

## eZtrend V5 Electronic Data Recorder

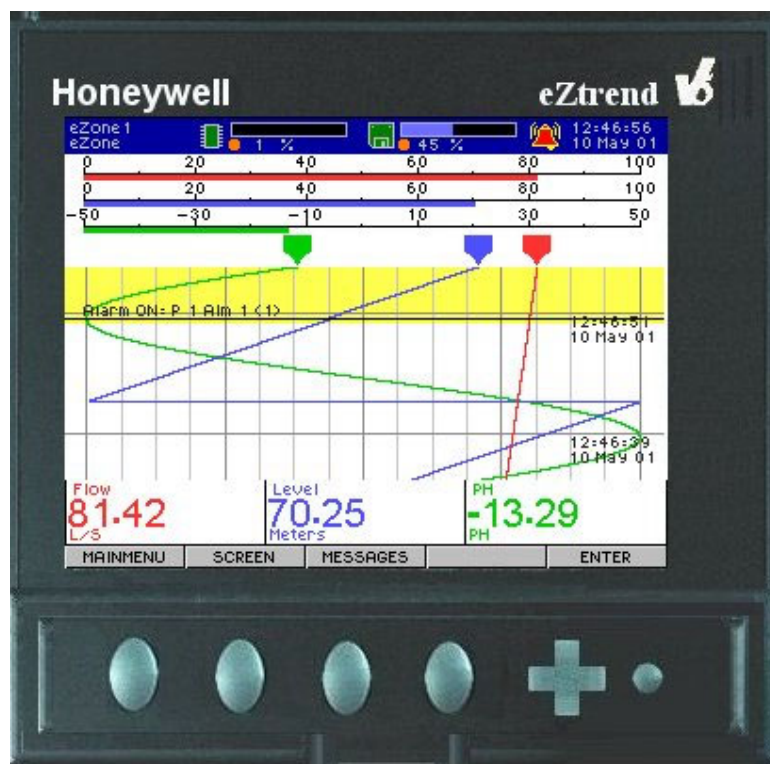
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## Specification

### Function

Honeywell's eZtrend recorder provides cost effective electronic data recording in a compact DIN size recorder. The recorder accepts up to 6 universal analog inputs and stores data on an integral, removable storage media. The data is displayed on a five-inch color LCD with wide viewing angles. The operator interface provides easy access to the recorder menus for quick set up and replaying of the data. Data is stored under pen configurations, in secure files and since the data is directly related to a pen there is no need to remember file names and files structures. An Ethernet connection is provided as standard to allow direct connection of the recorder to a LAN or the Internet.

The TrendManager Software Suite ties your process together. Access the recorders through the plant wide LAN or Internet. Trend Manager provides the tools for real-time communications, data analysis, and configuration, for the entire family of electronic data recorders including the eZtrend recorder.



### Features

- **Five Inch Color Display** — makes it easy to interpret process data and take action with the easy to understand bar charts, digital values and trends.
- **Ethernet Connectivity** — provides unlimited connectivity to local area networks (LANs) or the internet.
- **Paperless Chart Recording** — eliminates the need for paper and pens with their associated cost and mess.
- **Total Data Integrity** — data is stored in secure files based on pen designations making it easy to retrieve the data based on process information rather than having to remember file names.
- **Up to 6 Analog Inputs** — up to six universal analog inputs that can monitor process variables from a variety of sensors.
- **Data Storage** — data is stored on a standard 1.44MB floppy.
- **DIN Standard Mounting** — fits standard DIN cutout and allows for easy replacement of existing 100mm paper chart recorders.

### Features, continued

- **Independent Display Chart Speeds and Logging rates** — logging rates can be programmed completely separate from the chart display speed, allowing the data to be displayed and stored at the rates that are best suits the application.
- **Universal Power** — the instrument is designed to work between 90 and 250 VAC. Optional 24VDC.
- **Real Time Clock** — provides accurate time stamping of logged data and events and is battery backed up to prevent a loss of the clock time/date
- **Password Protection** — multiple levels of password protection provided. Up to 4 levels of password protection with up to ten different passwords are available for use. The password can prevent unauthorized entry to the entire recorder configuration or just portions of the recorder configuration or operation.
- **Language Support** — standard language prompts for English (US & UK), French, German, Italian, Spanish, Portuguese (Braz), Polish, Hungarian, Romanian, Turk, Slovak & Czech.

