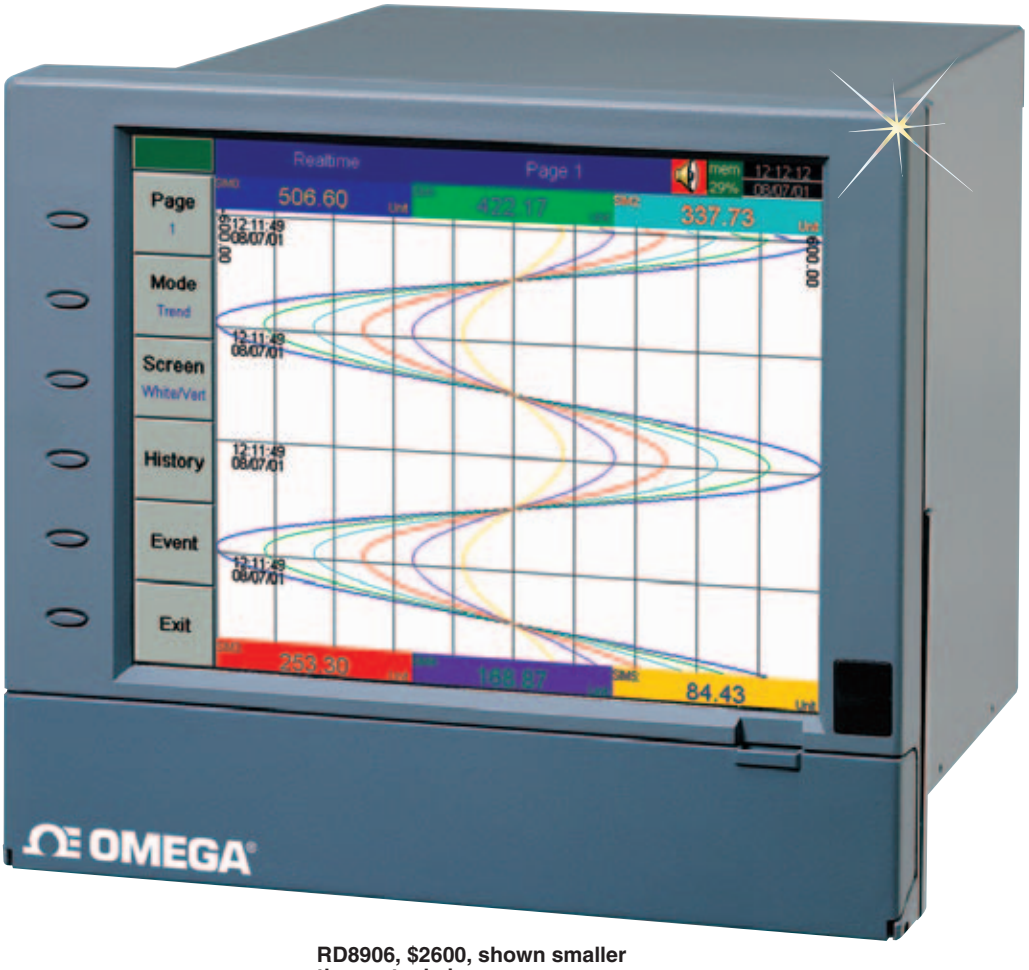
Paperless Recorder

RD8900 Series Starts at

$2265

1 YEAR WARRANTY

- **Up to 18 Isolated Analog Inputs**
- **6.1" Color TFT Display**
- **Plug and Play I/O Cards, 6 Slots**
- **User Friendly with Bar Graph, Numerical, Vertical or Horizontal Trend Display**
- **Auto LCD Shut Off via Infrared Detector, Prolongs Life and Saves Power**
- **Stores Data on Supplied 128 MB Flash Card**
- **Ethernet Interface Standard with RS232/422/485 Optional**
- **Windows Graphical Software Standard and Optional Software for Real Time View**
- **Portable Benchtop Option**



RD8906, $2600, shown smaller than actual size.

The OMEGA® RD8900 Series paperless recorder offers real time display of data in a variety of formats on a high resolution (VGA) color TFT display. The user friendly unit with plug & play cards can easily be set to monitor, record, and evaluate any application. The user can access data on the screen, as well as from a remote site via the standard ethernet or optional RS232/422/485 serial interface. The historical data may be stored in a flash ROM, compact flash card, or collected in a remote host PC for evaluation and print out. The unit's compact size saves space and requires less than 7" behind a panel.

