DRAWING TITTLE: VENTUM/ FIELD WIRING /ELECTRIC RE-HEAT		
REVISION: 1.0	DRAWING NUMBER: 028-05-0020-01		CONTROLLER: OJ
DATE: 2021-09-30	SCALE: NTS	SIZE: 8" x 11.5"	SHEET: 1 of 1

6.11 Field Wiring, Electric Preheat, Electric Reheat Wiring

Wiring Diagram

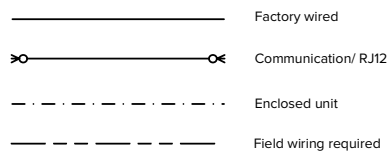


Controller Details



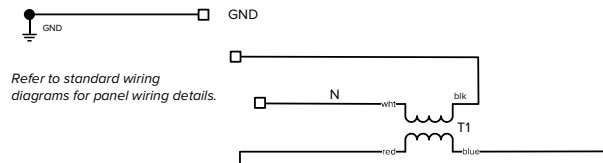
NOTE: Refer to standard wiring diagrams for default controls wiring.

Legend

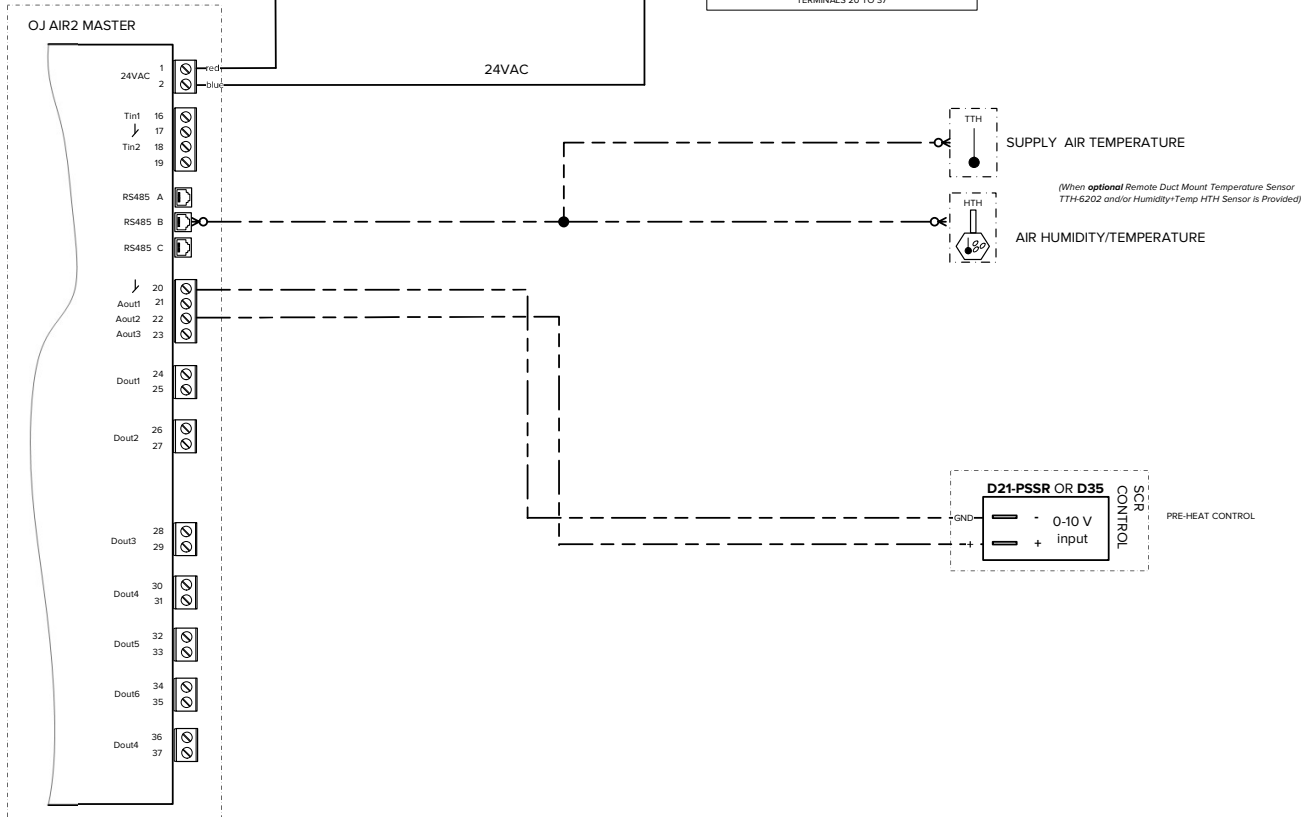
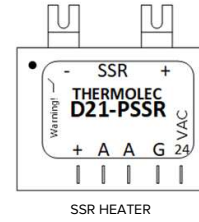
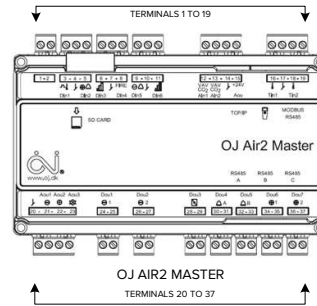


DRAWN BY: IP		O X Y G E N 8			
APPROVED:		DRAWING TITLE: VENTUM/ FIELD/ ELECTRIC PRE-HEAT/ ELECTRIC RE-HEAT			
REVISION: 1.0		DRAWING NUMBER: 028-05-0020-02			CONTROLLER: OJ
DATE: 2021-09-30		SCALE: NTS	SIZE: 8" x 11.5"	SHEET: 1 of 1	

Wiring Diagram

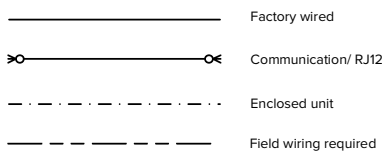


Controller Details



NOTE: Refer to standard wiring diagrams for default controls wiring.

