



LIDoTT[®] R

PRECISION RADAR AND PRESSURE LEVEL MONITORING WITH SEAMLESS DATA INTEGRATION

ENHANCE YOUR MONITORING CAPABILITIES WITH A VERSATILE, BATTERY-POWERED SOLUTION DESIGNED FOR LARGE PIPES, DEEP CHAMBERS, AND LOCATIONS WITH ACCESSIBILITY ISSUES.

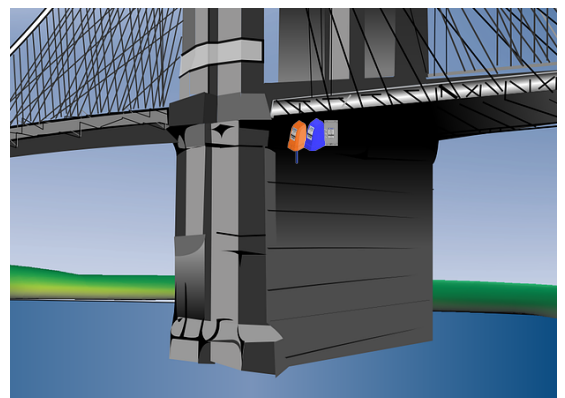
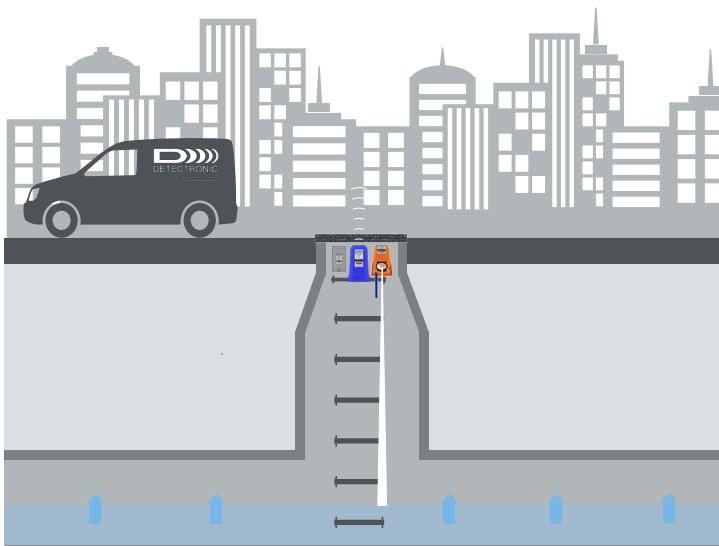
TRANSFORM MONITORING IN CHALLENGING ENVIRONMENTS

Exceeding standard requirements for sewer environments, the **ATEX and IECEx Zone 0 certified LIDoTT® R** is built for tough conditions. Its modular design ensures easy component replacement, promoting sustainability and extending product longevity.

OPTIMISED INSTALLATION AND APPLICATION

Installed at the top of a chamber, the **LIDoTT® R** sensor is easy to install and maintain, significantly **reducing** the need for **confined space entry**. This makes it ideal for use in large pipes, deep chambers and locations with accessibility challenges. Its elevated position enables it to provide accurate level measurements while ensuring safety and convenience for operators. The design is perfect for environments where space is restricted and where minimising manual intervention is crucial. Installation is streamlined through a **mobile app**, reducing installation time and ensuring a hassle-free setup.

The **LIDoTT® R** sensor is also well-suited for open channels and other applications requiring non-contact level measurement. Its radar technology allows for precise measurement without direct contact, making it an ideal choice for monitoring water levels in challenging or remote locations. Additionally, the sensor is **compatible with any data logger**, providing flexible integration options. When paired with the **LIDoTT® Smart** datalogger, the system gains the added capability of temperature measurement, enhancing data accuracy and calibration.



Left: Sewer manhole, Right: River level monitoring

FLEXIBILITY AND SUSTAINABILITY

The **LIDoTT® R** system's modular design allows for the easy replacement of individual components rather than the entire system. This approach supports sustainability by reducing waste and ensures cost-effective, long-term operation. Additionally, the outer case is manufactured from 80% recycled materials, further enhancing its eco-friendly credentials.

PRECISION AND RELIABILITY

The **LIDoTT® R** provides **continuous monitoring** for levels up to **17 metres**, offering comprehensive data collection without interruption. The advanced radar sensor accurately measures water levels up to 7 metres below its installation point, while the integrated pressure sensor seamlessly takes over to monitor levels up to 10 metres above the sensor. This smooth transition between radar and pressure measurement ensures there are **no gaps in data collection**, delivering consistent and reliable information **with zero deadband**, essential for effective network management.

RADAR LEVEL SENSOR

Measures levels up to **7 metres** with an accuracy of $\pm 5\text{mm}$.

PRESSURE SENSOR

Monitors depths up to **10 metres** with an accuracy of $\pm 0.2\%$ FS.