Specifications

Display: 6.1" TFT LCD, 640X480 pixel resolution, 256 colors

Analog Input Card: RD8900-AI1, AI2, AI3

Resolution: 18 bits

Sampling Rate: 5 times/sec

Maximum Rating: -2 Vdc minimum, 12 Vdc maximum (1 min for mA input)

Temperature Effect: ±1.5 µV/°C for all inputs except mA input ±3.0 µV/°C for mA input

Sensor Lead Resistance Effect: T/C: 0.2 µV/Ω

3-wire RTD: 2.6°C/Ω of resistance difference of 2 leads

2-wire RTD: 2.6°C/Ω of resistance sum of 2 leads

Burn-Out Current: 200 nA

Common Mode Rejection Ratio (CMRR): 120 dB

Normal Mode Rejection Ratio (NMRR): 55 dB

Isolation Breakdown Voltage Among Channels: 430 Vac min

Sensor Break Detection: Sensor open for TC, RTD and mV inputs, below 1 mA for 4 to 20 mA input, below 0.25V for 1 to 5V inputs, unavailable for other inputs

Sensor Break Responding Time: Within 10 seconds for TC, RTD and mV inputs, 0.1 second for 4 to 20 mA and 1 to 5V inputs

Digital Input Card (RD8900-DI6)

Channels: 6 per card

Logic Low: -30V min, 0.8V max

Logic High: 2V min, 30V max

External Pull-Down Resistance: 1 kΩ max

External Pull-Up Resistance: 1.5 MΩ min

Digital Output Card (RD8900-DO6)

Channels: 6 per card

Contact Form: N O (form A)

Relay Rating: 5 A/240 Vac, life cycles 200,000 for resistive load

Comm Module (RD8900-RS)

Interface: RS232 (1 unit), RS485 or RS422 (up to 247 units)

Protocol: MODBUS® protocol RTU mode

Address: 1 to 247

Baud Rate: 0.3 to 38.4 Kbits/sec
Data Bits: 7 or 8 bits
Parity Bit: None, even or odd
Stop Bit: 1 or 2 bits

Standard Ethernet Communication

Protocol: Mod Bus TCP/1P, 10 BaseT; auto polarity correction for 10 BaseT
Ports: AUI (attachment unit Interface) and RJ-45 auto-detect capability

Memory

Storage Memory on Board: 8 MB
CF Card: 128 MB standard; optional 1 GB

Infrared Detector

Distance: Detect moving human body within 2 m
Power: 90 to 264 Vac, 47 to 63 Hz, 60 VA, 30 W max (standard); 11 to 18 or 18 to 36 Vdc 60 VA, 30 W max (optional)

Environmental and Physical

Operating Temperature: 5 to 50°C (40 to 122°F)
Storage Temperature: -25 to 60°C (-12 to 140°F)
Humidity: 20 to 80% RH (non-condensing)
Insulation Resistance: 20 MΩ min (at 500 Vdc)
Dielectric Strength: 3000 Vac 50/60 Hz for 1 min
Vibration Resistance: 10 to 55 Hz, 10 m/S² for 2 hr
Shock Resistance: 30 m/S² (3 g) for operation, 100 g for transportation
Dimensions: 166 W x 144 H x 174 mm D (6.54 x 5.67 x 6.85") for panel mount
Panel Cutout: 138 x 138 mm (5.44 x 5.44")

Approval Standards

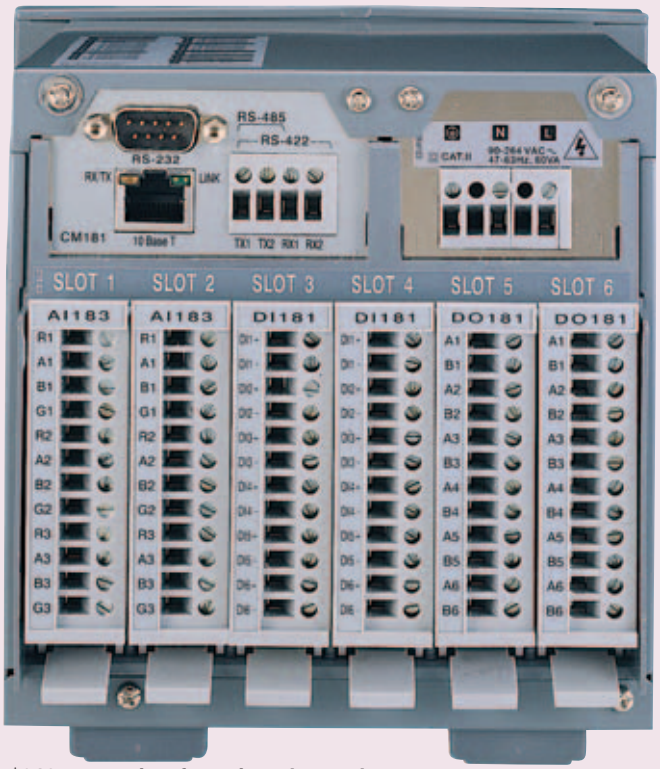
Safety: CE; EN61010-1 (IEC1010-1) Overvoltage category II, pollution degree 2
Protective Class: IP-30 front panel, indoor use, IP-20 housing and terminals

