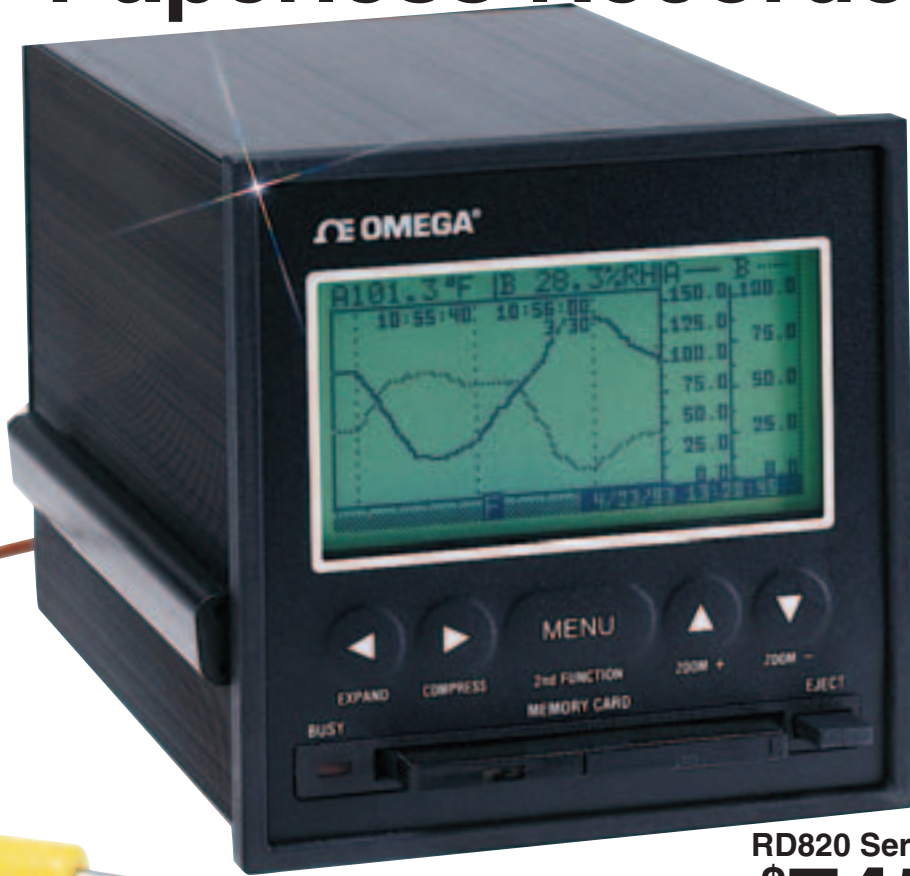


# Paperless Recorder



KMTSS-125G-6  
Thermocouple probe sold  
separately, \$24. See page A-81.

RD820 Series  
**\$745**  
Basic Unit

- ✓ One or Two Channels
- ✓ V, mV, I, RTD,  
Thermocouple Input
- ✓ Full Graphic LCD Display
- ✓ Memory Cards for  
Data Storage
- ✓ Rugged, Compact  
¼ DIN Construction

The RD820 Series paperless recorder provides single or dual channel real-time graphic display, recording, and digital display in engineering units of your measurements. The 160 x 80 pixel LCD display offers exceptional clarity with zoom, recall, scroll, rewind, and replay capability. You can compress data in time, scroll and zoom data in amplitude and search for data by alarm functions. You can view real time, average, trend, or historical data.

The RD820 offers the ability to use data cards, up to 1 MB in size, for storing data, as well as recorder configurations. Through an optional card reader or the RS-232 port, data may be downloaded to a PC for additional analysis, storage,



or hard copy printouts. The RD820, with just five simple buttons on the membrane keypad, is easy to use. It provides versatile, reliable, low cost display and storage of data in a rugged, compact ¼ DIN panel mount enclosure.

## Specifications

### GENERAL

**No. of Channels:** 1 or 2

**Overall Accuracy:** 0.5% of span, 8 bits resolution

**Time:** Internal battery backed clock tracks year, month, day, hours, minutes, seconds.

**Memory:** Internal data buffer of 16 K RAM, enables memory card to be removed without loss of data. Data storage direct to memory card.

