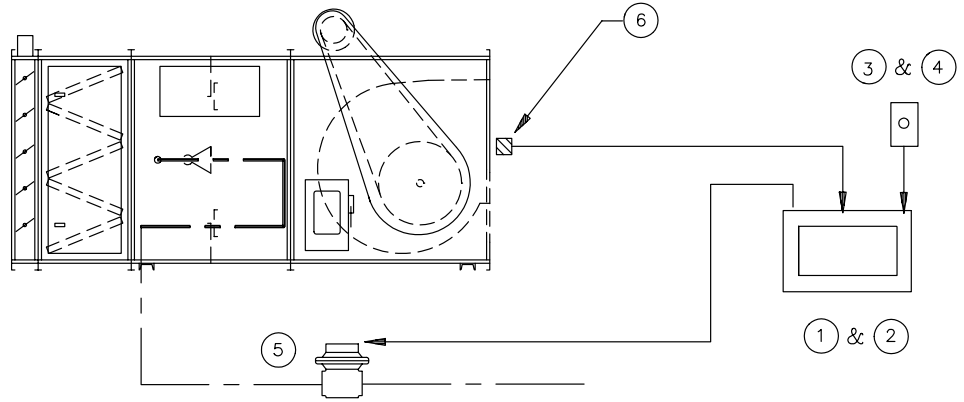




Control Options



System 14

Applications:

Controls discharge air temperature with instantaneous response and is ideal for industrial areas and commercial spaces such as kitchens, hotels, restaurants and boiler rooms.

Operating principles:

The discharge air is sensed and a signal is sent to the amplifier. The signal is then amplified to a working voltage for the modulator/regulator valve. With the proper voltage, the modulator/regulator valve adjusts to its proper position.

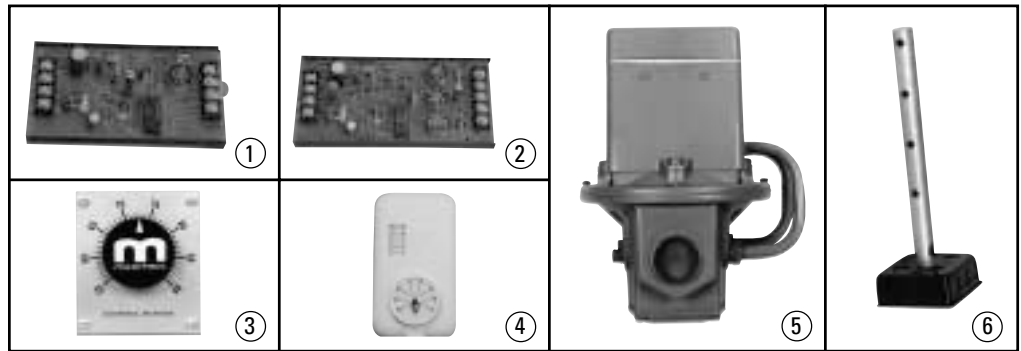
System 44

Applications:

Provides space temperature control electronically and is ideal for commercial and industrial buildings.

Operating Principles:

The selectrastat monitors the selected space temperature setpoint and space temperature. It sends a signal to the amplifier which will in turn send an amplified signal to the modulator/regulator valve. The amplified signal is limited to the preset maximum and minimum discharge air temperature settings.



Component Description:

- ① **Amplifier (System 14)** Installed in electrical control panel, contains wiring terminals, sensitivity adjustments & 1 calibrating potentiometer.
- ② **Amplifier (System 44)** Installed in electrical control panel contains adjustments for maximum and minimum discharge air temperature, three calibrating potentiometers and a sensitivity adjustment.
- ③ **Remote Temperature Selector (System 14)** Not temperature sensitive and may be mounted in any convenient location.
- ④ **Selectrastat (System 44)** Mount in heated area where temperature is sensed. Temperature ranges 55° to 90°; Alternate; 40° to 80°F.
- ⑤ **Modulator/Regulator Valve (System 14 & 44)** Mounted in gas piping manifold. Receives electrical signals from amplifier and adjusts gas pressure to maintain desired temperature.
- ⑥ **Air Sensor (System 14)** Installed in discharge air stream and controls the temperature within the air stream.
Air Monitor (System 44) Installed in the discharge air stream and contains overriding sensors. The temperature is monitored by two thermistors – one limits maximum and the other limits minimum discharge air temperature.

Typical Control Sequence

Fan Operation:

- Fan On-Off Switch In On Position** — optional damper opens, damper end switch closes, motor starter is energized.
- Fan On-Off Switch In Off Position** — optional damper closes, damper end switch opens, motor starter is deenergized.

Heat Operation:

- Heat On-Off Switch In On Position** — with fan switch in the on position, air flow switch closes, power is applied to flame safeguard relay to begin predetermined ignition sequence.