



Level TROLL® NC

The Level TROLL NC is a high-performance, 80 GHz FMCW radar sensor designed for non-contact water level measurement. Seamlessly integrating into our shared ecosystem, it features a twist-lock connector and intuitive VuSitu mobile app compatibility for easy setup and data collection.

STREAMLINE DATA MANAGEMENT

- Reduce training and installation time by connecting your instrument to a TROLL® Com Plus¹ for access to the intuitive VuSitu Mobile App.
- VuSitu simplifies instrument setup with user-friendly guides like the Log Setup Assistants. Features like Setup Assistant and Panoramic Live Data make deployment setup quick and easy. And you can tag data with site photos and GPS coordinates for convenient organization.
- VuSitu instantly uploads all logs, live recordings, and other files to your HydroVu® account for secure data access, storage and management.
- Connect Level TROLL NC to VuLink² Telemetry to access real-time data and critical event notifications from remote monitoring sites in HydroVu Data Services or a third-party data collection platform.

ACCURATE, RELIABLE, & LOW MAINTENANCE

- **Contactless Measurement:** Because the instrument and its cable never come directly in contact with the water, it is ideal in locations where the instrument or cable might be damaged by debris,

pumps, severe turbulence, or corrosive liquids.

- **Low Maintenance:** The Level TROLL NC is easy to setup and quick to deploy. The bubble level on top of the sensor paired with the In-Situ mounting bracket makes leveling the radar even easier. And, with no periodic calibration required, once you have the radar setup for logging, there should be minimal maintenance.
- **Accuracy:** Setting the Active Zone or enabling Peak Detection further refines the signal detection algorithm of the radar leading to more reliable and accurate water level data. The Level TROLL NC meets United States Geological Survey (USGS) surface water specification of ± 0.01 ft for streamgaging.
- **Flexibility:** The Level TROLL NC has a narrow beam angle of just 5°, which allows for more flexibility in deployment locations and requires less open area under the sensor than other non-contact level sensors.

TOTAL FIELD SUPPORT

- Receive technical support and online resources.
- Order Level TROLL NC from the In-Situ website.
- Get guaranteed 7-day service for maintenance (U.S. only).

Applications:

- LAKE AND RIVER STAGE MONITORING
- FLOOD MONITORING
- SEA LEVEL MONITORING
- DREDGING COMPLIANCE
- TIDE GAUGING

GENERAL	
DIAMETER	80 mm (3.15 in)
HEIGHT	74 mm (2.9 in); 102 mm (4 in) with connector
WEIGHT	616 g (1.3 lbs)
SENSOR RANGE	15 m, 30 m, and 50 m
DEAD ZONE	0.2 m
ACCURACY	±2 mm
RESOLUTION/PRECISION	0.5 mm
READING RATE	1 Hz
UNITS OF MEASURE	Level: mm, cm, m, ft, in
METHODOLOGY	W-band 77-81 GHz FMCW Radar
DERIVED PARAMETERS	Water Level, Surface Elevation
MECHANICAL	
EXTERNAL POWER VOLTAGE	9 - 27 VDC (12V 450 mA rating)
EXTERNAL POWER CURRENT	Power on: 60 mA for 0.5 s at 16 VDC Average reading: 29 mA at 16 VDC Idle (SDI-12): 6.2 mA at 16 VDC
OPERATING TEMPERATURE	-40° C to 85° C
CALIBRATED TEMPERATURE	-40° C to 85° C
STORAGE TEMPERATURE	-40° C to 85° C
ENVIRONMENTAL RATING	IP68 with Twist-Lock cable attached. IP67 with no cable
INSTRUMENT COMMUNICATION	
COMMUNICATION OUTPUT OPTIONS	Modbus/RS485, SDI-12
CABLE	Rugged Cable
SOFTWARE INTERFACE	Android/iOS: VuSitu Mobile App (see app store for OS requirements) Data Services: HydroVu
CERTIFICATIONS	CE, FCC, UKCA, WEEE
WARRANTY	2 YEAR

NOTES: ¹When used with a communication device, Level TROLL NC must be powered by a TROLL Com Plus, it will not be powered sufficiently with a Wireless TROLL Com. ²When paired with the Level TROLL NC, VuLink must be powered using lithium batteries only with a maximum of one instrument connected. VuLink will not collect Level TROLL NC data without sufficient power.