TA692FC-MOD-UOW

Modbus Thermostat

Operating voltage	$230V_{AC}$ ±10%
Measuring range	0 ~ 40°C, 0.1°C
Mode of communication	Modbus

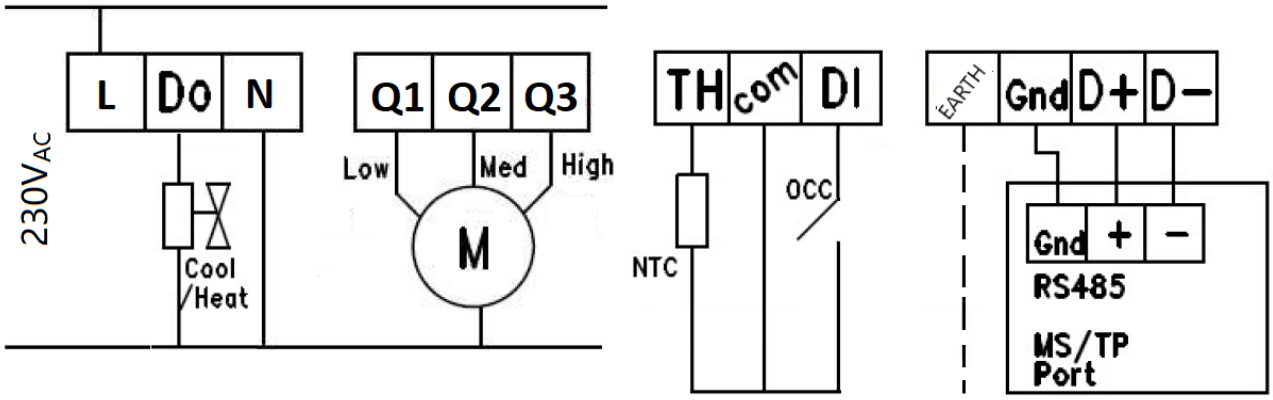
Features

- Color and texture of casings: matte white
- Color and texture of lens: gloss white
- [Optional] UV oxidant-retardant treatment
- For Fan Coil Units
- 3.5" VA TN with backlit, lite grey text on dark background
- Touch keys x5
- Flush-mount installation in an 86x86 / British single-gang wall-box
- Thin profile. 16.5mm in thickness
- Inputs x2
  - ■ Open/close type
    to access card reader for occupancy detection
    alternative: to valve fault signal generator
  - ■ Resistive
    to remote temperature sensor
- Outputs x4
  - ■ On/Off type
  - ■ Standard three-fan-speed control
  - ■ Heat/Cool valve control
- [Optional accessory] External temperature sensor on a 3-meter cable

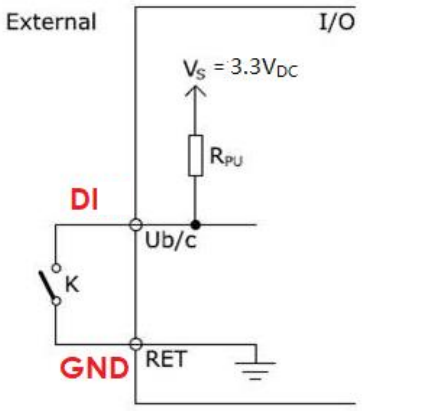
Technical Specification

Measuring temperature	0 ~ 40°C
Controlling temperature	5 ~ 35°C
Measuring accuracy/resolution	± 0.5°C
Relay contact rating at Q1 Q2 Q3 DO	$230V_{AC}$ 2(1)A max 50/60 Hz
Sensing Element:	103AT
Terminals	2 mm^2 cable
Operating Temperature	0 ~ 50 °C
Operating Voltage	$230V_{AC}$ ±10%
Operating Humidity	5 ~ 95%R.H. non-condensing

Wiring Diagram

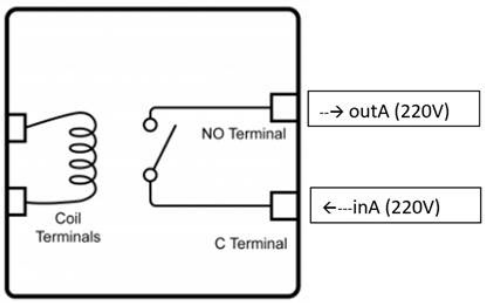


Input (OCC)



K is the monitored external switch.

Outputs (Q_1 Q_2 Q_3 DO)



- Fan control Q_1 Q_2 Q_3. When Auto Fan mode is selected, the outputs are determined by the difference between setpoint temperature and ambient temperature or airpipe temperature
- Heat / Cool valve control. DO. Similarly, its state is determined by the abovementioned mechanism.
- If external temp sensor is absent, MCU processes the reading from embedded thermistor.

LCD Icons and Touch Keys

Keys	Function
M	Menu Key Short press: change mode Long hold: Internal setting
	Fan Key cycles through Low→Med→High→Auto→Low
	Power On/Off Key
△	Setting Up Key
▽	Setting Down key

#	Definition
6	Measured Temperature When embedded thermistor is selected, "**Room**" appears above the reading. When external temperature sensor is selected but is physically not present, "**E1**" appears to alert users.
7	Set Point tempertaure
8	-reserved-
9	-reserved-
10	Vacant indicator valid for DI as occupancy sensor only
11	External temperature sensor
12	Heat mode
13	Cool mode
14	Fan cluster. Auto Fan Mode Indicator, Low, Med, High fan speeds indicators
15	~~Auto H/C Changeover Mode~~

