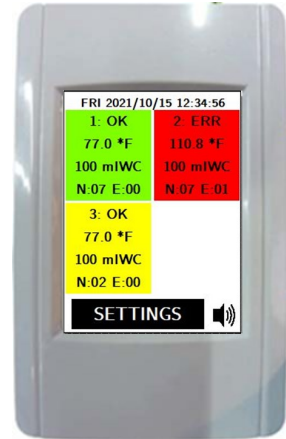


AirCare Automation EOS1301 — FFU & Sensor Monitor

AirCare Automation's **EOS 1301** is a compact, field configurable **2.8" Color Touchscreen** Console that intelligently controls & monitors Fan Filter Units (FFUs) from several leading manufacturers. The EOS1301 also has the ability to monitor 6 different types of sensors in each zone. The parameters that can be monitored are pressure, temperature, humidity, carbon dioxide (CO₂), volatile organic compounds (VOCs), and particulate matter (PM2.5).

The size of a light switch, it expands up to **4 Room/Zones** and **60 FFUs** and **8 DSMs**. This 2.8" color, high-resolution TFT screen is easily wall-mounted with an external panel box or flush mounted into your wall using a standard electrical single-gang box. Certifier/Commissioning friendly with setpoint adjustment and CFM & RPM feedback. Every EOS1301 comes with an EOS PCM to provide power to the touchscreen and communication to the FFUs. The EOS PCM makes installation a true plug and play solution with the touchscreen.



Main Functions

- Touch Capable Icons
- Menu Driven configuration options
- Monitors FFUs and Identifies Error Modes
- Global FFU Speed Adjustment
- Global FFU Set-back Speed Adjustment
- FFU Speed Control
- Monitor and alarm 6 different sensors
- Central Monitoring of fault conditions
 - ⇒ Pressure Switch Feedback — AC FFU
 - ⇒ RPM Feedback — EC FFU
 - ⇒ CFM Feedback — CFM FFU
- Password Protected Admin or View only mode
- Error Logging
- Supports 3 protocols to BMS
 - ⇒ MODBUS TCP/IP
 - ⇒ BACnet MS/TP*
 - ⇒ BACnet IP*

**Requires ACGW007-EOS gateway to provide BACnet protocols*

Features

- Compact and fits in a single gang junction box
- 2.8" Color touchscreen
- Supports up to 60 FFUs
- Supports up to 6 different sensors per zone
- Supports up to 4 Zones
- Built in Buzzer for alarming



Color Coded Mode and Status	
Run	Normal operating speed
Standby	Setback operating speed
Auto (Run/Standby)	Automatic operating speed
Stop	Stops the FFU from operating
Offline	Disables communication from the EOS to the FFU
Error	Reports an error in the FFU

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AirCare
Automation

EOS1301 — FFU & Sensor Monitor

Main Functions

FFU Types	EC FFU—RPM Feedback CFM FFU—CFM Feedback AC FFU—Pressure Switch Fault Feedback
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Room Control	Up to 4 Rooms
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User Interface	Color Touchscreen
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# of FFUs to control	Up to 60 FFUs
----------------------	---------------

Password Protection	Yes, Admin and View modes available
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Communication Protocol	Modbus RTU, RS485 2 Wire for FFU Control Modbus TCP/IP, BACnet IP/MSTP* *requires ACGW-EOS1301 gateway
------------------------	---

Display

Type	LCD 2.8 TFT Resolution 240x320x16
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Backlight Life	20,000 Hours
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Brightness	160cd/m2
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Touch Panel	Yes
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Environmental

Operating Temperature	-20 ~ + 70°C
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Storage Temperature	-30 ~ + 80°C
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Humidity	10 ~ 90% RH Non-condensing
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Features

Hierarchical Mode and Speed Control Levels	Global All Room speed and mode adjustment Individual room speed and mode adjustment Individual FFU speed and mode adjustment
--	--

Zone Control	Up to 4 Zones
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Alarm	Buzzer, Color-coded icon, and flashing screen
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Date/Time	Real Time Clock
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Event Log	Logs up to 2560 Events Ex. Communication Error or Changes in Setup to
-----------	--

Mechanical

Touchscreen Dimensions mm and inches	118mm x 76mm x 32mm 4.65" x 2.95" x 1.27"
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Installation of touchscreen	Wall Mounting
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Ingress Protection Rating	Front Panel: IP40
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Power

Consumption of touchscreen	1.5W
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EOS PCM or PCMGW	100-240 VAC, .9A 50/60Hz
------------------	--------------------------

Touchscreen	+12 ~ 48 VDC
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HMI

