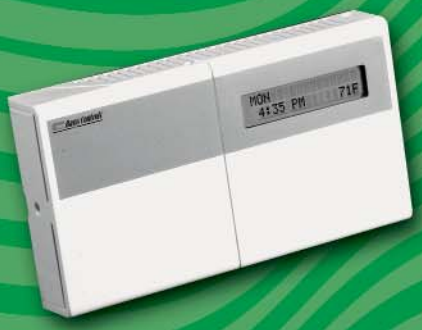
Submittal Data

TCS Basys Controls®



SZ1020 Series

Programmable 7-Day Thermostat

SUPERSTAT™ Communicating Thermostats

Description

The SZ1020 Series has a 7-day time clock. The SZ1022 is designed to control conventional heating and cooling. The SZ1024 is designed to control heat pumps and can be converted to conventional mode in programming.

The SZ1020 Series features:

- Stand-alone or network operation
- 7-day time clock
- Discharge air sensor input with high and low limits
- Conventional model offers up to three heating and two cooling stages, or two heating and three cooling stages
- Heat pump model offers two compressor stages, two auxiliary heat stages and a configurable reversing valve output
- Adjustable delay on power-up and start-up for soft starts
- P+I control option
- Smart recovery
- No battery backup 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 override 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
- Access to programming or schedule may be locked out or limited with the use of an access code
- Fahrenheit or Celsius temperature display

Specifications

General

Accuracy: +/- 0.5%
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
Override: Programmable from 0 to 255 minutes

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, momentary override and three digital (dry contact)
Range: Room Temp: 40 to 90°F (built-in or remote)
Discharge Air Temp: 0 to 150°F (remote)
Outputs: Seven digital (SPST dry contact, 24 VAC @ 2 A)
Common mode rejection: 100 db @ 60 Hz
Power consumption: 8 VA max.

Specifications subject to change without notice.

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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 two 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 inputs and outputs shall be monitored locally through the use of the keypad and display. Thermostats shall support discharge air temperature high and low limits, fan proving, and be able to monitor filter status. An adjustable delay on power up shall be available for soft start of systems on power loss.

Thermostats shall support a setpoint shift feature in which a digital input is used to shift the heating setpoint down and the cooling setpoint up by an adjustable amount. 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 and local communications in accordance with EIA RS485 standards. All firmware communications protocol and command codes shall be published, open and non-proprietary. Room thermostats shall be model SZ1020 series as manufactured by TCS/Basys Controls.

Ordering Information

Part No.	Description
SZ1022	Programmable 7-day thermostat for conventional heating and cooling
SZ1024	Programmable 7-day thermostat for heat pumps
	SZ1020 Series Accessories
TS2000	Remote sensor, room mount
TS3000	Remote sensor, room mount, decorator style
TS1002	Remote sensor, duct mount
PD Series	Differential pressure switches
PO Series	Occupancy sensors
PR Series	Encased relays
PS Series	Current switches
PT Series	Control transformers

Dimensions

Note: inches [mm]

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