EMC

Emission: EN50081-1, EN61326 (EN55011 class B, EN61000-3-2, EN61000-3-3)
Immunity: EN50082-2, EN61326 (EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11, EN50204)

OMEGACARE℠ Extended Warranty Program

OMEGACARE℠ extended warranty program is available for models shown on this page. OMEGACARE℠ covers parts, labor, and equivalent loaners. Ask your sales representative for full details when placing an order.

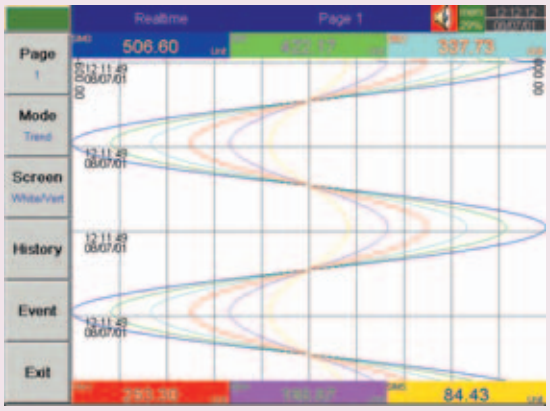


RD8906, $2195, rear view featuring plug and play I/O cards, shown smaller than actual size.

Characteristics

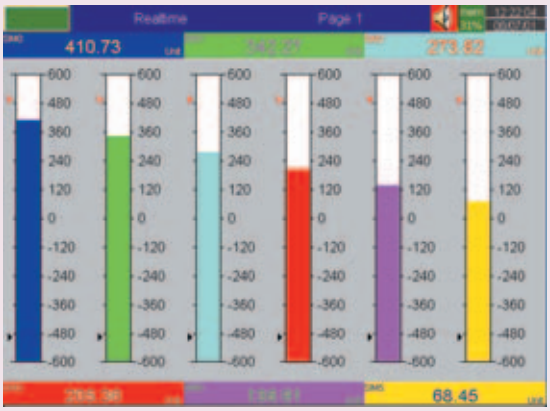
Type	Range	Accuracy @25°C	Input Impedance
J	-120 to 1000°C (-184 to 1832°F)	±1°C	2.2 MΩ
K	-200 to 1370°C (-328 to 2498°F)	±1°C	2.2 MΩ
T	-250 to 400°C (-418 to 752°F)	±1°C	2.2 MΩ
E	-100 to 900°C (-148 to 1652°F)	±1°C	2.2 MΩ
B	0 to 1820°C (32 to 3308°F)	±2°C (200 to 1820°C)	2.2 MΩ
R	0 to 1767.8°C (32 to 3214°F)	±2°C	2.2 MΩ
S	0 to 1767.8°C (32 to 3214°F)	±2°C	2.2 MΩ
N	-250 to 1300°C (-418 to 2372°F)	±1°C	2.2 MΩ
L	-200 to 900°C (-328 to 1652°F)	±1°C	2.2 MΩ
PT100 (DIN)	-210 to 700°C (-346 to 1292°F)	±0.4°C	1.3 kΩ
PT100 (JIS)	-200 to 600°C (-328 to 1112°F)	±0.4°C	1.3 kΩ
mV	-8 to 70 mV	±0.05%	2.2 MΩ
mA	-3 to 27 mA	±0.05%	70.5 Ω
0~1V	-0.12 to 1.15V	±0.05%	32 kΩ
0~5V	-1.3 to 11.5V	±0.05%	332 kΩ
1~5V	-1.3 to 11.5V	±0.05%	332 kΩ
0~10V	-1.3 to 11.5V	±0.05%	332 kΩ

Trend Mode



- View max 6 real time data trends vertically
- Recognize data trends easily by different colors and tag names
- Switch to other configured pages easily by “Page” function key
- Display current “Time/Date” information
- Remind the user of “Alarm” or “Memory Full”

