THERMOSTAT USER MANUAL

(TX1007 SERIES)

TRUEWAY™

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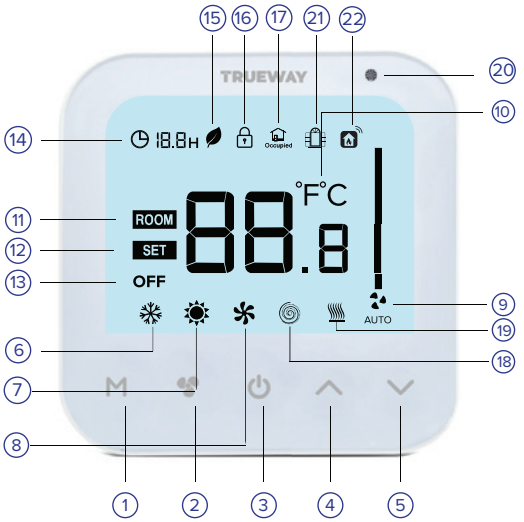
INDEX

MODEL NUMBERS

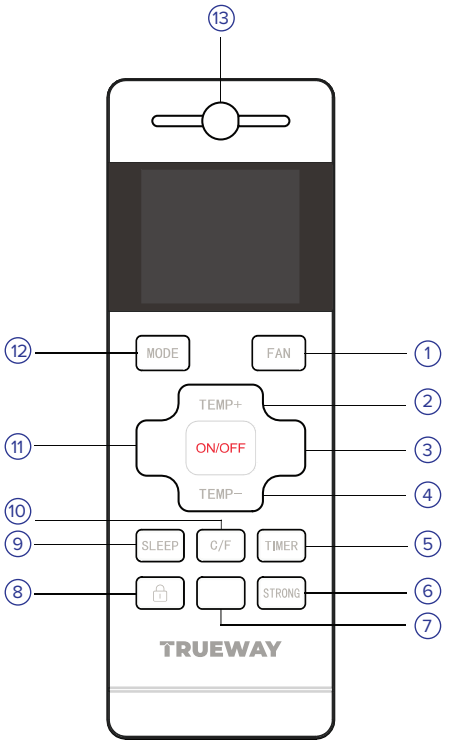
STANDALONE	MODBUS THERMOSTAT
☐ TX1007OF024-V2	☐ TX1007ME024-V2M
☐ TX1007OF220-V2	☐ TX1007MEO220-V2M
☐ TX1007ML024-V2	☐ TX1007OF220-VAV-M
☐ TX1007ML220-V2	☐ TX1007ML024-VAV-M
☐ TX1007EC024-V2	
☐ TX1007EC220-V2	
☐ TX1007OF220-VAV	
☐ TX1007ML024-VAV	

STANDALONE THERMOSTAT WITH REMOTE CONTROLLER	MODBUS THERMOSTAT WITH REMOTE CONTROLLER
☐ TX1007OF024-V2R	☐ TX1007ME024-V2MR
☐ TX1007OF220-V2R	☐ TX1007MEO220-V2MR
☐ TX1007ML024-V2R	
☐ TX1007ML220-V2R	
☐ TX1007EC024-V2R	
☐ TX1007EC220-V2R	

LCD DISPLAY & KEYS DESCRIPTION



1. Mode Key
2. Fan key
3. Power key
4. Up key
5. Down key
6. Cooling Mode
7. Heating Mode
8. Ventilation Mode
9. Fan speed Auto,Low, Medium, High
10. Temperature unit C/F
11. Room Temperature
12. Set-Point
13. Thermostat Off
14. Timer on-off
15. Energy Saving Mode
16. Key Pad Lock
17. Hotel Key Card
18. Compressor (Reserved for model with compressor)
19. AUX HEAT (Reserved for model with AUX HEAT)
20. INFRARED SENSOR (Reserved for model with IR)
21. Reserved
22. Reserved



