

LevelPro® — ProScan® 3

Radar Level Sensor (80GHz)

ICON™ Corrosion-Free
PROCESS CONTROLS Instrumentation Equipment™



 Bluetooth®

LevelPro®

The Future of Non-Contact Level Measurement is Radar Technology!

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 **Bluetooth®**

Corrosion Resistant
PP Body

Polycarbonate
Cover


 **SimpliConnect™**
Cable Grip Connectors

2" NPT
Connection

PP Transducer

LevelPro®

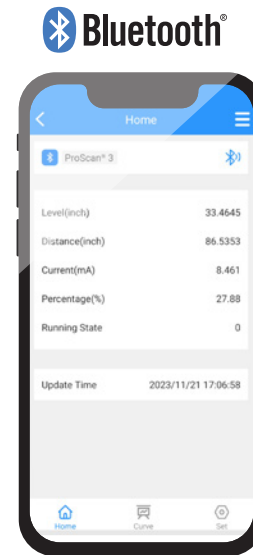
Features

- ✓ Bluetooth Connectivity (30m | 100') 
- ✓ Excellent Reliability and Accuracy
- ✓ Not Affected by Vapor or Outgassing
- ✓ RS-485 Communication | 4–20mA
- ✓ Measurement Under Vacuum | High Pressure
- ✓ Unaffected by Temperature Fluctuations
- ✓ NEMA 4X | Suitable for Outdoors

The Future of Non-Contact Level Measurement is Radar Technology!

The **ProScan® 3** 80 GHz high frequency technology permits a significantly more precise transmission signal focus. This makes it easier to distinguish between actual level signals and interference signals, making the measurement more reliable coupled with a higher degree of accuracy.

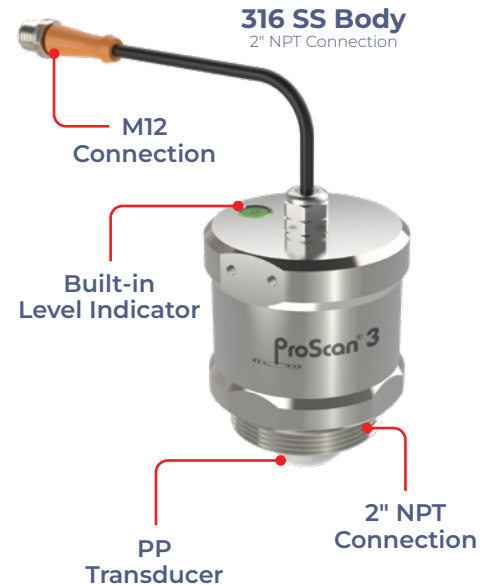
The new **ProScan® 3** series of compact instruments are ideally suited for more complex level applications.



**Monitor Your
ProScan® 3 with
the Free App**



Scan the above QR codes
to download the app



M12 Wiring (For SS Model)

| Pin | Color | Description |
|-------|-------|-------------|
| Pin 1 | Brown | +VDC +mA |
| Pin 2 | | |
| Pin 3 | Blue | -VDC -mA |
| Pin 4 | | |



