

PRODUCT DATA SHEET

Zephyr Console Introduction

Envirco's Zephyr series intelligently provides fan filter unit control and sensor monitoring in an easy-to-use, wall mounted package. The Zephyr series consists of three touchscreen sizes of 3.5", 7", and 12.1". It can provide individual, group, or global commands and has the ability to display and monitor pressure and temperature sensors. It can accommodate all MAC 10® units with network control cards.



Typical Applications

The Zephyr is designed for small to medium sized clean space environments that require fan filter unit control and monitoring. Sensors are available to monitor room pressure, temperature, or relative humidity through the Distributed Sensor Modules (DSM).

Distributed Sensor Modules

Envirco's Distributed Sensor Modules (DSM) seamlessly integrate with the Zephyr consoles and allow for environmental monitoring for cleanroom systems in a complete, modular, and easy-to-use package.



Features

- Adjusts and displays setpoint and unit status
- Individual, group, and global commands
 - Zephyr-100, 100 FFUs, 6 groups
 - Zephyr-120, 120 FFUs, 12 groups
 - Zephyr-200, 200 FFUs, 16 groups
- RPM/tachometer feedback
- Data-logging
- Remote Access & E-mail alarm notification
- Seven-day clock calendar for automating run, stop, and set-back settings
- Sensor monitoring and feedback through DSMs
 - 1 DSM per group
 - Room Temperature, Relative Humidity, & Pressure
- Panel-mounted console
- Option: BMS Information Exchange including BACnet IP/MSTP

Specifications

- Zephyr-100: LCD Display, white LED backlit
 - 3.5" display
 - Display resolution: 320 x 240 pixels
- Zephyr-120: LCD Display, white LED backlit
 - 7" display
 - Display resolution: 800 x 480 pixels
- Zephyr-200: LCD Display, white LED backlit
 - 12.1" display
 - Display resolution: 800 x 480 pixels
- Power supply provided in panel box
 - Powered by customer supplied 115 VAC
 - RJ45 coupler included for easy connection
- NEMA 1 Steel Enclosure
 - Painted White
 - 14" x 12" x 4"
 - Key latch for security

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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Zephyr FFU Control

Part No.	Model No.	FFUs	Groups	Defining Feature	Display	BACnet
271100-001	Zephyr-100	100	6	RPM feedback, group control, room sensor capability	3.5" touchscreen	no
271100-002	Zephyr-120	120	12	RPM feedback, group control, room sensor capability	7" touchscreen	no
271100-003	Zephyr-200	200	16	RPM feedback, group control, room sensor capability	12.1" touchscreen	no
271100-901	Zephyr-100BGW	100	6	RPM feedback, group control, room sensor capability	3.5" touchscreen	yes
271100-902	Zephyr-120BGW	120	12	RPM feedback, group control, room sensor capability	7" touchscreen	yes
271100-903	Zephyr-200BGW	200	16	RPM feedback, group control, room sensor capability	12.1" touchscreen	yes

Main Functions	
FFU Types	EC FFU- RPM Feedback CFM FFU-CFM Feedback AC FFU- Pressure Switch Fault Feedback
User Interface	Color Touchscreen
Number of FFUs to Control	Up to 100 FFUs
Password Protection	Yes, 3 modes available
Communication Protocol	Modbus, RTU, RS485 2 Wire for FFU Control Modbus TCP/IP Ethernet for BMS intergration
Display	
Type	LCD 3.5 TFT Resolution 320x240
Colors	65,536 (16-bit)
Touch Panel	Yes
Environmental	
Operating Temperature	0 to 50°C
Storage Temperature	-20~ + 60°C
Humidity	10~ 95% RH non-condensing

Features	
Hierarchal 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 & Monitor	4 different sensors per zone, up to 6 zones
Sensor Monitor	Pressure, Temperature, Humidity and particle counters
I/O Specifications	10 digital inputs and 6 relay outputs
Alarm	Buzzer, Color-coded icon, flashing screen
Date/Time	Real time clock
Event Log	Logs up to 2560 events Ex. communication error or changes in setup to console
Mechanical	
Touchscreen Dimensions	4.65in x 2.95in x 1.27in 118mm x 76mm x 32mm
Installation of Touchscreen	Wall Mounting
Weight	14.6 lbs. (6.6 kg)
Power	
Consumption	1.5w
EOS-60 PCM or PCMGW	100-240 VAC, 9A 50/60Hz
Ethernet	
Ports	RJ-45 x 1, 10/100 Base- Tx