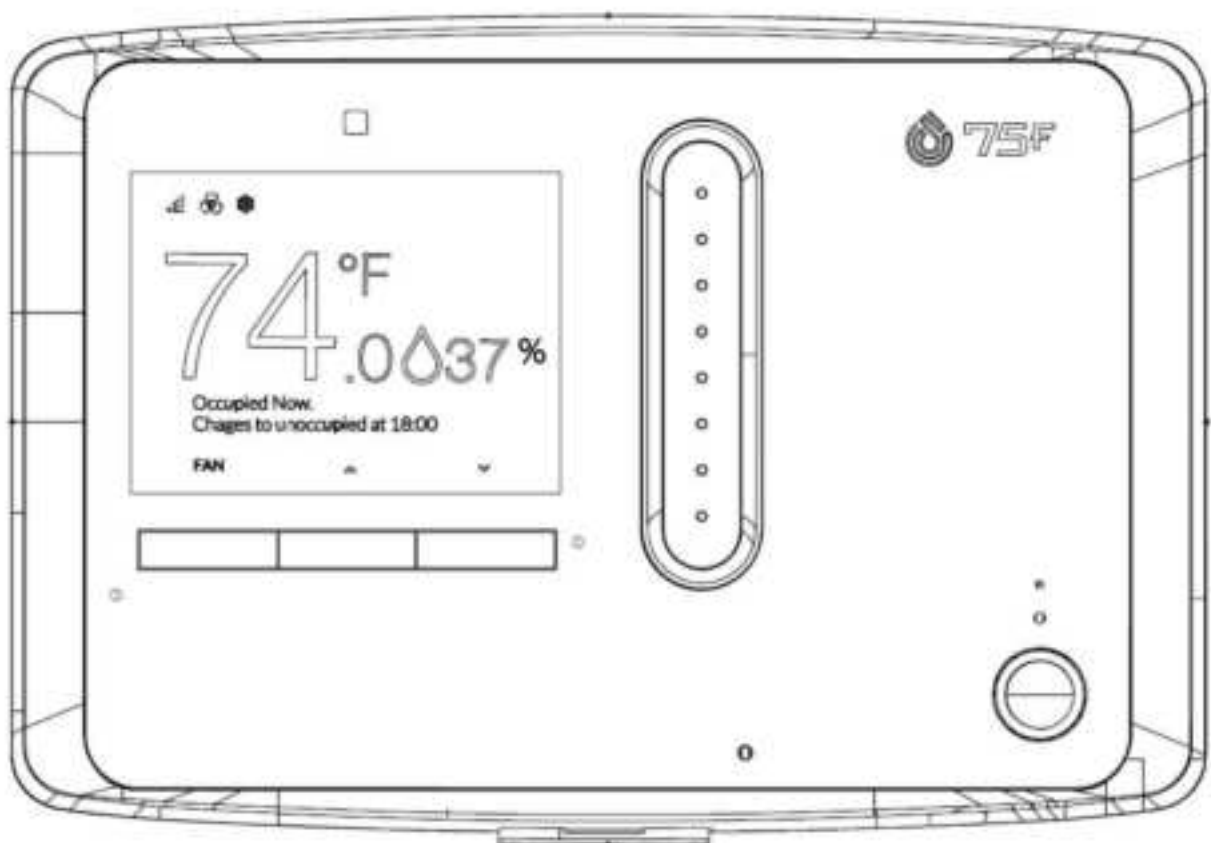


## APPLICATION

The HyperStat is a world's smartest commercial thermostat. With 8 on board sensors, the 75F Hyper Stat is an all-in-one thermostat, humidistat, and IAQ sensing station. The HyperStat is a Wall mount product, and the design is done thoughtfully to make sure that the product blends into most of the commercial spaces, delivering multi-mode sensing, remote monitoring and individual zone control for comfort and productivity of building occupants.

**HyperStat has two product variants based on specific uses cases:**

- HyperStat Daikin P1P2 variant is an exclusive offering which focuses on applications involving a Daikin VRV/VRF unit, the device can replace the conventional Remote for this equipment while offering more features.
- HyperStat Conventional Variant aims at addressing all other HVAC system.