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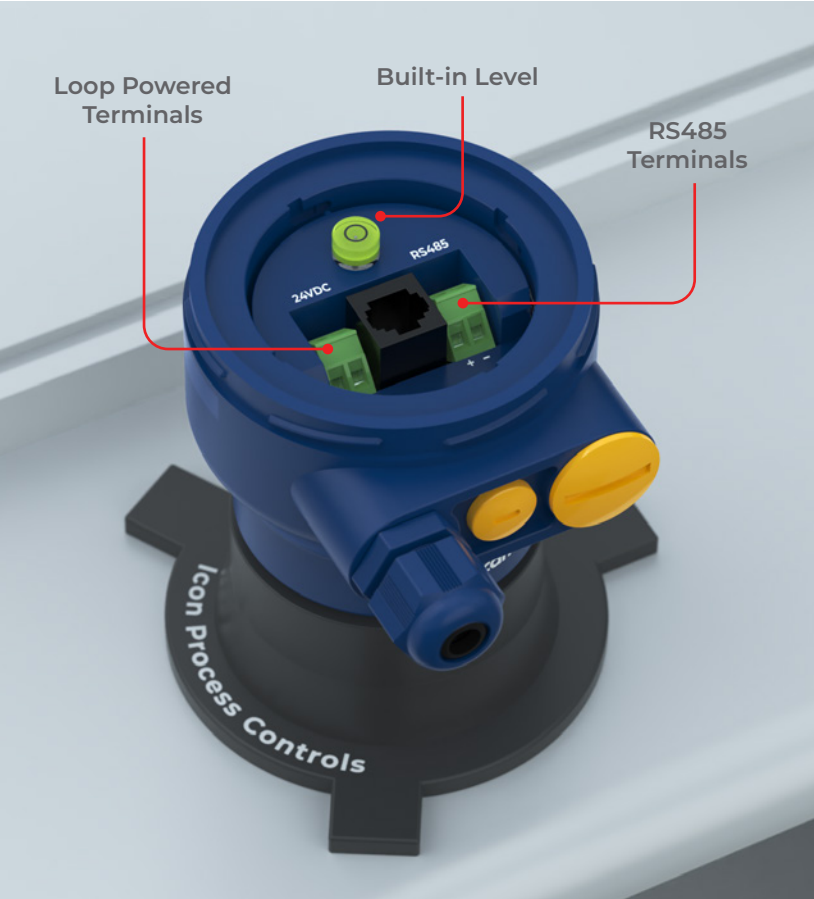
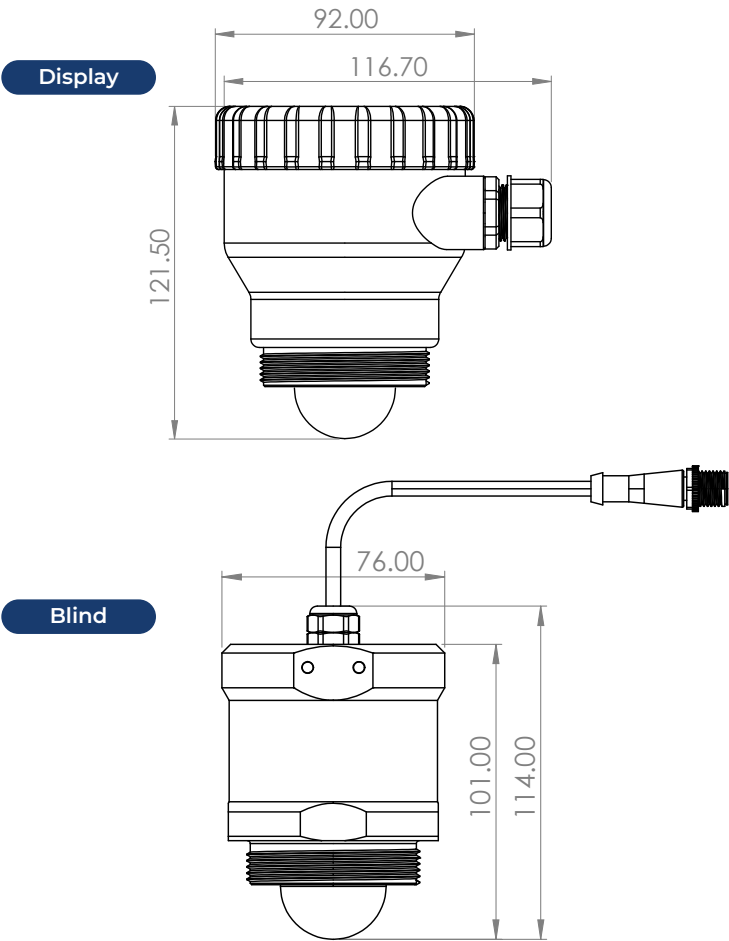
Specifications

