Facility Explorer

FX07 Field Controller

Description

The FX07 is a high performance field controller designed specifically for commercial Heating, Ventilating, Air Conditioning, and Refrigeration (HVACR) applications.

The FX07 supports 17 physical inputs and outputs including a wide range of sensors and actuating devices. The FX07 includes an onboard real-time clock to support the start/stop scheduling of equipment, real-time based control sequences, and time stamping of events and trend records.

With the optional integral user interface, you can locally monitor and adjust the FX07's operation. The FX07 also supports a panel- or wall-mountable Medium User Interface (MUI) for remote monitoring and adjustment.

The FX07 can be fitted with an N2 Open, LONWORKS®, or BACnet® communication card to integrate the controller into a compatible Building Automation System (BAS). Alternatively, the FX07 can be fitted with an RS-232C serial communication card to transmit event notification messages via Short Messaging Service (SMS) through a Global System for Mobile (GSM) modem.

Using the FX Tools software package, you can program the FX07 field controller to operate a wide variety of commercial HVACR equipment; including small refrigeration compressors, close control units, packaged rooftop units, fan coil units, unit ventilators, and chilling or heating ceiling beam installations.

Refer to the *FX07 Field Controller Product Bulletin (LIT-12011268)* for important product application information.

Features

- freely programmable controller
- network communication card options: N2 Open, LONWORKS, BACnet protocols
- remote communication services
- optional integral Liquid Crystal Display (LCD) user interface with four control buttons
- optional remote user interface
- analog outputs with Pulse Width Modulated (PWM) option
- models with various output configurations of solid-state triacs and line voltage relays
- Network Room Module (NRM)

FX07 Field Controller with Integral User Interface

Repair Information

If the FX07 Field Controller fails to operate within its specifications, replace the unit. For a replacement controller, contact the nearest Johnson Controls® representative.

Selection Charts

FX07 Controller Ordering Information (24 VAC Power Supply, without Integral Display)

Product Code Number	Description
LP-FX07D00-000C	FX07 Controller: 4 Analog Inputs (AIs), 5 Digital (Binary) Inputs (DIs), 2 Analog Outputs (AOs) (0-10 V or PWM), 6 Digital (Binary) Outputs (DOs) (Relays), no communication card
LP-FX07D01-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), N2 Open card
LP-FX07D02-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), LONWORKS card
LP-FX07D03-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), RS-232C card
LP-FX07D04-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), BACnet card
LP-FX07D20-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), no communication card
LP-FX07D21-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), N2 Open card
LP-FX07D22-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), LONWORKS card
LP-FX07D23-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), RS-232C card
LP-FX07D24-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), BACnet card
LP-FX07D30-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), no communication card
LP-FX07D31-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), N2 Open card
LP-FX07D32-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), LONWORKS card
LP-FX07D33-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), RS-232C card
LP-FX07D34-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), BACnet card

FX07 Controller Ordering Information (24 VAC Power Supply, with Integral Display) (Part 1 of 2)

Product Code Number	Description
LP-FX07D50-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), no communication card
LP-FX07D51-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), N2 Open card
LP-FX07D52-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), LONWORKS card
LP-FX07D53-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), RS-232C card
LP-FX07D54-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), BACnet card
LP-FX07D70-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), no communication card
LP-FX07D71-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), N2 Open card
LP-FX07D72-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), LONWORKS card
LP-FX07D73-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), RS-232C card

FX07 Controller Ordering Information (24 VAC Power Supply, with Integral Display) (Part 2 of 2)

Product Code Number	Description
LP-FX07D74-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), BACnet card
LP-FX07D80-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), no communication card
LP-FX07D81-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), N2 Open card
LP-FX07D82-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), LONWORKS card
LP-FX07D83-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), RS-232C card
LP-FX07D84-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), BACnet card

FX07 Controller Ordering Information (90 to 240 VAC Power Supply, without Integral Display, Not Available in North America)

Product Code Number	Description
LP-FX07A00-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), no communication card
LP-FX07A01-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), N2 Open card
LP-FX07A02-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), LONWORKS card
LP-FX07A03-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), RS-232C card
LP-FX07A04-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), RS-232C card
LP-FX07A20-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), no communication card
LP-FX07A21-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), N2 Open card
LP-FX07A22-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), LONWORKS card
LP-FX07A23-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), RS-232C card
LP-FX07A24-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), BACnet card
LP-FX07A30-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), no communication card
LP-FX07A31-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), N2 Open card
LP-FX07A32-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), LONWORKS card
LP-FX07A33-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), RS-232C card
LP-FX07A34-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), BACnet card

