PIPEWISE

DPx

Close the detection gap on unmetered pipelines. Only with DPx.

Unmetered shouldn't mean unmonitored.

DPx combines high-frequency acoustic sensing, edge intelligence, and machine learning to deliver leak visibility where conventional monitoring falls short.

Why these assets remain difficult to monitor.

- No flow meters or reliable data
- Limited SCADA infrastructure
- Remote or isolated pipeline locations
- Traditional monitoring is too costly or complex to install

Without continuous monitoring, undetected leaks can quickly spiral into major cleanup costs, environmental damage, expensive downtime, and regulatory exposure.

SOLUTION

Here's how DPx works.

From acoustic data to actionable leak alerts, all processed at the pipeline edge.

01 / LISTEN

A dynamic pressure sensor captures high-frequency acoustic data from the pipeline at ~10,000 samples per second.

02 / ANALYZE

On-site processing filters operational noise and extracts spectral features associated with leak events.

03 / DECIDE

Edge ML classifies each processed signal as leak or non-leak in real time.

04 / CONFIRM + ALERT

Rolling aggregation filters brief transients before confirmed events are sent to SCADA, PLC or browser.

Proven in the field

Validated through multiple field pilots and nearly 40 controlled leak tests in midstream and produced-water applications.

0.8%
MIN LEAK DETECTED (% of FLOW)

3-10 min
TIME TO DETECT

<1%
FALSE ALARM RATE

1.6 km / 1 mi.
SENSOR-TO-LEAK DISTANCES

Demonstrated across 2–10" pipeline diameters, operating pressures of ~150–2,870 kPa (22-416 psi) and flow rates of 0–173 m³/h (0–~26,100 bbl/day) - including flowing, shut-in, variable-pump, high-noise and low-pressure conditions.



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Optimal applications

River crossings & HCAs – as standalone or supplemental LDS coverage

Laterals, stub lines & transfer lines - where full metering is impractical

Custody-transfer/LACT lines - where data access is limited to one end

Remote or off-grid assets - with limited site power or monitoring infrastructure



The DPx unit.

A compact, self-contained system integrating high-frequency sensing, edge computing and field-ready communications, without requiring existing flow meters or ground disturbance.

1. **Dynamic pressure sensor**
2. **Edge computer + modem**
3. **High-speed DAQ**
4. **Class I, Division 2 enclosure**
5. **Rated for -40°F to +158°F (-40°C to +70°C)**

DPX CONFIGURATIONS

Available configurations.

We offer flexible power and connectivity options to match facility and field infrastructure.

DPx Station

Site-powered with cellular, satellite, or existing site tie-in connectivity

DPx Field

Solar/battery powered with cellular connectivity.

Could DPx close your leak detection gap?

Let's assess your pipeline for expected DPx performance, sensor placement and deployment.

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Scan to book a discovery call

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