



# techsystem

automatyka klimatyzacja wentylacja

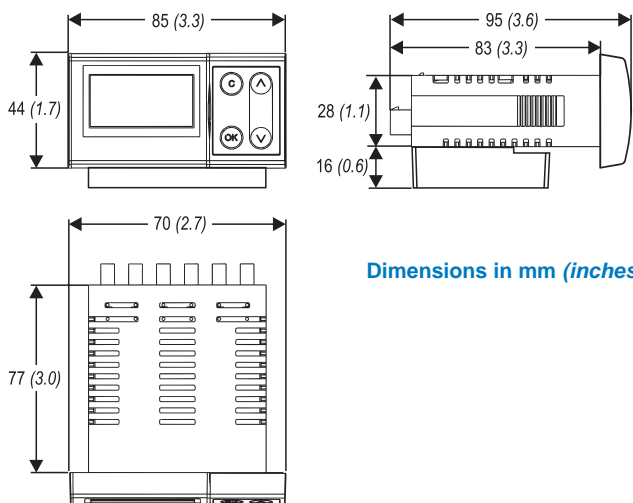
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### Facility Explorer Controllers Platform

#### FX06 Compact Field Controller (1/3)



**FX06 Field Controller**



#### Description

The FX06 is a Compact Field Controller in the Facility Explorer range of products. The controller is designed specifically for commercial Heating, Ventilating, and Air Conditioning (HVAC) and Refrigeration applications. The FX06 is a high performance controller with a powerful 16-bit microprocessor and state-of-the-art software for the precise control of many types of mechanical and electrical equipment. The FX06 controller has 17 physical inputs and outputs and supports a wide range of temperature sensors and actuating devices. Active sensors for the measurement of humidity, pressure, and other variables are also supported. The FX06 has a state-of-the-art LCD display including a set of graphic status icons used in the most common HVAC/R applications. The FX06 controller is available with plug-in communication modules to enable the controller to be integrated into an N2 Open or LonWorks® compatible building automation system. In addition the FX06 field controller also features communications services to transmit event notification messages via Short Messaging Service (SMS). The FX06 field controller is fully configurable or programmable, using the FX Tools software package, for a wide range of commercial HVACR applications.

#### Features

- Modular Network communication options
- On-Board Real Time Clock
- Freely programmable or configurable using FX Tools software package
- Resistance Temperature Dependent (RTD - PT1000 and A99), Negative Temperature Coefficient (NTC 10K) or Active Temperature Sensor Inputs
- Integral Liquid Crystal Display (LCD) User Interface with Control Buttons and Graphic Icons
- Models with Various Output Configurations of Solid-State Triacs and Relay Contacts

#### Selection Table

Description	Ordering Codes
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs Relays, no Communication Module	<a href="#">LP-FX06P00-000C</a>
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs Relays, N2 Open module, 1 cable set	<a href="#">LP-FX06P01-000C</a>
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs Relays, LonWorks® module, 1 cable set	<a href="#">LP-FX06P02-000C</a>
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs Relays, RS-232 module, 1 cable set	<a href="#">LP-FX06P03-000C</a>
4 AIs, 5 BIs, 2 AOs (1 0-10V,1 PWM (Factory setting), 6 BOs Relays, no Communication Module	<a href="#">LP-FX06P10-000C</a>
4 AIs, 5 BIs, 2 AOs (1 0-10V,1 PWM (Factory setting), 6 BOs Relays, N2 Open module, 1 cable set	<a href="#">LP-FX06P11-000C</a>
4 AIs, 5 BIs, 2 AOs (1 0-10V,1 PWM (Factory setting), 6 BOs Relays, LonWorks® module, 1 cable set	<a href="#">LP-FX06P12-000C</a>
4 AIs, 5 BIs, 2 AOs (1 0-10V,1 PWM (Factory setting), 6 BOs Relays, RS-232 module, 1 cable set	<a href="#">LP-FX06P13-000C</a>
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs (4 Relays, 2 Triacs), no Communication Module	<a href="#">LP-FX06P20-000C</a>
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs (4 Relays, 2 Triacs), N2 Open module, 1 cable set	<a href="#">LP-FX06P21-000C</a>
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs (4 Relays, 2 Triacs), LonWorks® module, 1 cable set	<a href="#">LP-FX06P22-000C</a>
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs (4 Relays, 2 Triacs), RS-232 module, 1 cable set	<a href="#">LP-FX06P23-000C</a>
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs (3 Intrck Relays, 1 free Relay, 2 Triacs), no Communication Module	<a href="#">LP-FX06P30-000C</a>
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs (3 Intrck Relays, 1 free Relay, 2 Triacs), N2 Open module, 1 cable set	<a href="#">LP-FX06P31-000C</a>
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs (3 Intrck Relays, 1 free Relay, 2 Triacs), LonWorks® module, 1 cable set	<a href="#">LP-FX06P32-000C</a>
4 AIs, 5 BIs, 2 AOs (0-10V), 6 BOs (3 Intrck Relays, 1 free Relay, 2 Triacs) RS-232 module, 1 cable set	<a href="#">LP-FX06P33-000C</a>