FX07 Controller Ordering Information (90 to 240 VAC Power Supply, with Integral Display, Not Available in North America)

Product Code Number	Description
LP-FX07A50-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), no communication card
LP-FX07A51-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), N2 Open card
LP-FX07A52-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), LONWORKS card
LP-FX07A53-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), RS-232C card
LP-FX07A54-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V or PWM), 6 DOs (Relays), BACnet card
LP-FX07A70-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), no communication card
LP-FX07A71-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), N2 Open card
LP-FX07A72-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), LONWORKS card
LP-FX07A73-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), RS-232C card
LP-FX07A74-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (4 Relays, 2 Triacs), BACnet card
LP-FX07A80-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), no communication card
LP-FX07A81-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), N2 Open card
LP-FX07A82-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), LONWORKS card
LP-FX07A83-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), RS-232C card
LP-FX07A84-000C	FX07 Controller: 4 AIs, 5 DIs, 2 AOs (0-10 V), 6 DOs (3 Interlocked Relays, 1 Free Relay, 2 Triacs), BACnet card

FX07 Communication Card Ordering Information

Product Code Number	Description
LP-NET071-000C	N2 Open communication card for FX07
LP-NET072-000C	LONWORKS communication card for FX07
LP-NET073-000C	RS-232C communication card for FX07
LP-NET074-000C	BACnet communication card for FX07 Rev. A only

Room Command Modules - TM Series Room Command Modules Ordering Information (80 x 80 mm [3.15 x 3.15 in.], °C, European Models) (Part 1 of 2)

Product Code Number	Description
TM-2140-0000	Room Command Module, temperature sensor only
TM-2150-0000	Room Command Module, occupancy button and LED
TM-2160-0000	Room Command Module, 12-28°C setpoint dial, occupancy button and LED
TM-2160-0002	Room Command Module, 12-28°C setpoint dial, occupancy button and LED, fan speed override
TM-2160-0005	Room Command Module, ± setpoint dial, occupancy button and LED

Room Command Modules - TM Series Room Command Modules Ordering Information (80 x 80 mm [3.15 x 3.15 in.], °C, European Models) (Part 2 of 2)

Product Code Number	Description
TM-2160-0007	Room Command Module, ± setpoint dial, occupancy button and LED, fan speed override
TM-2190-0000	Room Command Module, 12-28°C setpoint dial
TM-2190-0005	Room Command Module, ± setpoint dial

Network Room Modules Ordering Information (Available in Europe)

Product Code	Features/Options						
	Size (mm)	Service Port Type	LCD Display	Temperature Adjust Dial	Fan Speed Selector Button	°F/°C	Addressable
LP-NRM001-000C	80 x 80	Program Key	No	No	No	No	No
LP-NRM002-000C			Yes	Yes	No	No	No
LP-NRM003-000C			Yes	Yes	Yes	No	No
LP-NRM511-000C		MUI	No	No	No	No	Yes
LP-NRM502-000C			Yes	Yes	No	No	No
LP-NRM503-000C			Yes	Yes	Yes	No	No

TM Series Room Command Modules Ordering Information (120 x 80 mm [4.72 x 3.15 in.], °F/°C)

Product Code Number	Description
TM-2141-0000	Room Command Module, temperature sensor only
TM-2151-0000	Room Command Module, occupancy button and LED
TM-2161-0000	Room Command Module, 54-82°F/12-28°C setpoint dial, occupancy button and LED
TM-2161-0002	Room Command Module, 54-82°F/12-28°C setpoint dial, occupancy button and LED, fan speed override
TM-2161-0005	Room Command Module, ± setpoint dial, occupancy button and LED
TM-2161-0007	Room Command Module, ± setpoint dial, occupancy button and LED, fan speed override
TM-2191-0000	Room Command Module, 54-82°F/12-28°C setpoint dial
TM-2191-0005	Room Command Module, ± setpoint dial

Network Room Modules Ordering Information (Available in North America)

Product Code	Features/Options						
	Size, mm (inch)	Service Port Type	LCD Display	Temperature Adjust Dial	Fan Speed Selector Button	°F/°C	Addressable
LP-NRM511-000C	80 x 80 mm (3.15 x 3.15 in.)	MUI	No	No	No	No	Yes
LP-NRM552-000C			Yes	Yes	No	Yes	No
LP-NRM553-000C			Yes	Yes	Yes	Yes	No
LP-NRM611-000C	120 x 80 mm (4.72 x 3.15 in.)	MUI	No	No	No	No	Yes
LP-NRM652-000C			Yes	Yes	No	Yes	No
LP-NRM653-000C			Yes	Yes	Yes	Yes	No