### Features, continued

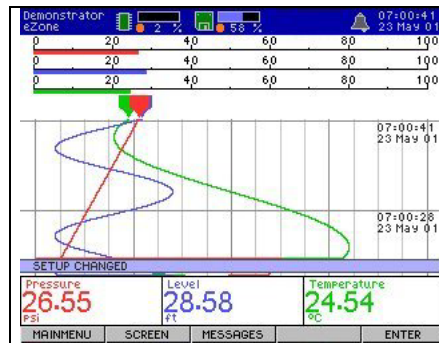
- **Large Memory Buffer** — 2Mbyte battery backed buffer helps protect data during routine operation
- **Fuzzy Logging** — This standard feature provides a unique method to increase the storage capacity of the recorder. The data is monitored to determine changes in process data, if no changes are observed data is logged periodically. If data is changing rapidly it is recorder normally at the programmed rate. By not logging data that is static, data compression of up to 100:1 or more can be observed saving valuable disk space. The amount of disk space left is easily observed and can be set up as an alarm limit to provide notice when data could be lost.
- **Alarms** — up to thirty-two integral "soft" alarms are easily set by users to announce selected, out-of-limit conditions.
- **CE Mark** — Conformity with 73/23/EEC, Low Voltage Directive and 89/336/EEC EMC Directive.

## Options

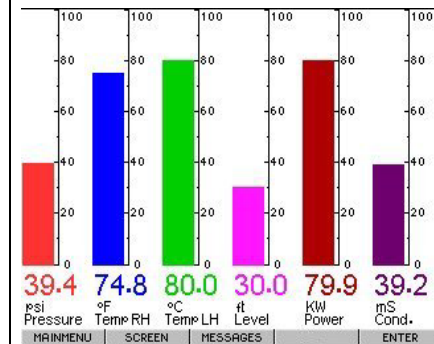
- **Alarm Output** — up to six integral SPDT relays are available to activate user's external equipment.
- **Math** — A full function math capability is provided. This feature handles up to a 200-character math expression. Math also includes 6 extra virtual pens. The Totaliser function is a part of the Maths function.
- **Digital Input** — the six-relay option also includes two digital inputs. The digital inputs allow users to initiate from a remote location through the two dry contact closures, selected recorder functions, such as start/stop/reset totalisation, mark the chart.
- **Event Markers** — provides an easy method for a user to mark an event or message on the electronic recorder. These messages are time stamped and can be up to 44 characters long. Additionally, certain recorder actions such as start/stop recording, digital inputs actions, user key presses, etc. can also be logged.
- **24VDC instrument power**
- **Customer ID Tagging**

## Trend Manager Suite

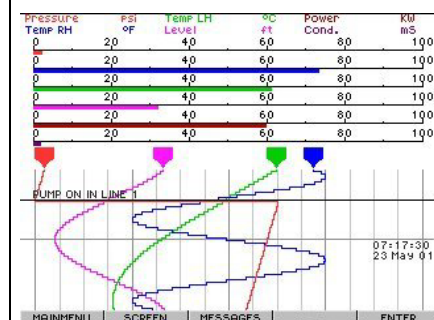
- **TrendViewer** — Standard software package for viewing, graphing, and printing stored data.
- **TrendManager Pro** — this is an advanced data analysis/archiving software package. It provides full configuration of the recorders along with e-mail set up. TrendManager Pro also allows files to be exported using comma separated variables (CSV) format.
- **TrendServer Pro** — is a fully network aware software package for communicating with the recorders. It supports all the capabilities of Trend Manager Pro plus FTP (file transfer protocol) and Web browser access. **TrendServer Pro** provides multi-level, multi-user access to the recorder data by various departments with security.
- **TrendServer Pro with OPC Server** provides the same functions as the TrendServer Pro but includes the added function of an integrated Comms Server to allow easy interfacing to third party HMI software packages that support an OPC Client. This provides a real-time interface between servers and clients.



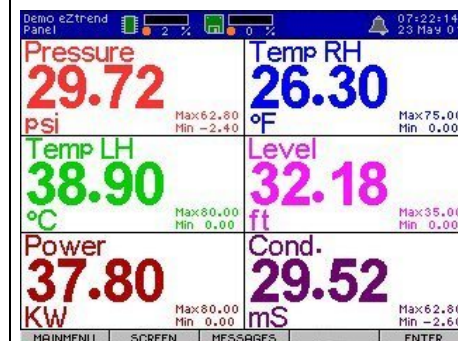
3 Vertical Trends w/Horizontal Bars



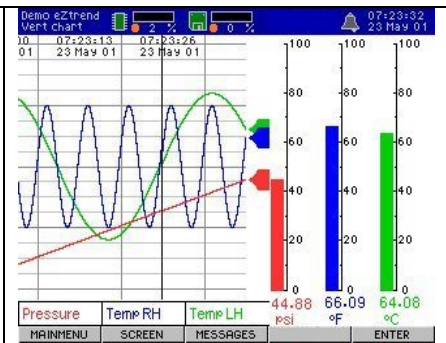
6 Vertical Bars



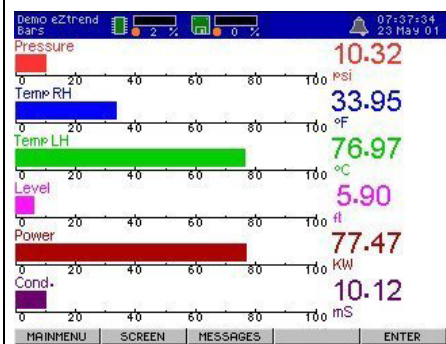
4 Vertical Trends w/ Horizontal Bars



Panel Meter



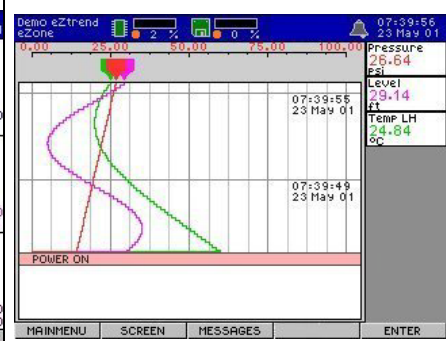
3 Horizontal Trends w/ Vertical Bars



6 Horizontal Bars



3 Horizontal Trends



3 Vertical Trends

## Specifications

| Design Attributes                                       |  |   |           |        |        |            |           |
|---|--|---|-----------|--------|--------|------------|-----------|
| <b>Digital Indication &amp; Display</b>                 | <i>Display Type:</i> Color STN QVGA Display<br><i>Screen Size:</i> 5" diagonal<br><i>Resolution:</i> 320 x 240 pixels<br><i>Display update rate:</i> Values updated every 250 ms   |   |           |        |        |            |           |
| <b>Analog Trace Colors</b>                              | Pen 1 - Dark Red, Pen 2 - Blue, Pen 3 - Green, Pen 4 - Magenta, Pen 5 - Cyan, Pen 6 - Bright Red   |   |           |        |        |            |           |
| <b>Analog Display Scales</b>                            | Linear or full Logarithmic (9 decade maximum)  |   |           |        |        |            |           |
| <b>Data Storage</b>                                     | <i>Media:</i> 3.5" 1.44MB floppy (Standard),<br><i>Internal Data Buffer:</i> 2 Mbytes<br><i>Setup:</i> Stored in battery backed memory   |   |           |        |        |            |           |
| <b>Data Storage Capacity</b>                            | # of Pens  | Estimated Disk Capacity (1.44MB Floppy) |           |        |        |            |           |
|   | 2  | 4D, 2Hr                                 | 40D, 17Hr | 122D   | 244D   | 3.3 Years  | 6.6 Years |
|   | 4  | 2D, 1Hr                                 | 20D, 8Hr  | 61D    | 122D   | 1.67 Years | 3.3 Years |
|   | 6  | 1D, 8Hr                                 | 13D, 8Hr  | 40.5D  | 81D    | 1.1 Years  | 2.2 Years |
|   | Rate   | 1 Sec                                   | 10 Sec    | 30 Sec | 60 Sec | 5 Min      | 10 Min    |
| <b>Display Chart Speeds</b>                             | mm/hour: 1, 5, 20, 30, 60, 120, 600, 1200 (2.7 days to 3.25 minutes)   |   |           |        |        |            |           |
| <b>Communications</b>                                   | Ethernet 10 Base-T connector (Standard) supports FTP Protocol, Trendbus (Real Time), Web, Modbus.  |   |           |        |        |            |           |
| <b>Clock</b>  | Calendar function, daylight savings time adjustable manually or with communications<br>Time can be adjusted and synchronized using Ethernet scheduler<br>Tolerance: 20ppm to resolution of 1 second<br>Battery backed up, Lithium battery - 10 years life (powered)                          |   |           |        |        |            |           |
| <b>Battery</b>  | Replaceable 3.6V lithium battery was fitted in eZtrends after July 2002. With the battery power on and the recorder power off, the expected life of the battery is approx. 6 months. With both the battery and the recorder powered on the battery life expectancy is up to 10 years.        |   |           |        |        |            |           |
| <b>Alarm Set Points</b>                                 | Up to 32 integral "soft" alarm set points easily set by user to announce selected out of limit conditions.   |   |           |        |        |            |           |
| <b>Languages</b>  | English, French, German, Italian, Spanish, Portuguese (Braz), Polish Hungarian, Slovak, Czech, Turk and Romanian.  |   |           |        |        |            |           |
| <b>CE Conformity</b>                                    | This product is in conformity with the protection requirements of the following European Council Directives: <b>73/23/EEC</b> , the Low Voltage Directive, and <b>89/336/EEC</b> , the EMC Directive. Conformity of this product with any other "CE Mark" Directive(s) shall not be assumed. |   |           |        |        |            |           |
| <i>Immunity</i>   | Complies with EN61326  |   |           |        |        |            |           |
| <i>Product Classification</i>                           | Class I: Cord Connected, Panel Mounted Industrial Control Equipment with protective earthing (grounding). (EN 61010-1)   |   |           |        |        |            |           |
| <i>Enclosure Rating</i>                                 | Front panel IP 65 (IEC 529)  |   |           |        |        |            |           |
| <i>Installation Category</i><br>(Over-voltage Category) | Category II: (EN 61010-1)  |   |           |        |        |            |           |
| <i>Disturbances</i>                                     | Complies with EN60555-2 and EN60555-3  |   |           |        |        |            |           |
| <i>Pollution Degree</i>                                 | Pollution Degree 2: (Ref. IEC 664-1)   |   |           |        |        |            |           |
| <i>EMC Classification</i>                               | Group 1, Class A, ISM Equipment (EN 55011, emissions), Industrial Equipment (EN 61326, immunity)   |   |           |        |        |            |           |
| <i>Safety</i>   | Complies with EN61010-1. Panel Mounted Equipment, Terminals must be enclosed within the panel.   |   |           |        |        |            |           |
| Analog Inputs   |  |   |           |        |        |            |           |
| <b>Number of Inputs</b>                                 | 2, 4 or 6 Universal inputs   |   |           |        |        |            |           |
| <b>Input Types</b>                                      | EMF (mV, V, mA), Thermocouple, RTD   |   |           |        |        |            |           |
| <b>Minimum Input Span</b>                               | Range is fully configurable with span limitation of the operating range selected   |   |           |        |        |            |           |
| <b>Input Resolution</b>                                 | 16 bits (0.015%)   |   |           |        |        |            |           |
| <b>Input Impedance</b>                                  | <i>Current loop resistance dc:</i> 10 ohms $\pm$ 5%. <i>All others:</i> 1 Meg Ohm  |   |           |        |        |            |           |
| <b>Source Impedance</b>                                 | RTD: 40 ohms per lead maximum  |   |           |        |        |            |           |
| <b>Input Sampling Rate</b>                              | 100msec for all inputs   |   |           |        |        |            |           |
| <b>Input Sampling Method</b>                            | <i>Method:</i> Sample, Average, Min-Max  |   |           |        |        |            |           |
| <b>Input Filter</b>                                     | Single Low pass filter software adjustable 1 to 15 seconds   |   |           |        |        |            |           |
| <b>Linear Input Scaling</b>                             | -999999 to 999999, scale factor of 1 to 9999<br>Decimal Point automatic or programmable<br>Engineering units, user definable (5 characters)  |   |           |        |        |            |           |
| <b>Input Isolation</b>                                  | <i>Common Mode:</i> 250 Volts AC. <i>Normal Mode:</i> 250 Volts AC   |   |           |        |        |            |           |
| <b>Insulation Resistance</b>                            | >9.9M $\Omega$ Each terminal to ground terminal  |   |           |        |        |            |           |

