

# MIC-3920/3921

## Intelligent Monitoring and Alarm Module



### Features

- Monitoring: +3.3 VDC, +5 VDC, +12 VDC, -12 VDC system bus voltages
- Four fan sense inputs for fan speed monitoring
- Three temperature sensor inputs
- One "power good" signal input for power supply monitoring
- Three channels of relay outputs for external alarm connection
- One serial port can be set as RS-232 or RS-485 port, supporting modem output
- Three configurable alarm levels: critical, major, minor
- Audible alarm with three sound effects
- On-board battery backup
- Built-in watchdog timer for self-detection

### Introduction

The MIC-3920/MIC-3921 is an intelligent PC-system monitoring module. It can detect abnormal system conditions and generate alarm outputs, allowing users to take action before system failure. With the MIC-3920/MIC-3921, the MIC-3031, MIC-3032, MIC-3033, and MIC-3081A systems are changed into intelligent, self-diagnostic systems, increasing the reliability of critical applications, such as in communications or computer telephony. The alarm module comes in two versions: the MIC-3920 and the MIC-3921. The MIC-3920, using front panel LEDs for status display, is a 3U high, 2-slot (8TE) wide module which can be inserted into the MIC-3033. The MIC-3921, equipped with a high-brightness vacuum fluorescent display and a control keypad, can be inserted into the MIC-3031, 3032, and 3081A.

### Powerful Functions

The MIC-3920/MIC-3921 can detect a wide variety of internal system conditions including temperatures, voltages, fan operation and power supply status. It can generate several different alarm outputs including acoustic signals and relay outputs to notify nearby users. It can also send messages through the serial port for remote notification. The on-board CPU allows users to set the alarm criteria for each input sensor independently and to program different alarm outputs.

### High Reliability

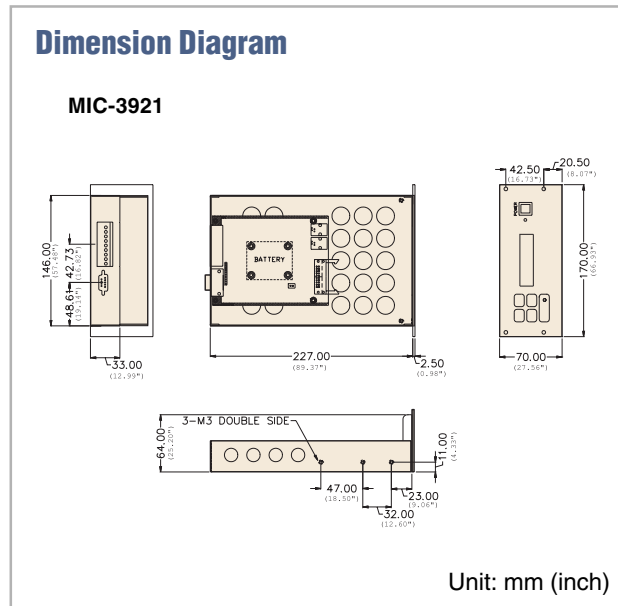
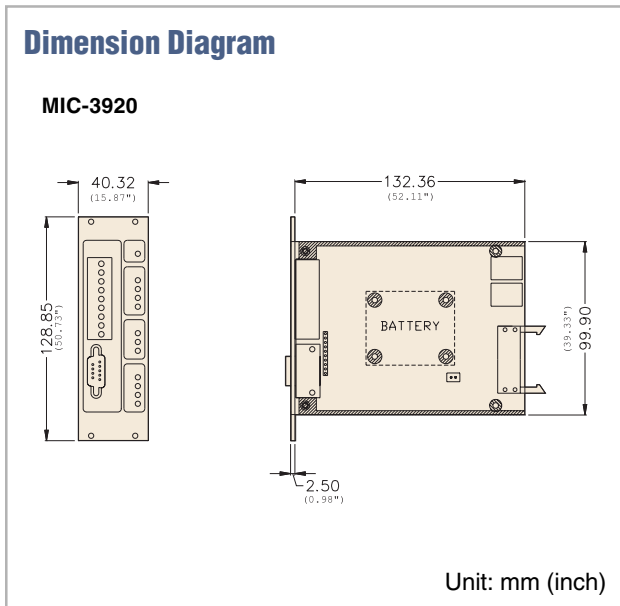
To ensure operational reliability, the MIC-3920/MIC-3921 features a built-in watchdog timer for self-testing. The on-board backup battery enables non-stop operation even in the event of total system power failure.

### Remote Monitoring

The MIC-3920/3921 serial port can be configured either as RS-485 to communicate over distances up to 4000 feet, or as RS-232 to connect to other devices such as a modem. Users can remotely monitor a number of computers through a host computer's serial port.

### Software Support

The MIC-3920/MIC-3921 is shipped with a powerful and easy-to-use software utility to minimize the time for system integration. "PC Sentry" can run under Windows 95/98/NT. This allows the system host to communicate with one or more alarm modules via the serial port, for configuration, alarm level setting, real-time status display, alarm event logging and so on.



## Specifications

Voltage	System Voltage	+3.3 V	+5 V	+12 V	-12 V
		0 ~ +4.8 V	0 ~ +6.8 V	0 ~ +16.32 V	0 ~ -16.32 V
	Voltage Accuracy	0.5 % of FSR			
Temperature	Sensor 1 (On Board)	0 ~ 60 °C (32 ~ 140 °F)			
	Sensor 2 and 3	30 ~ 125 °C (86 ~ 257 °F)			
	Accuracy	±3 °C			
Fan	Sensor 1, 2, and 4	700 ~ 10000 rpm			
	Sensor 3	2800 ~ 40000 rpm			
Power Good Input	Hi	> 2.4 V			
	Lo	< 0.8 V			
Relay	Output	NC (normally closed) and NO (normally open)			
	Power Rating	AC 125 V @ 0.3 A, DC 100 V @ 0.3 A, DC 30 V @ 1 A			
Serial Port	Interface	RS-232/RS-485 (jumper selectable)			
	Baud Rate	1200, 2400, 4800, 9600, 19200 bps			
	Board ID	1 ~ 255 (0 for configuration only)			
Battery	Charge Time	24 hours			
	Capacity	1200 mA-H (full charged, for 0.5 ~ 1 hr operation)			
Environment	Temperature	Operating	Non-Operating		
		0 ~ 50 °C (32 ~ 122 °F)	-20 ~ 70 °C (-4 ~ 158 °F)		
	Humidity	--	5~95 % RH, non-condensing		
	Vibration (5-500 Hz)	1.0 Grms	2.0 G		
Reliability	MTBF	100,000 hours			
Serviceability	MTTR	5 minutes			

## Ordering Information

Part Number	Descriptions
MIC-3920-A	Intelligent system monitoring and alarm module and utility CD
MIC-3921-A	Intelligent system monitoring and alarm module with vacuum fluorescent display, keypad and utility CD

CompactPCI Enclosures 1

CompactPCI Boards 2

CompactPCI Peripherals 3

Blade Servers 4

Network Appliances 5

e-Server Systems 6

Storage Subsystems 7

Industrial Computer Chassis 8

Full-sized CPU Cards 9

Passive Backplanes 10

Industrial Computer Peripherals 11