## | PRECAUTIONS

- Do not fail to wire devices with the correct polarity, when using a shared transformer may result in damage to any device powered.
- Turn off the power before wiring.
- Never connect or disconnect the wiring with the power turned on.
- Do NOT allow live wires to touch the circuit boards.
- Install in accordance with all state and local codes.
- Do not assemble the front plate of the HyperStat to the back plate, when the power is ON.

## | FEATURES

- Control of up to 3 stages of heating/cooling or fan or modulating capacity equipment.
- Built in sequences for occupancy detection.
- Over the air firmware updates.
- Mounting on existing gang boxes in horizontal or vertical orientation
- Has inbuilt sensors to monitor temperature, relative humidity, Ambient light, Occupancy, CO2, VOC and PM2.5(optional)
- Has up to 6 Relays for HVAC control and 3 Analog outputs for actuator control/dimming
- The Hyper Stat can power from 24V AC/ DC supply.
- Consumes less than 2W of power

## SPECIFICATIONS

Specifications	HS3600/DKN509	DKN510 P1P2 Base	DKN510 P1P2 Plus
Humidity (typical +/- 2% RH), Temperature (typical +/- 0.2C). Calibrated using Automatic Self Calibration (ASC) or it can be forced to calibrate itself using an algorithm. This is called FRC or Forced Recalibration.	Y	Y	Y
Dedicated CO2 sensor with a range of 0 - 40'000 ppm, accuracy of +/- 30ppm (0-5000ppm, 25C). Drift +/- 50ppm over 400-5000ppm range over lifetime of 15 years	Y	Y	Y
VOC sensor with derived e-CO2: Typical Accuracy - 15% of measured value. TVOC: 0 – 60'000 ppb. CO2eq: 0 – 60'000 ppm. Drift 1.3% of the measured value per year.	Y	Y	Y
Occupancy Sensor based on Passive Infra-Red (PIR) with detection range of 4m with 15-degree angle.	Y	Y	Y
Light Sensor. Ambient light sensor, <100 mlx resolution, High accuracy UV index sensor, Matches erythermal curve	Y	Y	Y
Sound sensor with 40-120dB response for 100 Hz to 10Khz.	Y	Y	Y
PM2.5, PM10 sensor <b>(optional)</b> . Detection range of 0-1000ug/m3 and accuracy of +/-10ug/m3 (PM2.5, 0-100ug/m3) or +/-25ug/m3 (PM10, 0-100ug/m3). Maximum long-term mass concentration precision limit drift <ul style="list-style-type: none"> <li>• 0 to 100 µg/m3 ±1.25 µg/m3 / year</li> <li>• 100 to 1000 µg/m3 ±1.25 % m.v. / year</li> </ul>	Y	Y	Y
RF capabilities, 902-928Mhz proprietary RF for communicating sensor values with gateway.	Y	Y	Y
Bluetooth: BLE 4.2 for commissioning, triangulation and communication to wireless sensors.	Y	Y	Y
Relays rated at 110V ac, 24V dc/1A	6 Relays	No Relays	2 Relays
Analog Outputs 0-10V/4-20ma (max load of 20mA per channel)	3 outputs	No outputs	2 Outputs
2.8" 240x320 pixel TFT display.	Y	Y	Y
Touch slider for temperature control along with 3 mechanical buttons.	Y	Y	Y
4 wire RS485 interface in Regular variant with an optional 5V power line.	Y	-	-
3 wire sensor bus for daisy chained sensor communication and 3V power	Y	Y	Y
24V ac/dc (+/-15%) powering	Y	Y	Y
Power from a Daikin IDU using P1P2 lines	-	Y	Y
Power Consumption	1W nominal (2.5W max)	1.3W max	1.3W max
Operating range: Humidity 20-85% non-condensing. Temperature 0 to 122°F (-17 to 50°C)	Y	Y	Y

