Emerson's E2 CX Series:

Convenience Store Management System



For the next generation of convenience store automation







VeriFresh Sensors

- Food Safety
- Wireless Temperature Monitoring

Part of any food safety initiative, Emerson's VeriFresh system allows you to quickly and easily install air temperature sensors and product simulators for food quality monitoring and control applications. Installation can be quickly done

while customers shop since VeriFresh sensors are internally powered and do not require a costly "wired" communications network. No more hassling with miles of wires. No more time consuming and expensive retrofits.

Lighten Your Load

- Floor Lights

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- Exterior Signage
- Parking Lot

Combining results from time schedules, light-level sensors and override buttons, E2 CX easily determines when your lights are illuminated, optimizes your lighting needs, and provides you with timed overrides. Just push a button, and specified lights are overridden and come on for a pre-determined period.

HVAC and Indoor Air Quality (IAQ)

- Energy Savings - Maintenance Savings

The E2 CX controls temperature, humidity, and IAQ in HVAC applications. Whether or not you choose to use the MultiFlex RCB board or control via a direct interface, the advanced algorithms in the E2 bring in and condition only the required amount of outside air, saving energy and keeping you compliant with ASHRAE standards.

	Lennox RTU	Other RTUs	Echelon HVAC Unit
Heating/Cooling Set Points	Х	Х	Х
Occupancy Schedules	Х	Х	Х
Emergency Override	Х	Х	Х
IAQ	Х	Х	Х
Alarm Reset	Х	Х	
Alarm Codes	Х	Х	
Direct Interface	Х		Х
Remote Unit Reset	Х		

The "Intelligent" Advantage

Now, there are more ways than ever to reduce annual maintenance costs through Emerson's Intelligent Store™ architecture. For example, a new interface designed in collaboration with Lennox Industries, Inc. allows Lennox commercial RTUs to interface directly with the E2 CX. This lets end-users easily adjust set points and view over 100 error codes.

Emerson has also developed a unique interface with Dresser-Wayne fuel dispensers. Both of these interfaces mean no more proprietary controllers with unique error codes – and no more costly technician visits when an HVAC unit needs resetting or simple problems need fixing. They're just more ways we give you added insight into your business and lower your operational costs.



Power Monitoring

- Demand shedding capability
- Power-usage logs

E2 CX maximizes building comfort levels while it minimizes wasted energy. Both a

power monitor and a regulator, E2 CX comes equipped with extensive demand shedding features, as well as detailed power-usage logs, to help you spot trends and optimize performance.

Control Link RSC

- Maximum Uptime
- Food Safety
- Maintenance Efficiency
- Energy Savings

Control Link RSC is Emerson's standalone refrigeration controller



for reach-in coolers, reach-in freezers, and standalone merchandisers. Control Link eliminates old fashioned temperature monitoring and may be networked with the E2 CX for remote accessibility and alarm management, which is critical for food safety. Patented compressor relay algorithms extend relay life far beyond industry averages – maximizing system uptime. All maintenance codes are clearly listed on the front label, reducing troubleshooting time even for technicians unfamiliar with the RSC. The direct temperature control algorithms deliver smarter compressor cycling, which increase energy savings, reduce product shrink, maximize product quality, and reduce your operational cost.



E M E R S O N 'S

Complete Facility Management

The days of a retail control system simply maintaining a comfortable temperature level are gone forever. Instead, a facility management system must be able to operate systems economically, provide detailed power-usage information, protect food safety, keep up excellent indoor air quality, seamlessly interface to third-party devices, and save both energy and maintenance dollars. Also gone are the days of simple energy management controls, replaced with sophisticated enterprise-wide facility management systems. At the heart of this new generation of controllers is the E2 CX Series from Emerson Climate Technologies.



Enterprise Facility Management

- Alarm
- Dispatch
- Energy
- Refrigerant
- uality Condition Based
- Food Quality Con - Setpoint Verification
- Seeponie vermedelon

Our monitoring and facility management services are designed specifically to cut energy and maintenance costs and to provide easy access to vital enterprise-wide information. That's why we are trusted by over 5,000 sites, 24/7, to keep facilities running at optimum levels.

Take Back Control – Take Back Your Dollars

E2 CX Series controllers are easy to work with. With context sensitive help screens and a familiar QWERTY keypad, anyone can navigate like a pro. Programming HVAC systems, lighting schedules, and refrigeration systems is easily manageable from either the local display or remote interface. Installation is easy too. Just pull a communication cable to each HVAC unit, and they're ready for control based on a specific temperature and sensor reading. You can even create zones of variable heating or cooling to meet specific demands and cycle heating and cooling stages to maximize energy savings while maintaining the proper temperature and relative-humidity set points.



Remote Communications

- Automatic Data Collection
- Alarm Receiving and Multi-Setpoint Changes
- Security Safeguards

E2 CX is accessible on site or through our remote-access software from any LAN, WAN or standard modem connection. You have access to full-color animated graphics, color-coded alarm indicators and real-time equipment displays.

Anti-Condensate Control



- Energy Savings

Uncontrolled anticondensate heaters

on glass door style cases normally operate 24 hours per day, even though 100% operation is only required when dewpoint levels are high. Anti-condensate controllers minimize heater ON time based on dewpoint measurements – reducing energy usage without sacrificing the effectiveness of door heaters. Controllers are available for as little as one channel, or as many as 28.

E2 CX Capabilities				
Capabilities	CX-300	CX-400		
HVAC Units	6	8		
AHU Zones	6	12		
Lighting Control	10	20		
Suction Groups	0	4		
Condensers	0	1		
Standard Circuits	12	32		
Case Control Circuits	12	24		
Anti-Sweat	8	16		
Demand Control	1	1		
Power Monitoring	8 Circuits	16 Circuits		
Case Circuits	12	24		
Time Schedules	16	32		
I/O Board Capacity	62	62		
Echelon Device Capacity	441	441		
	QWERTY keypad, color display, modem/LAN/WAN remote communications,			

Specifications

QWERTY Reypad, color display, modem/LAN/WAN remote communications, internet accessibility, open protocol capabalities, operating temperatures -40° F to 149° F, operating humidities 5 to 90%, non-condensing

OEM integration

Because Emerson works closely with all major HVAC, refrigeration, lighting and electrical distribution-panel original equipment manufacturers (OEMs) – who often factory install our products – we can minimize on-site installation and cost. And because of that across-the-board cooperation, you can count on a complete system that performs at optimum levels, right from its installation.

Upgrading Compatibility

Because the EX CX uses the same RS-485 network as Emerson's Einstein controller series, it's easy to upgrade an existing unit. Just mount the controller and transfer the power and communications connections. The program-backup capabilities of Emerson's remote-access software let you download Einstein programs, then upload them to the E2 CX. When you power up, the E2 CX automatically assumes control of the connected I/O network.

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Intelligent Store[™] Architecture

Emerson Climate Technologies now offers the industry's most innovative approach to providing you a single view into your entire network of facilities: Intelligent Store architecture. For the first time, you can truly understand what your facilities cost to operate and maintain, information you can use to make decisions about where and when to spend your resources.

Emerson's Intelligent Store architecture delivers advanced electronic control and monitoring of your stores' refrigeration, HVAC, lighting and other systems, all the way down to the component leve. By integrating these systems and having them deliver actionable information to you, Emerson can help you substantially lower your capital, engineering and operating costs.



For more information, contact Emerson sales at 770.425.2724.



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