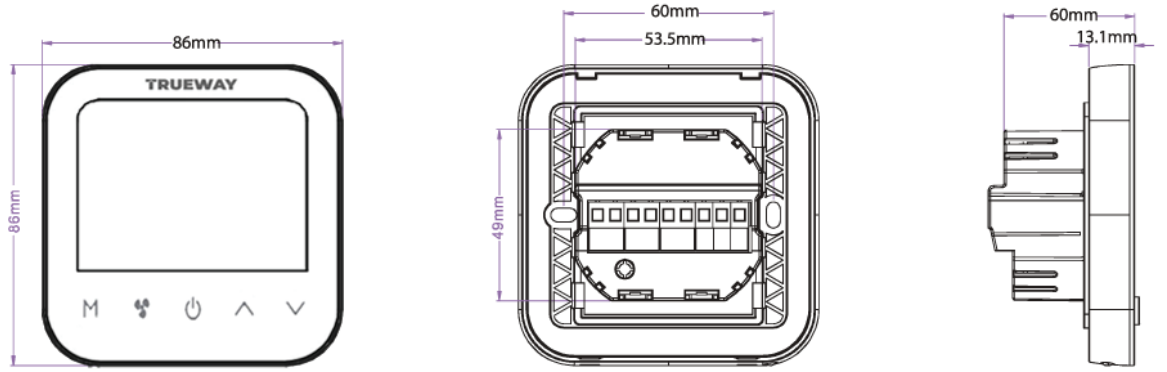
1. Fan button(for selecting high,medium,low and auto)
2. Up button(for Temperature increase+)
3. Reserved
4. Down button (for Temperature decrease-)
5. Timer (for thermostat/system turning on-off)
6. Strong(for strong/high speed fan)
7. Reserved
8. Key pad lock/unlock(press for 5 seconds)
9. Sleep(for weak/low speed fan)
10. Temperature Unit ˚C/˚F
11. Reserved
12. Mode button (for selecting Cooling/Heating / Ventilation Mode)
13. Reserved

FUNCTION

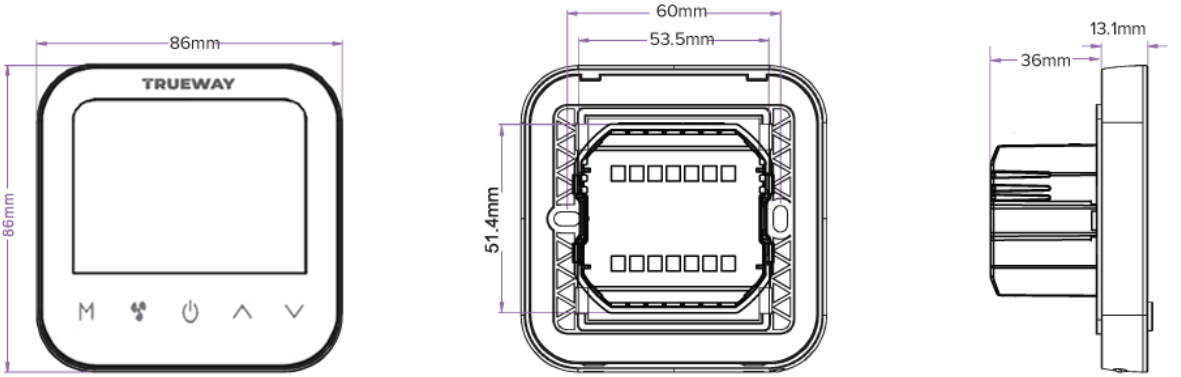
- Application options for 2-pipe FCU/ECM FAN/VAV units cooling or heating.
- Manual 3-speed and Auto Fan Control.
- Key Pad Lock.
- Either Room Temperature or Set-point is displayed.
- Back-light time setting.

PRODUCT DIMENSION

PRODUCT DIMENSION FOR 9-TERMINAL BACK BOX



PRODUCT DIMENSION FOR 14-TERMINAL BACK BOX



OPERATION INSTRUCTION

VALVE CONTROL

Thermostat acquires the room temperature via its integrated sensor and maintains the set-point by modulating/ON-OFF output.

POWER ON OR OFF

By pressing POWER button "⏻"

to change the power On/Off status.

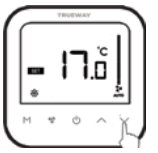
Turn off System

Turn on System

INCREASE / DECREASE

In the ON state, press UP "▲" or "▼" DOWN to increase or decrease the setting parameters.

Increase set-point



Decrease set-point

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HEAT/COOL/VENT

Pressing the MODE "M" button to select heat "☀" Cool "❄" or Ventilation "✻" mode.

Note: There's NO ventilation mode in VAV models

Cooling Mode

Heating Mode

Ventilation Mode

TEMPERATURE DISPLAY

Either the room temperature or the set-point is displayed.