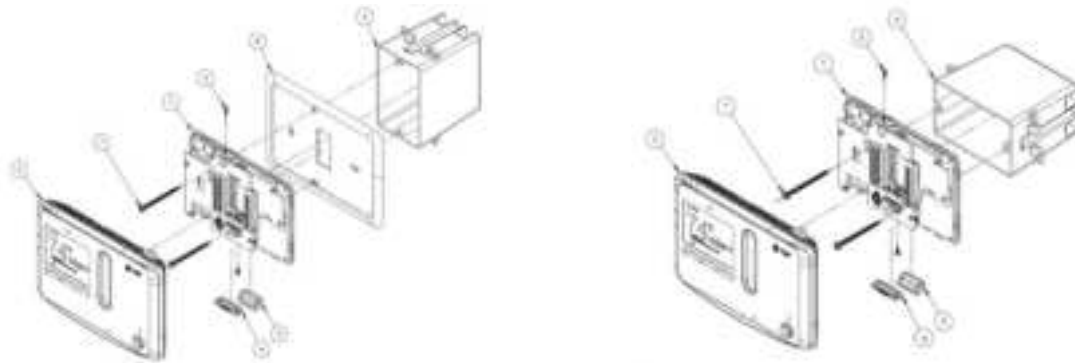
## MOUNTING

Some of the sensors on the HyperStat are location dependent, make sure that the HyperStat faces the room when using occupancy, make sure the device is not exposed to direct sunlight or is facing a very dark corner of the room when using Dynamic Light Balancing.

### Mounting Instructions:

- Place the HyperStat Interface (Conventional/ P1P2) and the back plate on the gang box such that back plate covers the gang box (only when the gang box is fixed vertically) and fix the two items to the wall gang box with the PHP screws provided in the box.
- Align the HyperStat main to lock onto the HyperStat Interface-Conventional.
- Use the Allen head screws to make this entire setup tamper-proof.
- Fix the rubber covers 1 and 2 to cover the programming pins.

### HyperStat HS3600/DKN509 - Mounting:



Position No.	Part Detail	Position No.	Part Detail
1	HyperStat Interface - Conventional	5	Rubber cover 2
2	HyperStat Main	6	Gang Box
3	Allen head screws	7	PHP screws
4	Rubber cover 1	8	Back plate

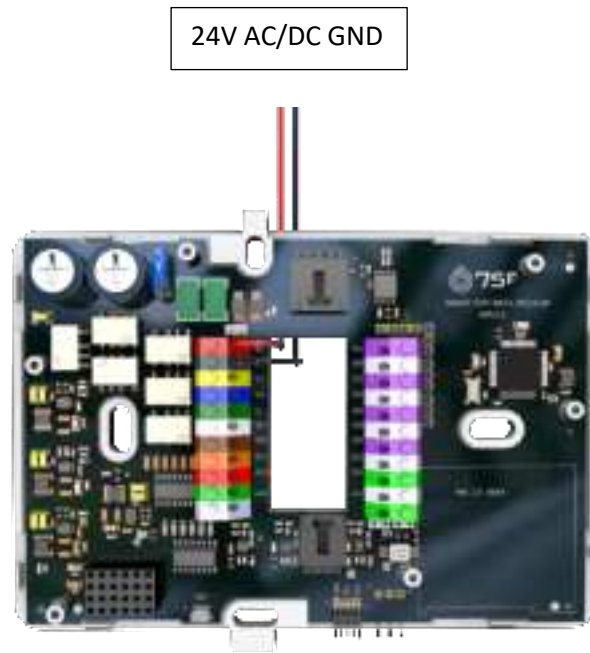
### HyperStat DKN509 P1P2 Base and Plus - Mounting:



