



SMART-Sensor™

Programmable Sensor

Monitor your space

A complement to any room, the Reliable Controls® SMART-Sensor™ (SS) is a very versatile room sensor that communicates digitally, saving hard inputs in the host controller.



Better by design

www.reliablecontrols.com/SS

Tech Specs

Supply Voltages (from controller)

- SS - 5 VDC @ 5 mA
- -IO option adds 10 mA
- -CO2 option adds 2 mA
- -OC option adds 0.2 mA

Temperature Specifications

- 12-bit A/D converter
- User calibrated to ± 0.1 °C (0.18 °F) accuracy
- Range, SS: -40 °C to 40 °C (-40 °F to 104 °F)
- Range, SS-IO: -40 °C to 120 °C (-40 °F to 250 °F)
- Range, SS-P: 0 °C to 50 °C (32 °F to 122 °F)

CO2 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 SS

Humidity Range (for -H models)

- 10–90% range
- ± 1.8% RH accuracy

Inputs

- Dedicated temperature sensor
- 2 thermistor or dry contact (on -IO models)

Outputs (for -IO models)

- 2 on/off TRIAC
- 24 VAC @ 0.5 A

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

- 2 custom silicon rubber buttons for up/down adjust (-UD models)
- UD buttons not available on model with setpoint slider (-S models)
- 1 custom silicon rubber button for override (-O models)
- 1 custom brass button for override (-P-O model)

Wiring Terminals

- 14 to 26AWG (2.08 mm² to 0.13 mm²)
- Stranded or solid core
- Copper conductors only

Dimensions

Base model:

- 12 cm L x 7 cm W x 2.4 cm H (4 3/4" L x 2 3/4" W x 1 5/16" H)

CO2 model:

- 12 cm L x 7 cm W x 3.2 cm H (4 3/4" L x 2 3/4" W x 1 1/4" H)

Plate Model:

- 11.4 cm L x 7 cm W x 0.4 cm H (4 1/2" L x 2 3/4" W x 3/16" H)

Weight

- SS: 0.086 kg (0.19 lb.)
- SS-P: 0.073 kg (0.16 lb.)

Features

Aesthetic Design

- Smooth contoured lines
- Slim profile

Easy Programming

- Simply drag and drop points from the host controller onto the SS worksheet to configure

Connection & Addressing

- Configure network address of SS using 4 pole DIP switch
- Valid addresses are 1–16
- Four wire connection to SS-P
- Four or six wire connection to SS (six wire required for use with X-Port-2™)

Network Access

- An RJ-11 connector on the bottom provides access to the host network (X-Port-2 required, not available on -S, -P models)

Optional CO₂

- 0–2000 ppm ±50 ppm NDIR sensor

Optional Humidity

- Accurate onboard humidity sensor

Optional I/O

- Up to 2 thermistor or dry contact inputs, and up to 2 digital TRIAC outputs

Optional Override Button

- Use to override unoccupied mode

Optional Occupancy

- Extremely compact sensor, ideal for detecting the motion of a person up to 5 m (16 ft.) away

Optional Setpoint Slider

- Linear potentiometer with warm/cool decal

Optional Up/Down Buttons

- Use up/down buttons to adjust setpoint

Plate Model

- Mounts to a standard single electrical device box

Warranty

- 5 years
- 1 year for humidity sensor and CO₂ sensor

Certification

- FCC CFR 47 Part 15/B

Ordering

SS (base model)

- SMART-Sensor with dedicated 10k thermistor onboard, warm gray colour

Options for SS

- CO2 adds CO₂ sensor
- H adds humidity sensor
- IO adds 2 inputs and 2 TRIAC outputs
- O adds override button
- OC adds occupancy sensor
- S adds setpoint slider
- UD adds setpoint up and down buttons
- /W for white enclosure (eg. SS-H/W)

SS-P (plate model)

- SMART-Sensor with dedicated 10k thermistor onboard, tamper-proof stainless steel design

Options for SS-P

- O adds override button

ACCESSORIES

SSX

- SMART-Sensor Expansion

Not all options are available together. See submittal sheet for valid combinations.

Ambient Limits

SS:

- Operating: -40 °C to 40 °C (-40 °F to 104 °F)
- Shipping: -40 °C to 60 °C (-40 °F to 140 °F)

SS-P:

- Operating: 0 °C to 50 °C (32 °F to 122 °F)
- Shipping: 0 °C to 50 °C (32 °F to 122 °F)

APPLICATION DIAGRAMS

