



SZW118

Wireless Modulating Zone Thermostat



Description

The SZW118 has a 7-day time clock and is used for zoning applications with modulating zone damper and reheat or peripheral heat..

The SZW118 features:

- Stand-alone or network operation
- 7-day time clock
- Discharge air sensor input with high and low limits and reset
- Discharge air heating low limit
- Midpoint or endpoint modulation
- Analog or digital changeover
- Outdoor air sensor input with heating & cooling lockout
- Up to two stages for heating and/ or cooling and a modulating heating or cooling output
- Midpoint or endpoint modulation
- Adjustable delay on start-up and power-up for soft starts
- P+I control option on digital stages
- Smart recovery
- No backup battery required
- Minimum on/off times for HVAC equipment protection
- 32 character LCD display
- Six status LEDs
- Remote room sensing capability
- User setpoint adjustment limits
- Local and remote override capability
- System and fan switching with access lockouts
- Auxiliary time clock output (economizers)
- Fan interlock safety option
- Filter service input and indication
- Equipment monitoring inputs and indication
- External time clock input
- Energy management input for setpoint shift

- Fahrenheit or Celsius temperature display
- Access to programming or schedule may be locked out or limited with the use of an access code
- Uses ZigBee protocol, IEEE 802.15.4 compliant
- Self-healing, "plug & play" mesh network
- 100mW output at 2.4 GHz
- 150 to 500 feet typical in building range

Specifications

General

Accuracy: +/- 1°F at 75°F

Display resolution: +/-1°F (0.6°C)

Display: 32-character LCD

Programming: Front panel keypad or EIA RS485 interface

Communications: RS485, half duplex

Memory backup: Non-volatile EEPROM, no battery required

Program Setting: 2 events per day with 7 days per week and 2 holiday schedules (12 periods of up to 99 days each)

Override: Programmable from 0 to 255 minutes

Radio

Output: 100 mW at 2.4 GHz

Protocol: Zigbee, IEEE 802.15.4 compliant

Transmission interval: 5 sec.

Antenna: Internal to Unit

Power: 24 VAC (unit transformer may be used)

Open field range:

Gateway = 1000 ft.

Router / Repeater = 1000 ft.

Bridge = 1000 ft.

In building range: 150 to 500 ft. (typical range, actual range depends heavily on building structure, makeup, and layout)

Max devices: 15 wireless devices per gateway (QW1010A) or multi-bridge (QW2100)

Environmental

Operating temperature: 32 to 131°F (0 to 55°C)

Operating humidity: 0 to 100% RH, non-condensing

Storage temperature: 14 to 140°F (-10 to 60°C)

Electrical

Supply voltage: 24 VAC +/- 20%

Inputs: Built-in and remote platinum RTDs, and momentary override

Range: Room Temp: 40 to 90°F (built-in or remote)

Outdoor Air Temp: -40 to 160°F (remote)

Discharge Air Temp: 0 to 150°F (remote)

Outputs: The SZW118 has 6 digital (SPST dry contact, 24 VAC @ 2 A).

Common mode rejection: 100 db @ 60 Hz

Power Consumption: 8 VA max.

Specification Suggestions

Microprocessor-based room thermostats shall have a built in keypad and display for programming and scheduling, and utilize a 7 day time clock with four setback intervals per day. Thermostats shall be of the low voltage type.

Thermostats shall have a limited temporary setpoint adjustment, definable in programming, and a local override button with remote override capability. The status of all outputs shall be monitored locally through the use of the keypad and display. Thermostats shall support outdoor air temperature heating and cooling lockouts, discharge air temperature high and low limits. Thermostats shall utilize two modulating outputs for zone damper and heating or cooling. An adjustable delay on power up shall be available for soft start of systems on power loss.

All system and fan switching shall be done through the microprocessor and must allow for disabling. The ability to edit operating control parameters shall be password protected via a user-definable security access code. The thermostat housing shall be off-white or white and mounted 60" above the finished floor. The keypad, unoccupied override and RS485 communications jacks shall be accessible, without requiring the removal of the housing. Thermostats must support non-volatile memory, so that in the event of power loss, all programmed operating parameters shall be unaffected without the use of battery backup. All control functions shall continue in the event of a communications failure.

Thermostats shall provide both remote wireless and local communications in accordance with Zigbee IEEE 802.15.4 and EIA RS485 standards. All firmware communications protocol and command codes shall be published, open and non-proprietary. Room thermostats shall be model SZW118 as manufactured by TCS Basys Controls.

Ordering Information

Part #	Description
SZW118	Wireless Programmable 7-day thermostat with modulating zone damper control and reheat or peripheral heat

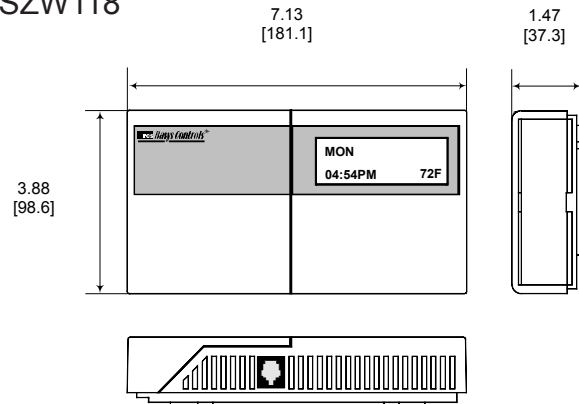
SZW118 Accessories

SZW244	Wireless input modules
TS2000	Remote sensor, room mount
TS3000	Remote sensor, room mount, decorator style

Dimensions

Note: inches [mm]

SZW118



NOTE: Specifications subject to change without notice.