# Xenta 121 FC

## Programmable Fan Coil Application

Xenta 121-FC is an easily programmable controller intended for both 2-pipe and 4-pipe applications, with or without re-heat. It can be configured for use with a multitude of valve actuator types, such as on/off, multistage, increase/decrease, PWM, and so on. The controller has different types of fan control and advanced fan control functions, including on/off delays, boosting, and conditioning.

The sequences for cooling, heating, and fan are completely user-programmable, allowing for numerous applications. For energy savings the controller has built-in economizer functionality. Use Xenta 121-FC with any TAC STR (1.8 kohm) room unit.

Set-up is done using the programming tool TAC ZBuilder, which can be run stand-alone or as a device plug-in to either TAC Vista® or an LNS-based tool. Using Vista or an LNS-based tool, the configuration settings are downloaded into a Xenta 121, prepared with the necessary basic application software.

The controller is a LonMark® compliant device aimed at communicating on a LonTalk® TP/FT-10 channel. It is able to operate both as a stand-alone device and as part of a system. In- and output network variables can be monitored via the TAC Xenta OP, but programming relies on the use of the TAC ZBuilder.

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**TECHNICAL DATA**

**Supply Voltage**
FC/24 . . . . . 24 V AC ±20%, 50–60 Hz
FC/230 . . . . . .230 V AC ±10%, 50–60 Hz

**Power Consumption**
FC/24:
Controller with TAC Xenta OP . . . . . 5 VA
Digital outputs . . . . . max. 4×19 VA = 76 VA
Total. . . . . max. 81 VA
FC/230:
Controller with TAC Xenta OP . . . . . 5 VA
Digital outputs, individual outputs and total. . . . . max. 12 VA
Total. . . . . max. 20 VA

**Ambient Temperature**
Operation . . . . . 0 °C to +50 °C (32 °F to 122 °F)
Storage . . . . . –20 °C to +50 °C (–4 °F to 122 °F)
Humidity . . . . . max. 90% RH non-condensing

**Enclosure**
Material. . . . . .ABS/PC plastic
Enclosure rating. . . . . IP 20
Flammability class, materials . . . . . .UL 94 5VB
Color . . . . . gray/red
Dimensions, mm (in.). . . . . 122×126×50 (4.8x5.0x2)
Weight, kg (lb..) . . . . . FC/24: 0.3 (0.66), FC/230: 0.6 (1.3)

**Inputs X1–X3**
Voltage across open contact . . . . . .23 V DC ± 1 V DC
Current through closed contact . . . . . .4 mA
Minimum pulse input duration . . . . . 250 ms

**Inputs for Sensors B1–B2**
Thermistor type . . . . . NTC, 1800 Ω at 25 °C (77 °F)
Measuring range . . . . . –10 °C to +50 °C (14 °F to 122 °F)
Accuracy . . . . . .±0.2 °C (±0.4 °F)

**Universal Input U1**
As temperature input. . . . . same as B(1–2)
As digital input . . . . . same as X(1–3)
As analog input . . . . . 0–10 V DC

**Input R1**
Type . . . . . 10 kΩ linear potentiometer
Adjustment range . . . . . software configurable

**Triac Outputs V1–V4 for heating/cooling valve actuators, 24 V AC Internally Supplied**
Maximum load per output. . . . . FC/24: 0.8 A, FC/230: 0.5 A
Total output load . . . . . FC/24: 3.2 A, FC/230: 0.5 A

**Relay Outputs K1–K3**
Maximum voltage . . . . . 250 V AC
Maximum resistive load . . . . . 3 A

**Relay Output K4**
Maximum voltage . . . . . FC/24: 24 V AC, FC/230: 250 V AC
Maximum resistive load . . . . . FC/24: 3 A, FC/230: 12 A

**Voltage Output Y1**
Range . . . . . 0–10 V DC
Maximum load . . . . . .2 mA

**Indication LED Colors**
Power . . . . . .green
Service. . . . . .red

**Interoperability**
Standard . . . . . .TAC Xenta 121-FC conforms to LonMark Interoperability Guidelines 3.4 and LonMark Functional Profile: 8501 SCC – Fan Coil
Communication protocol . . . . . LonTalk
Physical channel . . . . . .TP/FT-10, 78 kbps
Neuron type . . . . . .3150, 10 MHz

**Agency Compliances**
Emission: CE . . . . . .EN 61000-6-3, C-Tick, FCC Part 15
Immunity: CE. . . . . EN 61000-6-1
Safety: CE . . . . . .EN 61010-1
UL 916, C-UL US, Open Energy Management Equipment (TAC Xenta 121-FC/24): . . Approved for plenum installations
Energy (TAC Xenta 121-FC/230 only, see p. 6):
eu.bac, certificate no. 020711 . . . . . EN 15500
RoHS directive. . . . . 2002/95/EG

**Part Numbers**
Contr Zone TAC Xenta 121-FC/24 . . . . . 007306210
Contr Zone TAC Xenta 121-FC/230 . . . . . 007306220
Manual . . . . . .0-004-7692
Plug-in Terminal Blocks TAC Xenta 100 . . . . . 007309140
Adapter RJ10 to Terminals. . . . . 007309210