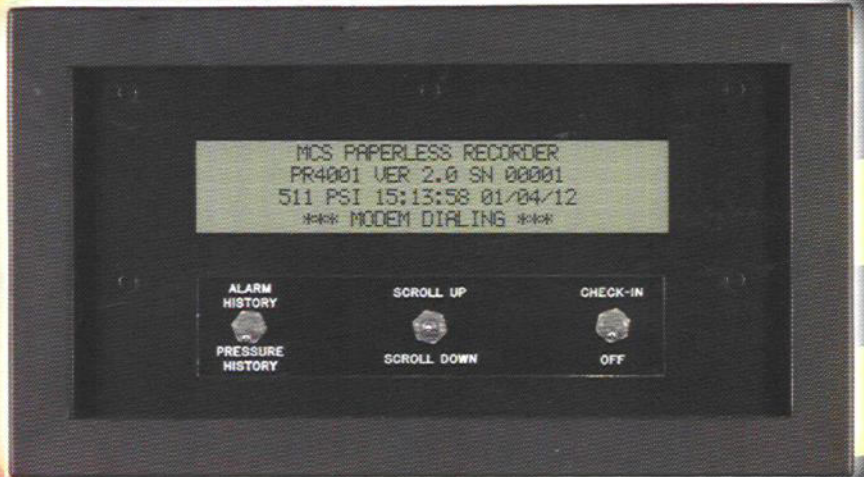


MASTER

The Intelligent Choice



The New Face of Fire Protection

MASTER PR4001N: The Recorder That Talks Back

The Last Word in Engineering. From

MASTER's PR4001N: Data to the Next Power *Built-In Paperless Pressure and Alarm Recorder*

MASTER knows you can't run into a burning building to get vital facts and figures. So we designed the PR4001N to act like a flight recorder. It accurately gathers and records all your critical information, pressure and alarms, so you can analyze it later. Because the first step in controlling a fire is knowing you're ready for one.

Equipment performance is critical during a fire. The safety of lives and property is at stake. Unfortunately, many sprinkler systems have failed to operate because the owner was not even aware of ongoing service problems or that the equipment was out of service. The PR4001N will track every single event, whether you're performing an annual flow test or the system is operating during a fire. You can step through the alarms and see what happened. Did the engine overheat? Did the motor fail to start?

The Smarter Recorder

The revolutionary PR4001N goes way beyond paper charts, ink pens and little thermal printer spools. It's fully automated to monitor your system without the need to ever change charts. Plus, it takes you to the next power, enabling you to retrieve information interactively, so you can choose which event you want to view in detail.

You can scroll through the Pressure or Alarm History modes at the flip of a switch. You can also print or archive the data by downloading it using the PR4001N's RS-232 port or its internal dial-up modem and MASTER's Virtual Controller software. You can even access the PR4001N through the Internet, a local area network (LAN) or a wide area network (WAN) from your laptop.

Masterfully Engineered

- Retains over 4000 pressure readings and 350 alarm or controller status events, time and date stamped to the second in permanent memory.
- Virtual Controller software for interactive analysis of pressure and alarm indications. (Windows 95/98TM compatible.)
- Recorder operates independent of the fire pump controller circuitry and power supply.
- Built-in battery backup, for operation even on loss of AC power.

Monitors Your System 24/7

MCS PAPERLESS RECORDER
PR4001 VER. 2.0 SN 0001
066 PSI 09:54:58 01/04/12

Normal Mode displays current pressure, time, date and software version number.

** ALARM HISTORY **
WATCH CHECK-IN 14:06:30 01/04/12
PUMP RUNNING 14:06:28 01/04/12
LOW OIL PRESSURE 14:06:16 01/04/12

Alarm History Mode displays over 350 time and date stamped alarm events from up to 32 alarm points. Includes "night watch" check-in switch.

** PRESSURE HISTORY **
115 PSI 14:06:39 01/04/12
110 PSI 14:06:38 01/04/12
104 PSI 14:06:37 01/04/12

Pressure History Mode displays over 4000 time and date stamped pressure points. Front panel scrolling allows viewing of all the recorded data.



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the First Name in Fire Protection.

