LevelPro® — ProScan® 3
Radar Level Sensor (80GHz)

ICON
PROCESS CONTROLS™

Corrosion-Free
Instrumentation Equipment™

DATA SHEET

Please call:

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Partners In Global Water Quality

ICON PROCESS CONTROLS™ Corrosion-Free Instrumentation Equipment™

Bluetooth®

LevelPro®

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

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ICON PROCESS CONTROLS™ Corrosion-Free Instrumentation Equipment™

Bluetooth®

Polycarbonate Cover

Corrosion Resistant PP Body

SimplConnect™ Cable Grip Connectors

ProScan 3

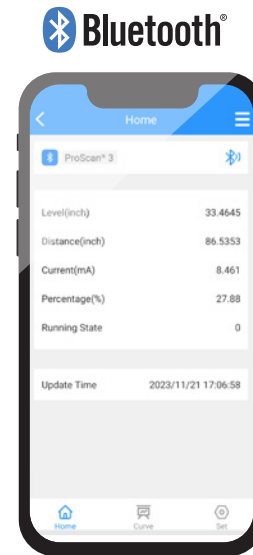**2" NPT Connection**

PP Transducer

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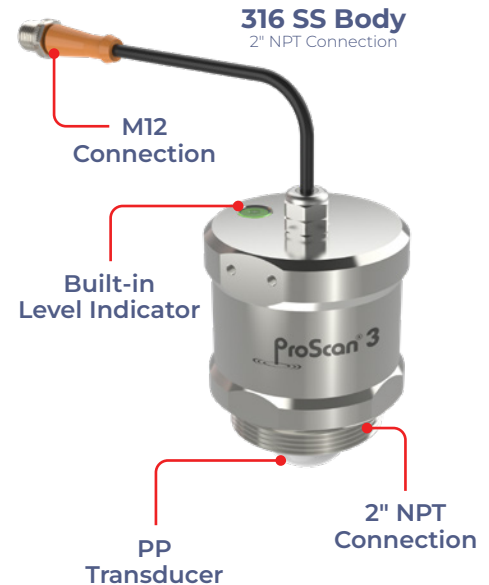
The new **ProScan® 3** series of compact instruments are ideally suited for more complex level applications.

Bluetooth®

ProScan® 3	
Level(inch)	33.4645
Distance(inch)	86.5353
Current(mA)	8.461
Percentage(%)	27.88
Running State	0
Update Time	2023/11/21 17:06:58

Monitor Your ProScan® 3 with the Free App

316 SS Body
2" NPT Connection

M12 Connection

Built-in Level Indicator

ProScan® 3

PP Transducer

2" NPT Connection

Available on the **App Store**

ANDROID APP ON **Google play**

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		

LevelPro®

PP | PC | 316SS | RoHS Compliant | CE

LevelPro® — ProScan® 3
Radar Level Sensor (80GHz)