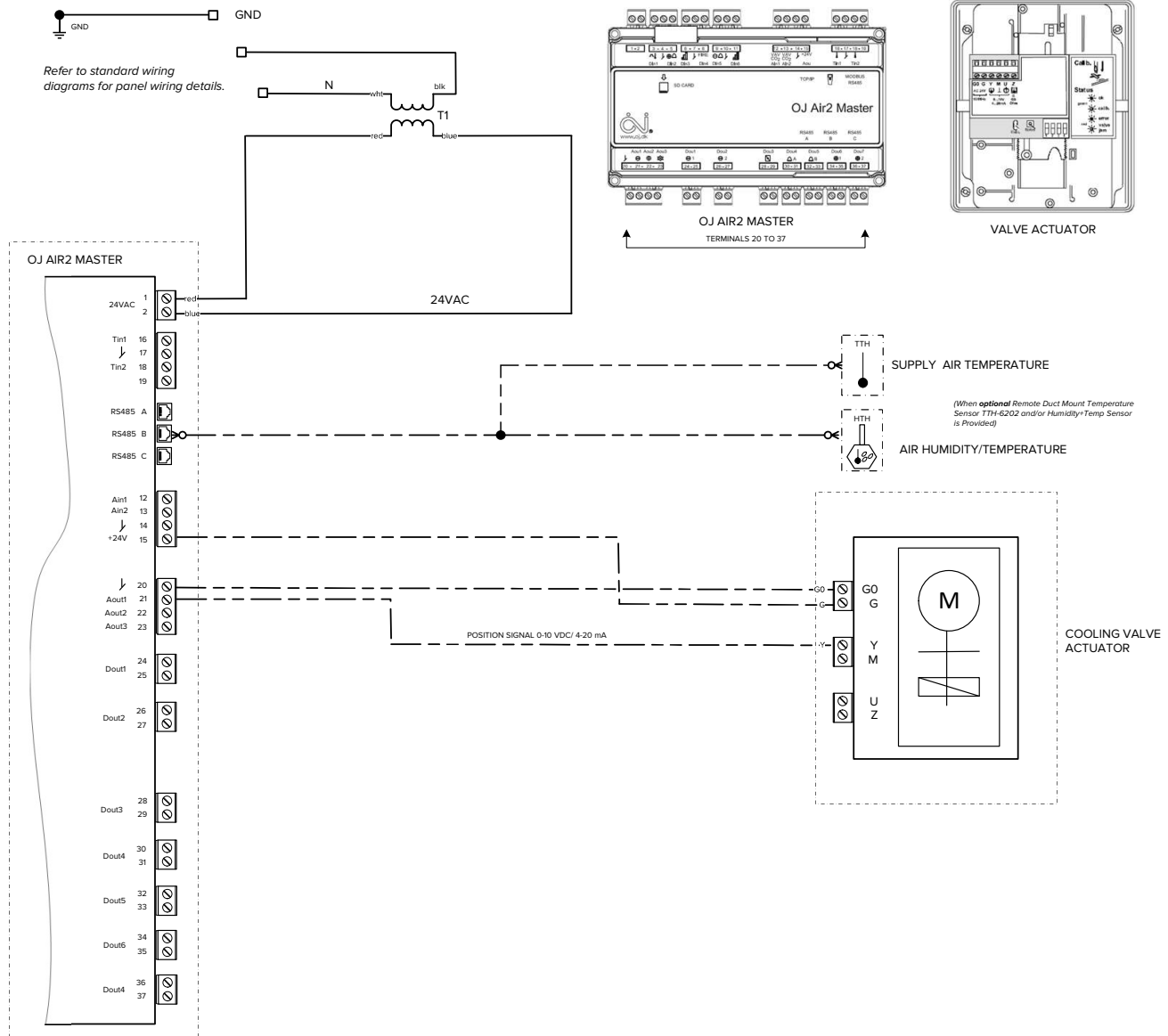
Legend



DRAWN BY: IP	O X Y G E N 8		
APPROVED:	DRAWING TITLE: VENTUM/ FIELD WIRING/ELECTRIC PRE-HEAT		
REVISION: 1.0	DRAWING NUMBER: 028-05-0020-03		CONTROLLER: OJ
DATE: 2021-09-30	SCALE: NTS	SIZE: 8" x 11.5"	SHEET: 1 of 1