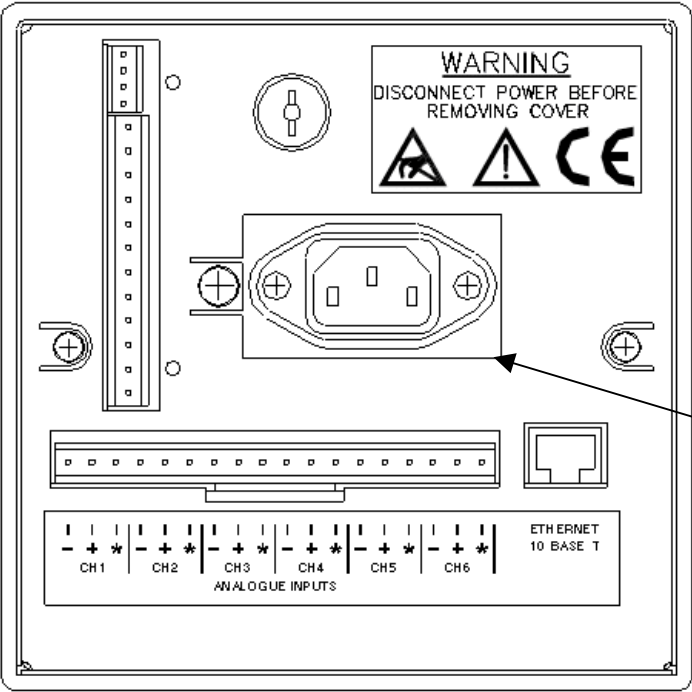
| Logging                                |   |                             |                            |                               |
|--|---|-----------------------------|----------------------------|-------------------------------|
| Logging Method                         | Method: Sample, Average, Min-Max  |                             |                            |                               |
| Logging Types                          | Continuous, Events, Fuzzy   |                             |                            |                               |
| Logging Rates                          | 100mSec to 4 days per log   |                             |                            |                               |
| Fuzzy Logging                          | A secure data storage technique, which typically delivers data compression ratio of 100:1. or more; self teaching, storing the data at a variable rate to match the process   |                             |                            |                               |
| Physical Parameters                    |   |                             |                            |                               |
| Enclosure                              | Galvanized steel with high impact resistant polycarbonate plastic bezel and scratch resistant lens. With proper panel mounting and a gasket, the eZtrend is designed to be splash proof.  |                             |                            |                               |
| Mounting (Panel)                       | Mounting adjustable for panel thickness of 2 to 20mm<br>Adapter kits available for covering existing panel cutouts.   |                             |                            |                               |
| Dimensions                             | See Figure 3  |                             |                            |                               |
| Weight                                 | 2.5Kg   |                             |                            |                               |
| Color                                  | Bezel: Black  |                             |                            |                               |
| Wiring Connections                     | IEC Power Plug. Removable terminal strip for input and alarm connections  |                             |                            |                               |
| Options                                |   |                             |                            |                               |
| Alarm Output                           | Four or six relays. Six Relay Option includes two digital inputs<br><i>Relay Contact Ratings: 3 Amp 120VAC / 1.5 Amps 240VAC with Resistive Load, SPDT</i>  |                             |                            |                               |
| Digital Input                          | Two voltage free contacts available as part of the Six Relay Option   |                             |                            |                               |
| Totalisers                             | Available as part of Math Option. One totaliser per input. Totaliser value is assigned to a pen for data storage. Totalisation values are ten digits plus exponent. F sub zero sterilization function (121°C) is also available, this gives a total measured by temperature.  |                             |                            |                               |
| Math Algorithms                        | Free form math, supports 200 character expression. Supports common operators +, -, *, /, %, neg, Totals, Modulus, Over, Under, CJC, Memory Use, Disk Use, Pens, Outputs, Absolute Value, Hi, Lo, RAV, DELAY. Math includes 6 extra virtual pens   |                             |                            |                               |
| Event Markers                          | Event Messages can be up to 44 Characters, specified dates and times.<br><i>Event Causes:</i> Into Alarm, Out of Alarm, Disk % Full, Totaliser Start/Stop/Reset, Dig. In High, Dig. In Low, Relay High, Relay Low, T/C Open Circuit, Scheduled (specified date & time).<br><i>Event Effects:</i> Mark Chart, Logging, Start/Stop Totaliser, Set/Clear Relay, e-Mail |                             |                            |                               |
| Miscellaneous                          | Customer ID Tagging (3 lines of up to 22 characters each line)  |                             |                            |                               |
| Environmental and Operating Conditions |   |                             |                            |                               |
| Parameter                              | Reference   | Rated                       | Extreme                    | Transport and storage         |
| Ambient Temperature                    | 67 to 77 °F<br>19 to 25 °C  | 58 to 104 °F<br>15 to 40 °C | 32 to 122 °F<br>0 to 50 °C | -14 to 140 °F<br>-10 to 60 °C |
| Relative Humidity (%RH)                | 50 to 65*   | 10 to 90*                   | 5 to 90*                   | 5 to 95*                      |
| Vibration                              |   |                             |                            |                               |
| Frequency (Hz)                         | 0   | 0 to 70                     | 0 to 100                   | 0 to 100                      |
| Acceleration (g)                       | 0   | 0.1                         | 0.2                        | 0.5                           |
| Mechanical Shock                       |   |                             |                            |                               |
| Acceleration (g)                       | 0   | 1                           | 5                          | 20                            |
| Duration (ms)                          | 0   | 30                          | 30                         | 30                            |
| Mounting Position from Vertical        |   |                             |                            |                               |
| Tilted Forward                         | 5°  | 20°                         | 25°                        | Any                           |
| Tilted Backward                        | 5°  | 20°                         | 25°                        | Any                           |
| Tilted to Side (±)                     | 5°  | 20°                         | 25°                        | Any                           |
| Power Requirements                     |   |                             |                            |                               |
| Voltage (VRMS)                         | 119 to 121  | 90 to 250                   | 90 to 250                  | N/A                           |
| Frequency (Hz)                         | 49.8 to 60.2  | 47 to 440                   | 47 to 440                  | N/A                           |
| Optional 24VDC                         | 24VDC   | 18 to 30                    | 18 to 30                   | N/A                           |
| Power Consumption                      | 20 VA maximum (20W – 24V dc option)   |                             |                            |                               |