Medium User Interfaces Ordering Information

Product Code Number	Description
LP-DIS60P20-0C	Medium User Interface (non-isolated version); can be mounted up to 3 m (9.8 ft) from the FX07 and includes panel mounting hardware.
LP-DIS60P21-0C	Medium User Interface (isolated version); can be mounted up to 300 m (1,000 ft) from the FX07 and includes panel and wall mounting hardware.
LP-KIT007-000C	Link cable for the connection of the FX07 to the panel mount MUI – 3 m (9.8 ft).

Software Ordering Information

Product Code Number	Description
LP-FXTPRO-0	FX Tools Pro CD (Includes the FX Builder, FX Builder Express, FX CommPro N2, LON, BACnet Software) - New User
LP-FXTPRO-6	FX Tools Pro CD (Includes the FX Builder, FX Builder Express, FX CommPro N2, LON, BACnet Software) - Upgrade

Accessories

Product Code Number	Description
LP-KIT100-000C	FX Programming Key
DT-9100-8901	Power Supply Adapter for Programming Key: 230 VAC/12 VDC (Europe Only)
LP-KIT007-001C	Interface cable for standard landline modem, 1.5 m (4.9 ft)
LP-KIT007-002C	Interface cable for GSM modem, 1.5 m (4.9 ft)

Product Code Number	Description
LP-KIT007-013C	Null modem cable for computer connection, 3 m (9.8 ft)
LP-KIT007-014C	Null modem cable for computer connection, 15 m (49.2 ft)
LP-KIT200-000C	N2 Commissioning Adapter: Includes port powered RS-232C to RS-485 converter, 3 m (10 ft) cable, and mating connectors for FX05, FX06, FX07, FX14, FX15, FX16, and FXVMA.
LP-KIT204-000C	BACnet Internet Protocol (IP) to MS/TP Adapter: Includes USB port powered Ethernet (IP) to RS-485 (MS/TP) converter, 3 m (10 ft.) cable, and mating connectors for FX07, FX14, and FX16 controllers.
IU-9100-8401	Converter RS-232C/RS-485 (N2) 230 VAC (Europe only)
LP-KIT007-020C	Bag of replacement communication wiring connectors.
LP-KIT007-100C	Bag of replacement Input/Output (I/O) and power wiring connectors.

Technical Specifications

FX07 Field Controller Technical Specifications (Part 1 of 2)		
Product Codes	LP-FX07xxx-xxx	
Power Requirements	LP-FX07Dxx-xxx: 24 VAC/DC ±15%, 50/60 Hz – Safety Extra-Low Voltage (SELV) (Europe) – Class 2 North America LP-FX07Axx-xxx: 90 to 240 VAC, 50/60 Hz (Not available in North America)	
Power Consumption	LP-FX07Dxx-xxx: 9 VA maximum LP-FX07Axx-xxx: 17 VA maximum	
Housing Material	ABS + polycarbonate, self-extinguishing: UL 94-V0 flammability rating	
Protection Class	IP20 CEI/EN60529	
Dimensions (H x W x D)	145 mm (including terminals) x 108 mm x 49 mm (62 mm with integral display) 5.71 (including terminals) x 4.26 in. x 1.93 in. (2.45 in. with integral display)	
Ambient Operating Conditions	-40 to 50°C (-40 to 122°F), 10 to 95% RH (noncondensing) Note that the integral user interface does not operate below -20°C (-4°F).	
Ambient Storage Conditions	-40 to 70°C (-40 to 158°F) 10 to 95% RH (noncondensing)	
Real-Time Clock	Accuracy: Better than ±200 ms per day at constant ambient temperature of 25°C Backup: Minimum 10 days without power at 25°C	
Power Supply for Panel Mount MUI	15 VDC on remote display connector at 100 mA maximum	
Power Supply Outputs for AIs	15 VDC 20 mA power supply for active sensors (also used for Pulse Width Modulation [PWM] outputs) 5 VDC 15 mA power supply for ratiometric sensors	
Analog Inputs	16-bit resolution – not isolated	
	Sensor Type	**Full Linearization Range**	**Accuracy at 20°C (68°F) Ambient (Sensor Accuracy Not Included)**
	A99	-50 to 100°C (-58 to 212°F)	±0.5°C (±1°F)
	NTC 10K	-40 to 150°C (-40 to 300°F)	±0.5°C (±1°F)
	Pt 1000 Extended	-50 to 160°C (-58 to 320°F)	±0.5°C (±1°F)
	Ni 1000 (Johnson Controls)	-45 to 120°C (-49 to 248°F)	±0.5°C (±1°F)
	Active Voltage	0-10 VDC	±0.05 VDC
	Active Ratiometric	0.5-4.5 VDC	±0.05 VDC
Display Range and Resolution	-999 to 999 or -99.9 to 99.9		
Digital (Binary) Inputs	Voltage free contacts Transition counter function at 50 Hz (minimum 10 ms ON and minimum 10 ms OFF)		
Analog Outputs	0-10 VDC, maximum 3 mA, 13-bit resolution - not isolated, accuracy ±0.1 VDC	For actuating and control devices	
	PWM output at 100 Hz cycle frequency with 10 mA sink from 15 VDC reference power source	For fan speed controllers with PWM input	
Relay Outputs	Dielectric test voltage on open relay contact:1,000 VAC Root Mean Square (RMS) Maximum relay switching rate at maximum load: six operations per minute Average relay contact life: 30,000 operations at maximum load		

