



# One Powerful 80GHz Radar. Endless Industrial Applications. Meet the Champion of Level Sensing.

**Senator** H80 Radar Series  
Solid and Liquid Level Measurement





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|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| <b>H80IX 3.5"</b><br><b>Threaded / Flanged</b><br>Extended Range:<br>Liquids: 120m (393.7ft)<br>Solids: 120m (393.7ft) | <b>H80I 3.5"</b><br><b>Threaded / Flanged</b><br>Max. Range:<br>Liquids: 65m (213ft)<br>Solids: 30m (98ft) | <b>H80I 2"</b><br><b>Threaded</b><br>Max. Range:<br>Liquids: 65m (213ft)<br>Solids: 30m (98ft) | <b>H80I 1.5"</b><br><b>Threaded</b><br>Max. Range:<br>Liquids: 30m (98ft)<br>Solids: 15m (49ft) | <b>H80I 1"</b><br><b>Threaded</b><br>Max. Range:<br>Liquids: 10m (32ft)<br>Solids: 5m (16ft) | <b>H80C 1.5"</b><br><b>Threaded</b><br>Max. Range:<br>Liquids: 30m (98ft) |
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### Overview

The Senator H80 Radar Series—available in Compact (Senator H80C) and Integral (Senator H80I) models—is designed for continuous, non-contact level measurement of liquids, slurries, and solids. Powered by 80GHz FMCW radar technology, both models deliver exceptional accuracy, reliability, and ease of commissioning for a wide range of industries. Each unit features Bluetooth connectivity, Modbus and HART output options, and easy setup via PC software or app, with H80I also supporting integrated keypad and display.

### Principle of Operation

Both H80C and H80I operate on the Frequency Modulated Continuous Wave (FMCW) principle. The radar emits high-frequency pulses at the speed of light, which reflect off the target surface. Proprietary signal processing software captures the reflections and filters out false echoes, ensuring precise and reliable level measurement, even in challenging conditions such as steam, dust, or foam.

### Model Types

- Senator H80C offers a lightweight, compact design ideal for tighter installations and moderate ranges up to 30m (98ft).
- Senator H80I provides an extended measuring range up to 120m (393.7ft) and robust housing for more demanding environments.

### Primary Areas of Application

**The H80 Radar Series is engineered for a wide range of industrial sectors, including:**

- Chemicals & Petrochemicals
- Cement & Building Aggregates
- Mining & Minerals
- Oil & Gas
- Food & Beverage
- Pharmaceutical
- Pulp & Paper
- Wastewater Treatment



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Additional product warranty and application guarantees upon request. Technical data subject to change without notice.

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