Display room temperature when no key press.

Display set-point while pressing UP or DOWN button

FAN OPERATION (NOT AVAILABLE IN VAV MODELS)

Fan operation available for manual mode and automatic 3-speed mode and the fan control types can be configured as Ao = Automatic fan only, CO = Constant (Manual) fan only, BO = Both auto &manual in ISU code #3 In Automatic 3-Speed mode : The fan will be switched upon the differences between room temperature and the set-point as per following logic.

In the Cooling Mode :
When the room temperature is 3°C or above higher than set-point , the fan will be switched to Auto high.
When the room temperature is 1.5~2.5 °C higher than set-point, the fan will be switched to Auto medium.
When the room temperature is 0.5~1°C higher than set-point, the fan will be switched to Auto low.

In the Heating Mode :
When the room temperature is 3°C or above lower than set-point, the fan will be switched to Auto high.
When the room temperature is 1.5~2.5°C lower than set-point, the fan will be switched to Auto medium.
When the room temperature is 0.5~1°C lower than set-point, the fan will be switched to Auto low.

Cooling Mode
Auto Fan High

Cooling Mode
Auto Fan Medium

Cooling Mode
Auto Fan Low

Cooling Mode
Auto Fan OFF

If ISU code #3 is set to AO (Automatic Mode Only) the fan speed will be switched upon the differences of room temperature & set point only. It can not change the fan speed by pressing FAN "✻" button.
If ISU code #3 is set to CO (Manual mode only) , the fan can be switched to the selected speed via control output Fh,Fm, Fl by pressing FAN "✻" button.
If ISU code #3 is set BO (both Manual and automatic mode), the fan can be switched to manual high, medium and low speed or automatic 3-speed by pressing FAN "✻" button.

Manual Fan high speed

Manual Fan Medium speed

Manual Fan Low speed

While ISU code#16 sets to 1, fan off differential temperature 0.0˚C, fan on differential temperature 0.5˚C

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KEY LOCK

The default status of Key lock is all buttons available and it can be changed in ISU mode. Key lock function includes the following settings : All buttons are available (Default) Mode button is locked out Fan and mode button are locked out All buttons are locked.

Key pad lock

ENERGY SAVING MODE

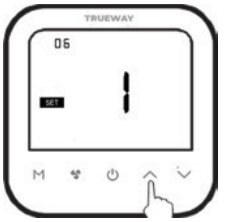
A dry contact(such as hotel key card) or button press (By pressing MODE "**M**" button for 3 seconds can activate the energy saving mode with icon appearing on the screen). The dry contact can be selected as normal open or normal close in ISU code#17. If activated by dry contact,all buttons will be locked except the multi-key for ISU, if activated by button press, press "⏻" POWER button can stop energy saving mode.If energy saving mode is activated, the set-point will be changed to remote setback heating set-point and cooling set-point in ISU code#18 &19 or via remote BMS Modbus points. For heating mode, the range of remote setback heating set-point is from 10˚C to 21 ˚C and default value is 18˚C .The value can be changed with step of 0.5 ˚C. For cooling mode, the range of remote setback cooling set-point is from 22 ˚C to 32 ˚C and default value is 26 ˚C. The value can be changed with step of 0.5 ˚C.The energy saving mode which activated by button press will not be memorized when thermostat power cut-off.

Energy saving mode activated

Hotel Key card activated

RS-485 ID SETTING AND CHECKING

Press MODE "M" and POWER "⏻" buttons together for 5 seconds to enter into ISU settings, press UP "⮝" or DOWN "⮟" to check ISU code, while you select ISU item 06 press M, the number will be flashing with SET , press UP or DOWN to select modbus ID from 1-64, and press FAN "🌀" button to save and exit directly. Note: For VAV models, press SET "◎" button to save instead.



TIMER ON-OFF

In the thermostat ON/OFF status, press and hold POWER button "⏻" until clock area " 00H" is flashing, press UP "⮝" or DOWN "⮟" button to select the time for ON/OFF the thermostat,select " 01H " for one hour, select " 02H"for 2 hours...select "12H" for 12 hours, The timer ON-OFF range available in 1...12 hours, 1 hour per step. Press FAN"🌀" button to confirm.
Note: For VAV models, Press SET "◎" button to confirm instead.