DataMaster™: An Even Higher Intelligence Remote Controller Data Collection and Archiving Service

Now when you have a system problem, your controller can tell you about it. With DataMaster™, you can have your data retrieved automatically. With its internal modem, and MASTER's DataMaster™ service, you can even send alarm information to your message-enabled cell phone.

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We Put More In, You Get More Out

DataMaster™ monitors your Fire Protection System by downloading your recorder information weekly. DataMaster™ teams up with the PR4001N paperless recorder, which samples your system three times a second and records it if the reading varies by more than 5 PSI from the last recording (or at least once an hour). We'll archive this information electronically for your future reference.

- DataMaster™ dials up and downloads the data regularly from your MASTER fire pump controller. The PR4001N sends the alarm or status changes to DataMaster™.
- DataMaster™ E-mails regular monthly reports, along with data files.
- DataMaster™ archives the data as long as the service is active.
- DataMaster™ E-mails controller alarm messages immediately to your message-enabled cellular phone, pager or computer.

Taking Security To a Whole New Level. Belt Level.

Can't find your service technician? We can! DataMaster™ uses the power of the World Wide Web to send a text-based alarm message directly to your service technician's cell phone, putting the message on his hip and at his fingertips.



We put our Money where our Mouth is.
And we put it In Writing.



Technically Speaking, We're Your Best Choice

TECH SPECS: PR4001N Fire Pump Controller Accessory Built-In Paperless Pressure and Alarm Recorder Recommended Specification

A. General

1. A paperless pressure and alarm recorder shall record the last 4000 pressure points and the last 350 alarm points or controller status LED's in static, non-volatile, solid-state memory with no moving parts. It shall be built into the door of the fire pump controller and be provided with a battery back up for full operation when AC power is lost.
2. The recorder shall have its own regulated power supply and be completely independent of the fire pump controller automatic circuitry and regulated power supply. It shall be capable of recording the system pressure even if the controller circuitry or regulated power supply has failed.

B. Construction

3. A through-the-door, 160-character, 4-row display shall be provided on the fire pump controller. It shall display the current pressure, time and date.
4. The following switches, accessible with the door closed, shall be provided:
 - "Pressure / Alarm" - Displays either the pressure or alarm history.
 - "Scroll" - Scrolls through all recorded data in either of two speeds.
 - "Check-in" - Records the time and date when pressed.
5. A 25-pin RS-232 connector shall be provided to download data to a laptop computer.
6. The paperless recorder shall provide local LED's to indicated the following: recorder status, serial port status, modem status, and transducer failure.
7. The paperless recorder shall perform hardware self-checks and provide a coded trouble indication during initialization.
8. All printed circuit boards shall be conformal coated.
9. Pressure readings shall be sampled three times a second and recorded if the sample varies by more than 5 PSI from the last recording, or at least once an hour.
10. All pump house alarm points, controller alarm points, and controller status LED's shall be recorded when they occur.
11. Every data point shall be time and date stamped down to the second and shall be capable of being transmitted in ASCII over an RS-232 serial link. The serial link shall be compatible with standard laptop computer COM ports and standard dial-up smart modems.
12. The paperless recorder shall be provided with a built-in smart modem suitable for a standard dial-up telephone line. It shall be both password protected and have a manual security switch to prevent unauthorized access. It shall also be capable of operating directly on a local area network (LAN), a wide area network (WAN), or the internet with the addition of a TCP/IP server as supplied by the controller manufacturer.
13. Custom communications software shall be provided to download all the recorded data from the paperless recorder, plot the pressure data, display the alarm data, and step through the data on a second by second basis. It shall be capable of communication through either WAN, LAN or Internet. The software shall run on Windows 95 or Windows 98™ operating systems.
14. DataMaster™ Data Retrieval and Archival Service shall be available with the paperless recorder. This monthly, fee-based service shall contact the PR4001N Recorder, automatically retrieve the data and generate monthly deficiency reports. It shall be capable of E-mailing text-based critical alarm messages to a registered cell phone, pager or computer. Additionally, all historical data shall be retained electronically, for the customer to view on the World Wide Web.

C. Suppliers

1. The built-in paperless pressure and alarm recorder shall be a model PR4001N as manufactured by MASTER Control Systems, Inc., Lake Bluff, IL

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