

Pressure sensor & temperature sensor

A hydrostatic pressure sensor is an electronic device designed to measure the pressure of a fluid, typically a liquid, based on the depth below the fluid's surface. This type of sensor operates on the principle that the pressure of a liquid increases with depth due to gravity.

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Innovations in Harsh Environments

Pioneering digital technologies
for harsh environments
– immersed, underground, off-grid –
with high signal detection
and low power consumption

FEATURES

- Measurement range: 0 to 4 bars
- Overpressure capability up to 10 bars
- Low pressure sensor noise: 5.7 μ Bar
- Absolute pressure accuracy: 1 mBar (0.36%FS)
- Embedded temperature compensation
- Temperature range -40 to +85
- Output Data Rate ranging from 1 Hz to 200 Hz
- Supply voltage: 1.7 to 3.6 V
- Ultra-low current consumption: 1.7 μ A
- 24-bit data output / I²C or MIPI I3CSM interface
- Water-resistant packaging IP68
- PEEK materials
- Easy connection to various enclosures

APPLICATIONS

- Industrial pressure control
- Underwater devices
- Tanks and pipes
- Water depth monitoring
- Wearables
- IoT applications
- Weather stations
- Mesh network application





Applications

Depth Measurement in Aquatic Environments:

Hydrostatic pressure sensors are widely used in the maritime industry, oceanography, and fisheries to measure the depth of oceans, lakes, and rivers. They also monitor water levels in reservoirs and wells.

Level Control Systems: In industrial applications, these sensors are used to monitor and control liquid levels, whether in storage tanks, chemical processing vessels, or wastewater management systems.

Meteorological Applications: Hydrostatic pressure sensors are used to measure atmospheric pressure and, by extension, to predict weather conditions. They play a crucial role in weather stations and meteorological measuring instruments.



Medical Industry: Hydrostatic pressure sensors are used to monitor pressure in patients' circulatory systems, particularly in intra-arterial catheters. They are also employed in respirators to measure respiratory pressure.

Industrial and Automation Applications: In the realm of industrial automation, hydrostatic pressure sensors can measure pressure in pipes, storage tanks, and hydraulic systems, contributing to the control and safety of industrial processes.

Geotechnical and Structural Monitoring: These sensors are used to monitor soil stability in construction projects, tunnels, and building foundations. They help detect pressure variations due to ground or structural movements.

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