Timer for turning on

Timer for turning off

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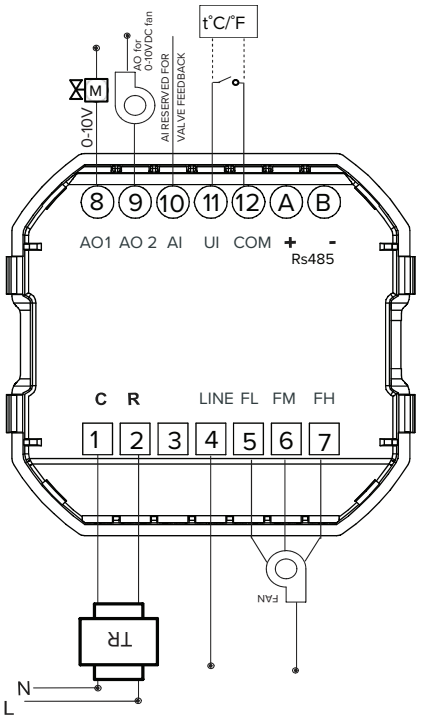
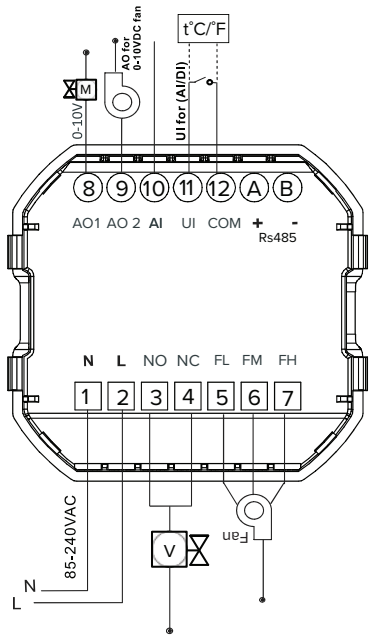
WIRING DIAGRAM

TX1007 MODBUS



TX1007ME024-V2/TX1007ME024-V2R

NO	TERMINALS	DESCRIPTION
1	C	24V NEUTRAL
2	R	24V ACTIVE
3		
4	LINE	LINE FOR FAN
5	FL	LOW SPEED FAN
6	FM	MEDIUM SPEED FAN
7	FH	HIGH SPEED FAN
8	AO1	0-10VDC ACTUATOR
9	AO2	0-10VDC ECM FAN
10	AI	VALVE FEEDBACK
11	UI	AI (REMOTE SENSOR) & DI (KEY CARD)
12	COM	COM FOR AO & UI
A	+	RS485 MODBUS
B	-	RS485 MODBUS



TX1007MEO220-V2/TX1007MEO220-V2R

NO	TERMINALS	DESCRIPTION
1	N	NEUTRAL LINE IN
2	L	LIVE LINE IN
3	NO	VALVE OPEN
4	NC	VALVE CLOSE
5	FL	LOW SPEED FAN
6	FM	MEDIUM SPEED FAN
7	FH	HIGH SPEED FAN
8	AO1	0-10VDC ACTUATOR
9	AO2	0-10VDC ECM FAN
10	AI	RESERVED FOR VALVE FEEDBACK
11	UI	AI (REMOTE SENSOR)& DI (KEY CARD)
12	COM	COM FOR UI& AO
A	+	RS485 MODBUS
B	-	RS485 MODBUS

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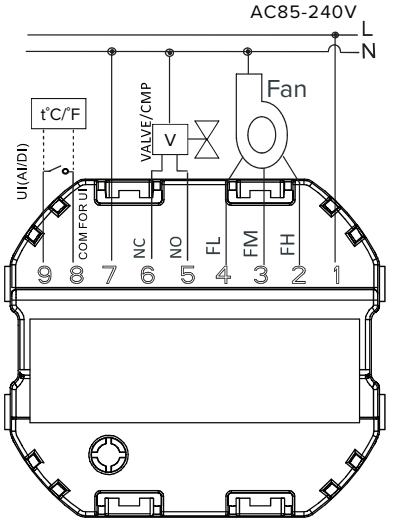
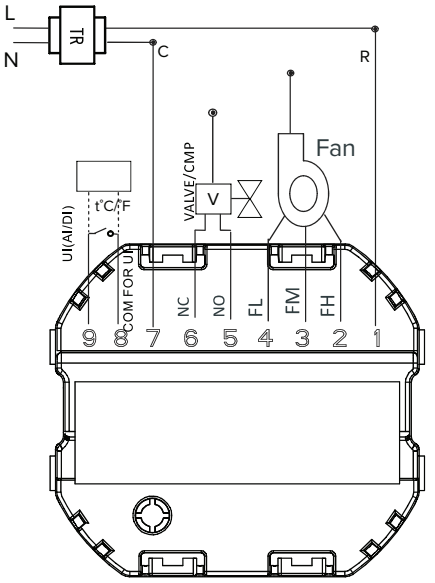