Wiring Diagram

Controller Details

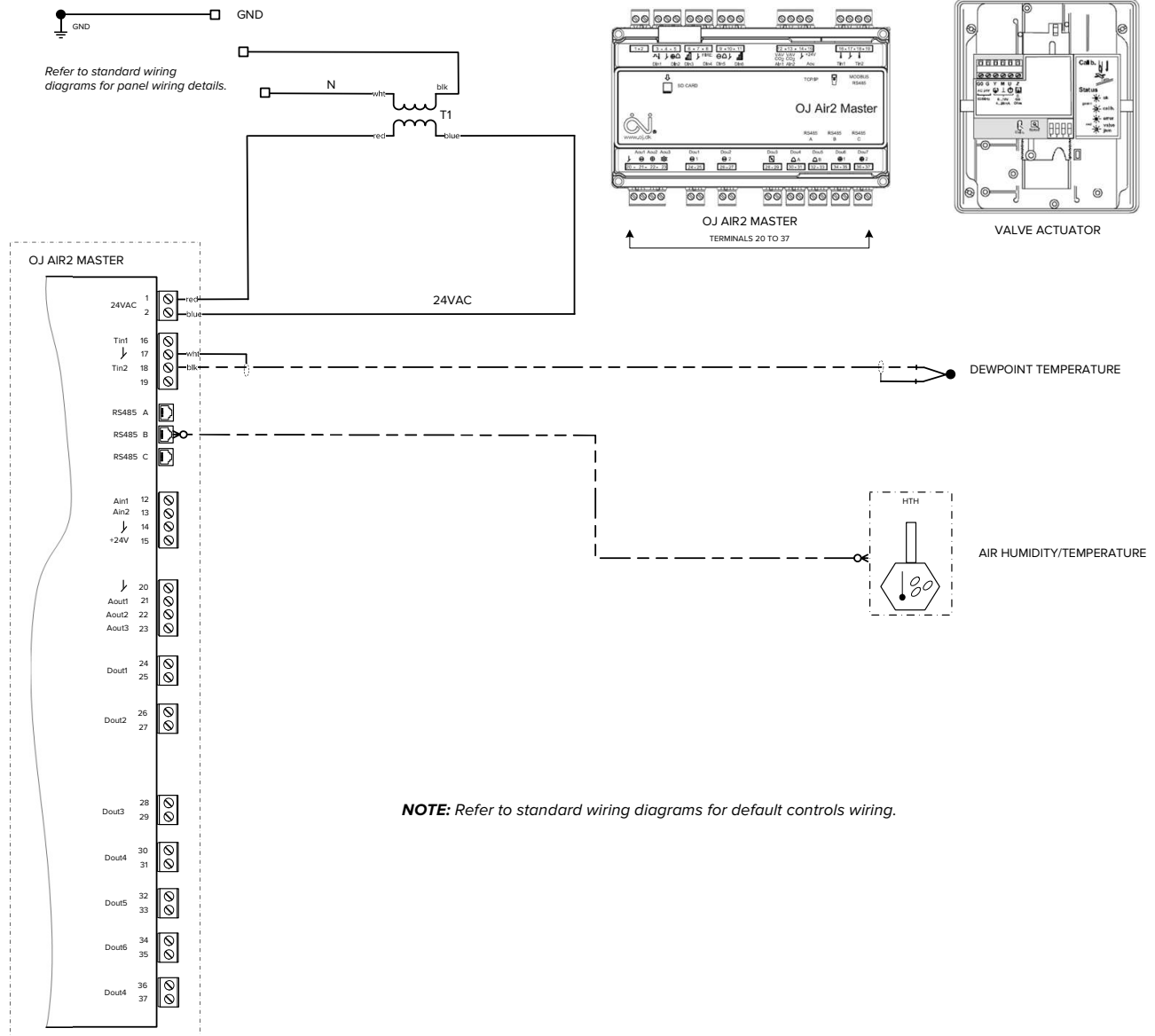


Legend

- Factory wired
- Communication/ RJ12
- - - - - Enclosed unit
- - - - - Field wiring required

DRAWN BY:	O X Y G E N 8		
IP			
APPROVED:	DRAWING TITLE:		
	VENTUM/ FIELD WIRING/HYDRONIC COOLING WATER COIL		
REVISION:	DRAWING NUMBER:		CONTROLLER:
1.0	028-05-0020-04		OJ
DATE:	SCALE:	SIZE:	SHEET:
2021-09-30	NTS	8" x 11.5"	1 of 1

