



Overview

The ECL-STAT-FC, ECB-STAT-FC, and ECW-STAT-FC series represent three thermostat families specifically designed to handle fan coil applications. In particular, the ECL-STAT-FC series uses the LonTalk® communication protocol and is LONMARK® certified. The ECB-STAT-FC series uses the BACnet® MS/TP communication protocol and is BTL® listed as an Application Specific Controller (B-ASC). Lastly, the ECW-STAT-FC series communicates over a wireless mesh network.

Every thermostat model has an internal temperature sensor and some models have an integrated relative humidity sensor for dehumidification.

With three configurable inputs and one configurable auxiliary output, many advanced control functions are possible. In addition, either two analog or two floating control outputs are available, depending on the thermostat model. All thermostats can control up to three fan speeds, average temperature readings from multiple remote sensors, as well as provide advanced active occupancy logic through an optional attachable PIR motion detector cover.

All thermostat families can be configured using Distech Controls' EC-Net^{AX}, an open multiprotocol integration solution that is powered by the Niagara^{AX} Framework®. In particular, the ECL-STAT-FC and ECB-STAT-FC families can also be configured using the EC-Configure wizard. Furthermore, the ECL-STAT-FC family can also be configured using the EC-Configure plug-in, another configuration interface that is accessible through any LNS®-based software, such as Distech Controls' Lonwatcher 3.

Applications

- Meets the requirements of fan coil applications, such as:
 - 2-pipe for cooling only or for heating only
 - 2-pipe for cooling with reheat, or for heating with reheat
 - 4-pipe cooling and heating
 - 4-pipe cooling and heating with reheat
- Improves energy efficiency when used with the optional PIR motion detector cover by automatically adjusting temperature setpoints based on a zone's occupancy mode

Features & Benefits

- Integrated RH sensor for increased occupant comfort through dehumidification¹
- Control of up to 3 fan speeds with ability to enter auto fan-speed mode
- 3 configurable inputs for added functionality: 2 digital inputs for remote night setback, occupancy sensing, door/window contact, remote override, or filter alarm, and 1 input for dry contact or analog sensor changeover
- 1 configurable auxiliary SPST switch for controlling lighting or auxiliary reheat
- 2 outputs for analog (0 – 10V DC) control or 2 outputs for floating and On/Off control (depends on model)
- Remote temperature sensing capable of averaging multiple temperature readings
- Compatible with an optional PIR motion detector cover, bringing advanced occupancy functionality and energy savings
- Easy connections for inputs and outputs, with removable terminals
- Backlit LCD display with status LEDs and dedicated function menu keys for simple operation
- Adjustable maximum heating and minimum cooling setpoints, as well as occupancy setpoints

1. Specific models only, check table on second page for details.

Product Warranty & Total Quality Commitment

All Distech Controls product lines are built to meet rigorous quality standards and carry a two-year warranty. Distech Controls is an ISO 9001 registered company.

Models Available

Model	EC(α)-STAT-FC-AC	EC(α)-STAT-FC-ACH	EC(α)-STAT-FC-AH	EC(α)-STAT-FC-AHH	EC(α)-STAT-FC-FC	EC(α)-STAT-FC-FCH	EC(α)-STAT-FC-FH	EC(α)-STAT-FC-FHH
2 digital inputs	■	■	■	■	■	■	■	■
1 universal input	■	■	■	■	■	■	■	■
1 remote sensor input	■	■	■	■	■	■	■	■
2 analog (0 – 10V DC) outputs	■	■	■	■				
2 floating outputs					■	■	■	■
1 digital auxiliary output	■	■	■	■	■	■	■	■
3 fan-speed control	■	■	■	■	■	■	■	■
Internal RH sensor		■		■		■		■
PIR motion detector ready	■	■	■	■	■	■	■	■
Product Number	CDIVI-7300F50(β)1	CDIVI-7350F50(β)1	CDIVI-7305F50(β)1	CDIVI-7355F50(β)1	CDIVI-7300C50(β)1	CDIVI-7350C50(β)1	CDIVI-7305C50(β)1	CDIVI-7355C50(β)1

Recommended Applications

Model	EC(α)-STAT-FC-AC	EC(α)-STAT-FC-ACH	EC(α)-STAT-FC-AH	EC(α)-STAT-FC-AHH	EC(α)-STAT-FC-FC	EC(α)-STAT-FC-FCH	EC(α)-STAT-FC-FH	EC(α)-STAT-FC-FHH
2 & 4 pipe analog	■	■	■	■				
2 & 4 pipe floating and On/Off					■	■	■	■
Market – Commercial/Institution	■	■			■	■		
Market – Hotel/Lodging			■	■			■	■
α represents either L for LONWORKS, B for BACnet, or W for Wireless								
β represents either E for LONWORKS, B for BACnet, or W for Wireless								

