

# DVT-60 Remote Monitor



## Remote Monitoring System for OEM Applications

The DVT-60 Remote Monitoring Module will enhance your product or system by adding numerous control and communications features such as:

- remote monitoring via telephone
- data logging
- programmable control
- voice dial out of alarm conditions
- and a computer interface.

This small, cost effective module adds intelligence to new products and gives mature products a 'high tech facelift' which could extend their market life cycle. Its' advanced features allow you to correct an unsafe condition, alert designated individuals, even track important performance and diagnostics data.

**SIMPLE TO INTEGRATE.** The DVT-60 Module is pre-configured with an alarm processor, control logic, voice annunciator, modem and data acquisition sub-system. Just connect your sensors, limit switches and

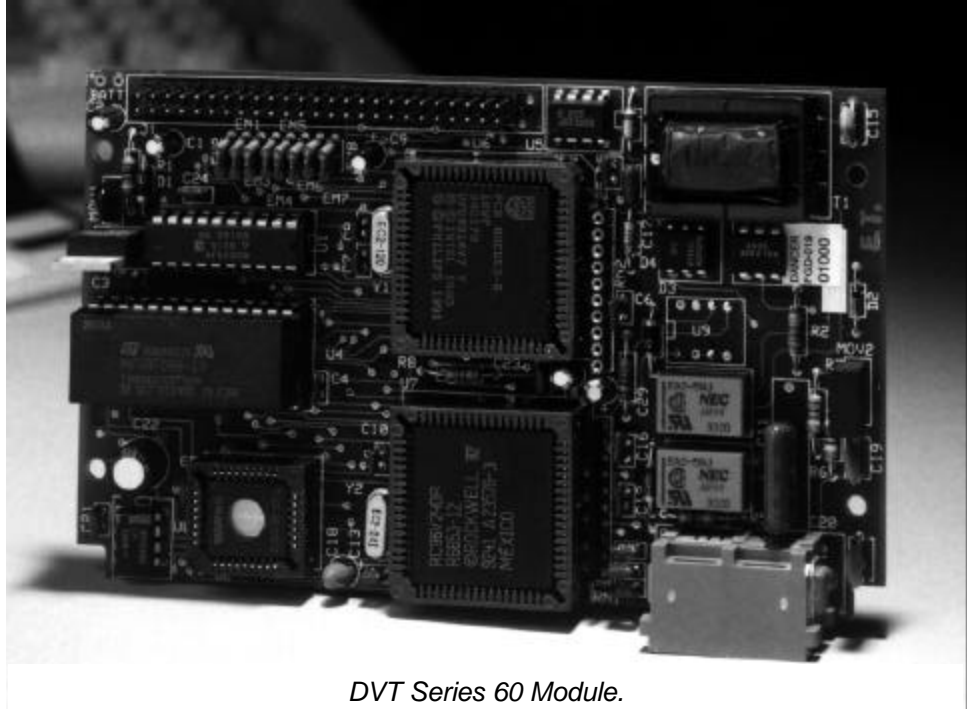
*The DVT-60 is actually small enough to fit inside many of the products it monitors.*

actuators and your ready to go. Set-up menus eliminate the need for programming.

The DVT-60 has been successfully added to a broad range of products including:

- production machinery
- uninterruptable power supplies
- pumps, flowmeters and valves
- refrigeration systems
- HVAC and building control systems

**REMOTE MONITORING.** The DVT-60 Remote Monitoring Module can monitor vari-



DVT Series 60 Module.

ous points in a single piece of equipment. It can directly monitor conditions such as voltage, current, switch closure, logic levels and temperature. Statistical functions provide information such as 'total events' and 'events per minute'.

**AUTOMATIC CONTROL.** A simple yet powerful algorithm controls the DVT's outputs according to user defined setpoints on the inputs. The outputs can even be forced into a 'fail-safe' condition when certain fault conditions are detected. All control parameters are easily changed via phone. In many applications, this 'built-in' control feature can reduce your overall system cost by eliminating the need for separate control circuitry.

**ALARM DIAL OUT.** When potential problems are detected, the alarm dial-out feature will automatically notify designated individu-

als - no matter where or when - so remedial action can be taken. And the alarm dial out feature continues calling until it is acknowledged.