Wiring Diagram



Legend

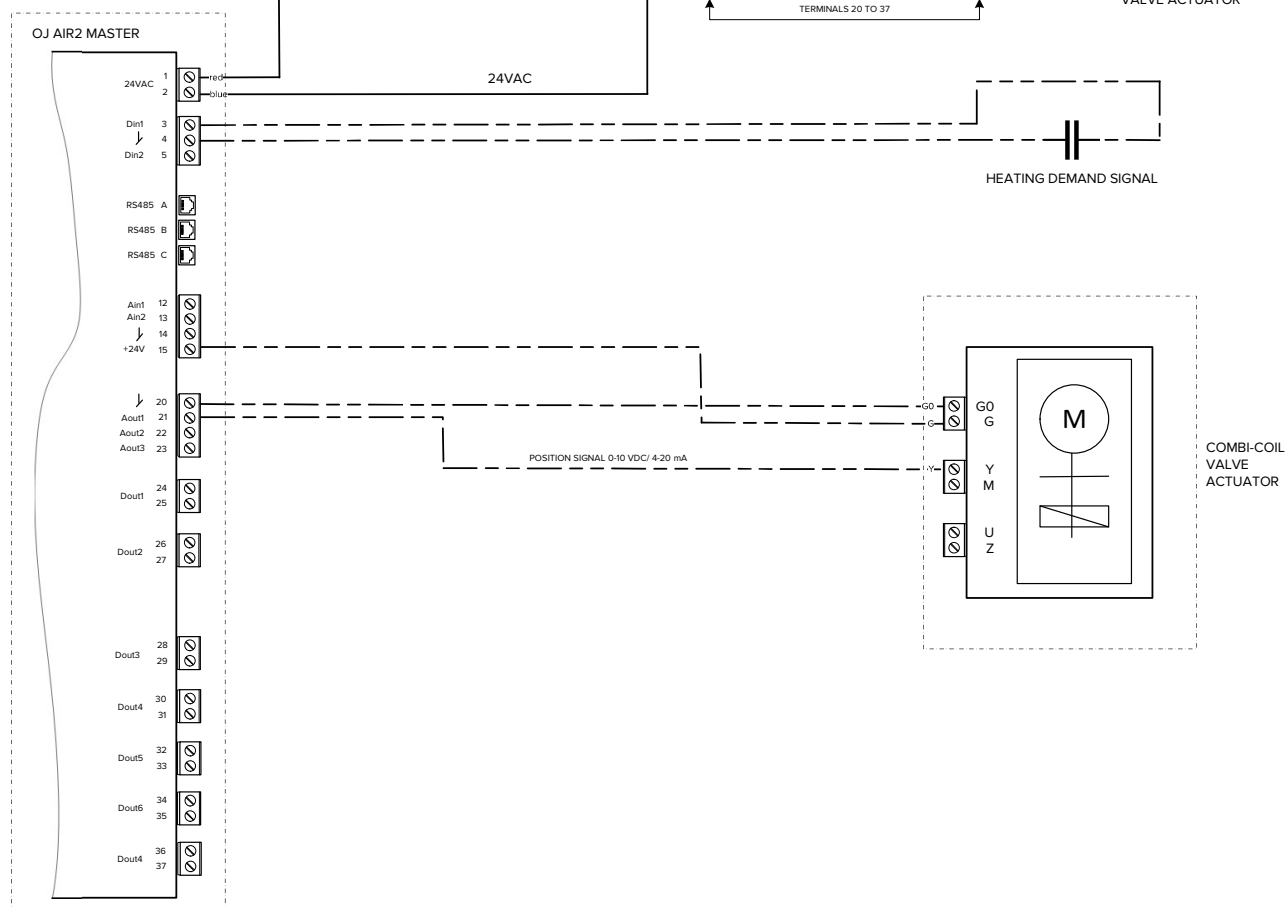
—	Factory wired
—○—	Communication/ RJ12
---	Enclosed unit
---	Field wiring required

DRAWN BY: IP	O X Y G E N 8	
APPROVED:	DRAWING TITLE: VENTUM/ FIELD WIRING/HUMIDITY CONTROL	
REVISION: 1.0	DRAWING NUMBER: 028-05-0020-05	CONTROLLER: OJ
DATE: 2021-09-30	SCALE: NTS	SIZE: 8" x 11.5"
		SHEET: 1 of 1

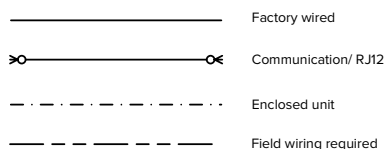
Refer to standard wiring diagrams for panel wiring details.

Diagram illustrating the OJ Air2 Master control unit and its connection to the Valve Actuator.

The OJ Air2 Master unit is shown with terminals 1 to 19 at the top and terminals 20 to 37 at the bottom. The unit includes a display screen, buttons, and a status indicator. The Valve Actuator unit is shown to the right, connected to the OJ Air2 Master via a cable. The Valve Actuator also features a display screen, buttons, and a status indicator.

