Ambient Temperature Sensor
Accuracy: ±1.5°C (±2.7°F)
Type Range:
- J: -100 to 760°C ±2°C
  (-148 to 1400°F ±3°F)
- K: -100 to 1000°C ±2°C
  (-148 to 1830°F ±3°F)
- T: -100 to 400°C ±2°C
  (-148 to 750°F ±3°F)
- E: -80 to 400°C ±2°C
  (-112 to 750°F ±3°F)

Shutdown During Blackout:
6 Vdc, 2400 mAh NiMH
Backup Time: 8 hours typical
(depending on external load)

RTD
Accuracy: 0.3% FS (typical)
Resolution: 0.1°C

Specifications
Input Power:
RD8252: 9 ±0.5 Vdc @ 5 VA
  (depends on external loads)
  non-isolated; external AC wall
  transformer (included), 100 to
  240 Vac, 50/60 Hz
RD8253: Isolated 12 to 24 Vdc
  (not compatible with internal
  battery pack option below)
RD8252-UPS: With internal battery
  pack option; provides uninterrupted
  operation and controlled output
Output: 2 outputs, 5 Vdc @ 50 mA,
  to power external sensors
Number of Channels:
2 universal, user selectable
Isolation: 300 Vac/Vdc channel input
  to chassis ground
DC Input
Voltage:
Ranges: 0 to 250 mV,
  0 to 1.25V, 0 to 2.5V, 0 to 5V,
  0 to 12.5V, 0 to 25V
Accuracy: 0.1% of reading
Resolution: 0.025% FS
Current:
Ranges: 0 to 20 mA, 4 to 20 mA,
  0 to 50 mA
Accuracy: 0.1% of reading,
  excluding 250 Ω external
  shunt (required)
Resolution: 0.025% FS
Thermocouple:
Accuracy: 0.3% FS (typical)

With its dual-function keys and
sharp display, OMEGA’s RD8250
is a sophisticated process recorder.
The graphic user interface makes
configuration easy.

This recorder can display real-time
data in digital or trend format.
Via the front-panel USB port (order
“-USB” option), the user can upload
data from a flash memory card
to a PC.

The RD8252 comes with an external
AC adaptor with universal plug set
for 120 to 240 Vac, 50/60 Hz.
Other power options include 12 to
24 Vdc isolated input (RD8253),
and rechargeable battery pack option
(RD8252-UPS). With the battery
pack installed, the RD8252-UPS can
function for up to 8 hours, preserving
data and settings in the event of a
power loss.

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6 Vdc, 2400 mAh NiMH
Backup Time: 8 hours typical
(depending on external load)

RTD
Accuracy: 0.3% FS (typical)
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Internal Current Source: 1 mA
Type Range (2- or 3-Wire):
- 100 Ω Pt 385: -100 to 750°C
  (-148 to 1380°F)
- 100 Ω Pt 392: -100 to 750°C
  (-148 to 1380°F)
Frequency Input (Hz)/Range:
0 to 10,000/0 to 600,000 rpm
Speed Input (rpm) Accuracy:
- Frequency: ±1 Hz
  rpm: ±1 rpm below 9999 rpm,
  ±10 rpm above 9999 rpm
Input:
Low: <1 Vdc
High: >3 and <12 Vdc
Pulse Width: 10 ms minimum
Input Impedance: >100 kΩ
Measurement Rate:
Up to 100 samples/s per channel
Math Functions: \( y = mx + b \); average, high peak, low peak
Media: Compact flash to 2 GB
Display: LCD graphics, 160 x 80 pixels, black FSTN with white LED backlight, user-controlled backlight level and contrast adjustment (electronic)
Display Modes: Trending (horizontal), large dual digital readout, mixed mode
User Interface: 5-button keypad (dual-function buttons)
Clock: Auto leap year and daylight-saving adjustments, internal battery backup
Relay Output: 2 alarm outputs, 30 V and 0.5 A form “A” relays
Opto-Isolated Input: 1 input, 5 to 12 Vdc activation @ 10 mA typical
Audible: Internal beeper (multiple tones)
Dimensions (Front Panel):
96 H x 96 W x 152 D mm (3.78 x 3.78 x 6") (1⁄4 DIN)
Environmental: Indoor use only, Installation Category II per IEC 664; Pollution Degree Level II per IEC61010-1
Operating Temperature: -10 to 50°C (14 to 122°F)
Max Relative Humidity: 80% for temperatures up to 31°C (88°F), decreasing linearly to 50% @ 40°C (104°F)
Optional USB: Front-panel USB 2.0 slave port for data and remote real-time display when using Navigator software (non-volatile)
Ethernet: Real time data display, historic data transfer, remote control and recorder configuration when using navigator software; built-in web server displays current measured values

To Order
Visit omega.com/rd8250 for Pricing and Details

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>RD8252</td>
<td>Paperless recorder, 2 inputs, universal AC adaptor</td>
</tr>
<tr>
<td>RD8253</td>
<td>Paperless recorder, 2 inputs, DC power 12 to 24 Vdc</td>
</tr>
</tbody>
</table>

Options

<table>
<thead>
<tr>
<th>Order Suffix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-UPS</td>
<td>Rechargeable battery for RD8252 unit</td>
</tr>
<tr>
<td>-USB</td>
<td>USB communications with basic software</td>
</tr>
<tr>
<td>-EI</td>
<td>Ethernet communications port</td>
</tr>
</tbody>
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<td>RD8250-SW</td>
<td>Windows software for graphics analysis, printing and exporting</td>
</tr>
<tr>
<td>RD8250-CFCR</td>
<td>Compact flash card reader, USB 2.0 compatible</td>
</tr>
<tr>
<td>RD8250-NEMA4X-KIT</td>
<td>NEMA 4X (IP66) enclosure kit</td>
</tr>
<tr>
<td>RD8250-MC512MBCF</td>
<td>512 MB memory card</td>
</tr>
<tr>
<td>RD8250-MC1024MBCF</td>
<td>1024 MB memory card</td>
</tr>
<tr>
<td>RD8250-MC2048MBCF</td>
<td>2048 MB memory card</td>
</tr>
<tr>
<td>RD8250-RESISTOR</td>
<td>250 Ω shunt resistor</td>
</tr>
</tbody>
</table>

Accessories

<table>
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<tr>
<td>RD8250-PSC-2W</td>
<td>Universal 100 to 240 Vac adaptor with universal plug set</td>
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Replacement Part (Field Installable)

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COMES COMPLETE WITH WINDOWS SOFTWARE CD WITH OPERATOR’S MANUAL ON CD AND AC ADAPTOR.
Ordering Example: RD8252, paperless recorder, 2 inputs. OCW-3, OMEGACARESM extends standard 1-year warranty to a total of 4 years.