Pressure Alarm (PAL)

DETECTRONIC
An Adler & Allan company

Your Ultimate Domestic Flooding Alert. Compact, Smart, and Always Connected via LoRaWAN.

Product Datasheet

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The Detectronic Pressure Alarm (PAL) is a cost-effective, high-performance pressure sensing solution designed for large-scale domestic and sewer applications. It offers precise pressure monitoring in shallow chambers, gullies, manholes, and other water infrastructure. Equipped with advanced features like remote configuration, daily heartbeat confirmation, and LoRaWAN communication, the PAL ensures the safety and reliability of your water systems.

Key Features and Benefits

- **Differentiating Pressure Sensing:** Precisely measures varying pressure levels to detect abnormal changes in water systems, such as pressure drops, blockages, or overflows.

- **Instant Alerts:** Receive immediate notifications when pressure deviates beyond preset thresholds, and when pressure returns to normal levels.

- **Daily Heartbeat:** A daily heartbeat is sent to confirm that the device is operational during normal pressure levels, ensuring continuous monitoring.

- **User-Configurable Alarm Trigger Levels:** The alarm's trigger levels can be easily adjusted to meet specific operational needs and can be changed remotely over the air, even after installation.

- **No Intermittent Comms:** Operates seamlessly on a LoRaWAN network, eliminating communication disruptions even in remote areas.

- **Tamper-Proof:** An alarm is triggered if the sensor is maliciously damaged or tampered with, ensuring device integrity and preventing malicious interference.

- **All-in-One Device:** Combines sensor, modem, and battery into a compact and efficient unit for simplified installation and maintenance.

- **Simple Installation:** Quick and hassle-free installation in under 10 minutes, reducing setup time and complexity.

- **Remote Configuration:** Easily adjust device settings remotely via LoRaWAN, eliminating the need for on-site adjustments or visits.

- **Replaceable Battery Pack:** Equipped with a long-lasting, replaceable battery that provides up to 5 years of operation, reducing maintenance costs.

- **Environmentally Friendly:** Outer casing made from 100% recyclable plastics.

- **Seamless Integration:** Data can be integrated into any compatible data platform via API for real-time analysis and reporting.

Recommended Applications

The PAL is ideal for monitoring pressure in:

- **Shallow Chambers:** Perfect for compact chambers where space is limited.
- **Gullies and Manholes:** Helps monitor pressure fluctuations in underground drainage systems.
- **Sewer Systems:** Ensures reliable pressure monitoring in all sewer environments, including ATEX Zone 0 areas.

Technical Specification

Feature	Specification
Pressure Sensing	Precisely measures varying pressure levels
Communication Protocol	LoRaWAN
Alarm Type	Adjustable, Tamper-Proof, Instant Alerts
Sampling Rate	Every minute
Operating Temperature	-20°C to +60°C
Protection	IP68
Battery Life	Up to 5 years (replaceable)
Housing	100% Recycled Plastic
Dimensions	70mm (L) x 50mm (W) x 30mm (D)
Weight	450g
Approvals and Compliance	ATEX Zone 0 - IECEx CSAE 25.0023X, CSANe 25ATEX1079X, CSAE 25UKEX1015X
Heartbeats	Daily heartbeat confirmation

Key Advantages

- **Perfect for High Volume, Domestic Deployments:** Ideal for widespread deployment in sewer systems, ensuring effective monitoring with minimal maintenance.
- **ATEX Zone 0 Certification:** The PAL is the highest-rated pressure alarm, suitable for hazardous areas and all sewer environments.
- **Replaceable Battery Pack:** Provides up to 5 years of operation, reducing the need for frequent battery changes.
- **Environmentally Responsible:** Manufactured from 100% recyclable materials.
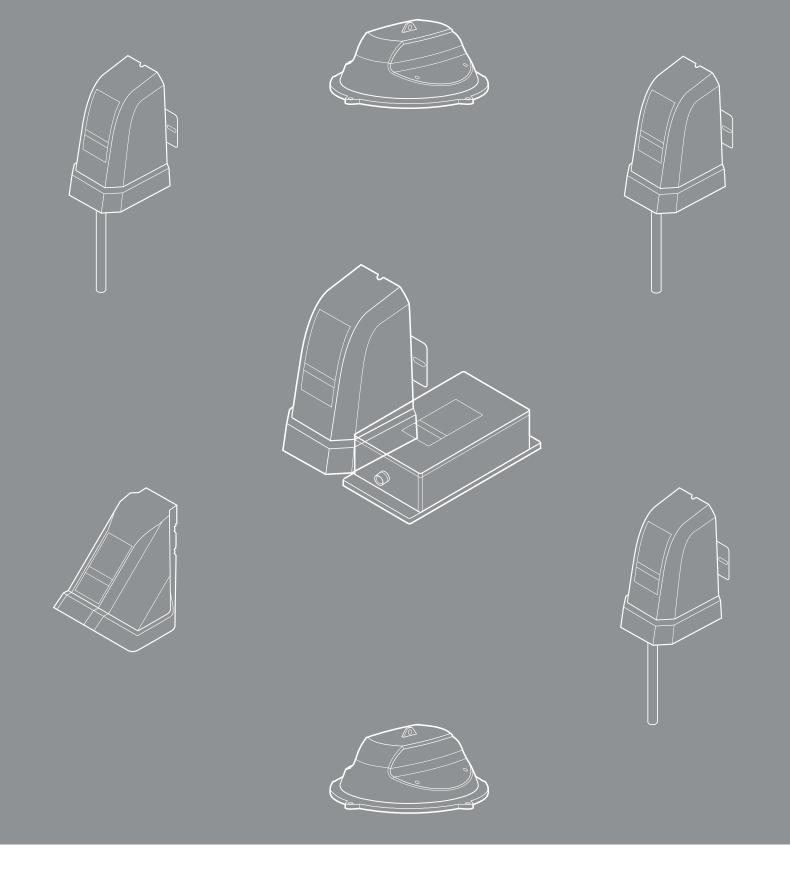
Approvals and Compliance

- **ATEX Zone 0 Certified**
- **Compliance:** Suitable for deployment in the harshest sewer environments, meeting the highest safety standards.