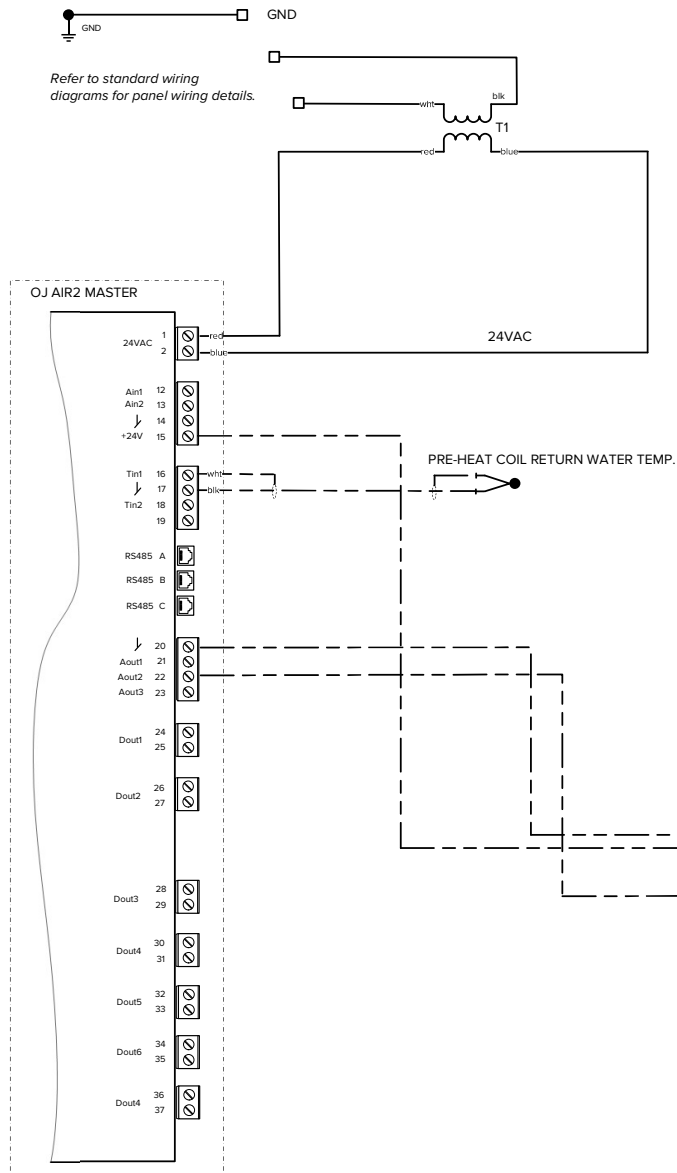


Legend

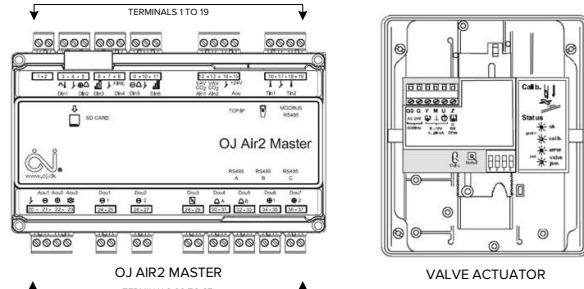


DRAWN BY: IP	O X Y G E N 8		
APPROVED:	DRAWING TITLE: VENTUM/ FIELD WIRING/COMBI-COIL		
REVISION: 1.0	DRAWING NUMBER: 028-05-0020-06		CONTROLLER: OJ
DATE: 2021-09-30	SCALE: NTS	SIZE: 8" x 11.5"	SHEET: 1 of 1

Wiring Diagram



Controller Details



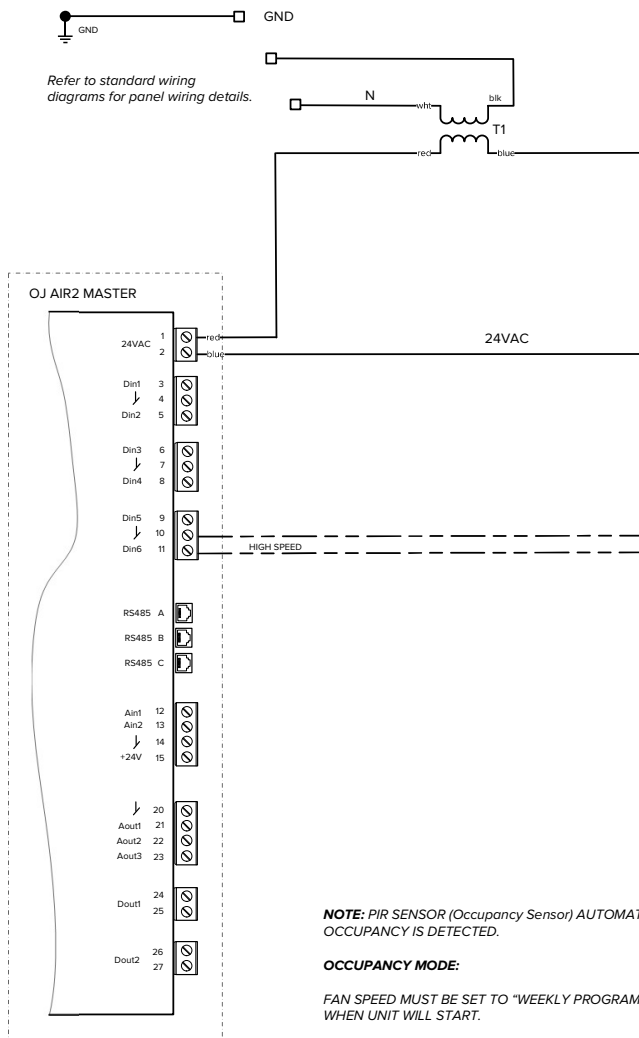
NOTE: Refer to standard wiring diagrams for default controls wiring.

Legend

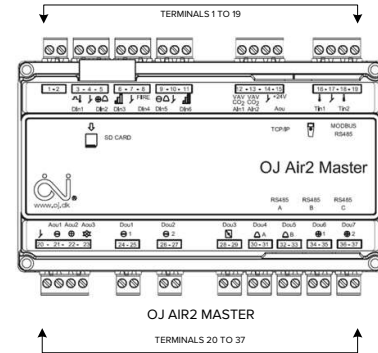
- Factory wired
- Communication/ RJ12
- - - - - Enclosed unit
- - - - - Field wiring required

DRAWN BY:	O X Y G E N 8		
IP	DRAWING TITLE:		
APPROVED:	VENTUM/ FIELD WIRING/HYDRONIC PRE-HEAT		
REVISION:	DRAWING NUMBER:		CONTROLLER:
1.1	028-05-0020-07		OJ
DATE:	SCALE:	SIZE:	SHEET:
2021-09-30	NTS	8" x 11.5"	1 of 1

Wiring Diagram



Controller Details



NOTE: PIR SENSOR (Occupancy Sensor) AUTOMATICALLY START OR INCREASE VENTILATION TO THE HIGH SPEED SETPOINT WHEN OCCUPANCY IS DETECTED.

OCCUPANCY MODE:

FAN SPEED MUST BE SET TO "WEEKLY PROGRAM" AND ALL PRESET ON/OFF TIME MUST BE DELETED, PIR SENSOR TO DETERMINE WHEN UNIT WILL START.