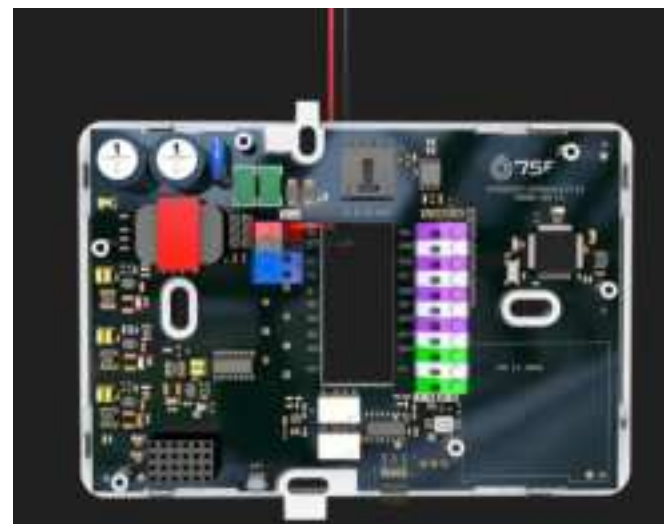
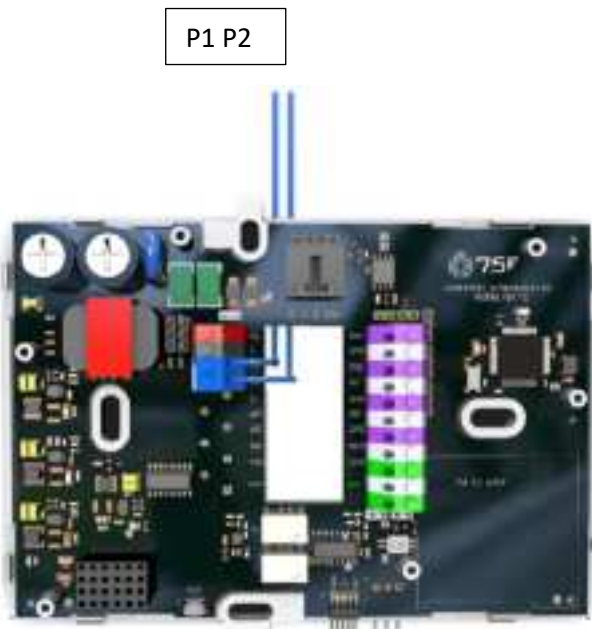
Position No.	Part Detail	Position No.	Part Detail
1	HyperStat Interface- P1P2	5	Rubber cover 2
2	HyperStat Main	6	Gang Box
3	Allen head screws	7	PHP screws
4	Rubber cover 1	8	Back plate

## POWERING

HS3600/DKN509:



**DKN509 P1P2 Base and Plus:** jumper settings available on board to select the powering source



You can connect the 75 Hyperstat and Daikin Indoor unit using a simple 2 wire interface called P1P2. Power supply and data transmission is carried over these lines.

## PAIRING

Pair the HyperStat to a zone that has been preconfigured or create and configure a zone yourself through **Setup > Floor Plan on the CCU**.

1. Disconnect the tablet from the CM and carry it with. Pairing will be performed using Bluetooth.
2. Press the button number 2 & 3 together for 5 seconds to navigate to other screens.



3. Press the next button to reach the installer options screen



4. Press the down arrow button to highlight Pair with CCU option.
5. Press select button to select the option.



The device enters the advertising mode ready to be paired.



6. On the tablet choose the zone you wish to pair and press **Pair Module**.



7. Select **HS HyperStat** from the select device screen.



8. Select the desired type of HyperStat profile.



9. Select the Terminal Profile which the HyperStat will be controlling

10. Follow the pairing steps on the HyperStat.

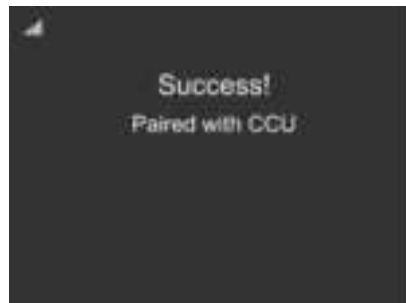


11. Enter the PIN displayed on the HyperStat in CCU screen requesting PIN.





Pairing success message is displayed in the HyperStat.



The profile configuration screen is displayed in the CCU.



## | FCC NOTES

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## | ISCED NOTES

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- 1) L'appareil ne doit pas produire de brouillage;
- 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### **RF Exposure warning:**

Please maintain minimum separation distance of 20cm from any person during device regular operation.



## | 75F TECHNICAL SUPPORT

Installations carried out by non- certified technician/engineers would void warranty.

For more information on wiring, commissioning, or usage of 75F products, please refer to any documentation provided with the job. If no documentation was provided with the job, please use the 75F Help Center ([support.75f.io](https://support.75f.io)) where you can find application specific wiring schematics and helpful user guides and videos.

If you need more information, please visit [support.75f.io](https://support.75f.io) for instructional videos, installation guides, and more. You can also call +1 888 612 7575 (USA) or 1800 121 4575 (INDIA) if you need technical support.