Bar Graph Mode

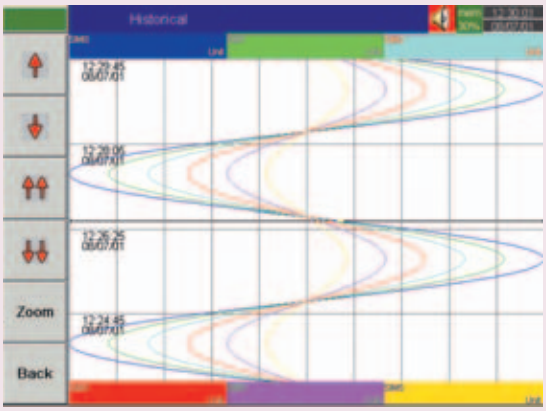


- View max 6 real time data in bar graphs
- Scale individually by user in “configuration”
- Display data value and tag name in different colors together with each bar graph
- Mark “Hi/Lo” alarm limits
- Display current “Time/Date” information
- Remind the user of the “Alarm” or “Memory Full”

Numerical Mode

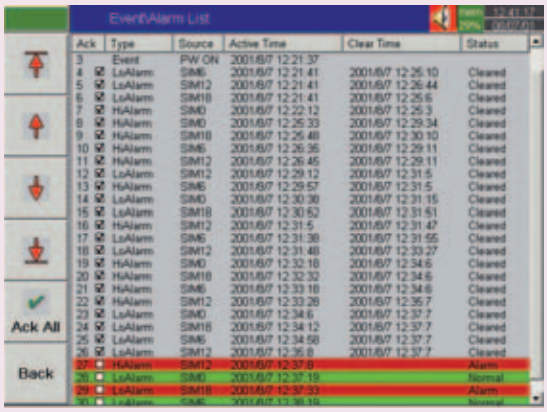
- View max 6 real time data in numbers
- Display data value and tag name in different color
- Mark “Hi/Lo” alarm limits
- Display current “Time/Date” information
- Remind the user of the “Alarm” or “Memory Full”

Historical Mode



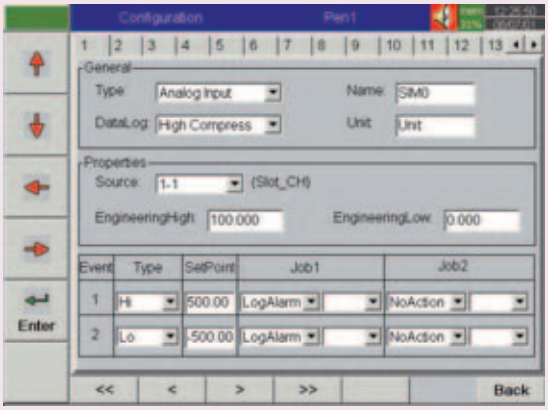
- Display max 6 sets of historical data simultaneously
- View desired data section by “▲” and “▼” function keys
- Access precise data value at a point selected by moving the “ruler”
- “Zoom” to expand/contract the display time span
- View historical data trends and their respective data values
- Recognize trends easily by different colors and individual tag names

Alarm List



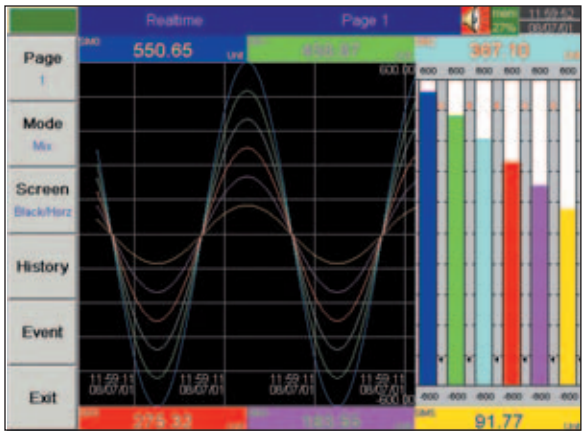
- List all the alarm records clearly with useful information
- Browse through the alarm list or “acknowledge” alarm easily by function keys on the vertical bar
- Remind the user of the alarm status in different colors

Configuration Mode



- Configure pen (input/output, pen name, event, job.....)
- Configure page (color, pen, decimal, pen width.....)
- Configure timer
- Configure instrument (storage media, display, communication, time/date....)

Realtime trend screen.



RD8906, $2600, with benchop conversion kit, RD8900-BPS, $205, shown smaller than actual size.

MOST POPULAR MODELS HIGHLIGHTED!