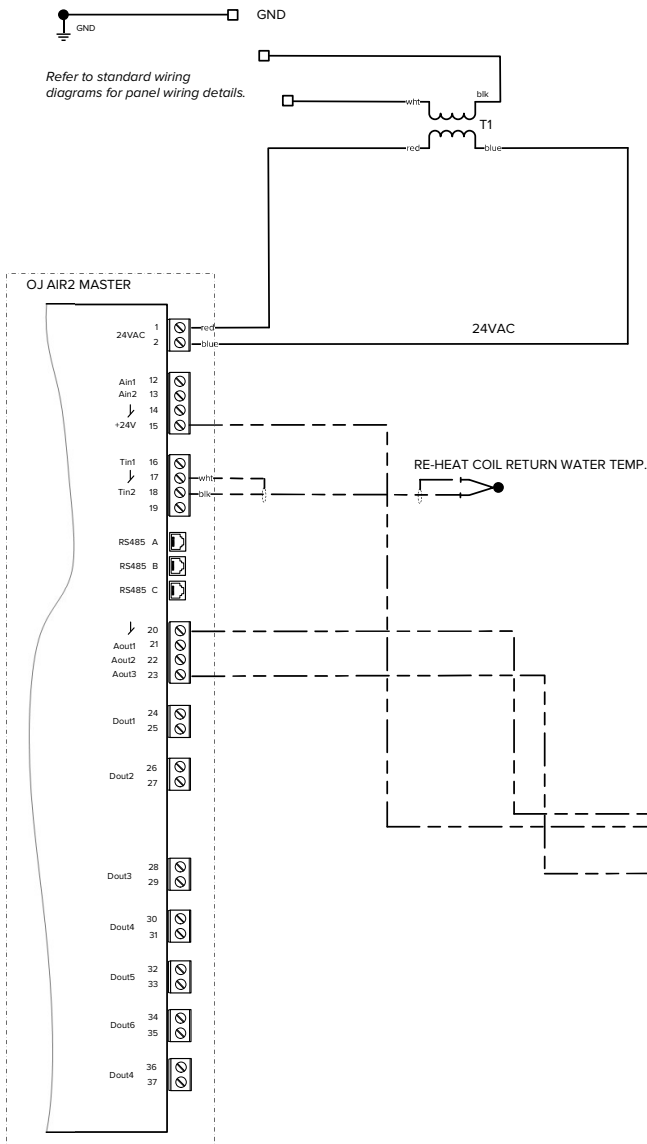
MINIMUM RUN TIME CAN BE SET UNDER INSTALLER=> OPERATING => EXTERNAL HIGH INPUT.

Legend

	Factory wired
	Communication/ RJ12
	Enclosed unit
	Field wiring required

DRAWN BY: IP	O X Y G E N 8		
APPROVED:	DRAWING TITLE: VENTUM/ FIELD WIRING/OCCUPANCY MODE		
REVISION: 1.0	DRAWING NUMBER: 028-05-0020-08		CONTROLLER: OJ
DATE: 2021-09-30	SCALE: NTS	SIZE: 8" x 11.5"	SHEET: 1 of 1

Wiring Diagram

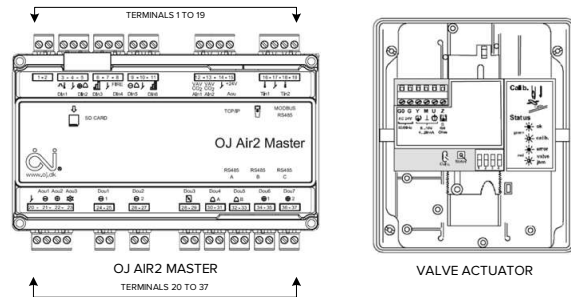


NOTE: Refer to standard wiring diagrams for default controls wiring.

Legend

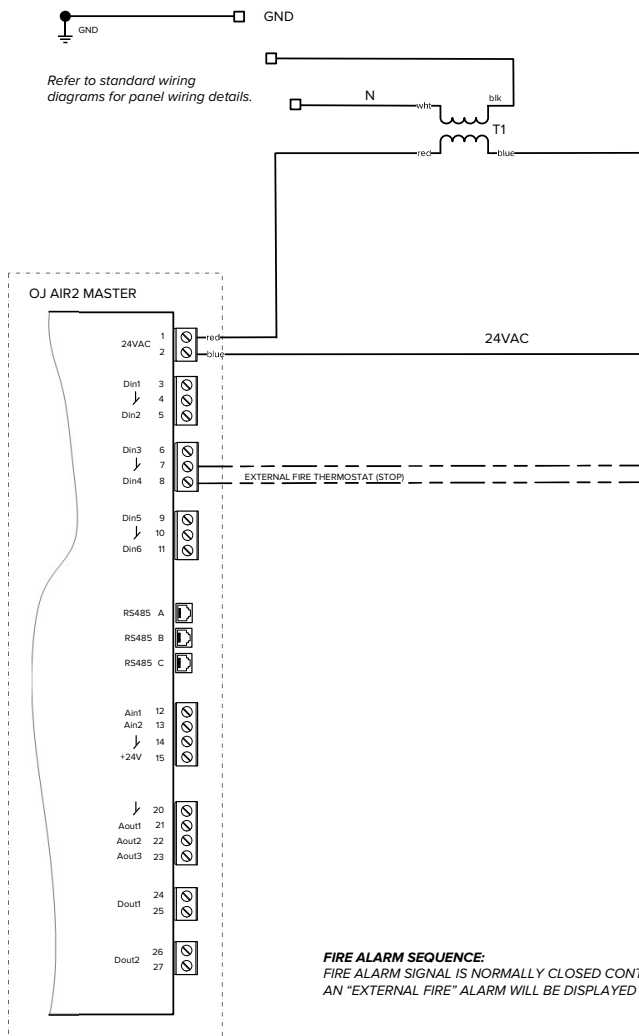
- Factory wired
- Communication/ RJ12
- - - - - Enclosed unit
- - - - - Field wiring required