Specifications

Measuring Performance

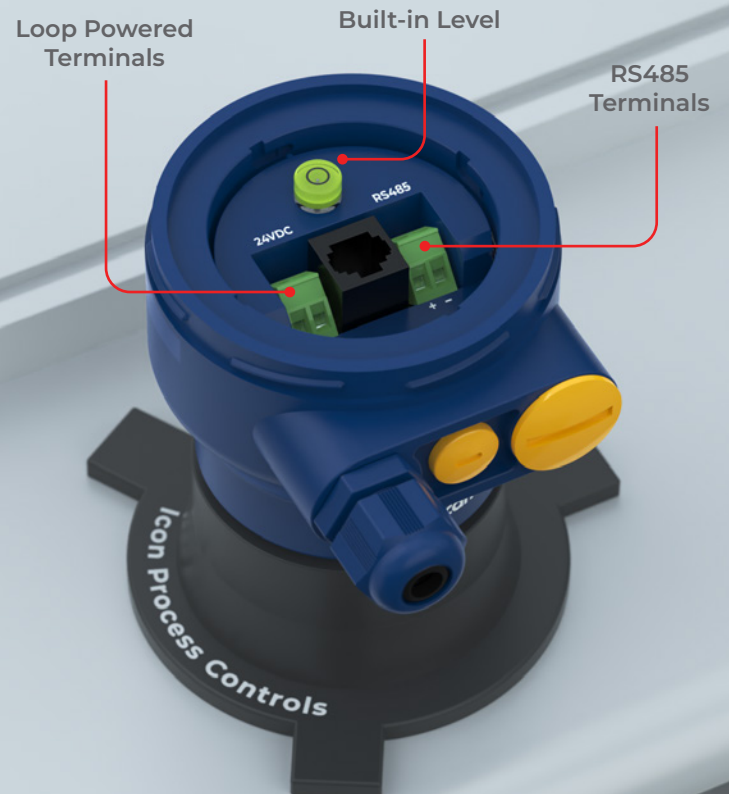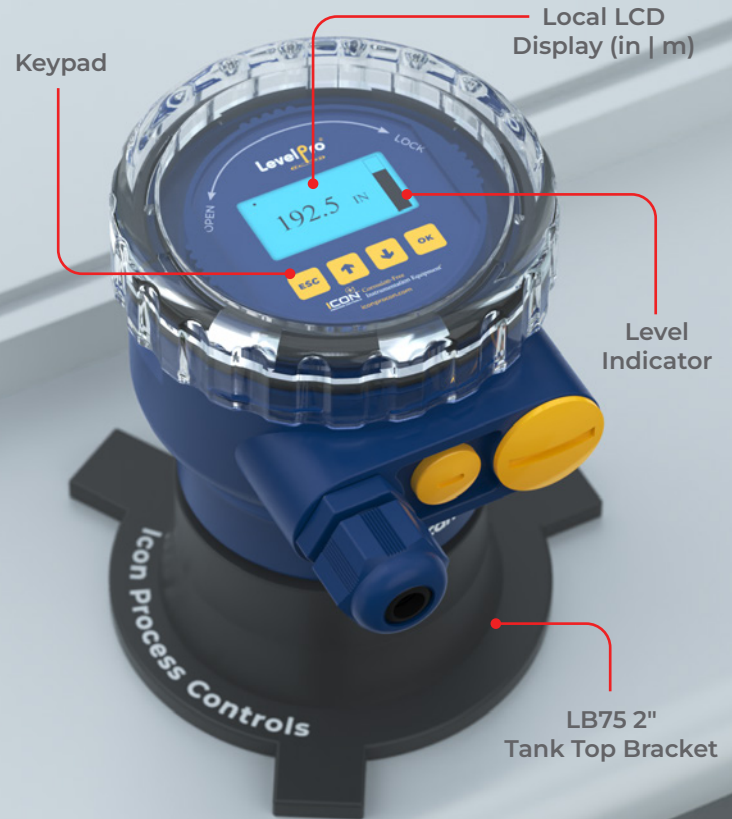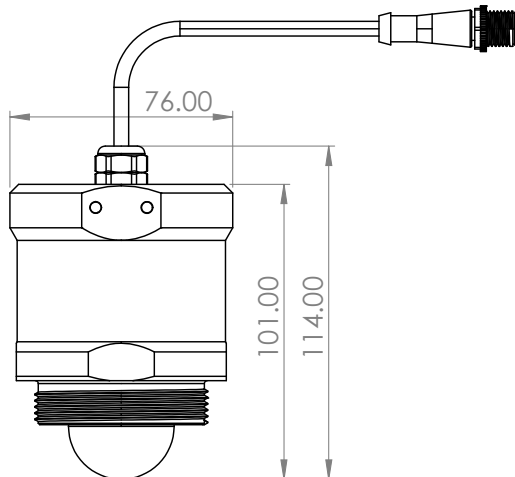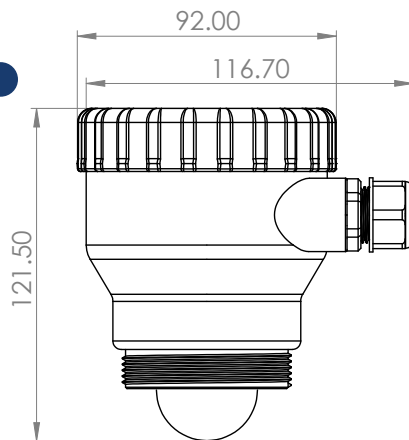| Measuring Performance	
Minimum Range	50mm (2in)
Maximum Range	34 ft (std), 68 ft (special order)
Resolution	1mm
Azimuth Beam Width (3 dB)	3°
Elevation Beam Width (3 dB)	3°
Measurement Accuracy	±2mm
Response Time	1s

Operating Conditions

Operating 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

Materials		
Housing Material	PP+PC	316 SS
Transducer	PP	

Dimensions

**Display**

92.00
116.70
121.50

Blind

76.00
101.00
114.00

Keypad

Local LCD
Display (in | m)

192.5 IN

Level
Indicator

LB75 2"
Tank Top Bracket

Loop Powered
Terminals

Built-in Level

RS485
Terminals

24VDC   RS485

ICON
PROCESS CONTROLS ™

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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.

