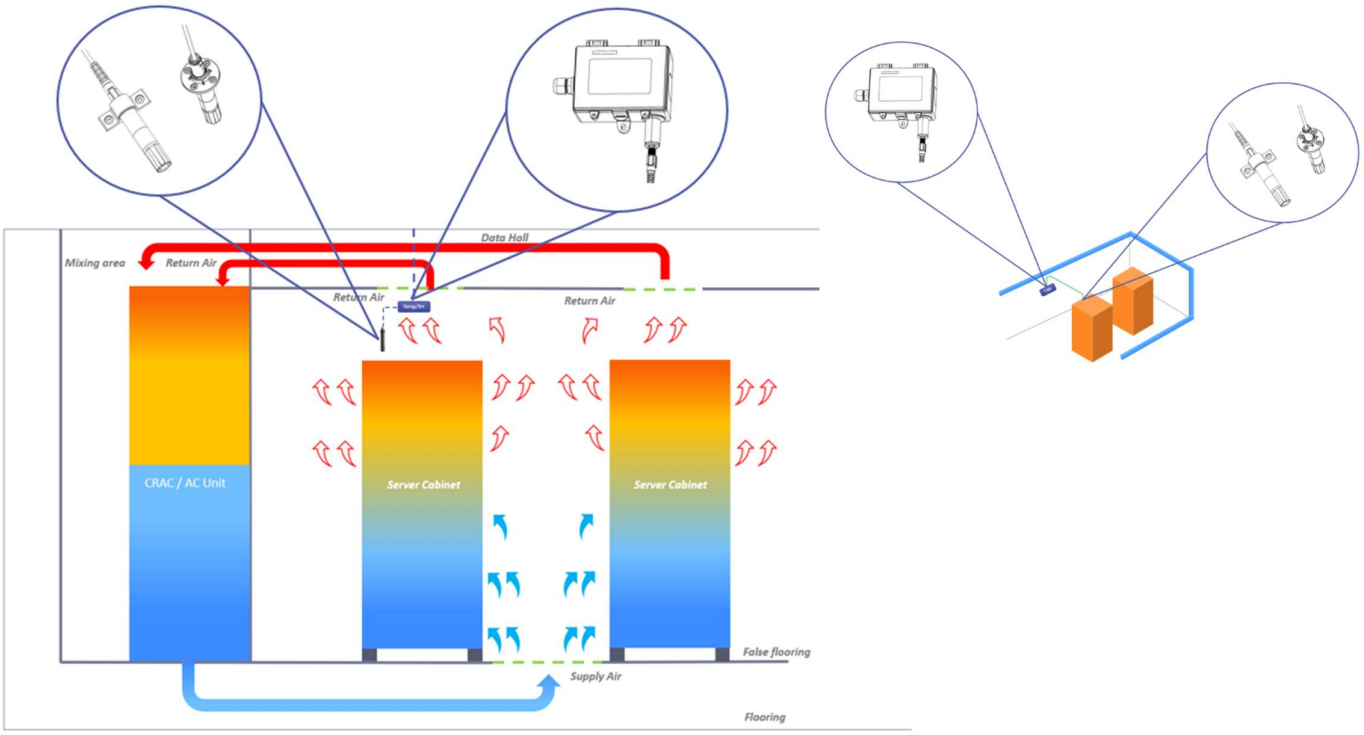
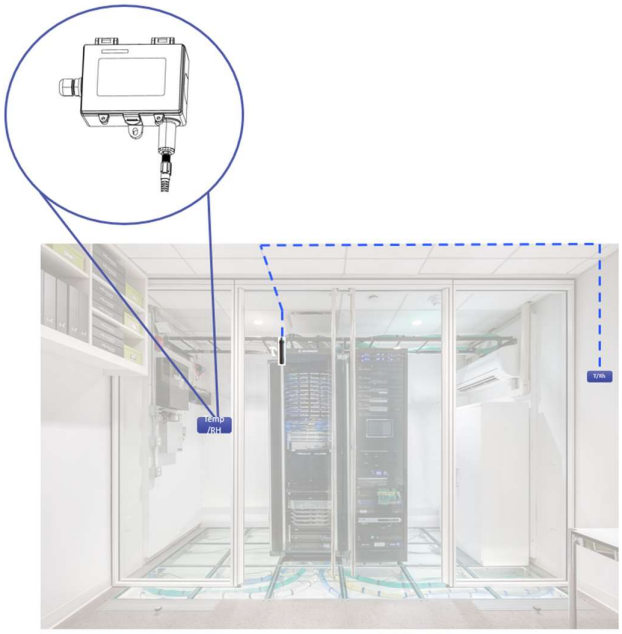
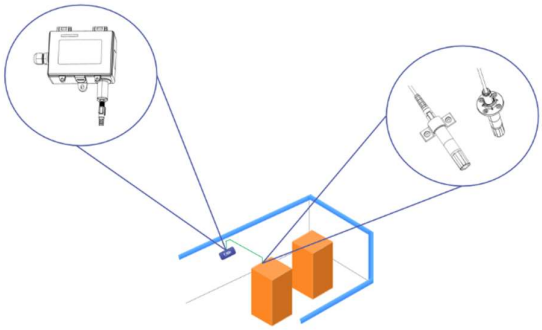
Technical Tidbit – HTX1R series Remote probe Temp/RH transmitter at Data Hall




