CleanAir Solutions, Inc.

ACC7052 TouchScreen Console

System overview

The ACC7052 console controls of a network of fans. Its basic functions are:

- automatically monitor, generate and report errors found on any fan,
- user control for individual fans,
- global user commands applied facility/groups

Ethernet / SCADA capability enables:

- manual remote access via an Ethernet connection (intranet or Internet)
- Remote access for a BMS or any PC with an OPC client for control /monitoring.
- Supports digital, high-speed, and analog I/Os for Alarm output, remote standby or BMS override. System level sensors can be monitored (i.e. particle counters, pressure transducers and airflow sensors) by adding them to the network. System level sensors can be used to provide global fan adjustments – automatically,

Fan errors monitored are:

- communication errors between fan and console,
- high RPM limits (ECM only)
- low RPM limits (ECM only)
- Differential Pressure Failure (AC – with Diff Switch added)

The fan states are:

- Auto (normal) mode – fan runs at its commissioned speed until it automatically switches to its standby speed during periods defined via the clock/calendar function.
- Run mode – fan runs at commissioned speed. Clock/calendar standby not implemented.
- Standby mode –fan runs at a reduce speed for energy savings during periods. Clock/calendar function will not be implemented.
- Stopped mode – fan's speed is zero. Communication between the fan and console is still active (AC FFU implementation – contact factory). .
- Offline mode – Communication between fan and console is deactivated.

User control functions are:

- Adjust fan run speed setting
- Adjust fan standby speed setting – only possible by group or facility
- Change fan state: offline, auto, run, standby or stop. If auto mode is selected, the fan may automatically switch to standby mode according to the user-defined clock/calendar.
- Three levels of password-protection: **VIEW-** view only; **USER** –Acknowledge alarm/change fan state. **MASTER** - complete access feature/functions.

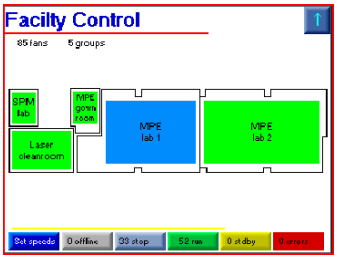
Fan #s are pre-assigned from 1 and 9999. Fan #s are not equal to the Modbus node address. Group names and fan #s that belong are pre-assigned. A fan can belong to only one group.

Main screen

The main screen shows in the lower right corner the software version number, system time and date, and the current access level.
If the keypad is not used after 3 minutes, the screen will automatically go to the facility overview screen.

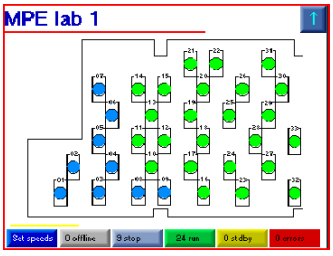
Facility control

This screen shows the total number of fans and groups defined in the system. It also shows the number of fans found with an error, offline, stopped, running and in standby.
If an error is found at anytime (if the alarm is activated) an alarm is turned on and the screen automatically goes to the facility overview screen. Here an "ALARM!" message is shown.



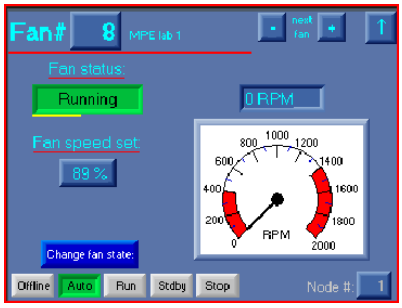
Group control

This screen shows the total number of fans for each group. It also shows the number of fans found with an error, offline, stopped, running and in standby respectively for that group.



Fan/unit control

ECM (DC Brushless - ACM1014) fan control screen shows the status of the fan identified by the fan # and group name. The fan's current speed setting, and RPM value are shown (along with high/low limits). The fan's running speed can be adjusted by pressing the button. The AC Fan screen is the same without the RPM monitor.
The Modbus address of each fan can be changed by the user during installation via the "Node #" button.



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