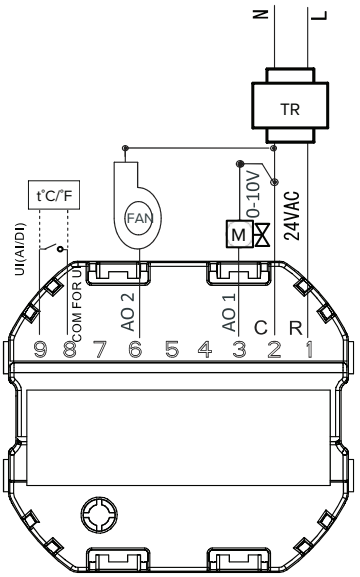
TX1007OF220-V2/TX1007OF220-V2R

NO	TERMINALS	DESCRIPTION
1	L	LIVE LINE IN
2	FH	HIGH SPEED FAN
3	FM	MEDIUM SPEED FAN
4	FL	LOW SPEED FAN
5	NO	NO FOR VALVE/ COMPRESSOR
6	NC	NC FOR VALVE/ COMPRESSOR
7	N	NEUTRAL LINE IN
8	COM	COM FOR UI
9	UI	UNIVERSAL INPUT AI(REMOTE SENSOR)&DI(KEY CARD)



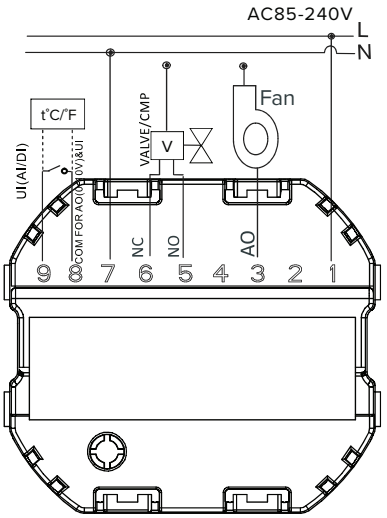
TX1007OF024-V2/TX1007OF024-V2R

NO	TERMINALS	DESCRIPTION
1	R	24V ACTIVE
2	FH	HIGH SPEED FAN
3	FM	MEDIUM SPEED FAN
4	FL	LOW SPEED FAN
5	NO	NO FOR VALVE/ COMPRESSOR
6	NC	NC FOR VALVE/ COMPRESSOR
7	C	24V NEUTRAL
8	COM	COM FOR UI
9	UI	UNIVERSAL INPUT AI(REMOTE SENSOR)&DI(KEY CARD)



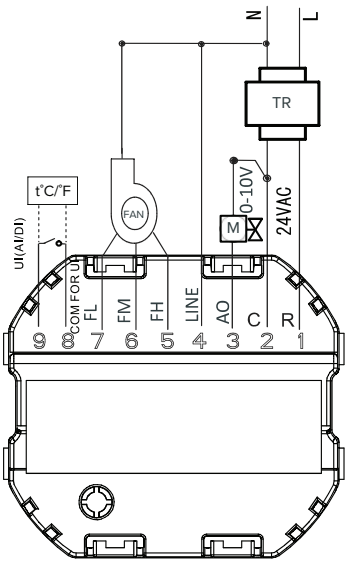
TX1007EC024-V2/TX1007EC024-V2R

NO	TERMINALS	DESCRIPTION
1	R	24V ACTIVE
2	C	24V NEUTRAL/COM FOR AO (0-10VDC)
3	AO1	ANALOG OUTPUT 0-10VDC FOR ACTUATOR
4		
5		
6	AO2	ANALOG OUTPUT 0-10VDC FOR ECM FAN
7		
8	COM	COM FOR UI
9	UI	UNIVERSAL INPUT AI(REMOTE SENSOR)&DI(KEY CARD)