The maximum nominal value is only applied up to 104 °F (40 °C). For higher temperatures, the relative humidity specification is de-rated to maintain constant moisture content.

| Performance                     |  |              |          |      |  |
|---------------------------------|--|--------------|----------|------|--|
| Input Actuation (Linear)        | Range  |              | Accuracy |      | Temp. Stability  |
| Millivolts dc                   | -100 to 100  |              | ±0.1%    |      | ±0.01%/°C  |
|                                 | -200 to 200  |              | ±0.1%    |      | ±0.01%/°C  |
| Volts dc                        | -1.0 to 1.0  |              | ±0.1%    |      | ±0.01%/°C  |
|                                 | -10 to 10  |              | ±0.1%    |      | ±0.01%/°C  |
|                                 | Note for 4-20mA inputs: signal needs to be converted to millivolt or voltage signal and input actuation set to this. (That is, 10-ohm resistor and use ±200 mV input actuation or 250 ohm and use ±10 volt actuation.) |              |          |      |  |
| Input Actuation (Thermocouples) | Range  |              | Accuracy |      | Temp. Stability<br>± Degrees<br>Error Per 1<br>Degree ΔT |
|                                 | °F   | °C           | ± °F     | ± °C |  |
| B                               | 212 to 3182  | 100 to 1820  |          |      |  |
|                                 | 212 to 1112  | 100 to 600   | 18       | 10   | 0.15%/°C   |
|                                 | 1112 to 3182   | 600 to 1750  | 7.2      | 4    | 0.13%/°C   |
| C(W5)                           | 32 to 4172   | 0 to 2300    |          |      |  |
|                                 | 32 to 4172   | 0 to 2300    | 10.8     | 6    | 0.06%/°C   |
| E                               | -328 to 1832   | -200 to 1000 | 3.6      | 2    | 0.06%/°C   |
| J                               | -328 to 2174   | -200 to 1190 |          |      |  |
|                                 | -328 to 32   | -200 to 0    | 5.4      | 3    | 0.03%/°C   |
|                                 | 32 to 2174   | 0 to 1190    | 2.7      | 1.5  | 0.03%/°C   |
| K                               | -328 to 2462   | -200 to1350  |          |      |  |
|                                 | -328 to 32   | -200 to 0    | 5.4      | 3    | 0.03%/°C   |
|                                 | 32 to 1832   | 0 to 1000    | 3.6      | 2    | 0.03%/°C   |
|                                 | 1832 to 2462   | 1000 to 1350 | 4.5      | 2.5  | 0.03%/°C   |
| L                               | -328 to 1652   | -200 to 900  |          |      |  |
|                                 | -328 to 212  | -200 to 100  | 14.4     | 8    | 0.03%/°C   |
|                                 | 212 to 1652  | 100 to 900   | 9        | 5    | 0.03%/°C   |
| N (Nicrosil Nisil)              | -328 to 2372   | -200 to 1300 |          |      |  |
|                                 | -328 to 32   | -200 to 0    | 5.4      | 3    | 0.05%/°C   |
|                                 | 32 to 2732   | 0 to 1300    | 5        | 2.75 | 0.04%/°C   |
| R                               | -58 to 3182  | -50 to 1750  |          |      |  |
|                                 | -58 to 932   | -50 to 500   | 7.2      | 4    | 0.1%/°C  |
|                                 | 932 to 3182  | 500 to 1750  | 5.4      | 3    | 0.1%/°C  |
| S                               | -58 to 3182  | -50 to 1750  |          |      |  |
|                                 | -58 to 932   | -50 to 500   | 7.2      | 4    | 0.1%/°C  |
|                                 | 932 to 3182  | 500 to 1750  | 5.4      | 3    | 0.1%/°C  |
| T                               | -328 to 752  | -200 to 400  |          |      |  |
|                                 | -328 to 32   | -200 to 0    | 3.6      | 2    | 0.08%/°C   |
|                                 | 32 to 752  | 0 to 400     | 1.8      | 1    | 0.08%/°C   |
| W                               | 1832 to 4172   | 1000 to 2300 |          |      |  |
|                                 | 1832 to 3272   | 1000 to 1800 | 10.8     | 6    | 0.15%/°C   |
|                                 | 3272 to 4172   | 1800 to 2300 | 10.8     | 6    | 0.15%/°C   |
| Chromel/Copel                   | -58 to 1112  | -50 to 600   |          |      |  |
|                                 | -58 to 1112  | -50 to 600   | 7.2      | 4    | 0.05%/°C   |
| Input Actuation (RTD's)         | °F   | °C           | ± °F     | ± °C |  |
| PT100                           |  |              |          |      |  |
| 100 ohms (To BS1904)            | -328 to 1202   | -200 to 650  | 2.7      | 1.5  | 0.05%/°C   |
| PT200                           |  |              |          |      |  |
| 200 ohms                        | -328 to 356  | -200 to 180  | 2.7      | 1.5  | 0.05%/°C   |
| Ni120                           | -112 to 464  | -80 to 240   | 2.7      | 1.5  | 0.05%/°C   |

Reference Temperature: 20°C  
Reference Humidity: 65% RH ±15%  
Reference junction Accuracy: ±1.0 degrees Centigrade.

Reference sample rate: 2 Hz (500 msec)  
CJC Temperature Effect: ±0.05°C/°C  
Long term stability: 0.2%/year



**Recorder Wiring**

Accepts T/C, mV, V, mA, RTD  
IEC Power Plug for AC Power  
Accepts up to 6 Alarm Outputs/2 Digital Inputs

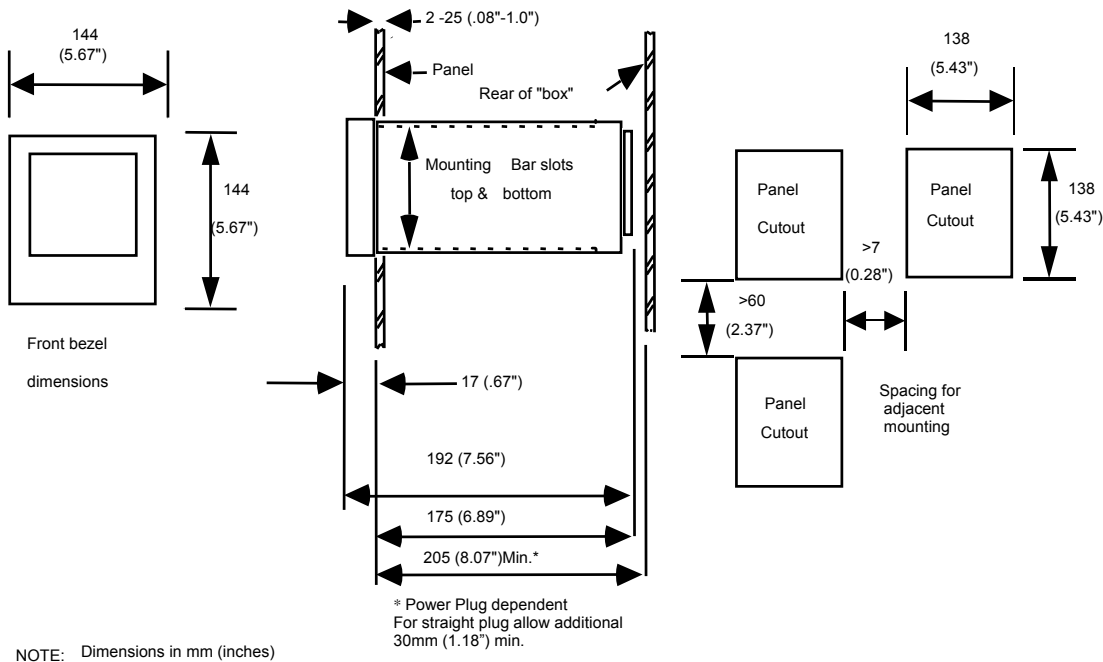
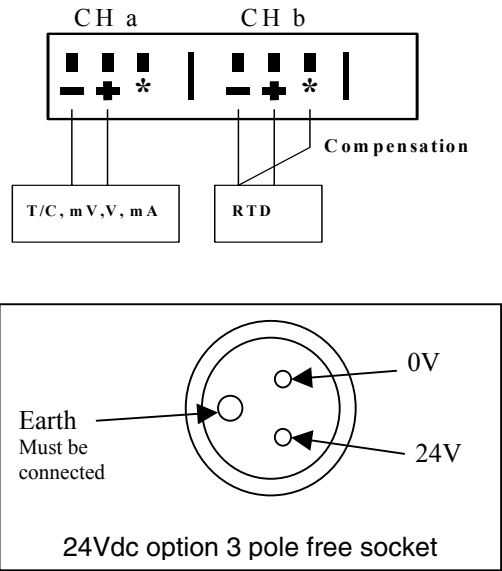


Figure 3— eZtrend recorder dimensions - for reference only



## Application Software – TrendManager Pro V5 Software Suite

**TrendViewer** software is available at no charge when ordering any recorder; it allows the user to view, graph and print data.

