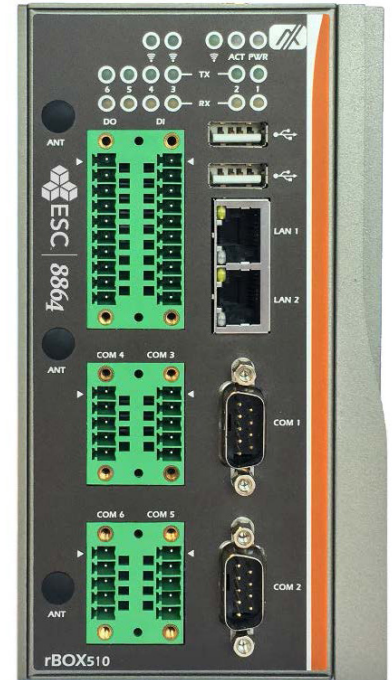


# 8864 Compact Data Controller

ESC Spectrum's next generation Continuous Emissions Monitoring System (CEMS) data controller is built for tight spaces and hazardous environments.

The 64-bit power you need in a small form factor, C1D2 compliant unit:

ESC Spectrum data controllers are designed to acquire, validate and store CEMS data to ensure that no data is lost in the event of a communication failure with the Data Acquisition System (DAS) server. Now, the complete firmware functionality of the 8864 Data Controller is available in a compact design that is certified for operation in a Class 1, Division 2 or ATEX explosive environment. The 8864 Compact Controller provides power and storage you need as you prepare for new rules or look to modernize your CEMS shelter and need to meet specific site requirements.



## Hardware Capabilities:

The 8864 Compact has dual Gigabit Ethernet interfaces, allowing it to communicate independently and simultaneously with an instrumentation or CEMS network and with the 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.

Eight digital inputs and eight digital outputs plus two serial ports provide additional I/O. The 8864 Compact does not use additional I/O cards. Two built-in USB ports allow the user to connect external keyboards or mice, as well as providing a convenient method to upgrade firmware.

A standard VGA port supports a monitor for access to the menu-driven interface during setup and initial configuration. A Graphical User (GUI) Interface is available remotely via a network connection and a web browser. The GUI allows users to perform common functions and interact with the 8864, but all functions, readouts and settings are available through the character-based MDI. The MDI is accessible through remote terminal sessions with tools like PuTTY or by emulation in the StackVision client.

Questions about the 8864 Compact Data Controller? Contact Sales at [sales@escspectrum.com](mailto:sales@escspectrum.com) or 512-250-7902

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[sales@escspectrum.com](mailto:sales@escspectrum.com)

10801 N Mopac Expy, Bldg 1-200  
Austin, TX 78759



ESC Spectrum

8864 Compact Data Controller Specifications	
<b>CPU</b>	Intel® Atom™ processor E3827 (1.75 GHz) dual core / 64 bit / 1 MB L2 Cache
<b>Storage</b>	4GB SSD - firmware, configuration, and data Channels
<b>Memory</b>	4GB DDR3L - operational data and code execution
<b>Ethernet</b>	Dual isolated 10/100/1000 Mbps ports
<b>USB</b>	USB 2.0 - two ports
<b>Serial Ports 1-2</b>	RS-232
<b>Modbus</b>	Modbus RTU protocol on serial and Modbus TCP on Ethernet are both supported
<b>Digital I/O</b>	DI: Input channels: 8 source type Input voltage: 0 to 30VDC Digital input Digital input levels for dry/wet contacts DO: Output channels: 8 sink type Output current: Max. 200mA per channel External Voltage: 10 to 30 VDC Optical isolation protection 3 KV
<b>Digital I/O Points</b>	8 physical inputs and 8 physical outputs; up to 999 total, including pseudo I/O bits
<b>Channels</b>	Configurable up to 999 channels
<b>Display</b>	Remote HTTPS access or secure terminal connections through StackVision Client/SSH/ PuTTY. VGA port for optional monitor (no GUI).
<b>Manual Input</b>	Optional USB keyboard and mouse
<b>Dimensions</b>	Without IP-54 enclosure -- 100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)
<b>Weight</b>	1.5 kg (3.3 lb)/ 1.88 kg (4.14 lb)
<b>Power</b>	1 x DC power input with terminal block
<b>Power Supply</b>	12-48 VDC, 1.36-0.45A, Protection: DC version, OVP, UVP, Reserve Protection
<b>Operating Temperature</b>	-40°F ~ +158°F (-40°C ~ +70°C)
<b>Humidity</b>	10% ~ 95%
<b>ISO</b>	Manufactured in an ISO 9001 facility
<b>Anti-Explosive</b>	ATEX & C1D2 -- Anti-Explosive Type "nA" Zone 2 Group II & Class I, Division 2 Certification (requires IP-54, or better, enclosure)
<b>Safety</b>	UL 60950-1; Heavy Industrial CE, including: EN 60950-1, IEC 60950-1

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## 8864 Compact Data Controller Specifications (cont.)

<b>EMI</b>	FCC Part 18 Heavy Industrial CE, including: EN 61000-6-4, EN 61000-3-2, EN 61000-3-3
<b>EMS</b>	Heavy Industrial CE, including: EN 61000-6-2, EN 61000-4-2 (ESD standards) [*Contact: +/- 6 KV; criteria B -- *Air: +/- 8 KV; criteria B] EN 61000-4-3 (radiated RFI standards) [*10V/m, 80 to 1000 MHz; 80% AM criteria A -- *1400~2000 MHz, 3 V/m, 80% AM (1 kHz) -- *2000~2700 MHz, 1 V/m, 80% AM (1 kHz)] EN 61000-4-4 (burst standards) [*Signal ports: +/- 2 KV; criteria B -- *DC power ports: +/- 2 KV; criteria B] EN 61000-4-5 (surge standards)[*Signal ports: +/- 1 KV; line-to-line; criteria B --*DC power ports: +/- 0.5 KV; line-to-earth; criteria B] EN 61000-4-6 (induced RFI standards) [*Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A - -*DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A] EN 61000-4-8 (magnetic field standards) [*30 A/m @ 50, 60 Hz; criteria A]
<b>Environmental Test Compliance</b>	IEC 60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shockpulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport) IEC 60068-2-6 Fc (vibration resistance) 5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)

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