Buzzer	Yes
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Ethernet

Ports	RJ-45 x 1, 10/100 Base – Tx
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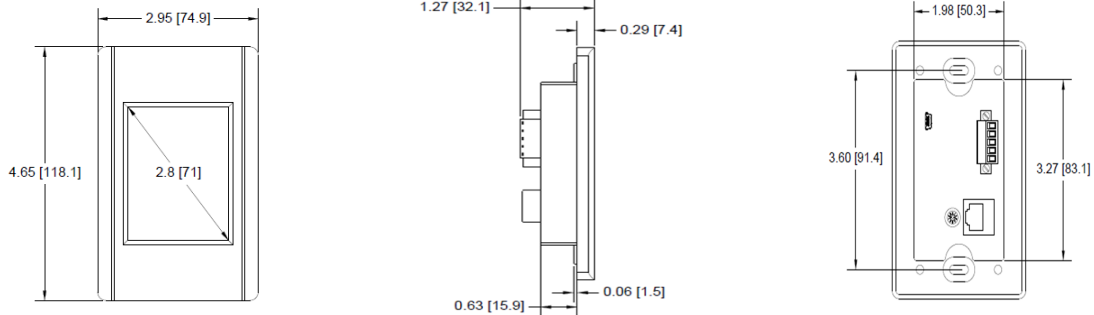
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EOS1301 — FFU & Sensor Monitor

EOS1300 Dimensions



EOS Power Communication Module (EOS PCM)

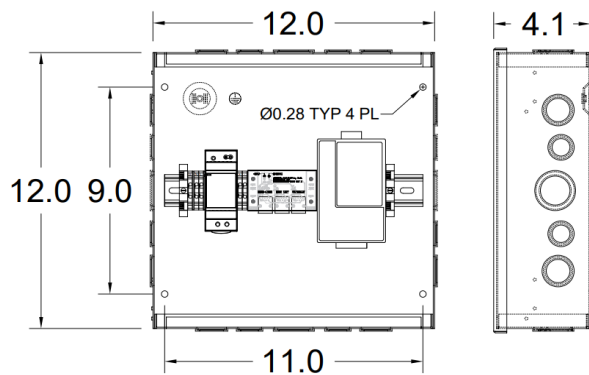
- Provides power to the EOS and DSMs
- Provides communication to the EOS/FFU Daisy Chain through the Hub board included
- High Voltage is wired into box and stepped down using Switch Mode Power Supply
- AC Power Requirements
 - ⇒ 100-240 VAC, .9A 50/60Hz
- EOS PCM provides 24VDC, 1.5A for EOS and DSMs
- EOS PCM comes in two configurations
 - ⇒ EOS PCM standalone system
 - ⇒ EOS PCM-GW includes ACGW-EOS1301 gateway for BACnet IP or MS/TP integration

Order Information

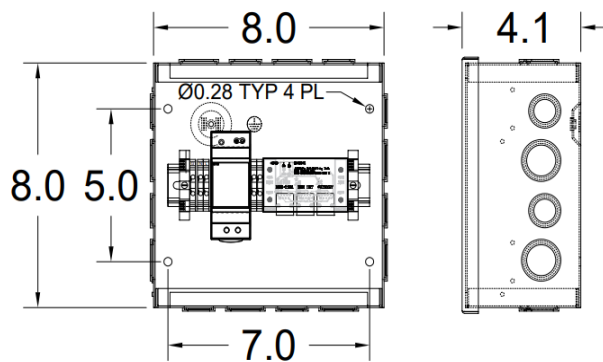
Part no.	Parts Included	Description
EOS1301	EOS1300	2.8" Touchscreen
	EOS PCM	Power/Communication Box for
EOS1301-GW	EOS1300	2.8" Touchscreen
	EOS PCM-GW	Power/Communication Box for

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EOS PCM-GW Dimensions



EOS PCM Dimensions



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AirCare Automation EOS1301 — FFU & Sensor Monitor

AirCare Automation's Distributed Sensor Module – DSM* is a network accessible (MODBUS RTU) module that can connect to the EOS1300 and provide environmental monitoring for cleanroom system without the complicated centralized panel box builds provided today.

DSMs

The EOS1301 can support one DSMS and one DSME per zone up to 4 zones. This allows a highly configurable sensor array within any operational environment.

DSM [S¹] – [TR²] [P²] [] – [N³]

Example part number: DSMSTRPN; Standard Model, Temperature and Humidity Sensor, Pressure Sensor, NIST Certification

[1]

Model	
S	Standard (2a)
E	Enhanced (2b)

[2a]

Sensors for Standard Model		
TR	Temperature	32 to 122°F
	Part #ACS2424	0 to 50°C
	Humidity	0 to 100%
P	Pressure	-0.2" to .02" IWC
	Part #ACS2414	-50 to 50 Pa

[3]

NIST Certification	
N	NIST certified (only available for the Standard sensors)
Temperature and Humidity	
Part #ACS2423	
Pressure	
Part #ACS2412	

OR

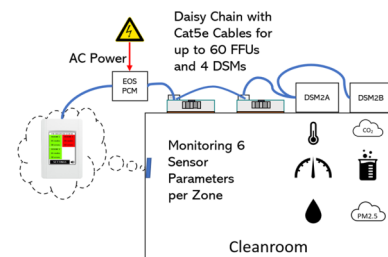
[2b]

Sensors for Enhanced Model		
V	Volatile Organic Compounds	400 to 2000 ppm
	Part #ACS2431	
C	Carbon Dioxide	400 to 2000 ppm
	Part #ACS2432	
M	Particulate Matter	0 to 500 μ/m3
	Part #ACS2430	

Photo Illustration of a DSM2



System Diagram



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