| Measuring Performance | |
|-----------------------------|------------------------------------|
| Minimum Range | 50mm (2in) |
| Maximum Range | 34 ft (std), 68 ft (special order) |
| Resolution | 1mm |
| Azimuth Beam Width (3 dB) | 3° |
| Elevation Beam Width (3 dB) | 3° |
| Measurement Accuracy | ±2mm |
| Response Time | 1s |

| Operating Conditions | |
|------------------------------------|--------------------------------|
| Operating Frequency Band | 76 – 81 GHz |
| Mains Power Supply | 18 – 24 VDC |
| Operating Average Current | 20 mA |
| Effective Isotropic Radiated Power | 13 dBm |
| Communication Interface | 4-20mA RS485 |
| Enclosure Protection | NEMA 4X IP67 |
| Operating Temperature Range | -49°F – +185°F -45°C – +85°C |

| Materials | | |
|------------------|-------|--------|
| Housing Material | PP+PC | 316 SS |
| Transducer | PP | |

Dimensions

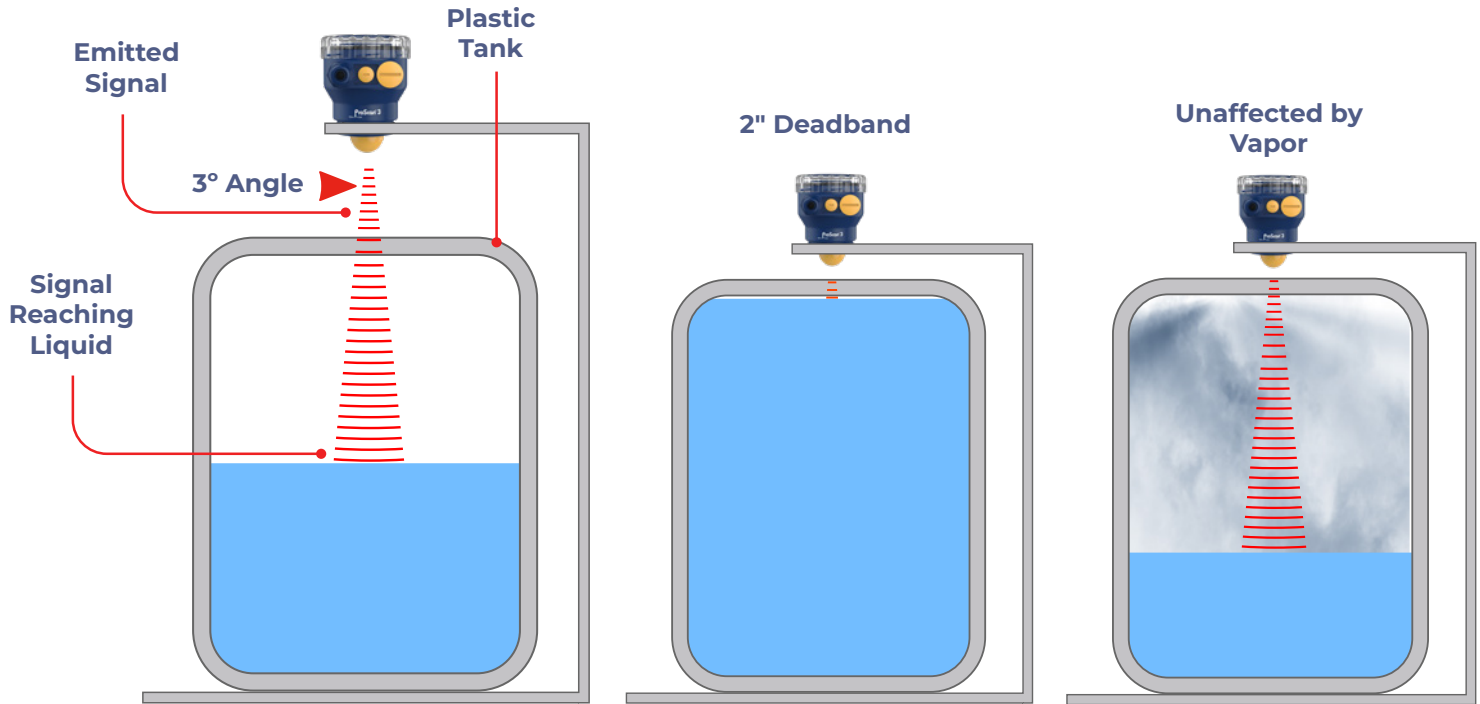


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Operating Principle

The **ProScan® 3** (80GHz) radar is a transmitter for continuous level measurements using fast sweep Frequency Modulated Continuous Wave (FMCW) technology. The transducer of radar continuously emits signal sweeps with a constant frequency towards the liquid surface. The reflected signal is then captured by the transducer. The time to send and receive is known as the time of flight.



Advantages of Measuring Top of Tank

High Purity Liquids

In high purity applications, measuring through the vessel eliminates any concerns the sensor or process connection could contaminate the material inside.

Highly Corrosive Material

