Paperless Recorder/ Data Acquisition System

RD8800 Series

RD8802CF

- ✔ **2, 4, 6 or 12 Isolated Analog Inputs**
- ✔ **142 mm (5.6") TFT Color Graphic Display with Touchscreen Control**
- ✔ **Record Data on CompactFlash™ Memory Cards**
- ✔ **Windows Based Software (Optional)**
- ✔ **Math Functions Include +, -, x, ÷, Logarithms, Totalization, Powers, Averages, Timers and Custom Equations**
- ✔ **Independent Recording Rates for Each Channel**
- ✔ **Set Up and Automatically Search Data Files by Signal Values, Alarms, or Date/Time Parameters**
- ✔ **Alarm/Event Information**
- ✔ **5 Alarms (High, Low, and Rate of Change) per Channel**

RD8800-SW Windows® Based Software

- ✔ **Direct Data Transfer**
- ✔ **Simultaneous Multi-File Viewing**
- ✔ **Multi-Drop up to 31 Units Via RS485 with MODBUS Protocol**
- ✔ **Remote Data Acquisition and Recorder Configuration**
- ✔ **Search, Combine, Analyze, Print, and Export Data Files to Other Programs**

Specifications

Input Signals
Thermocouple: J, K, T, E, R, S, B, C, N
   RTD: 10 Ω Cu, 100 Ω
   Pt 385: 100 Ω Pt 392, 200 Ω
   Pt 385: 200 Ω Pt 392, 120 Ω Ni 385
DC Voltage: Linear, square root, logarithmic
DC Current: 0/4 to 20 mA, 10 to 50 mA

Input Accuracy
Thermocouple: ±1.5°C for J, K, T, E, N (Nicrosil-Nisil); ±3°C for R, S and C; ±4°C for B
RTD: ±0.5°C or 0.2%
DC Voltage: ±0.06% for ±150 mV, ±1.25V, ±2.5V; ±0.1% for ±12.5V, ±25V
Current: ±0.15% with external 50 Ω 0.1% shunt
Input Resolution: 0.0015% of full scale, 16-bit
Input Impedance: >10 MΩ on 150 mV, 1.25V, 2.5V, >100 K on 5, 12.5, 25V ranges
Max Input: 50 Vdc
Scan Rate: All points measured every 125 ms
Isolation: 300 Vdc or peak Vac between channels
Common Mode Noise Rejection: >100 dB, 50/60 Hz

Normal Mode Noise Rejection: >50 dB, 50/60 Hz
EMC Compliance: Meets or exceeds the requirements of EMC 89/336/EEC

Recording
Recording Rates: User programmable from 8 samples per second to 1 sample every 10 min
Format: Windows compatible file system; proprietary file structure
Storage Capacity: 256 MB samples on 128 MB flash card
Internal Memory: 1 MB RAM (non-volatile)

Display
Display Type Color: CCFL backlit active matrix TFT liquid crystal display 142 mm (5.6")
Resolution Color: 320 H x 234 V pixel
Display Modes: Graphics (trending, vertical or horizontal), bar graphs (vertical or horizontal), digital meter, alphanumeric alarm and event data or combinations on a split screen; review trend data; search by time, date or signal value
Display Update Rate: 1 sec; data update rate programmable from 1 to 60 sec
Virtual Chart Speed: Programmable, 10 mm/hr to 15,000 mm/hr (0.5 in/hr to 600 in/hr); chart speed is independent of storage rate

Virtual Chart Scales: 2 sets of 8 scales

Display Windows: Time/date, graphics (bars, large digital, trends), disk status, system status, menu button bar, unit identification, alarms/events

Buffer: Internal buffer enables real time browsing of historic chart data independent of recorded data

Configuration: Touchscreen control menu with button bar or simple programming on IBM compatible PC with optional software

Software: Spreadsheet export utility software included; graphical software optional; Windows XP/Vista/7/8/10; on CD

Options

Alarm Contacts: 3 or 6 isolated form C, 3 A @ 250 Vac or 26 Vdc

Remote Inputs: 3 isolated inputs user selectable as dry contact or 5 to 12 Vdc activated; inputs share a common terminal; configurable for chart control, alarm, acknowledge/reset, event markers, totalizer reset or logic input

Communications: ESD protected RS232 with full hand shaking; supports modem or isolated

RS485 Network Port: Serial protocol, MODBUS® RTU or MODBUS ASCII

Ethernet: 10BaseT

Power

Power Requirements: 100 to 240 Vac, 50/60 Hz, or 125 to 300 Vdc, 35 VA max

Power Fail Protection: Programmed parameters stored in non-volatile memory; clock battery backed; detention time without power >12 months

Environmental

Operating Temperature: -10 to 50°C (14 to 122°F)

Operating Humidity: 10% to 80% RH non-condensing

Wash Down: IP65 front panel only

Safety: Meets UL-311-1 and EN61010-1

Dimensions: 144 L x 144 W x 236 D mm (5.669 x 5.669 x 9"); panel cutout: 138 L x 138 W mm (5.43 x 5.43")

Weight: Approx 3.2 kg (7 lb)

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

RD8800-SW graphical software, sold separately.

Wireless Conversion Receivers Available. For Details Visit OMEGA

To Order	
Model No.	**Description**
RD8802CF	Recorder, 2 input, color
RD8804CF	Recorder, 4 input, color
RD8806CF	Recorder, 6 input, color
RD8812CF	Recorder, 12 input, color

Options

Model No.	Description (Field Installable)
RD8800-AL3	Alarms, 3-relay contacts, 3 control inputs
RD8800-AL6	Alarms, 6-relay contacts, 3 control inputs
RD8800-C24	Communications, RS232/RS485
RD8800-EI	Communications, Ethernet

Accessories

Model No.	Description
RD8800-SW	Software, graphical
RD8800-SWEI	Software to support ethernet option and multiple recorders (no graphics)
RD8800-512CF	Memory card, 512 MB compact flash
RD8800-CR-3-2	Card reader, cable and software

Comes complete with operator's manual, utility software and AC power cord for connection to the standard IEC320 AC power supply connector (similar to PC's) on the rear of the recorder.

Note: *To special order AC power screws in place of the cord, add **"-ST"** suffix for additional cost. To special order 18 to 30 Vdc power option, add suffix **"-DC"** for additional cost. Options may be shipped installed in the recorder by adding option suffix and price to base model.*

Ordering Examples: RD8802CF, *color 2-input recorder and **RD8800-AL3,** alarms, 3 relay contacts, and 3 control inputs.*

OCW-3, *OMEGACARE℠ extends standard 2-year warranty to a total of 5 years.*

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