

Save Time • Save Money • Improve Performance

Introduction

ENVIRCO®'s ACC7072 Control Console is a higher resolution and larger screen version of the ACC7052. The color touchscreen lets you monitor and control a facility or cleanroom. Software embedded in this PLC provides single-stop facility management customized to your facility.

Facility plans are scanned into the console to give a facility/room/unit view through touchscreen control. Analog sensors (temperature, RH, pressure, particle counters, etc.) can be connected for monitoring and control. 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 cleanroom.

Main Functions/Features

- » Supports up to 200 units per port, or 400 total units
- » Supports up to 50 groups
- » Three 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, and 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, and Standby
- » Data logging
- » Email alarm notification
- » Event log

Environment

- » Panel mounted: IP65/NEMA4X (front panel)
- » Operational temperature: 0 to 50°C (32 to 122°F)
- » Storage temperature: -20 to 60°C (-4 to 140°F)
- » Relative humidity (RH): 10% to 95% (non-condensing)

I/Os Analog Inputs (BMS or External Sensors)

- » Three 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: 20m/sec
- » Precision: ± 0.9%



Specifications

Power Supply

- » Input voltage: 24 VDC
- » Maximum current consumption: 320mA @ 24V
- » Back-up battery: 7 years typical at 25°C

Graphic Display Screen

- » LCD type: TFT, white LED backlight
- » Resolution/pixels: 800x480
- » Viewing Area: 7"
- » Touchscreen: Resistive, analog

Communication

- » Two isolated RS485 serial ports (MODBUS RTU)
- » 9600 baud rate with 400+ unit support
- » RJ11 CAT 5E cable
- » OPC Client or MODBUS TCP ethernet port
- » "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
- » 24VDC input voltage
- » 0-5VDC for Logic '0'
- » 17-28.8VDC for Logic '1'

I/Os Digital Outputs (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

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Example Screens

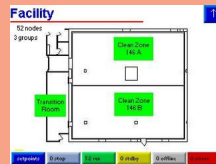
Main Screen

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.



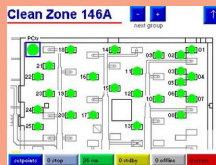
Facility Control

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



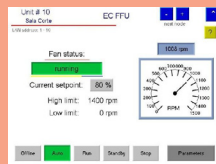
Group Control

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



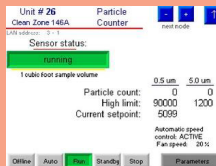
Fan/Unit Control

The Fan/Unit Control screen shows the status of the fan identified by the fan number 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 FFU screen is the same without the RPM readout/odometer.



Particle Counter Node Display

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



Mechanical Dimensions

