T7600 Modbus LCD Thermostat

Product Bulletin

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

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The T7600 series Modbus LCD thermostats are 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.

Table 1: Features and Benefits

Features	Benefits
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
Modbus communication	Modbus communication with adjustable address and baud rate
Suitable for various installation box	Small back part which is suitable for all installation boxes available in China and Europe market
EEPROM storage of data	Thermostat retains the last events and parameter settings after pow-er 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

IMPORTANT: The T7600 series Modbus LCD thermostat is intended to provide and input to equipment under nor-mal 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.

Product dimensions

87.75 87.75 46.20 14.20 60.00 87.75 87.75
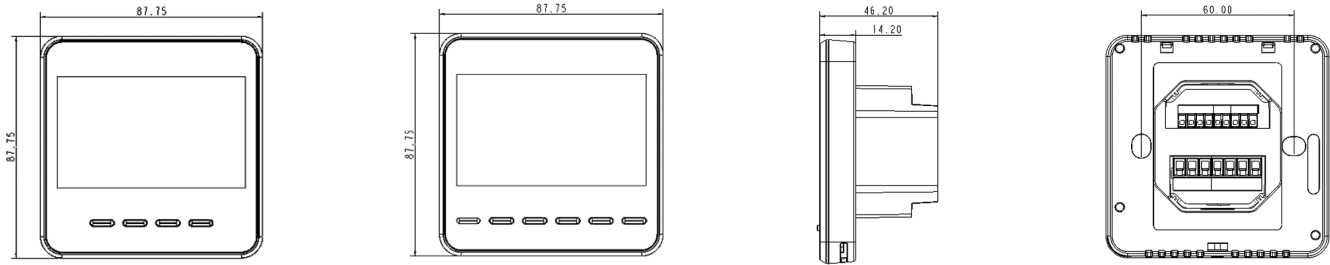
Table 2: T7600 series thermostat product code number and corresponding application

Product code number	Application	Valve control	Others control	Fan control
T7601-TF20-9JS0	2-pipe FCU, relay valve	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	N/A	1 x 0-10VDC output for ECM fan
	4-pipe FCU, relay valve	2 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	N/A	
	2-pipe FCU, 3-wire relay valve	2 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	N/A	
	2-pipe FCU with floor heating, relay valve	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	
	2-pipe FCU with TiO2/ESP, relay valve	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	
	Water source heat pump	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	
	2-pipe FCU, AO valve	1 x 0-10VDC output, match 100k ohms actuator impedance	N/A	
T7600-TF21-9JS0	2-pipe FCU, AO valve	1 x 0-10VDC output, match 100k ohms actuator impedance	N/A	
	4-pipe FCU, AO valve	2 x 0-10VDC output, match 100k ohms actuator impedance	N/A	
T7600-TF20-9JS0	2-pipe FCU, relay valve	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	N/A	3 x relay (SPST) output for three speed fan , 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8
	4-pipe FCU, relay valve	2 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	N/A	
	2-pipe FCU, 3-wire relay valve	2 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	N/A	
	2-pipe FCU with floor heating, relay valve	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	
	2-pipe FCU with TiO2/ESP, relay valve	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	
	Water source heat pump	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	
T7603-T000-9JF0	Floor heating	1 x relay (SPST) output, 2A(I_R), cosΦ 0.8; 3A (I_X), cosΦ 0.8	N/A	N/A

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

Technical specifications

T7600 series Modbus LCD thermostat

Supply Voltage	110-240 VAC 50/60 Hz
Power consumption	Max. 5VA
Terminations	Screw terminal block
Communication	Modbus RTU
Wire size	Screw terminal block: 1.0-1.5mm² rigid conductor for 5mm connector; 0.14-1.5 mm² rigid conductor for 3.5mm connector
Mounting	Flush-mounted
Temperature measurement range	0 to 49℃ (32 to 99°F)
Temperature accuracy	1℃ (2°F)
Default temperature set point range	5.0℃ to 35.0℃ in 0.5° increments
Ambient conditions	Operating: 0 to 40℃ (32 to 104°F), 10 to 90% RH, noncondensing, 29℃ (85°F) maximum dew point
	Storage: -20 to 60℃ (-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℃
Limitation of operating time	Continuous
Product category	Type 1.B P42(74)
Internal temperature sensor type	10K NTC type II
Shipping weight	Approx 300g
Compliance	CE mark
	RCM mark, Australia/NZ emissions compliance
	RoHS, REACH, WEEE

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