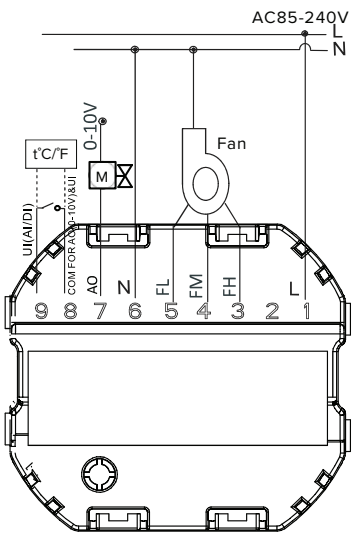
TX1007EC220-V2/TX1007EC220-V2R

NO	TERMINALS	DESCRIPTION
1	L	LIVE LINE IN
2		
3	AO	ANALOG OUTPUT 0-10VDC FOR ECM FAN
4		
5	NO	NO FOR VALVE/ COMPRESSOR
6	NC	NC FOR VALVE/ COMPRESSOR
7	N	NEUTRAL LINE IN
8	COM	COM FOR AO(0-10VDC) & UI
9	UI	UNIVERSAL INPUT AI(REMOTE SENSOR)&DI(KEY CARD)



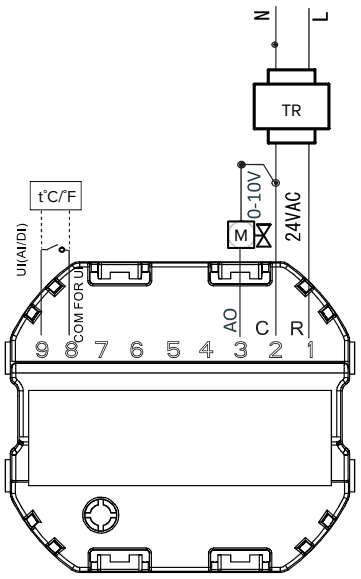
TX1007ML024-V2/TX1007ML024-V2R

NO	TERMINALS	DESCRIPTION
1	R	24V ACTIVE
2	C	24V NEUTRAL/COM FOR AO (0-10VDC)
3	AO	ANALOG OUTPUT 0-10VDC FOR MODULATING ACTUATOR
4	LINE	LINE FOR FAN
5	FH	HIGH SPEED FAN
6	FM	MEDIUM SPEED FAN
7	FL	LOW SPEED FAN
8	COM	COM FOR UI
9	UI	UNIVERSAL INPUT AI(REMOTE SENSOR)&DI(KEY CARD)



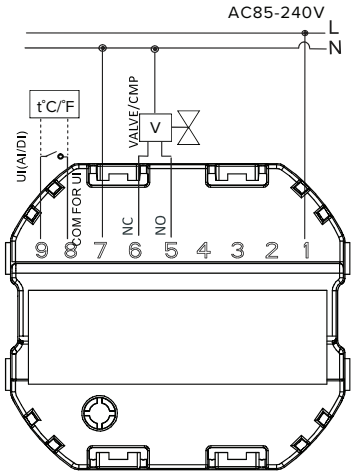
TX1007ML220-V2/TX1007ML220-V2R

NO	TERMINALS	DESCRIPTION
1	L	LIVE LINE IN
2		
3	FH	HIGH SPEED FAN
4	FM	MEDIUM SPEED FAN
5	FL	LOW SPEED FAN
6	N	NEUTRAL LINE IN
7	AO	ANALOG OUTPUT 0-10VDC FOR MODULATING ACTUATOR
8	COM	COM FOR AO(0-10VDC) & UI
9	UI	UNIVERSAL INPUT AI(REMOTE SENSOR)&DI(KEY CARD)



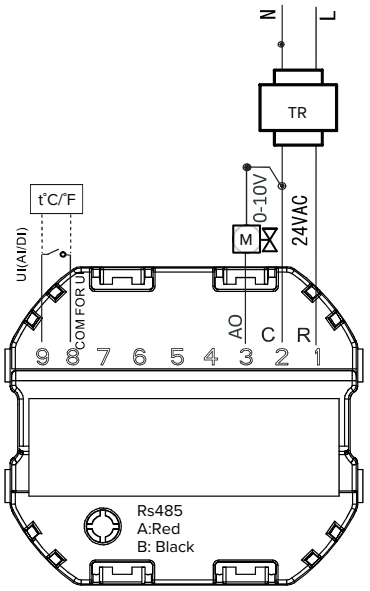
TX1007ML024-VAV

NO	TERMINALS	DESCRIPTION
1	R	24V ACTIVE
2	C	24V NEUTRAL/COM FOR AO
3	AO	ANALOG OUTPUT FOR 0-10V VALVE
4		
5		
6		
7		
8	COM	COM FOR UI
9	UI	AI(REMOTE SENSOR)& DI(KEY CARD)



