

# SYSTEM PRESSURE SENSOR

Real-time pipeline pressure & temperature monitoring, engineered for your dry bulk fleet.



*Dröv System Pressure Sensor*

Real-time pipeline intelligence for the connected dry bulk tanker.

[drovtechnologies.com](http://drovtechnologies.com)

## INTELLIGENT PIPELINE MONITORING FOR DRY BULK TANKERS

The Dröv System Pressure Sensor is a wireless, battery-powered transducer that continuously monitors pressure and temperature at every critical point along a dry bulk tanker's discharge pipeline. Readings are transmitted over Bluetooth® Low Energy to the Dröv AirBoxOne gateway and delivered to the Dröv fleet platform — giving fleets real-time visibility, severity-driven alerting, and a verifiable record of every load and unload. Built for the harsh realities of over-the-road pneumatic transfer, it is engineered specifically for the Dröv connected-trailer platform.

### BLE 5.0

Long-range wireless

### IP66 / 67

Sealed & rugged

### -30°C → +75°C

Operating range

### ±0.1 %

Pressure accuracy

### KEY FEATURES

- MEMS-based absolute pressure sensing with on-board temperature measurement
- Bluetooth® Low Energy (BLE) 5.0 wireless communication
- Six-location coverage — cooler, tank, filter and discharge pipeline points
- Dual-unit display — psig above atmosphere, inHg vacuum below
- Severity-driven pressure & temperature alerting with

### APPLICATIONS

- Dry bulk tanker pipeline pressure & temperature monitoring
- Pneumatic load and unload (discharge) process monitoring
- Fleet asset health & safety monitoring via the Dröv web portal
- Over-pressure, excess-vacuum and blockage event alerting

auto-resolution

- 316L stainless-steel wetted port for corrosive and abrasive media
- Field-replaceable SAFT LS17330 3.6 V lithium battery
- Sealed IP66 / IP67 housing built for over-the-road tanker service

- Time-stamped compliance and product-transfer records in conjunction with weight data

## HOW IT WORKS

Each sensor measures absolute pressure (PSIA) and temperature at its mounting point and broadcasts the readings over Bluetooth Low Energy. The Dröv AirBoxOne gateway on the tractor-trailer collects data from all six sense points and relays it to the Dröv cloud platform, where pressure, temperature, alerts, battery status and historical trends are displayed in real time. Readings below the 14.7 PSIA atmospheric reference are shown as vacuum (inHg) and readings at or above it as gauge pressure (psig), so operators see pressure and vacuum in the units that match each stage of the discharge cycle.

## TECHNICAL SPECIFICATIONS

### Pressure & Temperature Sensing

Parameter	Value
Pressure Sensing Range	0 – 30 PSIA (absolute)
Pressure Accuracy	±0.1 % of span
Accuracy Basis	RSS combined linearity, hysteresis & repeatability
Displayed Units	psig (≥ 14.7 PSIA) · inHg vacuum (< 14.7 PSIA)
Operating Temperature	–30 °C to +75 °C (–22 °F to +167 °F)

### Electrical & Power

Parameter	Value
Battery Type	SAFT LS17330 · 3.6 V Lithium Thionyl Chloride (Li-SOCl <sub>2</sub> )
Battery Capacity	2,100 mAh nominal (at 20 °C)
Supply Voltage	3.0 V operating · 3.6 V nominal
Wireless	Bluetooth® Low Energy 5.0 · 2.4 GHz · +4 dBm max

### Mechanical & Mounting

Parameter	Value
Process Connection	1/4-18 NPT thread
Wetted Material	316L stainless steel
Housing / Ingress	Sealed enclosure · IP66 / IP67

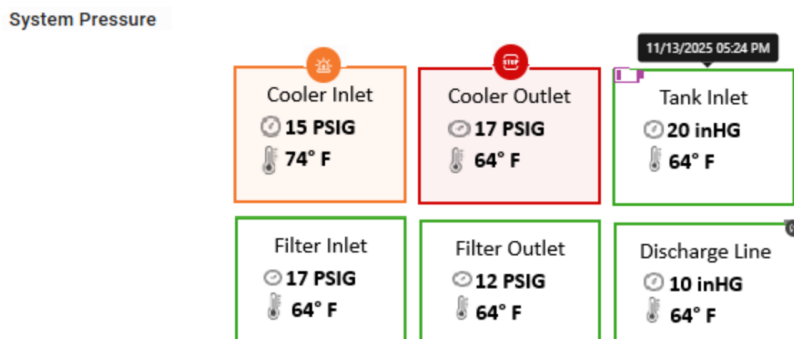
### Reporting & Alerting

Alert Level	Trigger Condition	Email
Emergency	Pressure > 16 psig and/or temperature > 160 °F	Yes
Critical	Pressure > 14–16 psig and/or temperature 160–175 °F	Yes
Maintenance	Battery ≤ 15 %	No
Normal	Pressure, temperature & battery within range	—

*Pressure and temperature events auto-resolve when readings normalise — each resolution is time-stamped and recorded as “Resolved by: System.”*

## REAL-TIME FLEET VISIBILITY

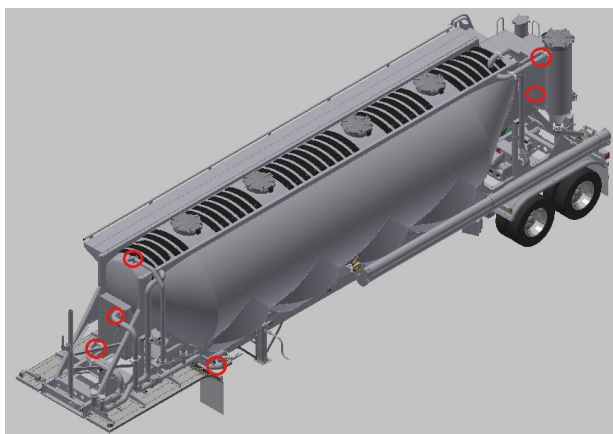
Every reading flows into the Dröv web portal, giving dispatch and maintenance teams an at-a-glance view of pressure, temperature and battery status at all six pipeline points. Severity-driven cards turn green, orange or red as conditions change, and automated alerts flag over-pressure, excess vacuum and high-temperature events the moment they occur — helping fleets prevent unsafe unloads, protect coolers and filters, and keep verifiable records of every transfer.



Dröv web portal — live System Pressure cards by tanker pipeline location

## ENGINEERED FOR THE PIPELINE

Each sensor threads directly into the tanker's pipeline taps — cooler inlet and outlet, tank inlet, filter inlet and outlet, and the discharge line. A 316L stainless-steel wetted port and sealed IP66 / IP67 housing keep the electronics protected from product, moisture and vibration.



Six System Pressure sense points along the dry bulk tanker discharge path

## SUPPORT

For technical support and troubleshooting, contact [support@drovtechnologies.com](mailto:support@drovtechnologies.com).

For sales, contact [sales@drovtechnologies.com](mailto:sales@drovtechnologies.com)

Dröv Technologies | [drovtechnologies.com](http://drovtechnologies.com) | Oklahoma City, OK

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