



# Programmed empowerment

Take ownership of your personal environment with the Reliable Controls® SMART-Space Controller™ (SSC), a fully programmable BACnet® controller with multi-sensor capability and ten-point, on-screen direct control.















# SMART-Space<sup>™</sup> Controller

## TECH Specs

## **Supply Voltages**

- 24 VAC/VDC ± 15%.
- 10 VA (SSC, SSCE).
- 65 VA (SSCP, including relay outputs).

## **Display**

- · Four 0.6" digits.
- Six 0.3" characters.
- Eleven icons: Auto, On, Off, Cool, Occupied, Heat, Fan, Fan Speed, AM, PM, and Day of the Week.
- · Backlit for easy viewing in dim light.
- Display Area 36 mm x 36 mm (1 <sup>3</sup>/<sub>8</sub>" x 1 <sup>3</sup>/<sub>8</sub>").

## **Temperature Specifications**

- 12-bit A/D converter.
- Range: 0 °C to 40 °C (32 °F to 104 °F).
- ± 0.1 °C (0.18 °F) resolution.
- User calibrated to ± 0.1 °C (0.18 °F) accuracy.

## Humidity Sensor (for -H models)

- 0.1% display resolution.
- 0-100% range.
- Accuracy ± 2% RH max. from 0 to 90% (see plot).

## Occupancy Sensor (for -OC models)

- · Passive Infrared Radiation (PIR) sensor.
- · 64 detection zones.
- 100° horizontal range / 82° vertical range.
- 5 m (16.4 ft.) max. detection distance.

#### **Buttons**

- 3 custom silicon rubber buttons.
- Button functions: select, plus, and minus

## CO<sub>2</sub> Sensor (for -CO2 models)

- Non Dispersive Infrared Optical Sensor.
- 0–2000 ppm range.
- Accuracy ±50 ppm.
- · Automatic calibration built in.
- Non Linearity < 1% of full scale.
- Power: adds 2 mA to the base SSC.

## X-Port-2

 Access port for PC connection using X-Port-2<sup>™</sup> converter.

#### Communications

- MS/TP BACnet slave @ 76800 baud max with AutoBaud.
- Up to 200 SSCs per network.

### Inputs

- 12-bit A/D converter.
- Up to 4 inputs.
- 1 dedicated temperature sensor.
- Jumper selectable 0–10 VDC, 4–20 mA, thermistor / dry contact.

## Outputs

- Up to 4 outputs (combination of universal and relay).
- Universal supplies 12 VDC, 20 mA @
- Relay switches 24 VAC/VDC @ 0.5 A.

## Real-Time Clock (optional)

•  $\pm$  1 second per day.

## **F**EATURES

## **Aesthetic Design**

- · Smooth contour lines.
- Slim profile.

#### Protocol

· BACnet MS/TP Slave.

## 4 Control-BASIC Programs

- User programmable control strategy in a readable, BASIClike language.
- 2000 bytes per program.

#### Up to 4 Inputs

- 1 dedicated temperature sensor.
- · Universal ranges.
- Jumper selectable 0–10 VDC, 4–20 mA, thermistor/dry contact

## Up to 4 Outputs

- Jumper selectable to be universal or relay.
- Universal supplies 0–12 VDC 20 mA @ 12-bit D/A converter.
- Relay switches 24 VAC/VDC @ 0.5 A.

#### 32 Variables

 Selectable standard and custom ranges, as well as fixed or program-driven values.

#### 2 PID Loops

• Standard P, PI, or PID controller for closed loop control.

## 2 BACnet Trend Log Multiple

- Capable of storing program-timed or runtimetriggered values.
- Up to 8 points per trend.

#### 1 System Group

- Allows related points to be grouped on to one display.
- 30 points per group.

#### 1 BACnet Schedule

- 4 time value pairs for each weekday.
- 8 special events.

#### 2 Custom Tables

 For creating custom input ranges and Control-BASIC lookup tables.

#### LCD

- Displays up to 10 points.
- Adjustable backlight timeout

#### Warrantv

5 years.

#### Certifications

- BTL listed (B-GEN).
- FCC CFR 47 Part 15/B.
- CE

## **O**RDERING

#### SSC (standard model)

- 3 inputs (2 universal and 1 dedicated temperature sensor).
- 2 outputs (jumper selectable to be universal or relay).

## SSCE (enhanced model)

- 4 inputs (3 universal and 1 dedicated temperature sensor).
- 4 outputs (2 jumper selectable to be universal or relay, and 2 dedicated relay outputs).

## SSCP (package model)

- 4 inputs (3 universal and 1 dedicated temperature sensor).
- 4 outputs (1 jumper selectable to be universal or relay, and 3 dedicated relay outputs).

## **O**PTIONS

- -C adds real-time clock and backup.
- -CO2 adds 0-2000ppm CO2 sensor.
- -D adds °C / °F selector switch.
- -H adds humidity sensor.
- -OC adds occupancy sensor.
- /W for solid white color (warm gray is standard).
- \* All models are shipped with onboard thermistor temperature sensor.

See submittal sheet for more detailed ordering options

## Memory/RTC Backup

- 72 hour backup.
- 10 years for database.

## Wiring Terminals

- 16 to 24 AWG (1.31 mm² to 0.21 mm²).
- Stranded or solid core.
- Copper conductors only.

# Dimensions

• 12 cm L x 7 cm W x 3.2 cm H (4 <sup>3</sup>/<sub>4</sub>" L x 2 <sup>3</sup>/<sub>4</sub>" W x 1 <sup>1</sup>/<sub>4</sub>" H).

#### Weight

• 0.13 kg (0.287 lb.).

# Ambient Limits

- Operating: -20 °C to 55 °C (-4 °F to 131 °F).
- Shipping: 40 °C to 60 °C (-40 °F to 140 °F).
- Humidity: 10% to 90% RH non-condensing.

# APPLICATION DIAGRAM