**Facility Explorer Controllers Platform**
**FX06 Compact Field Controller (2/3)**
**Communication Module - Selection Table**

Description	Ordering Codes
N2 Open Communication Module	<a href="#">LP-NET061-000C</a>
LONWORKS® Communication Module	<a href="#">LP-NET062-000C</a>
RS-232 Communication Module	<a href="#">LP-NET063-000C</a>

**User Interfaces - Selection Table**

Description	Ordering Codes
Remote Medium User Interface (MUI) for Panel Mount	<a href="#">LP-DIS60P20-0C</a>
Remote Medium User Interface (MUI) for Wall Mount	<a href="#">LP-DIS60P21-0C</a>
Link Cable for connection of FX06 to Panel Mount MUI	<a href="#">LP-KIT007-005C</a>

**Software - Selection Table**

Description	Ordering Codes
FX Tools Pro CD-Rom (FX Builder, FX Builder Express, FX CommPro N2, FX CommPro LON) New User	<a href="#">LP-FXTPRO-0</a>
FX Tools Pro CD-Rom (FX Builder, FX Builder Express, FX CommPro N2, FX CommPro LON) Upgrade	<a href="#">LP-FXTPRO-6</a>

**Accessories - Selection Table**

Description	Ordering Codes
Cable set for LP-FX06Px0-000C OEM models delivered without a cable set.	<a href="#">LP-KIT006-010C</a>
FX Programming Key	<a href="#">LP-KIT100-000C</a>
Power Supply for Programming Key: 230 VAC / 12 VDC	<a href="#">DT-9100-8901</a>
Interface Cable 1.5 m (4.9 ft) for GSM modem to FX06	<a href="#">LP-KIT007-002C</a>
GSM 900/1800 FastTrack Modem	<a href="#">LP-KIT090-000C</a>
GSM Modem Plug-In Antenna	<a href="#">LP-KIT090-001C</a>
GSM Modem Magnetic Mount Antenna with 2.5 m Cable	<a href="#">LP-KIT090-003C</a>
GSM Modem Panel Mount Antenna with 5 m Cable	<a href="#">LP-KIT090-004C</a>
GSM Modem Power Adapter, 230 VAC / 12 VDC, Wall Plug	<a href="#">LP-KIT090-005C</a>

**Room Command Modules - Selection Table**
**Room Sensor Modules – 80 mm x 80 mm (3.15 x 3.15 in.), °C (TM Series without Display)**

Description	Ordering Codes
Room Sensor Module, temperature sensor only	<a href="#">TM-2140-0000</a>
Room Sensor Module, occupancy button and LED	<a href="#">TM-2150-0000</a>
Room Sensor Module, 12-28 °C setpoint dial, occupancy button and LED	<a href="#">TM-2160-0000</a>
Room Sensor Module, 12-28 °C setpoint dial, occupancy button and LED, fan speed override	<a href="#">TM-2160-0002</a>
Room Sensor Module, +/- setpoint dial, occupancy button and LED	<a href="#">TM-2160-0005</a>
Room Sensor Module, +/- setpoint dial, occupancy button and LED, fan speed override	<a href="#">TM-2160-0007</a>
Room Sensor Module, 12-28 °C setpoint dial	<a href="#">TM-2190-0000</a>
Room Sensor Module, +/- setpoint dial	<a href="#">TM-2190-0005</a>