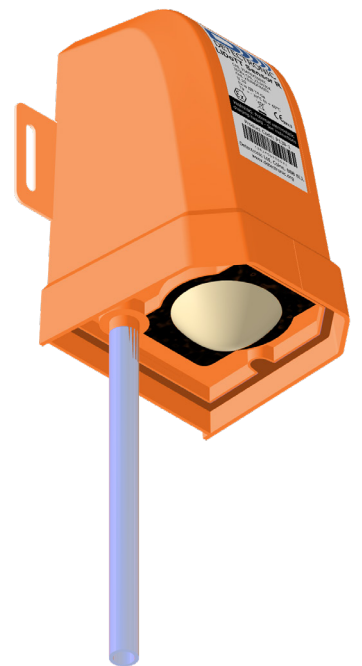
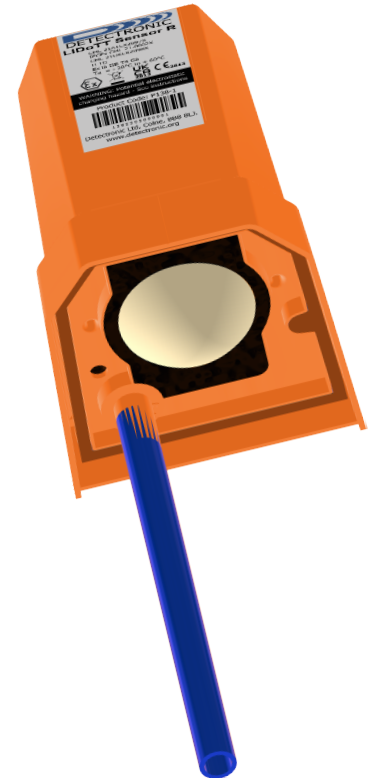
TEMPERATURE SENSOR*

Ensures precise calibration with an accuracy of $\pm 1.5^\circ\text{C}$.

BUILT FOR TOUGH CONDITIONS

The **LIDoTT® R** is fully submersible and engineered to excel in harsh, corrosive environments, enduring extreme weather fluctuations and chemical exposure. With a replaceable external **battery pack** lasting up to **7 years**, it is ideally suited for remote locations without mains power. The sensor's design also minimises the need for routine maintenance, ensuring reliable performance in demanding conditions.

Engineered for durability, the **LIDoTT® R** operates effectively across a wide temperature range of -20°C to $+60^\circ\text{C}$. Its IP69K-rated housing and IP68 Mil-Spec connectors provide exceptional protection against dust, water, and high-pressure cleaning, ensuring the system remains functional and robust in the most challenging environments.



*When used in conjunction with the LIDoTT® Smart datalogger



ADVANCED DATA COMMUNICATION AND CONFIGURATION

The **LIDoTT® Smart datalogger** offers unparalleled flexibility with configurable data logging intervals (2, 5, 10, or 15 minutes) and transmission frequencies (from 5 minutes to 24 hours). Choose from **2G, 4G LTE-M1**, and **4G NB-IoT** networks, with 2G as a fallback option to ensure continuous connectivity. The system integrates seamlessly with any data platform via API, providing real-time access to critical data. Configuration, software, and firmware updates can all be performed remotely over the air (OTA), reducing the need for site visits and ensuring the system remains up-to-date and optimised.

PRODUCT SPECIFICATION

LIDoTT SENSOR R

Radar Level Sensor

Type: Pulsed Coherent Radar Sensor
Range: 0.000 - 7.00m
Accuracy: ± 5mm

Temperature Sensor

Type: DTS
Accuracy: ± 1.5°C

Pressure Sensor

Type: Isolated Silicon Diaphragm
Range: 0 - 10.000m
Accuracy: ± 0.2% FS

LIDoTT SMART DATALOGGER

Memory: 64MiB
Programming interval: 2,5,10,15 minutes
Transmission frequency: 5min-24hrs
Communications: 2G, 4G LTE-M1, 4G NB-IoT
Power Supply: Replaceable external battery pack lasting up to 7 years, depending on logging and transmission settings.

ENVIRONMENTAL SPECIFICATIONS

Operating temperature: -20°C to +60°C.
Protection: IP69K in mated condition
Connectors: IP68 Mil - Spec.
Dimensions and weights:
LIDoTT Sensor R: 196mm(h) x 122mm(d) x 115mm(w)
845g (weight)
LIDoTT Smart: 196mm(h) x 122mm(d) x 115mm(w)
975g (weight)
Battery pack: 198mm(h) x 66mm(d) x 120mm(w)
950g (weight)

APPROVALS

LIDoTT Sensor R

ATEX Zone 0 certified CML 23UKEX2685X 23ATEX2684X
IECEX Zone 0 certified IECEX CML 23.0136X
II 1 G, Ex ia IIB T4 Ga. Ta = -20°C to +60°C

LIDoTT SMART Datalogger

ATEX Zone 0 certified CML 21ATEX2097X
IECEX Zone 0 certified IECEX CML 21.0002X
II 1 G, Ex ia IIB T4 Ga. Ta = -20°C to +60°C

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An Adler and Allan company