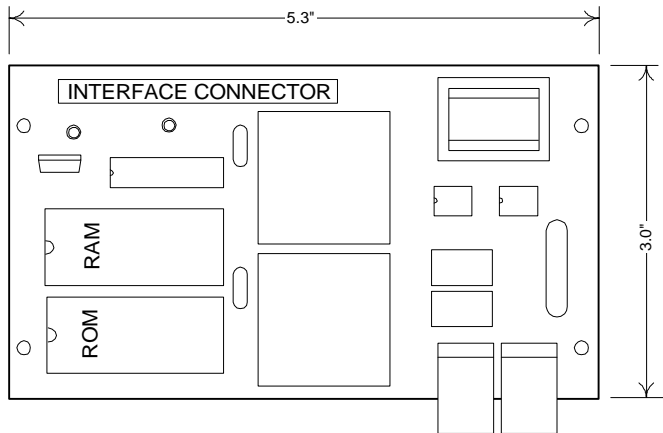
**VOICE AND DATA COMMUNICATION.** The DVT-60 Remote Monitoring Module can communicate in both voice *and* data mode over a standard telephone line. The high quality digital voice circuitry provides a clear, natural sounding voice over a standard telephone line. In data mode, the module can communicate with any type of computer or data terminal. An optional DDE client or server used in conjunction with a Windows program such as 'Wonderware' permits the graphic display of real time data.

**CRISIS PREVENTION.** If the DVT-60 detects a problem, it will attempt to correct the condition. Assume, for example, that it is

### KEY FEATURES

- Modem, voice annunciator and RS232 port.
- Programmable control functions.
- Small enough to fit inside the equipment it is monitoring.

**LAYOUT**



Electrical connection of the DVT-60 Remote Monitoring Module to the various points within your product is generally accomplished with a low cost cable assembly.

tion have made Dancer-designed products the quality choice. We're proud to say that Dancer products are 'Made in the USA'. Dancer takes advantage of state-of-the-art technology, from design concept through manufacturing and test.

**CUSTOM SYSTEMS** If your application requires a system which goes beyond the capabilities of a standard DVT-60, request a quotation on a custom system. Our state-of-the-art design facility will often produce a custom product for less than the cost of other standard systems.

being used to control the fluid level in a tank. When the tank level gets too high, the DVT-60 can open a drain valve. If the tank level continues to rise, the DVT-60 will telephone for help.

**REMOTE OPERATIONS.** The DVT-60 permits you to monitor and modify various points in your product via telephone. You can check inputs, toggle outputs, modify parameters and even calibrate sensors.

It maintains statistical information regarding the operation of your product. This information includes 'run time hours', 'number of alarms' and 'number of power outages', all of which can be accessed via telephone.

**DATA LOGGING** A data logger tracks the performance of your product in much the same way a 'black box' flight data recorder tracks the performance of an aircraft. The recorded information can be transferred directly into programs such as *Microsoft Excel* and used to analyze equipment problems and failures.

**OTHER FEATURES.** The DVT-60 offers numerous other features including a serial port for local access, support for a serial printer and provisions for a backup battery.

**RELIABLE.** Millions of hours of field opera-

**GENERAL SPECIFICATIONS**

- Inputs** 8 general purpose input channels can accept a variety of signal types in any combination, including:  
Voltage: 0 to 5 VDC  
Current: 4 to 20 mA  
Discrete: Normally open or closed  
Thermistor: 10K ohm  
Logic: TTL  
Each input has programmable alarm and control setpoints.  
A 'low to high' transition on any input updates several status registers including:  
RPM: 100 to 3000  
Counts: Up to 10 million (resettable)
- Outputs** 8 logic level outputs with automatic or manual control.
- Phone** Standard RJ11 modular jacks for 'phone' and 'line'. Any device connected to 'phone' is automatically disconnected during an alarm dial-out. Communicates in either voice or data mode. Built-in 2400 baud modem. Voice annunciator permits remote operation from any touch-tone telephone.
- RS-232** An RS-232 port permits any ASCII terminal device to access the system at up to 4800 baud. The port doubles as a printer port.
- Power** 8 to 12 VDC at 100 mAmps.
- Logger** Records 2,000 events. Each event includes a time/date stamp plus the values of all inputs, outputs and alarm flags.
- Security** Separate passcodes permit varying

- Memory** degrees of system privilege ranging from 'reports only' to 'system administration'. All parameters are stored in non-volatile EEPROM memory.
- Dial-out** Once an alarm exists for a pre-determined amount of time, up to eight phone numbers will be dialed in sequence until the alarm is acknowledged. Alarms can be delivered in either voice mode or data mode.
- Physical** Measures 5.3" x 3.0" x 1.0". Operating temperature 32°F to 120°F.
- Other** Includes a run-time meter, real-time clock, data compressor and many other features.
- Options** Software for automatic polling, DDE Server, weatherproof enclosure, multi-voltage AC/DC power supply and various sensors. Call for list.

**COMMANDS**

ALM	Alarm report	PRN	Printer functions
INP	Input report	TIM	Set/Check time
OUT	Output report	CAR	Carrier wait time
PHO	Phone directory	HLP	Help screen
LOG	Data logger	XON	Extended On
BYE	Disconnect	TST	System Diagnostics
SEC	Security		
COM	Open gateway	<b>Note:</b> In voice mode, append the command with a star. In data mode append the command with an "R", "O" or "S" for "Reports".	
SYS	System ID		
INI	Initialize system		
RTU	Initiate continuous 'real time' report.		

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