



Practical solutions... at every level!

# RadarRight™ Series 400

## Non-Contact Radar Continuous Level Sensor for Powders & Bulk Solids

### 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.
- ▼ **Gimbal (swivel) style process connection** allows for aiming antenna for added measurement accuracy and avoiding internal obstacles, flow streams, etc.
- ▼ **Advanced microprocessor** and unique echo processing technology provide for reliable operation under various process conditions.
- ▼ **Air purge or dust shield options** to optimize sensor performance in dusty 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 with powders and bulk solids in vessels up to 98.5 ft. (30m) tall.
- ▼ Provides measurements in dusty conditions.
- ▼ Suitable for various metal or nonmetal vessels.
- ▼ Can monitor height of material on an open area conveyor belt.

### OPTIONS

- ▼ Output Options:
  - ▼ “Smart” RS-485 (Modbus RTU compatible)
  - ▼ Analog 4-20mA (two-wire, loop powered)
- ▼ Selection of SS antennas (horns):
  - ▼ 4 inch (98mm) diameter SS horn – for vessels up to 49.2 ft. (15m) tall
  - ▼ 5 inch (123mm) diameter SS horn – for vessels up to 98.5 ft. (30m) tall
- ▼ Variety of mounting flanges.
- ▼ Optional air purge or PFA polymer dust shield for dusty conditions.
- ▼ **HMI2** Local Operator Interface Control Console (For use with “Smart” RS-485 sensor only.)



## MECHANICALS

Dimensions shown represent units with or without dust shield-equipped antennas.

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