Internal Parameter Menu

#	Items	Selection	Default
P00	System Mode	Cool / Heat (CL/HE)	**CL**
P01	Temp Sensor	Internal / External (In / En)	**In**
P02	Forced Ventilation	Disabled / Enabled (dis / en)	**En**
P04	Calibration (*)	-4°C ~ 4°C	0
P05	Setback for Heat	0.5°C ~ 4°C	4
P06	Setback for Cool	0.5°C ~ 4°C	4
P07	Deadband	1.0°C ~ 4.0°C	2
P08	Fan Span for Heat	1.0°C ~ 4.0°C	1
P09	Fan Span for Cool	1.0°C ~ 4.0°C	1

Content in shaded cells not supported in f/w releases

(*) Calibration applies equally to embedded thermistor and external sensor

Advanced Parameter Menu

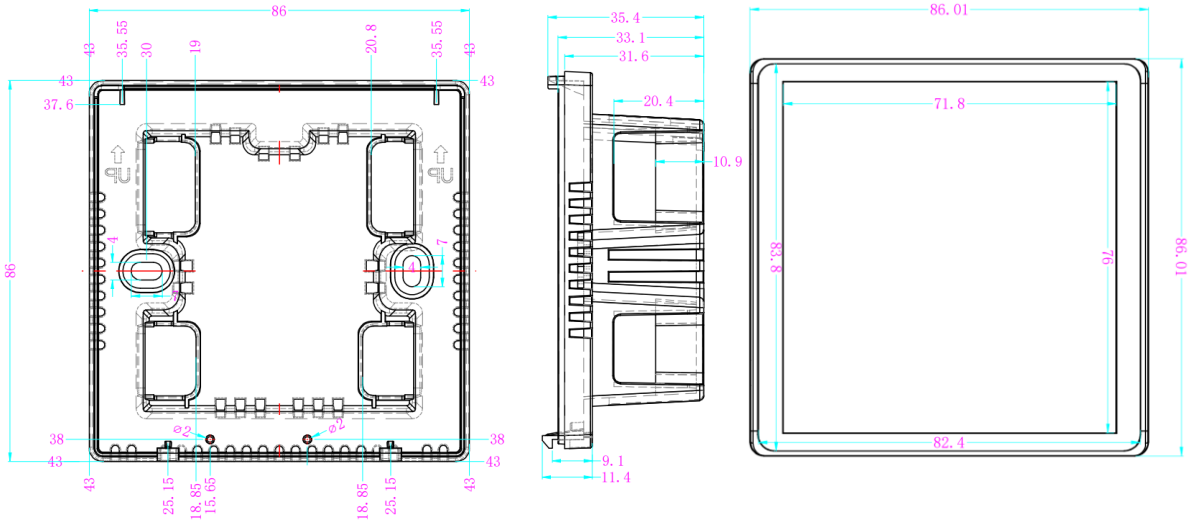
#	Items	Selection	Default
P20	Restore Default	Disable / Enable (dis / en)	dis
P21	MAC Address	1 ~ 127	1
P22	Baud rate	9600 / 19200 / 38400	96

Product Appearance

Dimensions / Outline

Protruding part – 86.0mm(W) x 86.0mm(H) x 16.5mm(D)

Inside wall-box – 64.0mm(W) x 66.5mm(H) x 26.6mm(D)



TA692FC-MOD-UOW ModBus Map

RS-485 Modbus RTU: Data – 8bit, Stop bit – 1, None parity, Baud rate: 9600/19200/38400, Device: 1-127

Register Address	Parameter Description	Data Type	Value	Range
Function code 01 Read Coils				
0001	INT EXT temp select	Bit	0 / 1	Int. thermistor / Ext. temp. sensor
0002	Force ventilation	Bit	0 / 1	Enabled / Disabled
0003	2/4 Pipe	Bit	0 / 1	2 Pipe / 4 Pipe
0004	Power	Bit	0 / 1	Off / On
Function code 02 Read Discrete Inputs				
0001	Econ status	Bit	0 / 1	Comfort/Econ
0002	Digital Input status	Bit	0 / 1	Open/Closed
Function code 03 Read Holding Registers				
0001	Setpoint Temp in Heat mode	Signed 16	50...350	5…35°C
0002	Setpoint Temp in Cool mode	Signed 16	50...350	5…35°C
0003	System Mode	Signed 16	0 / 1	Heat/ Cool
0004	Fan Modes	Signed 16	0 / 1 / 2 / 3	Auto Fan / Fan Low / Med / High
0005	Heat Setback	Signed 16	5...40	0.5...4°C
0006	Cool Setback	Signed 16	5...40	0.5...4°C
Function code 04 Read Input Registers				
0001	Room Temperature	Signed 16	0….400	0...40°C
0002	Calibration	Signed 16	-40 ~ 40	-4 ~ 4°C
0003	Fan Status	Signed 16	0 / 1 / 2 / 3	Auto Fan / Fan Low / Med / High
0006	External Sensor	Signed 16	0….400	0...40°C
Function code 05 Write Single Coil				
0001	INT EXT temp select	Bit	0 / 1	Int. thermistor / Ext. temp. sensor
0002	Force ventilation	Bit	0 / 1	Enabled / Disabled
0003	2/4 Pipe	Bit	0 / 1	2 Pipe / 4 Pipe
0004	Power	Bit	0 / 1	Off / On
Function code 06 Write Holding Registers				
0001	Setpoint Temp in Heat mode	Signed 16	50...350	5…35°C
0002	Setpoint Temp in Heat mode	Signed 16	50...350	5…35°C
0003	System Mode	Signed 16	0 / 1	Heat/ Cool
0004	Fan Modes	Signed 16	0 / 1 / 2 / 3 / 4	Off / Fan Low / Med / High / Auto
0005	Heat Setback	Signed 16	5...40	0.5...4°C
0006	Cool Setback	Signed 16	5...40	0.5...4°C

Content in shaded cells may not be supported in f/w releases for the model