

Overview

AirCare Automation's ACC7052 Control Console is a color touch screen Console that lets you monitor and control a facility or clean room. It is designed to accommodate all the AirCare interface units (including AC-VariPhase™ & EC-Module) using a standard MODBUS RTU protocol. Facility ceiling plans are scanned into the Console to give a facility/room/unit view through touch screen control. Analog Sensors (pressure, particle counters etc.) can be connected for monitoring and control. PID closed-loop control can be implemented to maintain sensor settings through FFU or return-air fan auto-adjustments. Customized to your facility needs, this Console will save time and money in your facility or clean-room.



Main Functions/ Features

- Supports up to 200 units per port
 - Total 400 units
- Supports up to 50 groups
- 3 levels of control facility, group, unit
- Automatically monitor, generate and report errors
- Individual fan speed adjustment
- Global speed adjustment facility/groups
- Global set-back speed adjustment
- Central monitoring of fault sensors
- Central monitoring for Particle Counters, Pressure transducers, FFU set-point/RPM
- Supports up to 24 PID control loops
- Menu driven configuration options
- Password protected user control: View, User, Master
- Clock/Calendar feature to set Standby periods
- I/Os for Alarm, Stop & Standby
- Data Logging
- Event Log

Environment

- Inside cabinet: IP20 / NEMA1 (case)
- Panel (front panel) : IP65/NEMA4X
- Operational temperature: 0 to 50°C (32 to 122°F)
- Storage temperature: -20 to 60°C (-4 to 140°F)
- Relative Humidity (RH): 5% to 95% (non-condensing)

I/Os Analog Inputs – (BMS or external sensors)

- 3 analog inputs
- Input range: 0-10VDC, 4-20mA, 0-20mA
- Input impedance: 150KΩ
- Maximum input rating: 15V
- Resolution: 10-bit (0 to 1023)
- Conversion time: 20mSec
- Precision: ± 0.9%

Specifications

Power Supply

- Input Voltage : 24 VDC
- Max Current Consumption :270mA@24V
- Back-up Battery : 7 years typical at 25°C

Display Screen

- LCD Type: TFT, white LED backlight
- Display Resolution, pixels: 320x240 (QVGA)
- Viewing Area: 5.7"
- Touchscreen: Resistive, analog

Communication

- Two Isolated RS485 Serial Ports (MODBUS RTU)
 - Baud rate: 9600 & supports 400+ units
 - (RJ11) CAT 5E cable
- Ethernet port : OPC Client or MODBUS TCP
- "Remote Operator" from any PC

I/Os Digital Inputs – (BMS or external device)

- 1 N.O. digital input for emergency stop
- 1 N.O. digital input for standby mode
- Input Voltage: 24VDC
 - 0-5VDC for Logic '0'
 - 17-28.8VDC for Logic '1'

I/Os Digital Output – (BMS or external device)

- Used for Alarm activation
 - LED light
 - Dry contact to BMS
- SPST-N.O.
- Output current: 5A maximum (resistive load)
- Rated voltage: 250VAC / 30VDC
- Minimum load: 10mA@5VDC
- Life expectancy: 50k cycles at maximum load
- Response time: 10mS (typical)
- Contact protection: External precautions required (Contact AirCare)

If more I/O's (Analog, Digital or Relay) are required please contact AirCare Automation to explore expansion module options.

EXAMPLE SCREENS

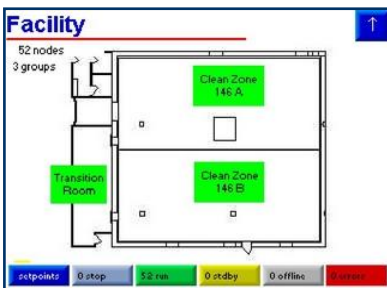
Main Screen

The main screen shows in the lower right corner the software version number, system time and date, and the current access level. Customer logo can be inserted.



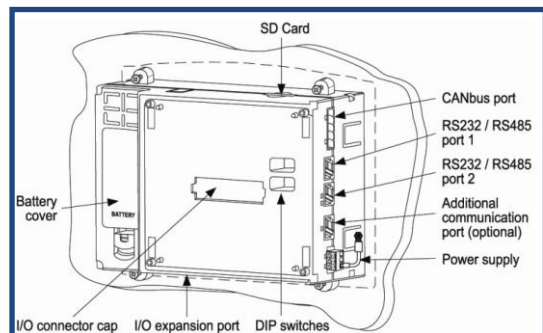
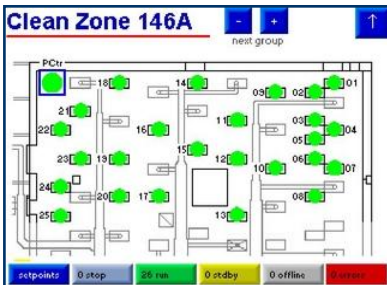
Facility Control

This screen shows the total number of nodes and groups defined in the system. It also shows the number of fans found with an error, offline, stopped, running and in standby.



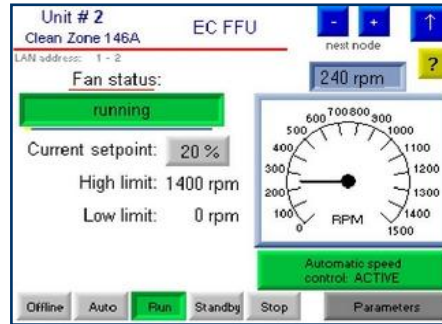
Group Control

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.



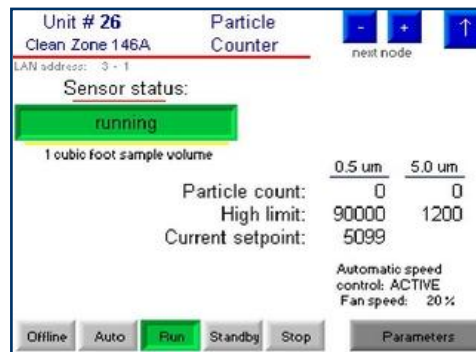
Fan/Unit Control

Fan/Unit 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 speed can be adjusted by pressing the button. The "AC FFU" screen is the same without the RPM readout/odometer.



Particle counter node display

Example of external sensor - particle counter's current values, set-point and limits can be viewed here. Its state can be changed.



Mechanical Dimensions

