

CASLink Monitor and Control

Hood control panel to support communications to cloud-based Building Management System.

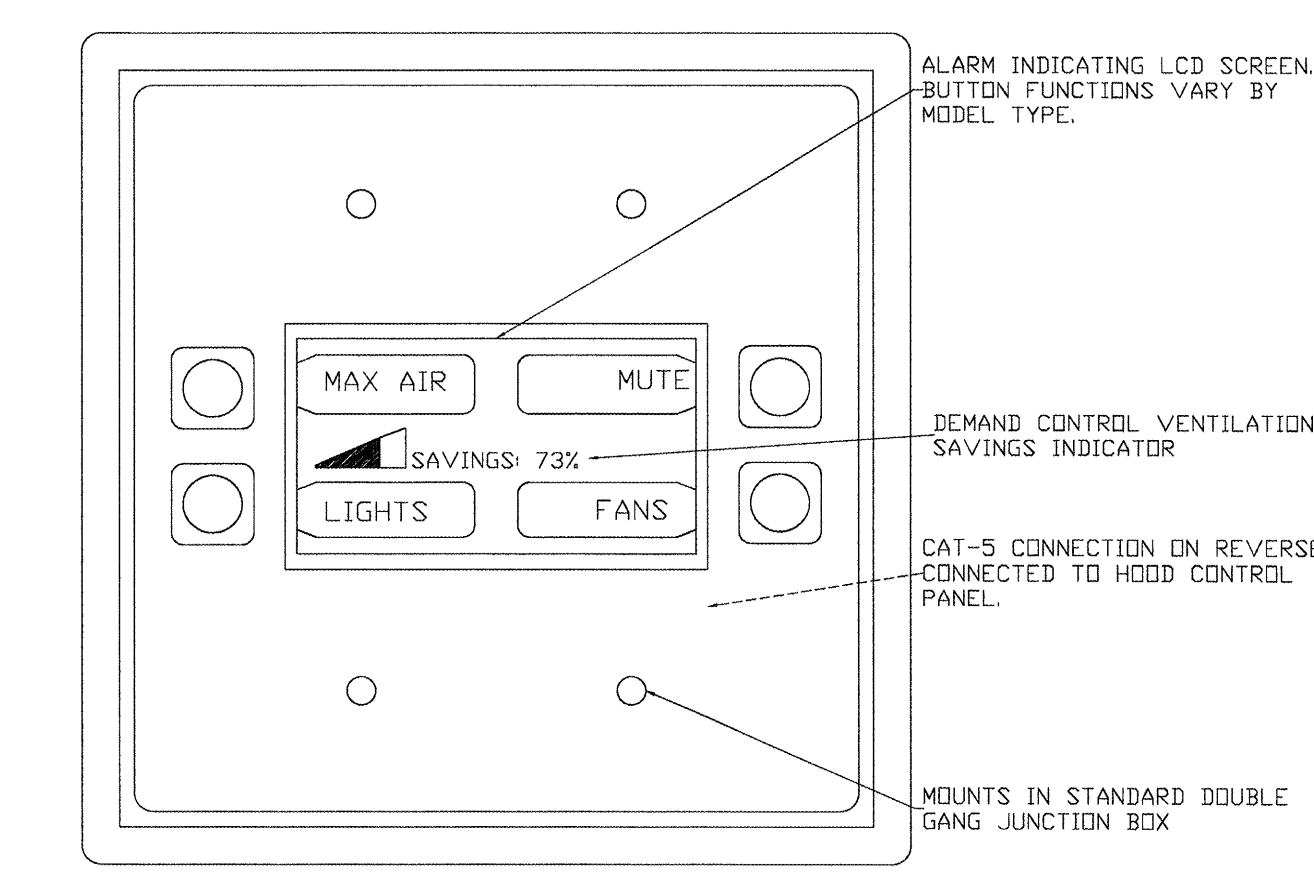
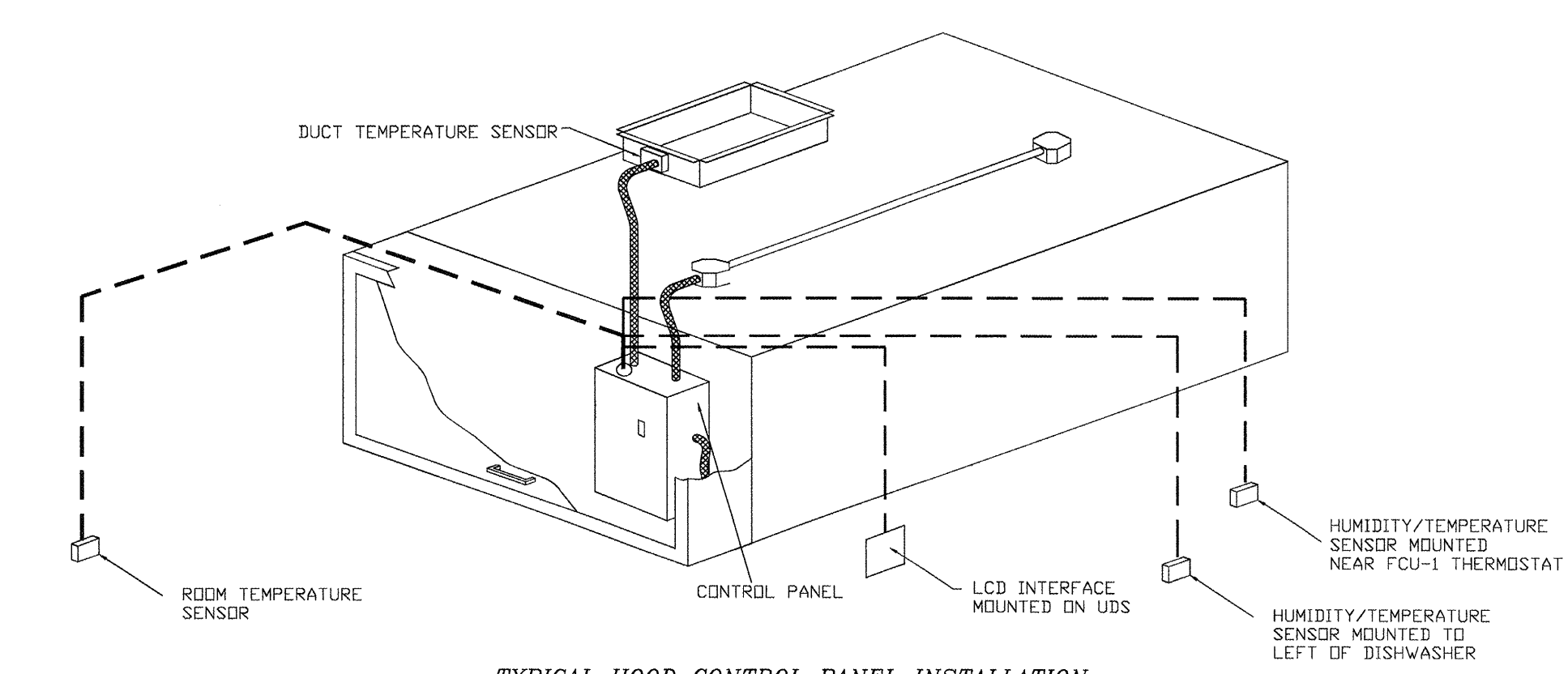
Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.

Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.

Hood Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.

MONITORING AND CONTROL POINTS LIST

DCV Package	Function	SC Package	Function
Room Temperature	MONITOR	Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR	Duct Temperature(s)	MONITOR
MHA Discharge Temperature	MONITOR	MHA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR	Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR	Controller Faults	MONITOR
Fan Amperage	MONITOR	Fan Status	MONITOR
Fan Power	MONITOR	Fan Status	MONITOR
VFD Faults	MONITOR	PCU Faults	MONITOR
Controller Faults	MONITOR	PCU Filter Clap Percentages	MONITOR
Fan Faults	MONITOR	Pure Condition	MONITOR
Fan Status	MONITOR	CORE Fire System	MONITOR
PCU Faults	MONITOR	Building Pressures	MONITOR
PCU Filter Clap Percentages	MONITOR	PCU Filter Clap Percentages	MONITOR & CONTROL
Pure Condition	MONITOR	Lights Button(s)	MONITOR & CONTROL
CORE Fire System	MONITOR	Push Button	MONITOR & CONTROL
Building Pressures	MONITOR		
Prep Time System	MONITOR & CONTROL		
Fans Button	MONITOR & CONTROL		
Lights Button	MONITOR & CONTROL		
Push Button	MONITOR & CONTROL		



- Demand Control Ventilation Hood Control Panel Specifications:**
- Controls shall be listed by ETL (UL 508A)
 - The control enclosure shall be NEMA 1 rated and listed for installation inside of the exhaust hood utility cabinet. The control enclosure may be constructed of stainless steel or painted steel.
 - Temperature probe(s) located in the exhaust duct riser(s) shall be constructed of stainless steel.
 - A digital thermostat controller shall be provided to activate the hood exhaust fans dynamically based on a +10 degree adjustable offset from the room temperature sensor. This function shall meet the requirements of IMC 507.2.11
 - A digital thermostat controller shall provide adjustable hysteresis settings to prevent cycling of the fans after the cooking appliances have been turned off and/or the heat in the exhaust system is reduced.
 - A digital thermostat controller shall provide an adjustable minimum fan run-time setting to prevent fan cycling.
 - Variable Frequency Drives (VFDs) shall be provided for fans as required. The Hood Control Panel shall modulate the VFDs between a minimum setpoint and a maximum setpoint on demand. The duct temperature sensor input(s) to the digital thermostat controller shall be the speed reference signal.
 - The VFD speed range of operation shall be from 0% to 100% for the system, with the actual minimum speed set as required to meet minimum ventilation requirements.
 - An internal algorithm to the digital thermostat controller shall modulate supply fan VFD speed proportional to all exhaust fans that are located in the same fan group as the supply fan.
 - The system shall operate in PREP MODE during light cooking load or COOL DOWN MODE when sufficient heat remains underneath the hood system after cooking operations have completed. Operation during either of these periods will disable the supply fans and provide an exhaust fan speed that is equal to the minimum ventilation requirement.
 - A digital thermostat controller shall disable the supply fan(s), activate the exhaust fan(s), activate the appliance shunt trip, and disable an electric gas valve automatically under the following conditions (as applicable):
 - Fire condition detected on a covered hood
 - Excessive temperature detected on any duct temperature sensor in the system (250 F adjustable)
 - A digital thermostat controller shall allow for external BMS fan control via Dry Contact (external control shall not override fan operation logic as required by code).
 - An LCD interface shall be provided with the following features:
 - On/Off push button fan & light switch activation
 - Integrated gas valve reset for electronic gas valves (no reset relay required)
 - VFD fault display with audible & visual alarm notification
 - Duct temperature sensor failure detection with audible & visual alarm notification
 - Mis-wired duct temperature sensor detection with audible & visual alarm notification
 - A single low voltage Cat-5 RJ45 wiring connection
 - An energy savings indicator that utilizes measured kWh from the VFDs

REVISIONS

NO.	DESCRIPTION	DATE

CAPTIVE

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DATE: 8/23/2015
DWG.#: 2416309
DRAWN BY: Sean Elias
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
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