**Room Command Modules - Selection Table**
**Network Room Modules with Serial Bus Connection to FX07 – 80 mm x 80 mm (3.15 x 3.15 in.), °C**

Description	Ordering Codes
Network Room Module, temperature sensor only, no display, no setpoint dial	<a href="#">LP-NRM001-000C</a>
Network Room Module with LCD display, temperature sensor, setpoint dial, occupancy function	<a href="#">LP-NRM002-000C</a>
Network Room Module with LCD display, temperature sensor, setpoint dial, fan speed override button, occupancy function	<a href="#">LP-NRM003-000C</a>

**Facility Explorer Controllers Platform**

FX06 Compact Field Controller (3/3)

**Technical Specifications**

<b>Power Requirements</b>	24 VAC/VDC $\pm 15\%$ , 50/60 Hz – SELV (Europe) – Class 2 North America			
<b>Power Consumption</b>	7 VA			
<b>Protection Class</b>	Front Plate: IP55 Rear: IP20			
<b>Ambient Operating Conditions</b>	-20 to 50 °C (-4 to 122 °F) 10 to 95% RH (non condensing)			
<b>Ambient Storage Conditions</b>	-40 to 70 °C (-40 to 158 °F) 10 to 95% RH (non condensing)			
<b>Display Range and Resolution</b>	-999 to 999 or -99.9 to 99.9 (4 digits in each of two rows)			
<b>Digital Inputs</b>	Voltage free contacts Transition counter function at 50 Hz (minimum 10 ms ON and minimum 10 ms OFF)			
<b>Analog Inputs and Accuracy at 20 °C (68 °F) Ambient (sensor error not included)</b>	Not isolated. Software configurable.			
	<b>Sensor Type</b>	<b>Range</b>	<b>Accuracy</b>	
	A99	-40 to 100 °C (-40 to 212 °F)	$\pm 0.5$ °C ( $\pm 1$ °F)	
	NTC K10	-20 to 70 °C (-4 to 158 °F)	$\pm 0.5$ °C ( $\pm 1$ °F)	
	PT1000 Extended	-40 to 160 °C (-40 to 320 °F)	$\pm 0.5$ °C ( $\pm 1$ °F)	
	Ni1000	-40 to 120 °C (-40 to 248 °F)	$\pm 0.5$ °C ( $\pm 1$ °F)	
	Active 0...10 V	0..10 VDC	$\pm 0.05$ VDC	
Active Ratio-metric	0.5 to 4.5 VDC	$\pm 0.05$ VDC		
<b>Analog Outputs</b>	0...10 VDC, 3 mA, not isolated for actuating and control devices. Pulse Width Modulation (PWM) Signal at 100 Hz cycle frequency			
<b>Relay Outputs</b>	Dielectric test voltage on open relay contact: 1,000 VAC RMS Maximum relay switching rate at nominal load: 6 operations / min Average relay contact life: 30,000 operations at maximum load.			
<b>Digital Outputs for Selected Models</b>	<b>Model</b>	<b>Channel</b>	<b>Type</b>	<b>Remark/Application</b>
	FX06P0x / P1x	DO1 – DO6	SPST 3(1)A, 250 VAC power relay	Each relay contact is independent with its own common terminal.
	FX06P2x / P3x	DO1, DO2	0.5A / 24 VAC triacs	3-point incremental actuators, thermal actuators, etc
		DO3 – DO6	SPST 3(1)A, 250 VAC power relay	On the FX06P2x models, each relay contact is independent with its own common terminal. On the FX06P3x model, DO4, DO5 and DO6 relays are physically interlocked, i.e. only one output can be closed at one time. Application: 3-speed fan motors. The DO3 relay is independent.
<b>Dimensions (H x W x D)</b>	44 x 85 x 95 (1.7 x 3.3 x 3.6 in) - 52 x 85 x 95 (2.05 x 3.3 x 3.6 in) with Communication Module			
<b>CE Compliance</b>	73/23 EEC directive: EN 60730 - 89/336 EEC directive: EN 50081-1 (EN 61000-6-3), EN 50082-2 (EN 61000-6-2)			
<b>UL Compliance</b>	UL873 and UL916			