Often, highly corrosive materials are stored in plastic vessels. If the tank does not have to be opened there is less risk of material leaking or off-gassing from the vessel. Additionally, the level sensor does not have to be constructed of exotic materials in order to function in a hostile measuring environment.

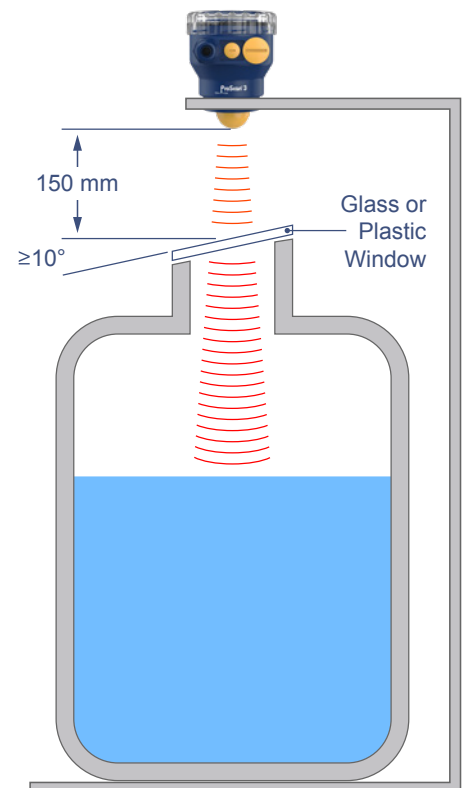
High Temperature or Pressure Vessels

Measuring through the top of vessels allows for radar to be used on vessels that exceed the temperature and pressure specifications of the radar transducer

Mounting Considerations

Sight glasses inclined at least 10° are preferred. This is so that energy that does not penetrate the glass will reflect away from the sensor.

The narrow beam (3°) of the 80 GHz **ProScan® 3** allows mounting above a sight glass and above a tall nozzle. Make sure that there is a clear path for the reflected energy to travel away from the sensor.



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Model Selection

| ProScan® 3 — Radar Level Transmitter | | | |
|--------------------------------------|-------------|----------|---------|
| Connection | Part Number | Material | Display |
| 2" NPT | PS38000 | PP | LCD |
| 2" NPT | PS38000P | PP | Blind |
| 2" NPT | PS38000S | 316 SS | Blind |
| 2" NPT | LB75 | PVC | - |
| 2" NPT | LB50 | GFPP | - |
| Clamp | LB80S | 316 SS | - |

| ProScan® 3 — Accessories | | |
|--------------------------|-------------------------------------|---|
| Model | Description | Image |
| LB75 | 2" Tank Top Mounting Bracket |  |
| LB50 | 2" Wall Mounting Bracket |  |
| LB80S | SS Wall Mounting Bracket |  |
| TVL | TVL Level Display Controller |  |
| ShoPro® | ShoPro® Level Display Controller |  |
| CablePro® | CablePro® M12 Instrumentation Cable |  |

