



**Around 25% of a food service operation's energy costs are spent on air conditioning and the US food service industry wastes more than \$2 billion each year on excessive ventilation\*.**

Conventional kitchen hoods running at maximum design volume when turned on – even if they're not needed. The TEL Kitchen Hood Control (VAV) system detects rises in smoke and temperature, increasing the volume of air when it's needed. It has microprocessor based controls whose sensors automatically regulate fan speed based on cooking load, time of day and hood temperature while minimising energy usage.

Variable volume offers less wear and tear on equipment, reduced grease entrapment and a significantly quieter kitchen. The TEL Kitchen Hood (VAV) system can also be supplied with an integrated Gas Interlock system which senses the ventilation system pressure and switches off the gas flow if ventilation fails.

*\* estimates from the American Gas Association*

#### FEATURES INCLUDE

- Single or Multiple Hood control.
- Ventilation On/Off from control panel or Auto On/Off on a time basis (from on board time clock or BMS).
- Up to 3 On/Off time periods per day using on board time clock.
- Can be set for annual time scheduling with holidays and exceptions.
- Measures the duct and room temperatures and uses the differential temperature to control the speed of the exhaust and supply fans to maintain good exhaust with minimum energy consumption.
- Compensates for heat gain in the room from other equipment by controlling to room temperature set point if the room temperature exceeds the set value.
- The smoke detector inside the hood will detect any sudden plumes of smoke and runs the ventilation at maximum speed for a set period of time or until the smoke has cleared.
- Modbus RTU and BACnet coms on board for connection to BMS.
- Graphic digital display with indication of ventilation output, temperatures and alarms.
- Pushbutton menu set up with password protection.



# Kitchen Hood Controls (VAV)

## Kitchen Hood Controls (VAV) Specifications

	SINGLE HOOD CONTROLLER	NOTES
<b>Operating Voltage</b>	100-240VAC 1.8A Max	On board MCB protection
<b>Control Method</b>	Temperature Differential	Room Temperature to Hood Temperature
<b>Control Operating Range</b>	Room Temp + 50 Deg C Max	(122 Deg F)
<b>Keypad Operation</b>	Manual/Off/Auto	Preset with 10 manual speeds
<b>Auto Control</b>	via Keypad on-off / BAS coms / Volt Free input / Auto detect / On board time clock	Menu Selectable operation
<b>Exhaust Fan</b>	0-10v Control signal to VFD with Volt Free Stop/Start output	With Menu Selectable Min and Max limits
<b>Supply Fan</b>	0-10v Control signal to VFD with Volt Free Stop/Start output	With Menu Selectable Min and Max limits. Output signal can be summated for multiple hoods served by single AHU using separate Summation Unit
<b>Time Scheduling</b>	On board time clock	Up to 4 on/off periods per day
<b>IR Sensor Input</b>	For smoke detection	Up to 4 sets of sensors per hood with separate sensor junction box
<b>Temperature Sensors</b>	10K thermistor type	Room and Hood Temperature sensors
<b>Manual Boost Function</b>	Volt free input	Boost to Max speed for selectable time period
<b>Fire System Interlock</b>	Volt free input	
<b>Room Temperature Control</b>	Menu Selectable	Room Temperature control override if Room Temperature set point is exceeded
<b>Auto Detect</b>	Menu Selectable	Auto start up and control if cooking detected during off period
<b>Auto Run On</b>	Menu Selectable	Remains in Auto control if cooking detected during off period
<b>Keypad</b>	LCD Graphical display	Showing Output status, Operating Mode, Temperatures and Alarms
<b>Calibration and Setup</b>	via Keypad	
<b>Operating Units</b>	Metric / Imperial	Deg C / Deg
<b>BAS/BMS</b>	Modbus RTU and BACnet MS/TP on board	
<b>Agency Listings</b>	RoHS, CE, UL	
<b>Mounting</b>	Wall Mounting Enclosure	400mmH x 300mmW x 200mm D (15.75" x 11.8" x 7.87")

### Part Number Guide : Kitchen Hood Controls (VAV)