Emitted Signal
Plastic Tank
3° Angle
Signal Reaching Liquid
2" Deadband
Unaffected by Vapor
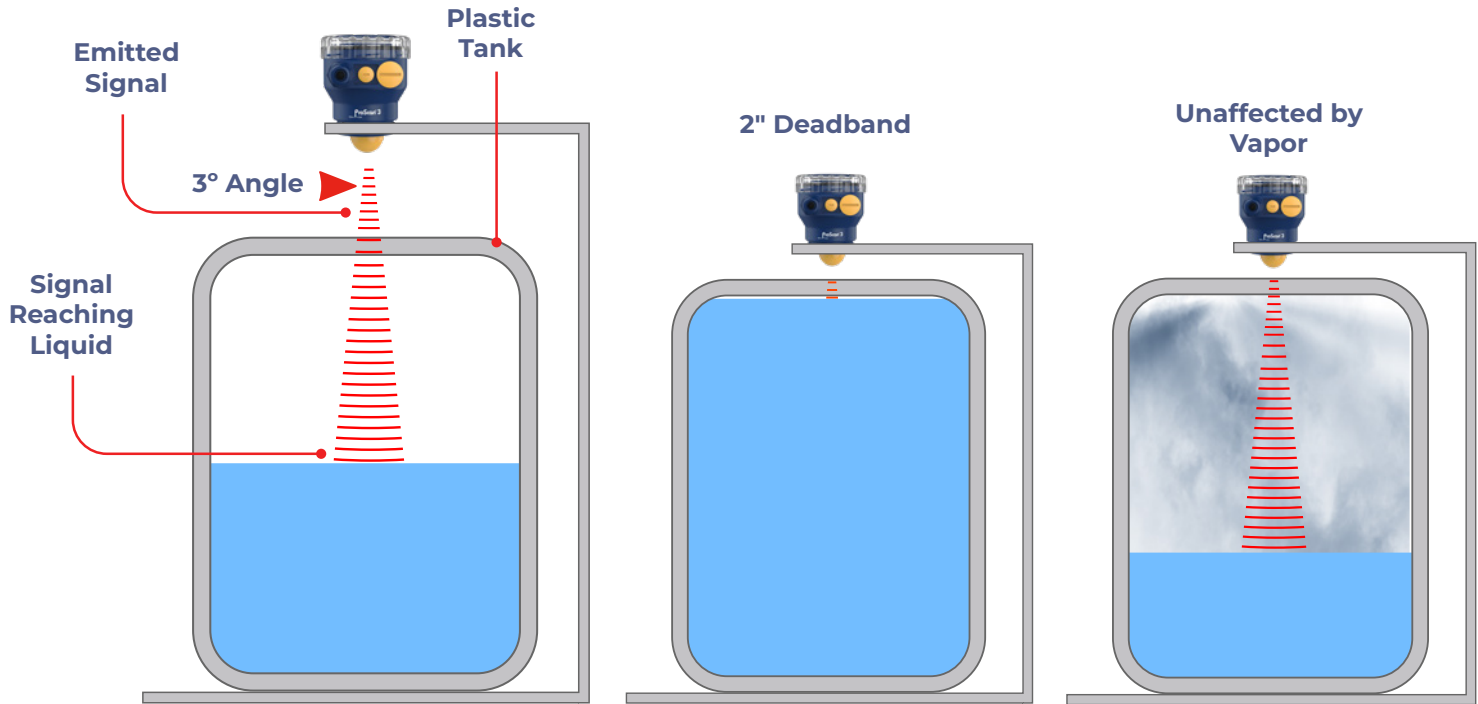
Advantages of Measuring Top of Tank

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.

150 mm
≥10°
Glass or Plastic Window
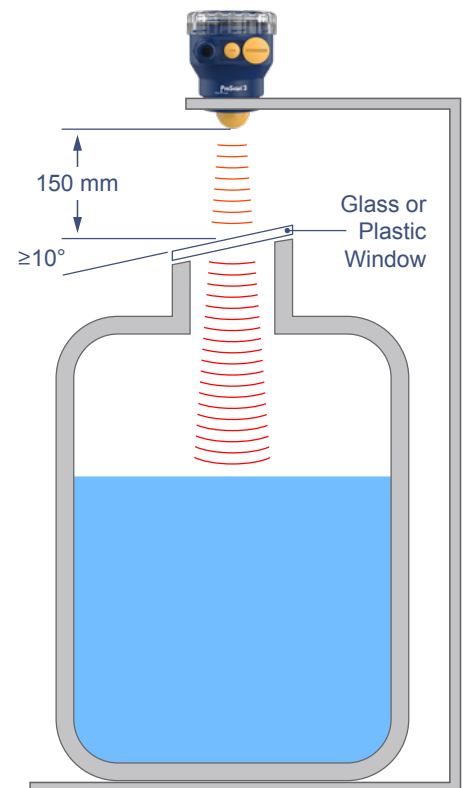
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Model Selection

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	

PS38000
ProScan®3 Radar Level Sensor

LB75
2" Tank Top Mounting Bracket

PS38000
ProScan®3 Radar Level Sensor

LB50
2" Wall Mounting Bracket

PS38000S
ProScan®3 SS Radar Level Sensor

LB80S
SS Wall Mounting Bracket