SPEC SHEET

75F® Central Control Unit™ XR

A powerful and extra-rugged head-end workstation providing real-time insights and control

- All the features of the standard 75F CCU, plus a high-performance processor, more memory storage, more inputs, and drop-proof casing
- Intuitive mobile pairing and configuration settings
- Real-time zones statuses for sensor inputs
- Adjustable scheduling and setpoints
- Manage alerts with severity color coding
- Magnetic alignment for easy and secure tablet mounting/detaching
- Wall mounting compatible with industry standard vertically installed junction boxes

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What do you get when you combine a state-of-the-art control supervisor and an applied equipment controller? Answer: the 75F Central Control Unit (CCU), a removable wall-mounted tablet, on-site user interface for building management, and gateway to the 75F cloud.

Customers appreciate real-time data visualization and graphs, zone and equipment-specific performance and status. With the CCU XR, get all the features of the base CCU with faster processing speeds, more memory, more inputs, and a drop-proof design.

OVERVIEW

The 75F Central Control Unit (CCU) is a wall-mounted communication gateway. It connects the 75F terminal devices via the local 900 MHz wireless mesh network and connects to Modbus devices via RS485. The data it collects from these devices is then sent to the 75F cloud with a Wi-Fi or LAN connection.
The CCU also acts as a zoned AHU controller or optimization extension. It aggregates all the terminal zone data to make more informed decisions about how and when to activate the system AHU.

KEY FEATURES

- Works with single and multi-stage systems, heat pump systems, fan coil units, air handlers, and more
- Control up to 48 terminal equipment modules per Central Control Unit
- Proactive, predictive control in conjunction with 75F cloud servers; operates connected to the 75F cloud or standalone without an Internet connection
- Strong, permanent magnets and metal locking tabs help with feel and secure alignment
- Intuitive Android-based user interface
- Capable of handling Edge AI algorithm for fast response

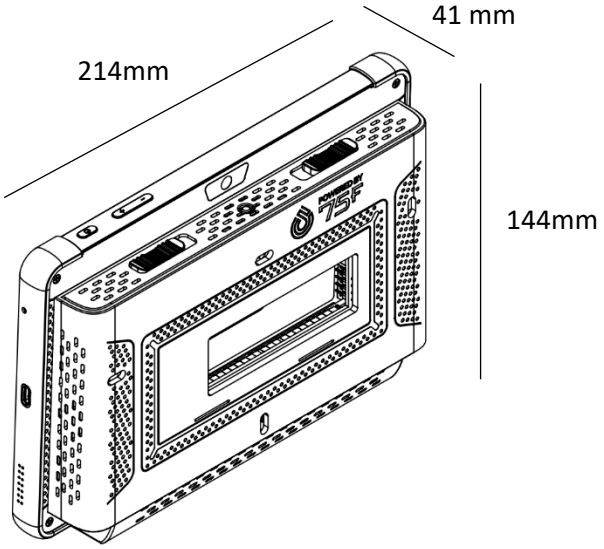
ADDITIONAL FEATURES

- Easy docking station for reliable docking and undocking
- (4) Thermistors to connect more sensors
- More accessible USB A port on the CM board
- Wi-Fi or inbuilt wired Ethernet port for Internet connectivity

COMPATIBLE APPLICATIONS

- 75F Advanced AHU control
- 75F Dynamic Airflow Balancing
- 75F Outside Air Optimization
- 75F Smart VAV with Reheat
- 75F Single-Stage Equipment Controls

75F® Central Control Unit™ XR



MECHANICAL

Dimensions	8.4" x 5.7" x 1.6" (214 mm x 144 mm x 41 mm)
Mounting	(2) #8 screws over standard electrical junction box
Screen	8" display, 1280 x 800
Operating Temp	32 – 122°F (0 – 50°C)
Termination	Common Pogo Pin termination for the USB port and +5V DC power
Microprocessor	Processor 8 core (4 high performance + 4 low power)
HVAC Control	Up to 5 stages of heating/cooling, up to 5 fan stages, 0-10V modulating output for heating/cooling valves (no VFD), and a dehumidifier or humidifier

I/O

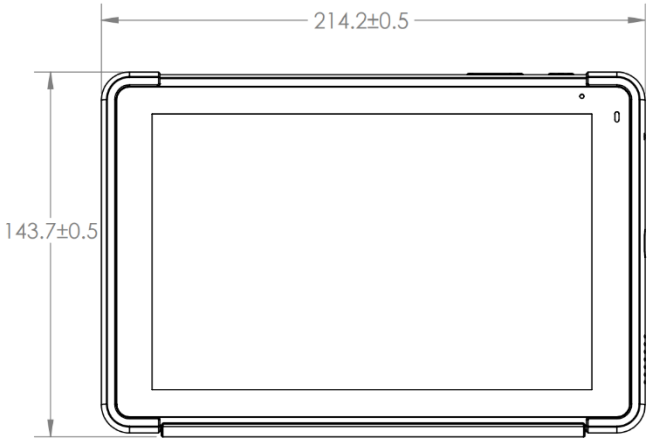
Inputs	A. (2) 0-10V analog inputs B. (4) 10k thermistor inputs
Outputs	C. (4) 0-10V or 4-20V mA analog outputs D. (7) 110V@0.3A , 24V@1A relays

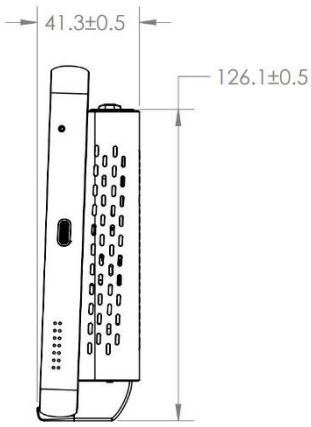
ELECTRICAL

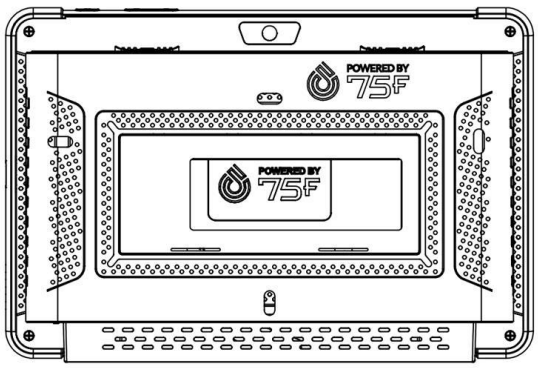
Supply	24V AC/DC +/- 15%
Consumption	5 VA (typical), 10 VA (max)
Battery	3.7V, 2400mAH, Lithium Polymer

COMMUNICATIONS

Bluetooth	2.4 GHz; used for pairing devices or connecting wireless sensors
Mesh	900 MHz IEEE 802.15.4-compliant; used for device communication on mesh network
Wired	RS485 port to connect to the Nodes and Stat Sensor bus to connect to 75F digital Sensors Ethernet connection to connect to a private network or the Internet USB-A port to connect RS485 converters
Wi-Fi	Wi-Fi to connect to internet







75F® Central Control Unit™ XR

The CCU XR comes packed with all the features of the standard CCU, plus a high-performance processor, more capacity, more inputs, and drop-proof casing.

	CCU		CCU XR
			
Case	**Standard Android Tablet** Typical Android tablet construction, no protective case 8" display, 1200x800 resolution		**Extra-Rugged** Scratch-resistant screen Drop proof from the top of a ladder 8” display, 1280 x 800 resolution
Core	**Quad-core Cortex** – Fair computational power Suitable for everyday tasks; not capable of intensive AI tasks		**Eight-core Processor (Quad Cortex-A76 + Quad Cortex-A55)** 10x faster processing speeds Capable of edge AI inference and running demanding tasks efficiently
Capacity	2GB System Memory and 16GB Storage Flash. Connect up to 24 devices		4GB System Memory and 32GB Storage Flash. Connect up to 48 devices
I/O	**Standard** (2) 0-10V analog inputs (2) 10k thermistor inputs (4) 0-10V analog outputs (7) 1A relays		**Advanced** (2) 0 – 10V analog inputs (4) 10k thermistor inputs (4) 0-10V or 4-20V mA analog outputs (7) 1A relays 10/100 Ethernet port No tool connectors
AI Inference	**Not Compatible** Not designed for heavy computation, making this model unsuitable for intensive tasks like AI training		**Training in Edge Scenarios** Runs pre-trained AI models and inference on edge scenarios — linear regression, decision trees, or neural networks