Hardware Installation Guide

RS Series:

Discrete and communication room sensors

1. Product Description

The RS Series room sensors are versatile room temperature sensors. All models include an integrated temperature sensor for precision local temperature sensing. Other models allow users to adjust ambient temperature and fan speed, as well as manage the occupancy mode. Models are available in both analog and digital, depending on the technology needed for the installation.

The room sensor model with LCD display is suitable for HVAC (temperature, fan speed, occupancy), and lighting and sunblind applications for integrated room control and optimizes energy efficiency.

For more information about how to use the product, please refer to the RS Series end-user manual.

Figure 1-1: RS Series Hard-Wired Room Sensors

2. Cleaning

Clean the RS Series sensors by polishing with a soft dry cloth.

3. General Installation Requirements

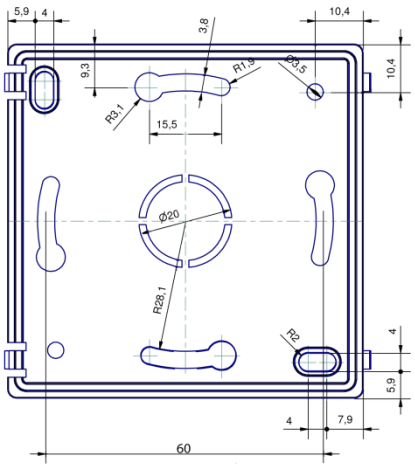
For proper installation and subsequent operation of each sensor, pay special attention to the following recommendations:

- Do not install onto a direct sunlight source (to optimize the temperature measure).
- It is recommended that the sensor(s) be kept at room temperature for at least 24 hours before installation to allow any condensation that may have accumulated due to low temperature during shipping/storage to evaporate.
- Upon unpacking the product, inspect the contents of the carton for shipping damages. **Do not install damaged sensors.**
- The device is designed to operate under environmental conditions that are specified in its datasheet.
- Ensure proper ventilation of device and avoid areas where corroding, deteriorating or explosive vapors, fumes or gases may be present.
- Do not drop the device or subject it to physical shock.
- If the device is used and/or installed in a manner not specified by Distech Controls, the functionality and the protection provided by the device may be impaired.

Any type of modification to any Distech Controls product will void the product's warranty.

4. Device Wall Support Dimensions

The RS Series sensors are wall-mounted with the wall support provided with the sensor.



Units: mm

Figure 4-1: RS Series Wall Support Dimensions – Back View

5. General Wiring Recommendations

Turn off power before any kind of servicing.

- All wiring must comply with national and local electrical codes.

6. Analog Room Sensor Device Configuration (RS-ANA)

The analog room sensor device does not require a specific configuration as it is directly connected to a controller with an RJ11 cable.

Wiring recommendations:

- RJ11/multi-wire cable type; maximum length: 12m (39 ft)
- Room sensor/cable connection: RJ11 plug
- Cable/controller connection: connected to the controller's screw terminals
- The RS-ANA is directly supplied by the controller

Wiring diagram:

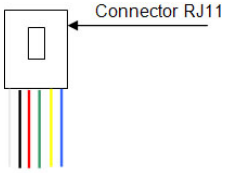


Figure 6-1: Analog Room Sensor RS-ANA Wiring

Wire Color	Connection to PFC Series controller
Grey	Temperature measurement: SI3
Black	0 V: COM
Red	Temperature setpoint offset: AI5
Green	Fan speed command: DI1
Yellow	5V : V REF
Blue	LED: DI6

To avoid any disturbance, please place the room sensor communication cable away from electric and network cables.

7. Digital Room Sensor Device Configuration (RS-DL and RS-LCD)

The digital room sensor device does not require a specific configuration (except for the RS-LCD) as it is directly connected to a controller with an RJ9 link.

Wiring suggestions:

- RJ9 cable type (plug and play)
- Maximum length: 50m (164 ft)
- Connected to an RJ9 controller input and directly to the room sensor device.
- RS-DL and RS-LCD are powered by the controller

8. Room Sensor Device with LCD display Configuration

Enabling/Disabling Functions:

The factory configuration enables temperature, ventilation and occupancy management. Lighting and sunblind functions are disabled.

Figure 8-1: OFF is indicated when feature is disabled

1. Simultaneously press all buttons for 3 seconds. The flashing icon corresponds to a function. If it is disabled, an "OFF" message will be displayed.
2. To enable this function, just use the arrows keys: ▲ ▼. The function will be activated when an "ON" message is displayed.
3. Press the function selection button ⬭ to change function and proceed with the enabling/disabling.

Function priorities:

The RS-LCD sensor allows priority management, to simplify and accelerate access to functions according to the frequency of use. The function priorities by default are:

1. Lighting (if enabled)
2. Sunblind (if enabled)
3. Temperature adjustment
4. Fan speed

If a function is disabled, when pushing ▲ or ▼, the RS-LCD will display the first priority function enabled.

Time out:

When a function is selected but no control action is taken, the screen returns to its original display after a time out:

- 5s for lighting, temperature and fan speed functions
- 90s for sunblind function

The time out for the sunblind function is longer because the movement duration (up or down) is greater than 5 seconds.

Ambient temperature display:

By setting a configuration parameter, you can display the measured temperature on the RS-LCD screen.

- Press ▲ + ▼ and then press ▲ + ⌂ to confirm ambient temperature display.

To disable this function:

- Press ▲ + ▼ and then press ▼ + ⌂ .

Total Quality Commitment

All Distech Controls product lines are built to meet rigorous quality standards. Distech Controls is an ISO 9001 registered company.