Controller Details

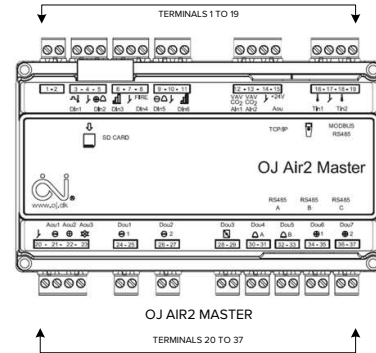


DRAWN BY:	O X Y G E N 8		
APPROVED:	DRAWING TITLE: VENTUM/ FIELD WIRING / HYDRONIC RE-HEAT ONLY		
REVISION:	DRAWING NUMBER: 028-05-0020-09		CONTROLLER: OJ
DATE:	2021-09-30	SCALE: NTS	SIZE: 8" x 11.5"
			SHEET: 1 of 1

Wiring Diagram



Controller Details

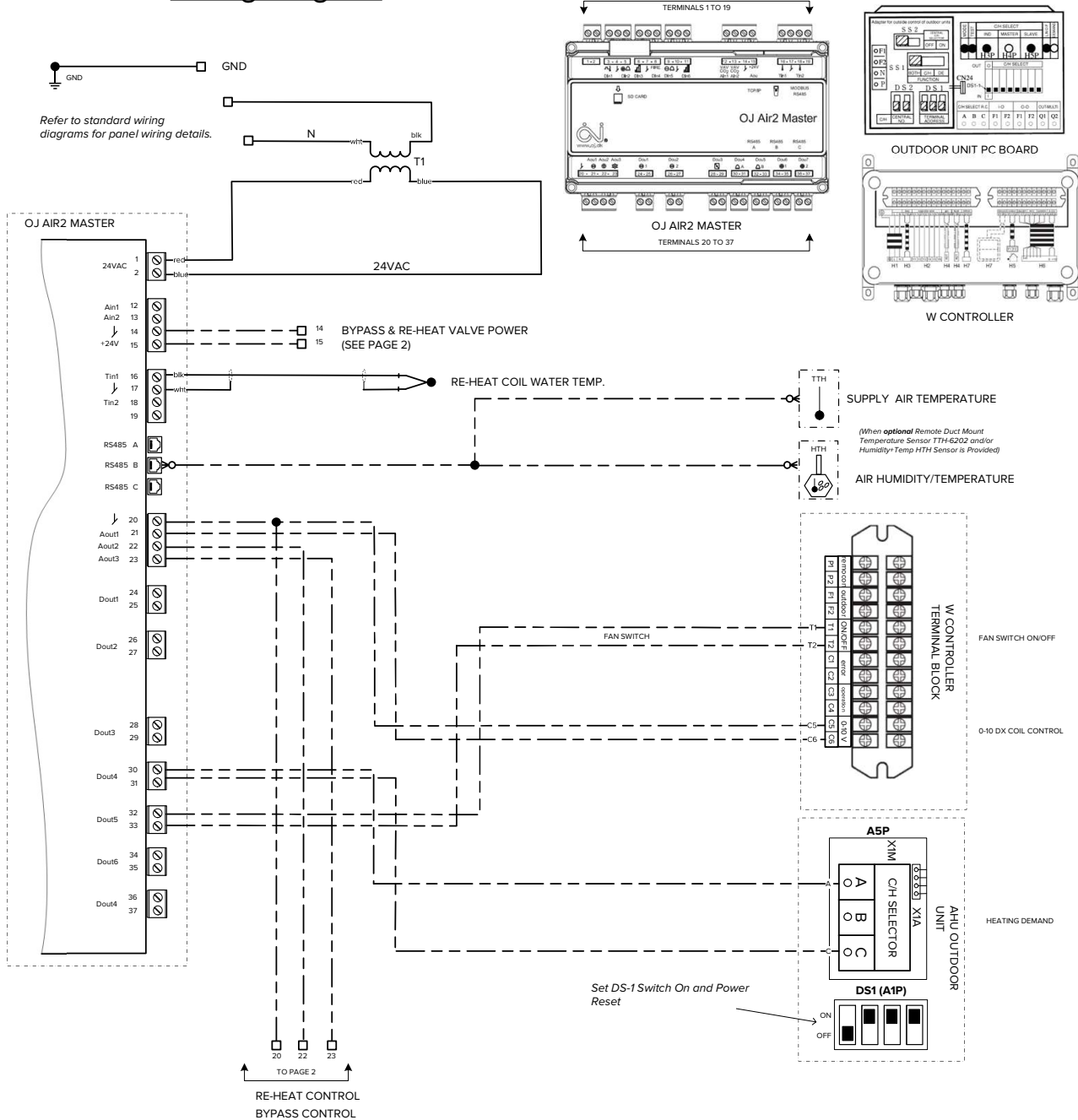


Legend

—	Factory wired
—○—	Communication/ RJ12
— · · · · ·	Enclosed unit
— — — — —	Field wiring required