FX07 Field Controller Technical Specifications (Part 2 of 2)				
Digital (Binary) Outputs for Specific Models	**Model**	**Channel**	**Type**	**Remark/Application**
	FX07D0x-xxx FX07D5x-xxx FX07A0x-xxx FX07A5x-xxx	DO1, DO2, DO3	Single-Pole, Single-Throw (SPST) 5(3) A, 250 VAC relay (Maximum 24 VAC in North America)	Each relay contact is independent with its own common terminal.
		DO4, DO5, DO6	SPST 3(1) A, 250 VAC relay (Maximum 24 VAC in North America)	Each relay contact is independent with its own common terminal. Motor: 0.1 hp, 230 VAC, 0.05 hp, 120 VAC
	FX07D2x-xxx FX07D3x-xxx FX07D7x-xxx FX07D8x-xxx	DO1, DO2	0.5 A/24 VAC triacs	Low voltage 3-point incremental actuators, thermal actuators, for example.
	FX07A2x-xxx FX07A3x-xxx FX07A7x-xxx FX07A8x-xxx	DO1, DO2	0.5A/250 VAC triacs	Line voltage 3-point incremental actuators, thermal actuators, for example Can also be used to switch low-voltage 24 VAC devices.
	FX07D2x-xxx FX07D3x-xxx FX07D7x-xxx FX07D8x-xxx	DO3	SPST 5(3) A, 250 VAC relay (Maximum 24 VAC in North America)	Relay contact is independent with its own common terminal.
	FX07A2x-xxx FX07A3x-xxx FX07A7x-xxx FX07A8x-xxx	DO4 – DO6	SPST 3(1) A, 250 VAC relay	On the **FX07x2x-xxx** and **FX07x7-xxx** models, each relay contact is independent with its own common terminal. On the **FX07x3x-xxx** and **FX07x8-xxx** models, DO4, DO5, DO6 relays are physically interlocked such that only one output is closed at one time. Application: 3-speed fan motors. Motor: 0.1 hp, 230 VAC, 0.05 hp, 120 VAC
Connection for Outputs and Power	Screw terminals for maximum 2 x 1.5 mm^2 (16 AWG) wires, included in the package			
Connection for Inputs and LON/N2Open/BACnet Networks	Screw terminals for maximum 1 x 1.5 mm^2 (16 AWG) wires or 2 x Belden® cable, 2-core twisted pair with shield ≥0.8 mm (20 AWG), included in the package.			
BACnet Compliance	BACnet Testing Laboratories™(BTL) Listing BACnet Interoperability Building Blocks (BIBBs): BACnet Advanced Application Controller (B-AAC) Protocol Implementation Conformance Statement (PICS) available on request			
Agency Compliance	**Europe** (all models)	– 2004/108/EEC, EMC Directive: EN 61000-6-3, EN 61000-6-2 – 2006/95/EEC, Low Voltage Directive: EN 60730		
	Canada (LP-FX07Dxx-xxx models only)	– UL Listed (PAZX7), C22.2 No. 205, Signal Equipment – Industry Canada, ICES-003		
	United States (LP-FX07Dxx-xxx models only)	– UL Listed (PAZX), UL 916, Energy Management Equipment – FCC compliant to CFR 47, Part 15, Subpart B, Class A		