**Memory Card:** PCMCIA 2.0 Compatible. Available in 256 K to 1024 K bytes (equivalent to 1,000,000 readings @ 8 bits). Unit automatically detects card size. Multiple files per memory card. User can select files from memory card for replay.

**Non-Volatile Memory:** All settings are stored in non-volatile memory. Unit remembers setup even if all power is removed.

**Triggered Speed:** Alarm setpoint can be used to change sampling speed. Two individual sample speeds can be set, one for normal and one for alarm condition.

For example, under normal conditions record slowly, on alarm increase recording speed for better definition of problem period.

**Triggered Record:** Alarm setpoint can be used to start and stop recording. Monitor continually but only record when threshold exceeded

### Dual Cursor Mode:

Use to display delta time (time differences) between events

## RECORDING

**Sample Rate:** User selectable to 100 samples/sec. (10 msec)

**Recording Method:** User selectable—Averaging, Peak, Valley, Normal.

**Recording Time:** up to 1,000,000 x recording interval (at 8 bits) Equivalent to 200+ hours at 1 sample/sec. (1 MB Memory Card)

## DISPLAY

**Display Type:** Twisted Nematic LCD Dot Matrix panel 160 x 80 pixels; viewing area; 2.9 x 1.5" Backlighting standard. Graph Direction: right to left, Vertical Zoom Scroll

**Viewing Modes:** Normal, Zoom, Compressed, SUM and Difference

**Viewing Control:** Real Time Data, Historic Data, Rewind, Forward, Search, Cursor Identification

**Customization:** User can customize display by selecting line patterns, grid, time/date stamp, and layout

## INPUT

**Input Display:** 4 digit (-999 to 9999) plus 3 characters for engineering units (e.g., RPM, PSI)

**Input Scaling:**  $y = MX + C$ , linearization for TC and RTD

## OUTPUT

**Relays:** Optional 2 user programmable alarms (high or low, latching or not). SPDT outputs rated at 3 A

**Serial Port:** RS-232 option

## MISCELLANEOUS

**Dimensions:** 96 x 96 x 140 mm, (3.78 H x 3.78 W x 5.5" D) extruded aluminum body

**Panel Cutout:** 91.6 x 91.6 mm (3.62 x 3.62"). Mounting tabs supplied.

**Operating Temp:** -10 to 50°C (14 to 120°F)

**Weight:** Approx. 1.4 kg (2.5 lb)



**Power Requirements:** 115 Vac or 230 Vac 50/60Hz (solder jumper to change), optional 12 Vdc to 24 Vdc

**ACCESSORIES**

**Card Reader:** Allows data cards to be read into IBM PC compatible computer

**Software:** Supplied at no charge with card reader. Professional graphics package. Enables data to be archived on disk, displayed and analyzed on screen, exported to spreadsheets or word processors. Multiple graphs can be superimposed on one screen. Output to printer. IBM PC compatible DOS 3.1 or greater.

**MOST POPULAR MODELS HIGHLIGHTED!**

<b>To Order (Specify Recorder and Input Modules)</b>		
Model No.	Price	Description
RD821*	\$710	Paperless recorder, 1 channel
RD821R*	785	Paperless recorder, with relays, 1 channel
RD822*	780	Paperless recorder, 2 channels
RD822R*	855	Paperless recorder, with relays, 2 channels

Recorders come with operator's manual. Units require one input module per channel. \*Order input modules separately; see right. For custom range, call Sales and add \$50 to price. OMEGACARE<sup>SM</sup> extended warranty program is available for models shown on this page. OMEGACARE<sup>SM</sup> covers parts, labor, and equivalent loaners. Ask your sales representative for full details when placing an order.