To Order *(Specify Model Number)*		
Model No.	**Price**	**Description**
RD8901	**$2265**	Recorder, 1-input, color, 5 spare I/O slots
RD8902	**2285**	Recorder, 2-input, color, 5 spare I/O slots
RD8903	**2300**	Recorder, 3-input, color, 5 spare I/O slots
RD8904	**2500**	Recorder, 4-input, color, 4 spare I/O slots
RD8905	**2565**	Recorder, 5-input, color, 4 spare I/O slots
RD8906	**2600**	Recorder, 6-input, color, 4 spare I/O slots
RD8909	**2900**	Recorder, 9-input, color, 3 spare I/O slots
RD8912	**3200**	Recorder, 12-input, color, 2 spare I/O slots
RD8915	**3400**	Recorder, 15-input, color, 1 spare I/O slot
RD8918	**3600**	Recorder, 18-input, color, no spare I/O slots

Options (Field Installable in Spare I/O Slots, One Slot Required for Each Item)

Model No.	Price	Description
RD8900-AI1	**$145**	Analog input card, 1-channel
RD8900-AI2	**245**	Analog input card, 2-channels
RD8900-AI3	**375**	Analog input card, 3-channels
RD8900-DI6	**275**	Digital input card, 6 inputs
RD8900-DO6	**275**	Digital output card, 6 relays/alarms
RD8900-DO12	**465**	Digital output card, 12 relays/alarms
RD8900-TPS	**199**	Transmitter power supply (24 Vdc 180 mA)

Accessories

Model No.	Price	Description
RD8900-BPS	**$205**	Kit to convert to benchtop style
RD8900-SW2	**195**	Software, real time graphical via comm port
1GB-FC	**65**	Memory card,1 GB compact flash (optional); standard with recorder: 128 MB

Comes complete with operator's manual, panel mounting brackets, basic observer software for non-communication application and 128 MB flash card.

Notes: *Recorder offers Ethernet interface as standard. To include RS232/422/485 communications add* ***"-RS"*** *suffix and add* ***$155*** *to price. Feature may be field installed by ordering* ***RD8900-RS.*** *To include counter/totalizer math functions add* ***"-MATH"*** *suffix and* ***$325*** *to price. To operate on DC power add* ***"-DC12"*** *(for 11 to 18 Vdc) or* ***"-DC24"*** *(for 18-36 Vdc) suffix, no additional charge*

Standard software provided with recorder supports transfer of data and recorder configuration only via the memory card. User must have a memory card reader (not provided) connected with the host computer. The data may be read, analyzed, printed or transferred via an Excel type file to another application. The RD8900-SW2 allows above, plus supports real time monitoring and configuration via the communications port. Software is Windows 98, NT, 2000 and XP compatible.

Ordering Examples: RD8906, *recorder with 6 inputs, plus* ***RD8900-DO6,*** *digital output card, plus* ***1GB-FC,*** *memory card, $2600 + 275 + 65 =* ***$2940. OCW-3,*** *OMEGACARE℠ extends standard 1-year warranty to a total of 4 years ($350), $2600 + 350 =* ***$2950.***

RD8903, *recorder with 3 inputs, plus* ***RD8900-DI6,*** *digital input card, plus* ***RD8900-BPS,*** *kit to convert to benchtop style, plus* ***RD8900-SW2,*** *software for real time graphical via communications port, $2300 + 275 + 205 + 195 =* ***$2975. OCW-3,*** *OMEGACARE℠ extends standard 1-year warranty to a total of 4 years ($350), $2300 + 350 =* ***$2650.***

omega.co.uk®

Your One-Stop Source for Process Measurement and Control!

Freephone 0800 488 488 | International +44(0) 161 777 6622 | Fax +44(0) 161 777 6622 | Sales@omega.co.uk

www.omega.co.uk

UNITED STATES
www.omega.com
1-800-TC-OMEGA
Stamford, CT.

UNITED KINGDOM
www. omega.co.uk
Manchester, England
0800-488-488
+44-(0)161-777-6611

CANADA
www.omega.ca
Laval(Quebec)
1-800-TC-OMEGA

FRANCE
www.omega.fr
0800-466-342

GERMANY
www.omega.de
Deckenpfronn, Germany
0800-8266342

BENELUX
www.omega.nl
0800-099-33-44

More than 100,000 Products Available!

- **Temperature**

Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples, Thermowells and Head and Well Assemblies, Transmitters, Thermocouple Wire, RTD Probes

- **Flow and Level**

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

- **pH and Conductivity**

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

- **Data Acquisition**

Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485, Ehernet and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

- **Pressure, Strain and Force**

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

- **Heaters**

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters