

Product: T9800 Touch Screen Thermostat

Manufacturer: Johnson Controls [\[WEBSITE\]](#)

Description:

Touch screen thermostat for use with fan coil units

Protocols supported:

- BACnet MS/TP
- Modbus RTU



OVERVIEW

Fan Coil Unit thermostat

- Application selection direct from thermostat menu
- Networkable or stand-alone operation
- Heating & Cooling control
 - 4-pipe control of heating and cooling via 0-10vdc Analog Outputs
 - 2-pipe control of heating and cooling via 0-10vdc Analog Outputs
 - 2-pos (open/closed) heating and cooling valve control
- Fan Control
 - Single speed fan
 - 3-speed fan
 - ECM fan (0-10vdc)
- WSHP application available for 1 stage of compressor control and reversing valve (no aux heat)
- Adjustable minimum/maximum set point range

Features

- ✓ 24VAC
- ✓ Selectable for BACnet MS/TP or Modbus RTU
- ✓ All models have an analog input for remote temperature (JCI 10k NTC)
- ✓ Temperature override is available via BACnet
- ✓ Lockable buttons/user interface
- ✓ 1 Binary Input for heat/cool changeover, occupancy, dirty filter, etc
- ✓ Occupancy control via binary input or across the network (no built-in schedule)
- ✓ Adjustable minimum/maximum set point range

Comments/Observations (T9800-TF21-1JS0)

1. There is no means for occupied/unoccupied control if NOT networked. This thermostat has no internal time clock or scheduling.
2. Shiny black finish shows finger prints easily
3. Mounts on a 3-1/4" x 3-1/4" plate (included) – made to mount flush direct on wall
 - a. In APAC region they have a square box that is used
 - b. Possible box? [Multifix](#) | [Schneider Electric Global \(se.com\)](#)
- Touch screen – only the button areas are touch sensitive
4. Remote space temperature sensor input available for use as ZN-T (main sensor)
 - a. JCI 10k – *need to verify 10k type 2 or 3*
5. Easy to configure
6. When using modulating valves or ECM fan, the AO outputs are 0-10vdc. There is no way to re-range the output.
7. BACnet settings
 - a. MAC Address (0-128), addresses > 99 will be represented as MAC <minus> 100 plus a ① [at parameter number]
 - b. DeviceID = MAC address + 10000
 - c. Baud rate selectable auto, 9600 – 76800
8. BACnet points are available via MS/TP based on the application selected
9. Occupied mode temperature control changes based on 2-pipe or 4-pipe control
 - a. 4-pipe: Fixed 6°F deadband around ZNT-SP for heat/cool control- 3°F off setpoint will call for heat/cool
 - b. 2-pipe: Fixed 1°F deadband on ZNT-SP uses BI for hot/cold water available – 1°F off setpoint will call for heat or cool
 - i. Example: if hot water available (heat mode), when temperature drops 1°F below ZNT-SP, valve will control
10. Onboard setup parameters – 2 levels of menus (User & Service)

User Menu (partial)

Code/Param	Description
01	MAC Address for MS/TP
04	Button beep silence (01 = silence)
16	Key Lock
14	MS/TP Baud Rate
18	Units °C or °F

Service Menu (partial)

Code/Param	Description
01	Protocol (00: MS/TP)
04	Application (00 – 11)
12	BI-Function (03 = H/C changeover)
14	FAN-RST (1,2 or 3 speed fan)
15	FAN-DB (fan op in SP deadband)
16	UNOCC-FAN (fan mode in unocc)
19	OCC-OVRD (override OCC-S value)
22	ECM-RLY (enable for fan s/s via RO)
23	DEV-OBJ-ID-HI (manual DeviceID)
24	DEV-OBJ-ID-LO (manual DeviceID)

11. BACnet points (partial)

Point Type	Name	Description
MV:1317	OCC-OVRD	BAS Occupied-Unoccupied command
AI:1001	L-ZNT	Built-in temperature reading
AI:1002	L-ZNH	Built-in humidity reading
AI:1003	R-ZNT	Remote temperature reading
AV:1201	ZN-T	Space temperature reading (from L-ZNT or R-ZNT)
BI:1101	BI-STATUS	Binary input status (based on BI-FUNCTION setting)
MSV:1304	OCC-S	Effective occupancy status
AV:1202	ZNT-SP	Occupied space temperature setpoint
AV:1206	UNOCC-CLG-SP	Unoccupied mode cooling setpoint
AV:1207	UNOCC-HTG-SP	Unoccupied mode heating setpoint
BV:1109	MUTE	Keypad button silence

How to mount?