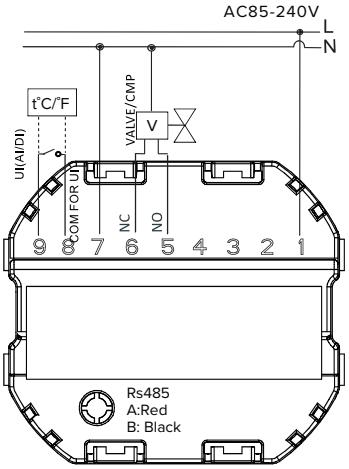
TX1007OF220-VAV

NO	TERMINALS	DESCRIPTION
1	L	LIVE LINE IN
2		
3		
4		
5	NO	NO FOR VALVE/ COMPRESSOR
6	NC	NC FOR VALVE/ COMPRESSOR
7	N	NEUTRAL LINE IN
8	COM	COM FOR UI
9	UI	AI(REMOTE SENSOR)& DI(KEY CARD)



TX1007ML024-VAV-M

NO	TERMINALS	DESCRIPTION
1	R	24V ACTIVE
2	C	24V NEUTRAL/COM FOR AO
3	AO	ANALOG OUTPUT FOR 0-10V VALVE
4		
5		
6		
7		
8	COM	COM FOR UI
9	UI	AI(REMOTE SENSOR)& DI(KEY CARD)



TX1007OF220-VAV-M

NO	TERMINALS	DESCRIPTION
1	L	LIVE LINE IN
2		
3		
4		
5	NO	NO FOR VALVE/ COMPRESSOR
6	NC	NC FOR VALVE/ COMPRESSOR
7	N	NEUTRAL LINE IN
8	COM	COM FOR UI
9	UI	AI(REMOTE SENSOR)& DI(KEY CARD)

ABOUT OUR BUSINESS

Trueway is a renowned brand of digital room Thermostat, delivering high quality and durable products. Quality checking is a tedious procedure and it has to undergo many steps including manual and system generated. But we aren't in a hurry, because we believe ‘the success stands in customer satisfaction’, so we have to ensure the complete perfection of our products.

TRUEWAY IS ONE OF THE POPULAR THERMOSTAT SUPPLIERS GLOBALLY

Highly qualified and dedicated staff, consistent updates and innovation made a name for itself in global markets. Our dedicated team is constantly striving to be more connected, forward-looking, and customer-centric. Our mission is to comprehend the upcoming trends of Thermostats in Air Conditioners and forces that will shape Air Conditioning Accessories in the future and move swiftly to prepare for what's to come. We are trying to expand our business all over the world to create a portfolio that brings to the world with top Brand for Thermostat products that anticipate and satisfy our esteemed customer’s upcoming demands. Our product specialists will help our esteemed customers to choose the right product from our wide range to meet their expectations. Our main objective is to provide higher quality products with a viable price dispatched on schedule.

In order to manage and meet our ever-growing demand for our Brand of Thermostat products, we are strategically located at Asia’s business hub Hongkong. Trueway products are manufactured with high quality components and designed by world's most proficient engineers. Also, we deeply understand the significance of after sales service and ensure complete customer satisfaction with our Thermostat Supplier. We are facilitated with a dedicated team of sales and service; they are always equipped and ready to cater to the needs of all our esteemed customers. We have a well-qualified R&D team of air conditioning products with many years of experience reflecting high degree of technology integration and development capabilities. Trueway’s ultimate goal is to achieve a global leadership in air conditioning solution provider’s status.

We eventually center around making long term value for our clients and employees through our passionate and disciplined management which together drive sustained competitive advantage.

The user manual is subject to change without notice. For (ISU)Setup function settings and options, and for Modbus and Wi-Fi model, please contact Trueway team to get master catalog for commissioning.

Thank you for choosing Trueway's product !

For Technical support contact : ✉ **info@truewaycontrols.com**