**Accessories**

Model No.	Price	Description
RD820-RS232	\$ 75	RS-232 module
RD820-SW-WIN	149	Windows based software
RD820-CR-WIN	299	Memory card reader and Windows software
RD820-MC256	149	Memory card, 256 K
RD820-MC512	199	Memory card, 512 K
RD820-MC1024	299	Memory card, 1024 K

**Ordering Example:** RD821, one-channel recorder RD820-ND2 0 to 5 Vdc input module, RD820-CR-WIN memory card reader with Windows based software, plus RD820-MC256 256K memory card, \$710 + 35 + 299 + 149 = \$1193. OCW-3 OMEGACARE<sup>SM</sup> extends standard 2-year warranty to a total of 5 years (\$177), \$710 + 177 = \$887. \*Note: For 230 Vac power add "-230V" suffix to model number and \$10 to price; for 12 to 28 Vdc input power add "-24V" suffix and \$50 to price; for external trigger recording add suffix "TRIG" to model number and \$75 to price.

**Input Modules – one required per channel**

Model No.	Price	Description
RD820-ND0	\$35	Non-Isolated, 0 to 100 mVdc
RD820-ND1	35	Non-Isolated, 0 to 1 Vdc
RD820-ND2	35	Non-Isolated, 0 to 5 Vdc
RD820-ND3	35	Non-Isolated, 0 to 10 Vdc
RD820-ND4	35	Non-Isolated, 0 to 100 Vdc
RD820-ID0	135	Isolated, 0 to 100 mVdc
RD820-ID1	135	Isolated, 0 to 1 Vdc
RD820-ID2	135	Isolated, 0 to 5 Vdc
RD820-ID3	135	Isolated, 0 to 10 Vdc
RD820-ID4	135	Isolated, 0 to 100 Vdc
RD820-N10	35	Non-Isolated, 0 to 1 mAdc, 100 ohm impedance
RD820-N11	35	Non-Isolated, 0 to 100 mAdc, 1 ohm impedance
RD820-N12	45	Non-Isolated, 0 to 1000 mAdc, 0.1 ohm impedance
RD820-I10	135	Isolated, 0 to 1 mAdc, 100 ohm impedance
RD820-I11	135	Isolated, 0 to 100 mAdc, 1 ohm impedance
RD820-I12	145	Isolated, 0 to 1000 mAdc, 0.1 ohm impedance
RD820-NP0	70	Non-Isolated, 1 to 5 Vdc
RD820-NP1	70	Non-Isolated, 4 to 20 mAdc, 250 ohm impedance
RD820-IP0	170	Isolated, 1 to 5 Vdc
RD820-IP1	170	Isolated, 4 to 20 mAdc, 250 ohm impedance
RD820-IA1	195	Isolated, 0 to 1 Vac
RD820-IA5	195	Isolated, 0 to 600 Vac
RD820-IA7	195	Isolated, 0 to 1 A ac
RD820-IA9	195	Isolated, 0 to 5 A ac
RD820-NJ0	120	Non-Isolated, Type J, 0 to 480°C (32 to 900°F)
RD820-NJ1	120	Non-Isolated, Type J, -200 to 760°C, (-300 to 1400°F)
RD820-NK0	120	Non-Isolated, K, 0 to 720°C (32 to 1320°F)
RD820-NK1	120	Non-Isolated, K, -120 to 1080°C (-185 to 1975°F)
RD820-NT0	120	Non-Isolated, T, -80 to 400°C (-110 to 750°F)
RD820-NE0	120	Non-Isolated, E, 0 to 960°C (32 to 1760°F)
RD820-NR1	125	Non-Isolated RTD, 0 to 400°C (32 to 750°F)
RD820-IJ0	195	Isolated, Type J, 0 to 480°C (32 to 900°F)
RD820-IJ1	195	Isolated, Type J, -200 to 760°C (-300 to 1400°F)
RD820-IK0	195	Isolated, Type K, 0 to 720°C (32 to 1320°F)
RD820-IK1	195	Isolated, Type K, -120 to 1080°C (-185 to 1975°F)
RD820-IT0	195	Isolated, T, -80 to 400°C (-110 to 750°F)
RD820-IE0	195	Isolated, Type E, 0 to 960°C (32 to 1760°F)
RD820-IR1	225	Isolated, RTD, 0 to 400°C (32 to 750°F)
RD820-NS2	245	Non-Isolated, hum./temp., 10 to 90% RH, 0 to 50°C, with probe and 8' cable
RD820-IR2	225	Isolated, RTD, 0 to 120°C (32 to 250°F)



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