Thermostat Covers – Optional

Allure PIR Motion Detector Cover



FC-xCx Allure PIR Motion Detector Cover	Allure PIR motion detector cover for all commercial fan coil thermostat models
FC-xHx Allure PIR Motion Detector Cover	Allure PIR motion detector cover for all hotel fan coil thermostat models

Allure Cover



FC-xCx Allure Cover	Allure cover for all commercial fan coil thermostat models
FC-xHx Allure Cover	Allure cover for all hotel fan coil thermostat models

For replacing Traditional covers on thermostats in existing installations in order to have a uniform Allure look across all wall units.

Traditional Cover



FC-xCx Traditional Cover	Traditional cover for all commercial fan coil thermostat models
FC-xHx Traditional Cover	Traditional cover for all hotel fan coil thermostat models

For replacing Allure covers on thermostats that will be used as replacements or additions in existing installations where there is already a uniform Traditional look across all wall units.

Wireless Card (Required for ECW-STAT-FC Models Only)



ECW-STAT Add-On Card w/Whip Antenna	Add-on card with whip antenna
ECW-STAT Add-On Card w/Remote Antenna	Add-on card with remote antenna

Add-on card needs to be installed in an EC-BOS-2^{AX} or EC-BOS-6^{AX} for communication with wireless thermostat models. JAR file is available free of charge and is included in Distech Controls EC-NET-AX Support Package.

Wireless Repeater



ECW-STAT Repeater	Repeater for communication with out-of-range wireless thermostat models
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Wireless Survey Tool



ECW-STAT Survey Tool	Kit for measuring signal strength of wireless transmissions. Used to establish suitable locations for installation of wireless thermostat models
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Supported Platforms



EC-Net^{AX}

EC-Net^{AX} is a web-enabled multiprotocol integration solution powered by the Niagara^{AX} Framework, establishing a fully Internet-enabled, distributed architecture for real-time access, automation and control of devices. EC-Net^{AX}'s open framework creates a common development and management environment for integration of LONWORKS®, BACnet®, ZigBee™ and other protocols. Regardless of manufacturer and protocol, the EC-Net^{AX} system provides a unified modeling of diverse systems and data, providing one common platform for development, management and enterprise applications.



LNS[®]
TURBO Edition

LONWORKS Network Services (LNS)

LNS[®] is a client-server platform that allows multiple users, running different LNS-compatible applications, to access a common source for directory, installation, management, monitoring and control services for the network system being managed. Distech Controls' Lonwatcher is an example of a LNS-based network management tool that can use Plug-Ins to configure and monitor controllers and devices in the control system.

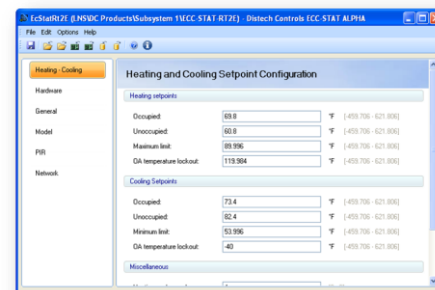
EC-Net^{AX} Wizards and LNS Plug-Ins

EC-Configure EC-Net^{AX} Wizards (ECL-STAT-FC and ECB-STAT-FC models only)

Designed for use with EC-Net^{AX} (powered by the Niagara^{AX} Framework), the EC-Configure EC-Net^{AX} Wizards can be used to easily configure a device's parameters including inputs, outputs, fan and valve settings, heating and cooling setpoints, amongst others. Moreover, these wizards can be used to enable and configure additional built-in features such as morning warm-up, load shedding, frost protection and slave operation mode.

EC-Configure LNS Plug-in (ECL-STAT-FC models only)

Similar to an EC-Configure EC-Net^{AX} Wizard, the EC-Configure LNS Plug-in is a user-friendly configuration interface, which is accessible through any LNS[®]-based software, such as Distech Controls' Lonwatcher 3.



Complementary Products

Temperature Sensors



Allure EC-SENSOR
Allure EC-SENSOR-O

Room temperature sensor with communication jack
Room temperature sensor with occupancy override button and communication jack



SS Plate Wall Sensor
Tamper Proof SS Plate Wall Sensor

Room temperature sensor with stainless steel plate cover
Room temperature sensor with stainless steel plate cover and tamper proof screws

For more information on these or other Distech Controls products please refer to our web site at www.distech-controls.com or contact sales@distech-controls.com.

Dimensions



Units Legend: inches

Specifications

Power

Voltage	19-30V AC; 50/60Hz; Class 2
Maximum Consumption	2VA

Interoperability

ECL-STAT-FC series:	
Communication	LonTalk protocol
Channel	TP/FT-10; 78Kbps
LONMARK Interoperability Guidelines	Version 3.4
LONMARK Functional Profile	Space Comfort Controller #8500
ECB-STAT-FC series:	
Communication	BACnet MS/TP
BACnet Profile	B-ASC
Baud Rate	9600, 19200, 38400, or 76800 bps
Addressing	BACnet MS/TP MAC address; adjustable range from 1 – 127
ECW-STAT-FC series:	
Communication	Wireless
Addressing	Adjustable range from 0 – 254
Frequency (depends on channel parameter)	2.4GHz, 802.15.4

Environmental

Operating Temperature	0°C to 50°C; 32°F to 122°F
Storage Temperature	-30°C to 50°C; -22°F to 122°F
Relative Humidity	0 to 95% non-condensing

Enclosure

Material	ABS Resin
Color	White
Dimensions	4.93" x 3.41" x 1.43" (124mm x 85mm x 36mm)
Shipping Weight	0.75lbs (0.34kg)

Agency Approvals

UL	UL873 (US) and CSA C22.2 No.24 (Canada)
Industry Canada	ICES-003 (Canada)
FCC	Compliant to CFR 47, Part 15, Subpart B, Class A (US)
C-Tick	AS/NZS CISPR 22 Compliant (Australia/New Zealand)
ECW-STAT-FC Series only	
FCC	Compliant to Part 15, Subpart C

Inputs

Binary inputs	Dry contact across terminal BI1, BI2, and UI3 to Scom
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Outputs

Fan relay output	30V AC, 1A maximum, 3A in-rush
Valve triac output ¹	30V AC, 1A maximum, 3A in-rush
Valve analog output ¹	0-10V DC into 2KΩ resistance min.
Auxiliary output	Dry contact

Functionality

Temperature Sensor	
- Type	Local 10KΩ NTC thermistor
- Resolution	±0.1°C (±0.2°F)
- Control Accuracy	±0.5°C (±0.9°F) @ 21°C (70°F) typ. calibrated
Humidity Sensor ¹	
- Type and Calibration	Single point calibrated bulk polymer
- Precision	Reading range: 10-90% RH non-condensing 10-20%; precision is 10% 20-80%; precision is 5% 80-90%; precision is 10%
- Stability	Less than 1.0% yearly (typical drift)
Temp and Humidity Ranges	
- Occ, Stand-by, and Unocc cooling Setpoint	12.0-37.5°C (54-100°F)
- Occ, Stand-by, and Unocc heating Setpoint	4.5-32.0°C (40-90°F)
- Dehumidification Setpoint ¹	30-95% RH
- Room Air Temperature	-40-50°C (-40-122°F)
- Outdoor Air Temperature	-40-50°C (-40-122°F)
Proportional Band for Room Temperature Control	Factory set, heating and cooling at 1.8°C (3.2°F)
Memory	EEPROM

LCD Display

Type	Backlit LCD display
Display Area	2 rows of 8 characters each

Electromagnetic Compatibility

CE	EMC Directive 89/336/EEC (European Union)
FCC	Compliant with Part 15

OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

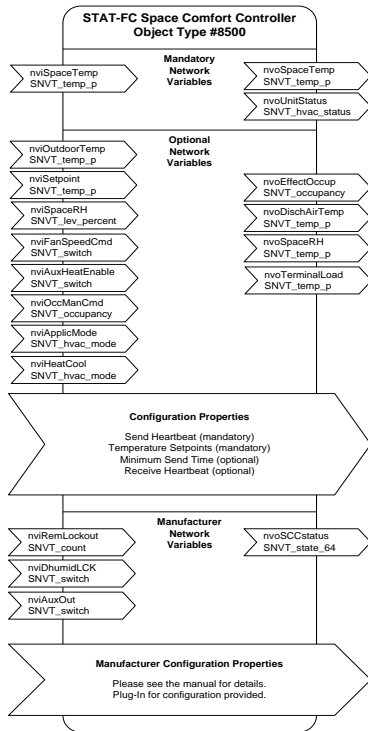
Communication Protocols and Standards



1. Specific models only, check table on second page for details.



LONMARK Objects and Network Variables



BACnet Objects and Services

For information on the BACnet objects and services, refer to the BACnet Protocol Implementation Conformance Statement (PICS).

Specifications subject to change without notice.

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Niagara^{AX} Framework is a registered trademark of Tridium, Inc.; ZigBee is a registered trademark of ZigBee Alliance;
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05DI-DSSTATF-10

STAT-FC Series

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