**TrendManager Pro** is a stand-alone package that delivers to the user total recorder configuration, simulates the recorder's performance on the PC, and archives, graphs, prints and exports data. Full data graphing, archiving and export tools are included.

Minimum System requirements for TrendViewer and TrendManager Pro:

- 200 MHz Pentium processor or higher
- 3.5" Floppy disk drive
- CD-ROM drive
- Monitor recommended screen resolution 800 x 600 minimum requirement, high color
- Windows 98SE, 2000, ME, XP, NT ver. 4.0 with Service pack 6, onwards
- 32 Mbyte of RAM (64 Mbyte recommended)
- 10 Mbyte free hard disk space
- A mouse

**TrendServer Pro** is a fully network aware package, which allows data viewing, archiving and communications. The recorder uses an RS485 network or can access them directly with the recorder's own Ethernet TCP/IP port. Standard kit includes data archive tools plus E-mail, graph, print import and export data facilities.

Minimum System requirements for TrendServer:

- 450 MHz Pentium processor or higher
- CD-ROM drive
- Monitor recommended screen resolution 1024 x 768 minimum requirement, high color
- 2 Gbyte Hard-drive free disk space
- Windows 98SE, 2000, ME, XP, NT ver. 4.0 with Service pack 6, onwards
- 64 Mbyte of RAM
- TCP IP installed
- A mouse

**TrendServer Pro with Comms Server** provides the same functions as the TrendServer Pro but includes the added function of an integrated Comms Server to allow easy interfacing to third party HMI software packages that support an OPC Client. This provides a real-time interface between servers and clients.

## Ordering Information

For complete ordering information, request Model Selection Guide 43-TV-16-08. Honeywell offers a full line of sensors and transmitters that produce a compatible range of dc voltage or current signals, which can be used as inputs to the eZtrend Recorder.

|   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |
|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------------|--|--|--|
| T   | V | E | Z |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |
| 2 = 2 Analog Inputs<br>4 = 4 Analog Inputs<br>6 = 6 Analog Inputs   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Factory Use |  |  |  |
| Discrete I/O<br>0 = None<br>4 = 4 Relay Out<br>6 = 6 Relay/2 Digital Inputs   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |
| Firmware options<br>0 = None<br>E = Event markers<br>G = Math (Totalizer) + Event markers<br>+ 6 Extra pens<br>M = Math (Totalizer) + 6 Extra pens  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |
| Communications/Inst. Power<br>0 __ = Ethernet (FTP, Web, Real Time, Trendbus, Modbus)<br>Instrument Power<br>_ 0 _ = Universal Power (90 – 240V ac)<br>_ 2 _ = 24V dc Instrument Power<br>Future<br>__ 0 = None |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |
| Data Storage<br>0 = 1.44MB Floppy Disk  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |             |  |  |  |

**Options**

0 \_\_\_\_\_ = Std Panel Mount  
H \_\_\_\_\_ = Case with Handle Attached  
P \_\_\_\_\_ = Portable Case  
V \_\_\_\_\_ = Rear Panel conn. TDC Vutronik recorders  
C \_\_\_\_\_ = Nema 4/IP65 Cover

\_\_ U \_\_\_\_\_ = English manual with TrendViewer  
\_\_ F \_\_\_\_\_ = French manual with TrendViewer  
\_\_ G \_\_\_\_\_ = German manual with TrendViewer  
\_\_ I \_\_\_\_\_ = Italian manual with TrendViewer  
\_\_ S \_\_\_\_\_ = Spanish manual with TrendViewer  
\_\_ O \_\_\_\_\_ = Product Info on CD with TrendViewer

\_\_ L \_\_\_\_\_ = Linen Tag  
\_\_ S \_\_\_\_\_ = Stainless Steel Tag

\_\_\_\_ 0 \_\_\_\_ = CE Approval Std.  
\_\_\_\_ B \_\_\_\_ = UL Listed & CSA Certified

\_\_\_\_ 0 \_\_\_\_ = None  
\_\_\_\_ B \_\_\_\_ = Cert of Conformance  
\_\_\_\_ C \_\_\_\_ = Calibration Certificate  
\_\_\_\_ E \_\_\_\_ = Calib & Conformance Cert.

\_\_\_\_ P = TrendManager Pro  
\_\_\_\_ S = TrendManager Pro  
\_\_\_\_ T = TrendManager Pro

## Sales and Service

For application assistance, current specifications, pricing, or name of the nearest Authorized Distributor, contact one of the offices below.

## Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty work-manship. Contact your local sales office of warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. ***The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.*** Specifications may change without notice. The information we supply is believed to be accurate and reliable as of printing. However, we assume no responsibility for its use. While we provide application assistance personally, through our literature and the Honeywell website, it is up to the customer to determine the suitability of the product in the application.

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