1. Refer installation manual for wiring connections and other suggestions
2. Remote probe Temp/RH transmitter comes with two parts, main PCB box and remote probe
3. Main PCB box to be mounted directly on a wall standard electrical box.
4. Identify the hot aisle area to locate the Temp/RH probe. If the rack cage is having multiple racks, use multiple Temp/RH probes or identify the perfect RA path to locate the Temp/RH transmitter as shown in above typical installation image.
5. Do not mount the Probe Temp/RH probe near doors, opening windows, supply air diffusers or other known air disturbances, ensure there is free airflow around the sensor probe to get more accurate readings
6. Number of Temp/RH transmitter count to be finalized based on the hot aisle return air flow, adding more Temp/RH transmitter based on hot aisle air circulation will give more accurate reading
7. Avoid areas where the locations exposed to vibrations or rapid temperature change.
8. Follow proper electrostatic discharge (ESD) handling procedures when installing the device or equipment damage may occur.
9. Do not locate the Temp/RH probe cables in the same conduit with the cable used to supply inductive loads such as motors.
10. Connect the 24V ac/dc power supply to the terminals labelled PWR (power) and COM (common) and the minimum voltage of 22V ac/dc
11. 24V ac power is used, and one side of the transformer is earth grounded. In general, the transformer should NOT be connected to earth ground when using devices with RS-485 network connections.
12. Shielded cable should be used for connection and the shield to be connected to the DDC panel Earth.
13. Shielded and twisted pair cable (A-, B+ and SHLD) should be used for communication (in a daisy chain configuration) type device and the shield to be connected to panel earth
14. This device has a half-wave type power supply so use caution when wiring multiple devices so that the circuit ground point is the same on all devices and the controller
15. Use separate cable for 24v power supply and calculate voltage in case connecting multiple temp/RH in single power supply cable for communication output also connect EOL at the end of communication loop
16. Follow local electrical codes and use proper terminations (e.g., cable lugs, shielded cables)

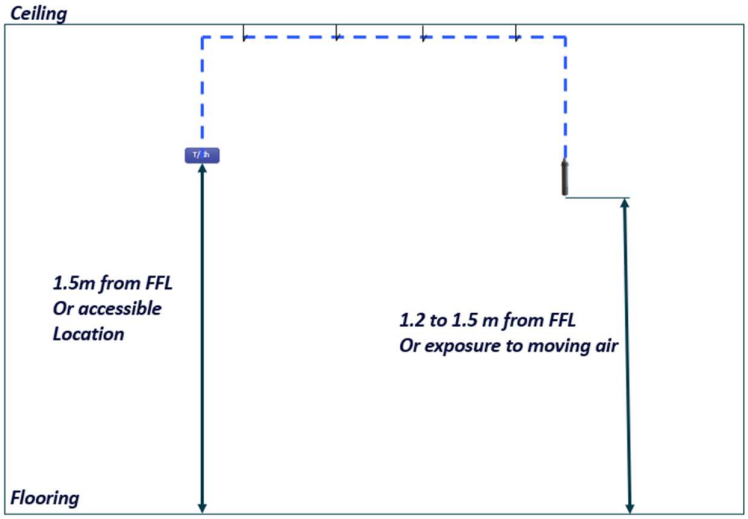
Technical Tidbit – HTX1R series Remote probe Temp/RH transmitter at Hub/Server room

