

## ESC's Next Generation CEMS Data Controller Builds on the Reliability of the Field-Proven ESC 8832

### Improved speed, configuration space, and data storage

While maintaining all the capabilities of the previous-generation ESC 8832 Data Controller, the 8864 raises the bar for CEMS controllers. Bringing 64-bit computations to the CEMS world, the 8864 offers ten times the CPU speed, over ten times the configuration storage space, ten times the network speed, and over 100 times the data storage of the 8832. The 8864 provides power and storage you need as you prepare for new rules or look to modernize your CEMS shelter.

### New hardware capabilities

The 8864 has dual Ethernet interfaces, allowing the 8864 to communicate independently and simultaneously with an instrumentation or CEMS network and with the ESC|StackVision server that may be located on the corporate business network. Each network port can support multiple sessions of data polling and remote user interaction -- all while the 8864 continues to collect, compute and store new data.

Three built-in USB ports allow the user to connect external keyboards, trackballs, or mice, as well as supporting USB flash drives.

A new, brilliant, capacitive touch-screen and its accompanying Graphical User Interface allows users to perform common functions and interact with the 8864 without the use of a keypad or external device. No searching through menus, just touch and you're done. Better yet, the new GUI is also available remotely via a network connection and a web browser.



### More secure in today's networked environment

With the enhanced emphasis on network security, the 8864 has added additional security features. All remote browser connections now require HTTPS and remote terminal sessions now utilize the secure SSH protocol instead of the unencrypted telnet sessions of the past.

### The 64-bit power you need to control your CEMS for the next decade

ESC data controllers are designed to acquire and store CEMS data to ensure that no data is lost in the event of a communication failure with the DAS computer. ESC Data Controllers come with a 90-day guarantee and extended protection can be purchased through the ESC|DASProtect service. DASProtect insures you through the life of your DAS and offers unparalleled service in the industry.

### Built on the heritage of the ESC CEMS Data Controllers: the 8800, the 8816 & the 8832

For over 30 years, ESC has been supplying reliable Data Controllers for CEMS applications. The 8864 continues the tradition of rock-solid controllers that "just work". With a demonstrated Mean-Time-Between-Failure of well over 20 years, it is no wonder that ESC controllers are used nationwide in more CEMS shelters than any other brand. The 8864 is continuing that proud tradition.

## 8864 Specifications

CPU	AMD Geode LX 800
Data Bus	64 bits
Speed	500 MHz
Cache	64K L1 cache and 128K L2 cache
FLASH	4GB - firmware, configuration, and data Channels
DRAM	256 MB - operational data and code execution
Ethernet	Dual 10/100 Mbps
Serial Port 0	Optically isolated RS-485 or optional RS-232
Serial Ports 1-3	Optional RS-232 or RS-485
MODBUS	MODBUS protocol is supported on any serial or Ethernet port
LCD	7 inch, 16 Million colors, resolution 800 x 480, TFT active matrix
USB	USB 2.0 – two rear, one front port
Channels	999 Channels – with up to one year of data storage
Digital I/O Points	999 maximum
Dimensions	17.0w x 5.25h x 14.0d inches (43.2w x 13.3h x 35.6d cm) -- 19-inch rack
Weight	About 12 pounds (4.5 kg)
Power	Universal 110/220VAC, 50/60 Hz, less than 60W

### I/O Expansion Slots - Up to 12 Available

#### Expansion Card Options (8 points per card)

**Analog Current Input** - 4-20mA current loop available, differential with programmable gain amplifier

**Analog Voltage Input** - +/- 100mV, +/- 1V, +/- 5V, +/- 10V full scale

**Digital Input** - Detects contact (relay) closures or voltage-to-ground transitions (to 24V); optional software debounce

**Isolated Digital Input** - Detects open-to-voltage transitions (24V to 120V, AC or DC); optional software debounce available

**Meteorological Input** – Rainfall, Wind Speed/Direction, Temperature, Excitation V Output

**Digital Output** - Latching-coil relays; rated load: 5A @ 250VAC, 5A @ 30VDC

**Analog Output** - 4-20mA current loop outputs; 12-bit resolution

