The Series GWL Guided Wave Radar Transmitter for Liquids is a level transmitter providing continuous level indication of liquids. The sensor can output level indication as a continuous measurement reading through its 4 to 20 mA analog output, or it can alter that information into freely adjustable (NC) switching output signals. State-of-the-art Time Domain Reflectometry technology in this transmitter makes for excellent accuracy and storage applications. The guided wave radar transmitter for liquids features exceptional performance in liquids with low reflectivity such as oils and hydrocarbons, and factory settings can be configured via HART® Communication protocol.

FEATURES
- Precise continuous level measurement and reliable point level detection.
- Disturbance signal suppression.
- Simple installation.
- HART® Communication protocol.
- Economical.
- No density or conductivity restrictions.
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- Simple installation.
- HART® Communication protocol.
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- No density or conductivity restrictions.
- Zero and full span adjustable within measuring range (length minus the top and bottom dead bands).

METHOD OF OPERATION
The GWL senses low-energy, high-frequency electromagnetic impulses, produced by the sensor which are transmitted along the probe immersed in the fluid to be measured. When these impulses hit the surface of the liquid, part of the impulse energy is reflected back up the probe to the sensor which then utilizes the time difference between the impulses sent and the impulses reflected to determine the fluid level.

SPECIFICATIONS
- Service: Compatible, non-combustible liquids and gases.
- Wetted Materials:
  - 316 SS rod: 316 L SS, PEEK & Klingersil; 316 SS coaxial: 316 L, PEEK & Klingersil C-4400;
  - Wire cable: 316 SS, PEEK & Klingersil.
- Accuracy: ±0.12”.
- Repeatability: < 0.08”.
- Resolution: < 0.04”.
- Dielectric Constant [εr]:
  - 316 SS rod/wire cable: < 5.00;
  - 316 SS coaxial: > 1.4.
- Dynamic Viscosity: < 3.2 fps.
- Velocity of Level Change: < 3.2 fps.
- Start-Up Time: < 6 s.
- Temperature Limits:
  - Ambient: -13 to 176°F (-25 to 80°C);
  - Process: -40 to 302°F (-40 to 150°C).
- Pressure Limits: -14.5 to 580 psi (-1 to 40 bar).
- Output Signal: Analog or switch type.
- Analog Output: 4 to 20 mA.
- Switch Type: SPST, NC.
- Power Requirements: 12 to 30 VDC.
- Electrical Rating: 70 mA @ 24 VDC.
- Mounting Orientation: Vertical.
- Response Time: < 0.5 s, 2 s, 5 s selectable.
- Electrical Connection: Screwless, clamp cage clamp terminal block for stranded and solid wires AWG 22-14.
- Conduit Connection: 1/2” NP or M20.
- Process Connection: 3/4” male NPT or 3/4” male G.
- Weight: 2.09 lb (0.95 kg).
- Agency Approval: CE.

Example Model
GWL-RN4-01-120

Probe Type Recommendations

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