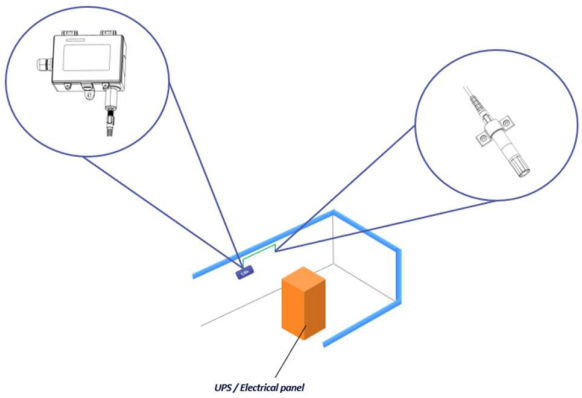


1. Refer installation manual for wiring connections and mounting details
2. Temp/RH transmitter installs directly on a wall or standard electrical box.
3. Wall mount Temp/RH with attached probe should be mounted on the wall or ceiling
4. Remote probe Temp/RH transmitter comes with two parts, main PCB box and remote probe
5. Identify the location where the air sample reached Temp/RH transmitter/probe, identify the perfect RA path to locate the Temp/RH transmitter or find out the place of hot spot area as shown in above typical installation image.
6. Do not mount the Temp/RH transmitter/probe near doors, opening windows, supply air diffusers or other known air disturbances, ensure there is free airflow around the Temp/RH transmitter / probe to get more accurate readings
7. Number of Temp/RH transmitter/probe count to be finalized based on the size of server/hub room or number of racks, adding more Temp/RH transmitter/probe based on the air circulation will give more accurate reading
8. Avoid areas where the locations exposed to vibrations or rapid temperature change.
9. Follow proper electrostatic discharge (ESD) handling procedures when installing the device or equipment damage may occur.
10. Do not locate the Temp/RH transmitter/probe cables in the same conduit with the cable used to supply inductive loads such as motors.
11. Connect the 24V ac/dc power supply to the terminals labelled PWR (power) and COM (common) and the minimum voltage of 22V ac/dc
12. 24V ac power is used, and one side of the transformer is earth grounded. In general, the transformer should NOT be connected to earth ground when using devices with RS-485 network connections.
13. Shielded cable should be used for connection and the shield to be connected to the DDC panel Earth.
14. Shielded and twisted pair cable (A-, B+ and SHLD) should be used for communication (in a daisy chain configuration) type device and the shield to be connected to panel earth
15. This device has a half-wave type power supply so use caution when wiring multiple devices so that the circuit ground point is the same on all devices and the controller
16. Use separate cable for 24v power supply and calculate voltage in case connecting multiple temp/RH in single power supply cable for communication output
17. Connect EOL position at the end of the network for communication output.
18. Follow local electrical codes and use proper terminations (e.g., cable lugs, shielded cables)

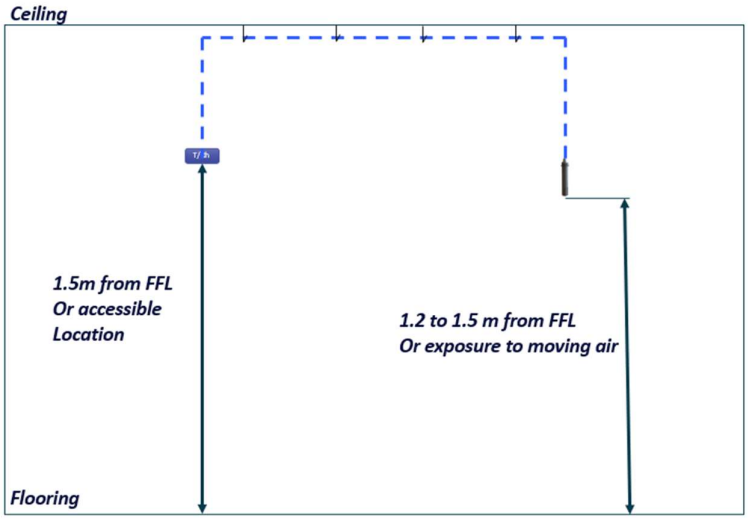
**Technical Tidbit – HTX1R series Remote probe Temp/RH transmitter at UPS/Electrical room**