DRAWN BY: IP	O X Y G E N 8		
APPROVED:	DRAWING TITLE: VENTUM/ FIELD WIRING/FIRE ALARM		
REVISION: 1.0	DRAWING NUMBER: 028-05-0020-10		CONTROLLER: OJ
DATE: 2021-09-30	SCALE: NTS	SIZE: 8" x 11.5"	SHEET: 1 of 1

Wiring Diagram



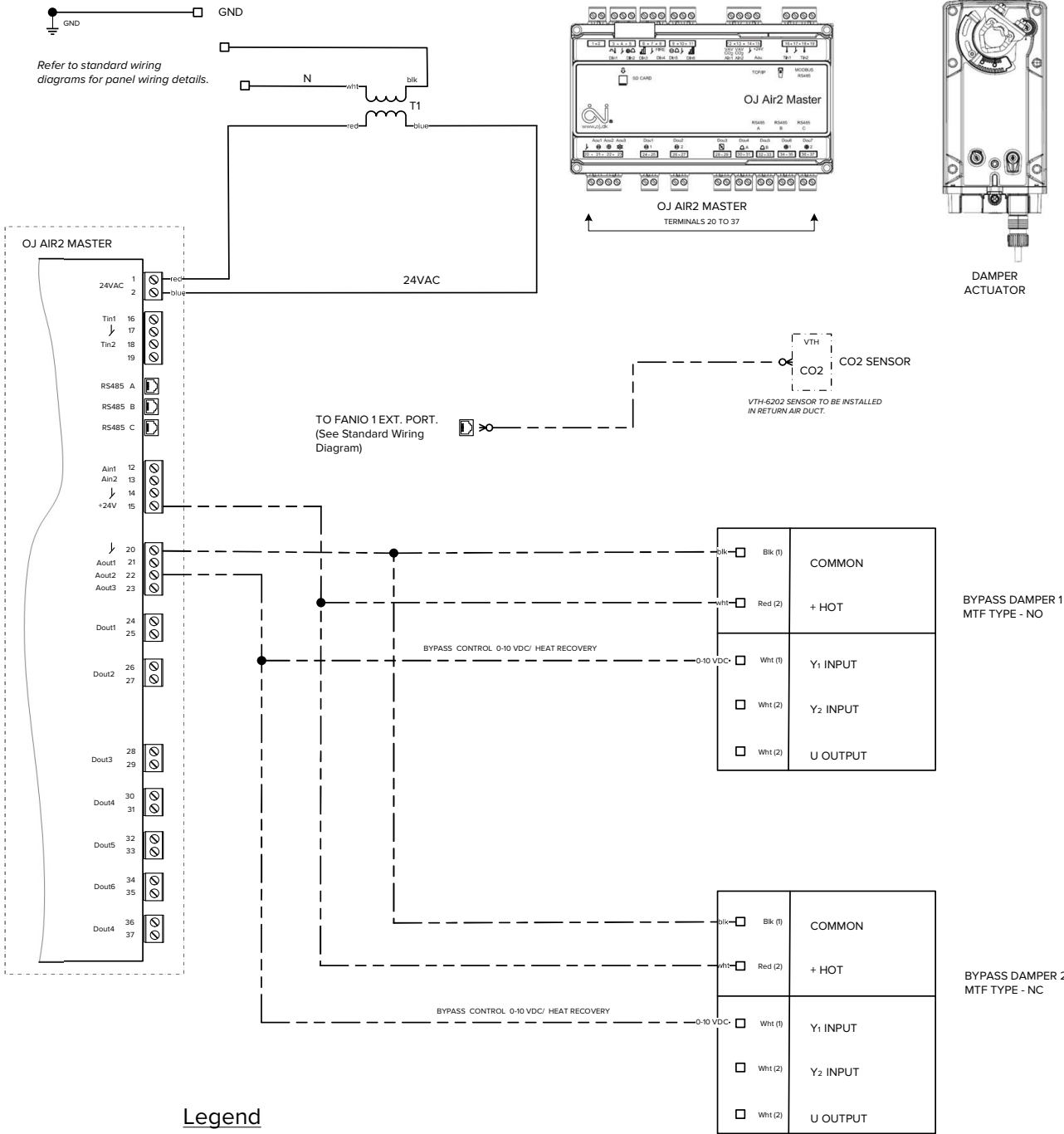
Legend

	Factory wired
	Communication/ RJ12
	Enclosed unit
	Field wiring required

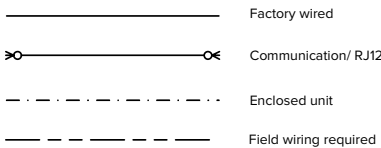
DRAWN BY: IP	O X Y G E N 8		
APPROVED:	DRAWING TITLE: VENTUM/ FIELD WIRING/ DX COIL/ HYDRONIC RE-HEAT (w/EKE)+ HEAT RECOVERY		
REVISION: 1.0	DRAWING NUMBER: CUSTOM210929		CONTROLLER: OJ
DATE: 2021-09-29	SCALE: NTS	SIZE: 8" x 11.5"	SHEET: 1 of 2

Wiring Diagram

Controller Details



Legend



DRAWN BY: IP	O X Y G E N 8		
APPROVED:	DRAWING TITLE: VENTUM/ FIELD WIRING/CO2 CONTROL+ EXTERNAL BYPASS		
REVISION: 1.1	DRAWING NUMBER: CUSTOM210930		CONTROLLER: OJ
DATE: 2021-09-30	SCALE: NTS	SIZE: 8" x 11.5"	SHEET: 1 of 1