**RadarRight™ Series 200**
Non-Contact Radar Continuous Level Sensor for Liquids

**Features & Advantages**
- Non-contact level measurement solution...nothing to “touch” your process.
- Real-time continuous output provides immediate level measurements.
- No moving parts to wear which leads to long operational life and low maintenance.
- Proven microwave “pulse” technology for dependable measurements.
- Easy set-up / configuration with LCD push button display module (included).
- Small beam angle to concentrate energy for high accuracy and reliability with materials having a wide range of characteristics.
- Small antenna sizes (diameters) for easy mounting.
- Minimal “dead band” (“blanking zone”) for optimum measurement in vessel.
- 1-1/2” NPT thread, stainless steel process connection allows for easy installation.
- Advanced microprocessor and unique echo processing technology provide for reliable operation under various process conditions.
- Extremely low emission power with “pulse” technology; is harmless towards the environment and human beings.

**Principle of Operation**
The RadarRight™ radar level instrument emits a microwave pulse from its antenna, which travels at the speed of light to the surface of the medium below. The time-of-flight of the pulse and its reflection back to the instrument location is directly related to the empty distance in the vessel and the material level. The output from the electronics is continuously updated as the level of the material surface changes. The RadarRight radar level instrument uses the proven 26GHz as the transmitting frequency.

**Practical Applications**
- Excellent when application requires that nothing contacts or interferes with the process.
- Strong performance for liquids in vessels up to 98.5 ft. (30m) tall.
- Suitable for various metal or nonmetal vessels.
- Provides measurements in storage tanks & process tanks under process conditions, such as, applications with low or non-corrosive media, light surface foam or agitation, condensation or vapor, etc.
- Can be used in a stilling well…ideal for foamy conditions.

**Options**
- Output Options:
  - “Smart” RS-485 (Modbus RTU compatible)
  - Analog 4-20mA (two-wire, loop powered)
- Selection of antennas (horns):
  - 3 inch (78mm) diameter SS horn – for vessels up to 49.2 ft. (15m) tall
  - 4 inch (98mm) diameter SS horn – for vessels up to 98.5 ft. (30m) tall
- Variety of mounting flanges.
- HMI2 Local Operator Interface Control Console
  (For use with “Smart” RS-485 sensor only.)

For more detailed information, please contact a Monitor representative or visit Monitor’s website at http://www.monitortech.com/radar-level-non-contact-200.shtml

Scan this with a smartphone QR-Code app for more product details.
**SPECIFICATIONS**

Application: Liquids for Vessels up to 98.5 ft. (30m) High (with 4" Dia. Antenna)

Max. Measurement Range:
- 3" (78mm) Dia. Antenna: 49.2 ft (15m)
- 4" (98mm) Dia. Antenna: 98.5 ft (30m)

Measurement Accuracy: ±0.12inh (±3mm)

Ambient Operating Temp.: -40~150° F (-40~65° C)

Process Temperature: -14.5 to 150 psi (-1 to 10 bar)

Process Pressure: -40~266°F (-40~130°C)

3dB Beam Angle:
- 3" (78mm) Dia. Antenna: 12°
- 4" (98mm) Dia. Antenna: 8°

Weight (Approx.)
- 3" (78mm) Dia. Antenna: 6.0 lbs [2.72kg] without flange
- 4" (98mm) Dia. Antenna: 6.5 lbs [2.95kg] without flange

Frequency Range: 26GHz

Power: 24VDC (16~26VDC)

4-20mA Analog (2-wire, loop powered)

Signal Output: “Smart” RS-485 / Modbus RTU (2-wire);

Approvals: CE Mark; TÜV Rheinland US/C, Ordinary Loc.

<table>
<thead>
<tr>
<th>Application Series</th>
<th>Select</th>
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<tbody>
<tr>
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<tr>
<td>Smart® RS-485 (Modbus)</td>
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</table>

**MECHANICALS**

Dimensions are shown in inches with millimeter equivalent in brackets unless otherwise stated.

Unit with 3" (78mm) diameter antenna

- 1.86 A.F. [47.2] 1
- 1 1/2 NPT
- 4.38 [111.1]
- 7.63 [193.9]
- 0.295 [75.0]

Unit with 4" (98mm) diameter antenna

- 1.86 A.F. [47.2] 1
- 1 1/2 NPT
- 4.38 [111.1]
- 7.63 [193.9]
- 0.37 [94.0]

Information on this sheet is subject to change without notice.

**ORDERING INFORMATION**

RadarRight™ Non-Contact Radar Level Measurement - Series 200

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
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<tbody>
<tr>
<td>16-3070</td>
<td>Flange, “K” Style, flat, Aluminum, 1-1/2 NPT</td>
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<tr>
<td>16-3072</td>
<td>Flange, “K” Style, 10 degree, Aluminum, 1-1/2 NPT</td>
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<tr>
<td>16-3064</td>
<td>Flange, 4&quot; ANSi, Powder Coated Steel, 1-1/2 NPT</td>
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<tr>
<td>16-3094</td>
<td>Flange, 4&quot; ANSI, Stainless Steel, 1-1/2 NPT</td>
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<tr>
<td>1-0400</td>
<td>Spanner Wrench, For Cover Removal / Tighten</td>
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<td>RS514-22001</td>
<td>R03EB12, Cable, Instrumentation, 2-Lead, Shielded</td>
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<tr>
<td>RS514-18001</td>
<td>R03EB12, Cable, Instrumentation, 2-Lead, Shielded, 18 AWG</td>
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<tr>
<td>17-8021</td>
<td>Power Supply, Universal AC to 24VDC</td>
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Optional Flanges and Accessories:

- Flange Accessories: K-Flange; 4" ANSI
- Antenna(s): 3" (78mm) Dia. or 4" (98mm) Dia. [Stainless Steel]

Warranty: Limited 2-Year (Pending)

**MONITOR TECHNOLOGIES, LLC**

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ISO 9001 Registered Quality System