

T7600 Modbus LCD Thermostat

T7600-TF21-...JS0, T7601-TF20-...JS0, T7600-TF20-...JS0, T7603-T000-...JF0
T7600-TB21-...JA0

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Designed to control heating and cooling through air conditioning unit in commercial and residential application

Typical applications include the control of fan coil units, floor heating, packaged terminal air conditioners and combination of heating and cooling equipment. As part of the system, T7600 series thermostat can control two-way or three-way valve and multiple-speed line voltage fan or ECM fan.

T7600 features with large LCD screen that displays the status of work mode (cooling, heating, air venting, floor heating), fan speed, indoor temperature and set point etc. T7600 are equipped with Modbus communication, which provide information to building automation system in order to implement enhanced energy saving strategies.

Features and Benefit

Large backlit LCD

LCD is larger than 40% of front area, provide real time status of the environment with intuitive and clear user interface

New installation method

New method without opening T7600 cover during installation, avoids the risk of components damage by screwdriver

Suitable for various installation box

Small back part which is suitable for most installation boxes available in APAC and Europe market

New ECM fan & 2 prop valves model

New model support new applications: ECM fan and 1 or 2 prop valves at the same time.

EEPROM storage of data

Thermostat retains the last events and parameter settings after power loss.

Multiple color

There are two standard color: White and Black. Other colors also can be customized

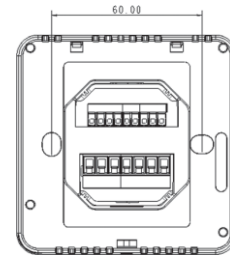
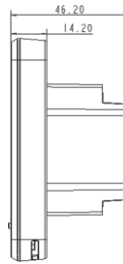
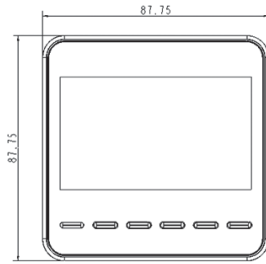
Push button for user operation

User can change working mode, temperature set point and fan speed via push buttons, easy for operation

Modbus communication

Modbus communication with adjustable address and baud rate.

Product dimensions



T7600 series thermostat product number and applications

Product number	Application	Fan control	Valve control	Others control	Input
T7601-TF20-...JS0	2-pipe FCU, On/Off valve	ECM fan	1 On/Off Valve		1 BI, Occupancy 1 Remote sensor
	4-pipe FCU, On/Off valve	ECM fan	2 On/Off Valves		
	2-pipe FCU, 3-wire On/Off valve	ECM fan	1 3-wire On/Off Valve		
	2-pipe FCU with floor heating, On/Off valve	ECM fan	1 On/Off Valve	1 Floor Heating	
	2-pipe FCU with TiO2/ESP, On/Off valve	ECM fan	1 On/Off Valve	1 TiO2/ESP	
	Water source heat pump	ECM fan		1 Compressor 1 Revert Valve	
	2-pipe FCU, Prop valve	ECM fan	1 Proportion Valve		
T7600-TF21-...JS0	2-pipe FCU, Prop valve	3-speed Fan	1 Proportion Valves		1 BI, Occupancy 1 Remote sensor
	4-pipe FCU, Prop valve	3-speed Fan	2 Proportion Valves		
T7600-TF20-...JS0	2-pipe FCU, On/Off valve	3-speed Fan	1 On/Off Valve		1 BI, Occupancy 1 Remote sensor
	4-pipe FCU, On/Off valve	3-speed Fan	2 On/Off Valves		
	2-pipe FCU, 3-wire On/Off valve	3-speed Fan	1 3-wire On/Off Valve		
	2-pipe FCU with floor heating, On/Off valve	3-speed Fan	1 On/Off Valve	1 Floor Heating	
	2-pipe FCU with TiO2/ESP, On/Off valve	3-speed Fan	1 On/Off Valve	1 TiO2/ESP	
	Water source heat pump	3-speed Fan		1 Compressor 1 Revert Valve	
T7600-TB21-...JA0	2-pipe FCU, Prop valve	3-speed Fan	1 Proportion Valve		1 x 0-10VDC input for feedback signal 1 BI, Occupancy 1 Remote sensor
T7603-T000-...JF0	Floor heating			1 Floor Heating	1 BI, Occupancy 1 Remote sensor
T7601-TF21-9JS1 (new model)	2-pipe FCU, Prop valve	ECM fan	1 Proportion Valves		1 BI, Occupancy 1 Remote sensor
	4-pipe FCU, Prop valve	ECM fan	2 Proportion Valves		

IMPORTANT: The T7600 series Modbus LCD thermostat is intended to provide and input to equipment under normal operating conditions. Where failure or malfunction of the thermostat could lead to personal injury or property damage to the controlled equipment or other property, additional precautions must be designed into the control system. Incorporate and maintain other devices, such as supervisory or alarm systems or safety or limit controls, intended to warn of or protect against failure or malfunction of the thermostat.

Technical specifications

T7600 series Modbus LCD thermostat

Supply Voltage	100-240 VAC 50/60 Hz
Power consumption	Max. 5VA
Terminations	Screw terminal block
AO output (ECM Fan, Proportion Valve)	0-10VDC output, up to 20mA
Relay output (Fan, Valve, Tio2 and etc.)	relay (SPST) output, 2.2A(I _R), cosφ 0.98; 3.6A (I _X), cosφ 0.98; 5A(Resistive)
AI input (T7600-TB21-9JA0 only)	0-10VDC input
BI input	Dry contact signal
Remote sensor	Support JCI 10K NTC type, e.g. TE-636S-1; China 10K NTC type, SA1200-002
Communication	Modbus RTU
Wire size	Screw terminal block: 1.0-1.5mm ² rigid conductor for 5mm connector; 0.14-1.5 mm ² rigid conductor for 3.5mm connector
Mounting	Flush-mounted
Temperature measurement range	0 to 49°C (32 to 99°F)
Temperature accuracy	1°C (2°F)
Default temperature set point range	5.0°C to 35.0°C in 0.5°C increments
Ambient conditions	Operating: 0 to 40°C (32 to 104°F), 10 to 90% RH, noncondensing, 29°C (85°F) maximum dew point
	Storage: -20 to 60°C (-4 to 140°F), 5 to 95% RH, noncondensing
Protection class	IP20
Pollution degree	2
Heat and fire resistance category	D
Temperature for ball pressure test	125°C
Limitation of operating time	Continuous
Product category	Type 1.B P42(74)
Internal temperature sensor type	10K NTC JCI type II
Shipping weight	Approx 300g
Compliance	CE mark
	RCM mark, Australia/NZ emissions compliance
	RoHS, REACH, WEEE

Note

1. User can configure one model to different applications by parameter setting
2. All above models in table have Modbus communication, remote sensor input (remote sensor need to be ordered separately, TE-636S-1) and binary input for occupancy detection
3. All above models in table are white color, other colors can be customized, but there are MOQ (Minimum Order Quantity) requirement
4. I_R is steady-state current of FCU motor, and I_X is transient current of FCU motor
5. BI input function support Occupancy, Dew point and etc. according to configuration parameter.

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