

T9800 Series Touch Screen Thermostats



Strong system compatibility, adopt the BACnet or Modbus communication protocol



Built in humidity sensor, easy environmental control for BA system



T9800-TB21-1JAO support 0~10 VDC input, directly access CO₂ or IAQ sensor signal, simplify design and save cost



The thermostats are powerful and can be used to control 2-pipe FCU / 4-pipe FCU, Single-speed / 3-speed motors / ECM motors, and on / off valves / regulating valves. Its TiO₂ / ESP features can make the environment to cleaner. The occupancy mode supports comfortable and more energy-efficient temperature setting. The BI input supports dry contact signals from door cards, PIR (Passive Infrared) sensor, dew point sensors, filter's differential pressure switch, etc. They support connect to remote sensors, sensor type JCI 10K NTC Temperature Sensors like TE-636S-1.

The products apply to multiple scenarios, for example, they can be used for FCU, single-speed AHUs, floor heating systems, water source heat pumps, and boilers.

| Product Number | Application | Fan Control | Valve Control | Others Control | Input | Power Supply |
|-----------------|--|------------------|-------------------------|--------------------------------|--|--------------|
| T9800-TF21-1JSO | 2-pipe FCU, Prop valve | 3-speed Fan | 1 Proportion Valves | | 1 BI, Occupancy 1 Remote sensor | 24 VAC |
| | 4-pipe FCU, Prop valve | 3-speed Fan | 2 Proportion Valves | | | |
| | 2-pipe FCU, On / Off valve | ECM fan | 1 On / Off Valve | | | |
| | 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 TiO ₂ / ESP, On / Off valve | ECM fan | 1 On / Off Valve | 1 TiO ₂ / ESP | | |
| | Water source heat pump | ECM fan | | 1 Compressor 1 Revert Valve | | |
| | 2-pipe FCU, Prop valve | 3-speed Fan | 1 Proportion Valve | | | |
| | 2-pipe FCU, Prop valve with Floor Heating | ECM fan | 1 Proportion Valve | 1 Floor Heating | | |
| | 2-pipe FCU, Prop valve with Radiator | ECM fan | 1 Proportion Valve | 1 Radiator | | |
| | AHU | Single speed fan | 1 Proportion Valve | 1 Damper | | |
| T9800-TF20-1JSO | 2-pipe FCU, On / Off valve | 3-speed Fan | 1 On / Off Valve | | 1 BI, Occupancy 1 Remote sensor | 100~240 VAC |
| | 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 TiO ₂ / ESP, On / Off valve | 3-speed Fan | 1 On / Off Valve | 1 TiO ₂ / ESP | | |
| | Water source heat pump | 3-speed Fan | | 1 Compressor 1 Revert Valve | | |
| | Boiler | | | Boiler | | |
| T9800-TB21-1JAO | 2-pipe FCU, Prop valve | 3-speed Fan | 1 Proportion Valve | | 1 x 0~10 VDC input for feedback signal 1 BI, Occupancy 1 Remote sensor | |

Technical Specifications

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| Supply Voltage | 100~240 VAC 50 / 60 Hz 20~30 VAC 50 / 60 Hz, only for T9800-TF21-1JS0 |
| Power consumption | Max. 5 VA |
| Terminations | Screw terminal block |
| AO output(ECM Fan, Proportion Valve) | 0~10 VDC output, up to 20 mA |
| Relay output (Fan, Valve, Tio2 and etc.) | relay (SPST) output, 2.2 A (I_R), $\cos \Phi$ 0.98; 3.6 A (I_X), $\cos \Phi$ 0.98; 5 A (Resistive) |
| Remote Sensor input | T9800 models support remote sensor, 10K NTC JCI type II, e.g. TE-636S-1 |
| BI input | Dry contact signal |
| Build-in Humidity Sensor | Accuracy $\pm 5\%$ |
| Analog Input | 0~10 VDC, only for T9800-TB21-1JA0 |
| Wire size | Screw terminal block: 1.0~1.5 mm ² rigid conductor for 5 mm connector; 0.14~1.5 mm ² rigid conductor for 3.5 mm 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 |
| Shipping weight | Approx 300 g |
| Compliance | CE mark |
| | RCM mark, Australia / NZ emissions compliance |
| | RoHS, REACH, WEEE |
| | BTL |

Note:

1. User can configure one model to different applications by parameter setting
2. I_R is steady-state current of FCU motor, and I_X is transient current of FCU motor
3. Remote sensor need to be ordered separately