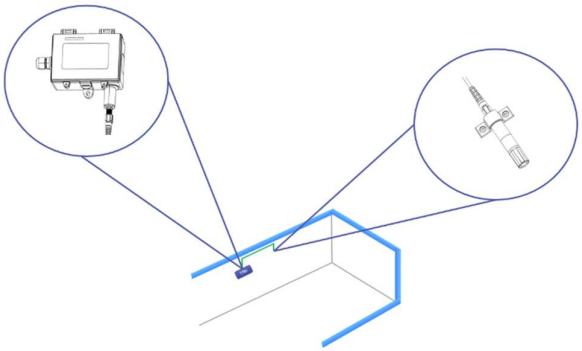



1. Refer to the installation manual for wiring connections and other recommendations.
2. The Remote Probe Temp/RH transmitter consists of two parts, the main PCB box and the remote probe.
3. Mount the main PCB box directly on a standard electrical wall box.
4. The temperature and RH remote probe should be installed at a representative airflow location within the UPS and electrical room, away from heat sources, air disturbances, and obstructions, to ensure accurate measurement.
5. Do not mount the Temp/RH probe near doors, windows, supply air diffusers, **close to exhaust fans,** or other known air disturbances. Ensure there is free airflow around the sensor probe for accurate readings.
6. The number of temperature and RH sensors will be determined based on the airflow area, application requirements, and desired measurement accuracy.
7. Avoid installing probes in locations exposed to vibrations or rapid temperature changes.
8. Follow proper electrostatic discharge (ESD) handling procedures during installation to prevent equipment damage.
9. Do not route the Temp/RH probe cables in the same conduit as cables supplying inductive loads such as motors.
10. Connect the 24 V AC/DC power supply to the terminals labelled PWR (Power) and COM (Common), ensuring the minimum required voltage of XX AC or XX DC.
11. When using 24 V AC power, ensure that one side of the transformer is earth grounded. In general, the transformer should **not** be connected to earth ground when using devices with RS-485 network connections.
12. Use shielded cables for connections and connect the shield to the DDC panel earth.
13. For communication, use shielded twisted-pair cable (A-, B+, and SHLD) in a daisy-chain configuration, with the shield connected to the panel earth.
14. This device has a half-wave type power supply; therefore, use caution when wiring multiple devices to ensure that the circuit ground point is the same for all devices and the controller.
15. Use a separate cable for the 24 V power supply. When connecting multiple Temp/RH probes to a single power supply cable for communication output, calculate the voltage drop and connect the EOL (End of Line) resistor at the end of the communication loop.
16. The main PCB box is IP65-rated, use an IP65-rated cable gland to maintain the IP65 rating.
17. Follow local electrical codes and use proper terminations (e.g., cable lugs, shielded cables)

**Technical Tidbit – HTX1R series Remote probe Plant Room**



1. Refer to the installation manual for wiring connections and other recommendations.
2. The Remote Probe Temp/RH transmitter consists of two parts, the main PCB box and the remote probe.
3. Mount the main PCB box directly on a standard electrical wall box.
4. The temperature and RH remote probe should be installed at a representative airflow location within the Plant room, away from heat sources, air disturbances, and obstructions, to ensure accurate measurement.
5. Do not mount the Temp/RH probe near doors, AC vents, fans, windows, heater, close to **exhaust fans,** or other known air disturbances. Ensure there is free airflow around the sensor probe for accurate readings.
6. Avoid installing probes near hot machinery, boilers, or humidifiers.
7. Avoid installing probes in locations exposed to vibrations or rapid temperature changes.
8. Avoid installing probe in dust, water spray, or chemical vapours
9. Follow proper electrostatic discharge (ESD) handling procedures during installation to prevent equipment damage.
10. Do not route the Temp/RH probe cables in the same conduit as cables supplying inductive loads such as motors.
11. Connect the 24 V AC/DC power supply to the terminals labelled PWR (Power) and COM (Common), ensuring the minimum required voltage of XX AC or XX DC.
12. When using 24 V AC power, ensure that one side of the transformer is earth grounded. In general, the transformer should **not** be connected to earth ground when using devices with RS-485 network connections.
13. Use shielded cables for connections and connect the shield to the DDC panel earth.
14. For communication, use shielded twisted-pair cable (A-, B+, and SHLD) in a daisy-chain configuration, with the shield connected to the panel earth.
15. This device has a half-wave type power supply; therefore, use caution when wiring multiple devices to ensure that the circuit ground point is the same for all devices and the controller.
16. Use a separate cable for the 24 V power supply. When connecting multiple Temp/RH probes to a single power supply cable for communication output, calculate the voltage drop and connect the EOL (End of Line) resistor at the end of the communication loop.
17. The main PCB box is IP65-rated, use an IP65-rated cable gland to maintain the IP65 rating.
18. Follow local electrical codes and use proper terminations (e.g., cable lugs, shielded cables)