

Vented Hydrostatic Pressure Sensor

Groundwater | Water Level | Water Temperature

General Description

Reliable water level monitoring

– anywhere it matters.

HyPremo is a rugged, compact, and programmable **hydrostatic pressure sensor** that delivers combined **water level and temperature measurements** in a single device. Output is available either as **pressure (bar)** or directly as **water level (mH₂O)**, along with precise water temperature, making it an ideal, cost-effective solution for long-term monitoring in groundwater and surface water applications. It's the only sensor in its class to offer **Bluetooth®** setup alongside **SDI-12** communication, all while maintaining **very low power consumption** – perfect for battery- or solar-powered hydrological stations. Built around a factory-calibrated precision piezo-resistive element, HyPremo provides high-resolution, stable readings with minimal drift.

Designed for real-world field performance, it features:

- Automatic barometric compensation via its vented cable
- Integrated temperature compensation for true water level accuracy
- Gravity correction via HyComm Config Software for site-specific calibration

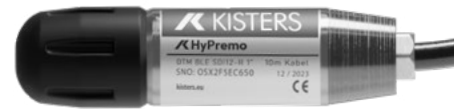
From flood forecasting to groundwater tracking, the HP sensor delivers accurate, dual-parameter data – pressure + temperature – with less setup and maintenance.

Applications

- Groundwater level monitoring:
 - Rest Water Level (RWL): aquifer baseline monitoring, resource tracking, hydro-geological studies
 - Pumped Water Level (PWL): pump testing, irrigation wells, draw-down monitoring
- Rivers, streams, and reservoir level tracking
- Flood risk management and early warning
- Long-term environmental monitoring projects
- Hydrological station deployments in remote or harsh environments
- Tidal rivers and coastal monitoring.

Features

- Bluetooth® wireless setup via HyComm Config SW (probe outside the water, with 2m range to laptop)
- Wide operating temperature range (–20 °C to +85 °C – no icing)
- Tool-free cap design for fast, field-friendly maintenance
- Built-in corrosion resistance – AISI 316 Ti (DIN 1.4571), titanium stabilized for good corrosion resistance, IP68-rated
- Multi-parameter output – water level, water temperature, and supply voltage (for sensor diagnostics)
- Logger-ready integration – compatible with KISTERS and third-party loggers using SDI-12



Technical Specifications

Measured parameters	<ul style="list-style-type: none"> - Pressure or water level - Water temperature - Supply voltage (for sensor diagnostics)
Output signals	SDI-12
Measuring principle	Piezo-resistive pressure sensor with temperature and gravitational acceleration compensation
Measuring ranges	0...5 / 0...10 / 0...30 / 0...100 mH ₂ O
Linearity (long term stability)	typ. ± 0.1 % FS, max. ± 0.2 % FS (for pressure ranges < 1.5 bar: ± 3 mbar)
Accuracy	±0.15 % FS max.
Resolution	<ul style="list-style-type: none"> - Pressure: typ. 0.0015 % FS - 0...5 mH₂O: 0.075 mm / 0...10 mH₂O: 0.15 mm / 0...30 mH₂O: 0.45 mm / 0...100 mH₂O: 1.5 mm - Water Temperature: 0.1 °C / 0.18 °F
Overpressure	4 x pressure range (max. 40 bar)
Operating temperature range	<ul style="list-style-type: none"> - Compensated temp. range: -5 °C ... 50 °C - no icing permitted - Operational range: -20 °C...+85 °C - no icing permitted
Supply voltage range	2.8 ... 16 V DC, nominal 5 V DC
Power consumption	<ul style="list-style-type: none"> - SDI-12 Low-Power Mode: measurement < 4 mA for approx. 300 msec & sleep: <0.015 mW - SDI-12 sensor constantly powered: Constant power draw: < 4 mA - Active Bluetooth® BLE connection: <0,25 mA
Bluetooth range	max 2 meters (line-of-sight, field-tested)
Dimensions: Ø * L Mass	100 mm x 25 mm (sensor body and protective cap, no cable) 160 g
Materials	<ul style="list-style-type: none"> - Diaphragm: Stainless Steel AISI 316L (DIN 1.4404/1.4435) - O-ring: Viton® Shore A - Body: stainless steel AISI 316 Ti (DIN 1.4571), titanium stabilized for good corrosion resistance to low content of hydrochloric and organic acids. - Cap: POM
Ingress protection	IP68
Conformity/compliance	CE

Accessories

iLevel GW loggers:

battery-operated P tube data logger. SDI-12 interface. Low power data acquisition of level and temperature in groundwater and surface waters. Compliant with KISTERS' datasphere and re-direction to customer servers.



iRIS IP dataloggers:

Configurable, multi-channel IP data loggers for environmental monitoring. LTE/ LTE-M modems. SDI-12, analog and counter inputs. Config software. Compliant with KISTERS' datasphere and FTP servers.



HyComm configuration software: Sensor configuration via Wi-Fi/SDI-12/Bluetooth, level referencing, local sensor firmware updates, etc.

Mounting Accessories:

- Junction box with desiccant.
- Vented cable extensions.
- Brackets.

[Please ask for details](#)

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