

HPT675S LEVEL • DATASHEET•

HPT675S Self-powered Water Level Recorder



Features:

- ★Minimum sampling interval is 1 second;
- ★ High-quality, highly stable pressure sensing elements used;
- ★ High accuracy and resolution
- ★ Built-in battery, capable of scheduled data collection and storage, easy to replace;
- ★Simultaneous monitoring and recording of water level, temperature, water pressure, time, and other factors;
- ★Standard signal RS485, easy to download data;
- ★ Full-range digital calibration, temperature error compensation across the entire temperature range;
- ★Over-voltage /surge voltage /reverse polarity protections to prevent electrical damage caused by operational errors

Applications:

- ★ Monitoring of groundwater level and temperature data
- ★ Flood control level monitoring in city
- ★ Real time monitoring of reservoir and dam water level
- ★ Monitoring of lake and surface runoff level
- ★ Unattended hydrological monitoring station
- ★ Real time monitoring of liquid level in tank
- ★ On site liquid level monitoring of industrial control system
- ★Other environmental monitoring

Profile

HPT675S is a self-powered water level monitoring device with an internal battery, designed for long-term recording of water depth (pressure) and temperature. It contains water level and temperature sensors, a built-in large-capacity FLASH memory, and a high-capacity, long-life lithium battery. The battery is easily replaceable, making it suitable for water level and temperature measurements in surface water, groundwater, and marine environments.

This model is a gauge pressure product, and an optional matching barometer can be selected for atmospheric pressure compensation, enhancing system accuracy.



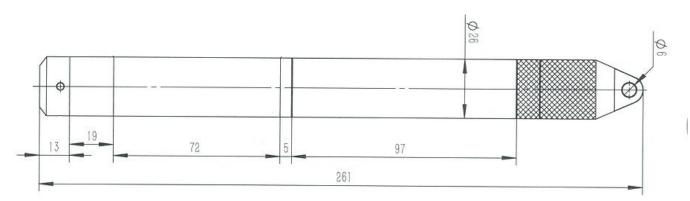
Specifications

| Model Parameter | HPT675S | | | | |
|-----------------------------|--|--|--|--|--|
| Measuring Range | 0~10m H₂O300m H₂O | | | | |
| Overload | 200% F.S. | | | | |
| Sensitive element | High stability, low drift in long term use | | | | |
| Level Accuracy | 0.05%F.S(0~50℃) | | | | |
| Level resolution | 1mm | | | | |
| TEMP. accuracy | ±0.2℃ | | | | |
| TEMP. resolution | 0.1°C | | | | |
| Stability | 0.05%F.S/year | | | | |
| Operating temperature | -10∼80℃ | | | | |
| Temp. compensation range | 0~50℃ | | | | |
| Battery life | 10 years(once/60 min) | | | | |
| Memory capacity | 128M built-in storage, can record 1,000,000 data (time + temperature + pressure + water level) | | | | |
| Real-time clock | <±5 min/year | | | | |
| Supply voltage | External voltage:5-30Vdc(typical 24V); Internal battery: 2.7-3.6Vdc | | | | |
| Power protection | Protection against reverse connection, against 2KV surge and over voltage | | | | |
| Output | RS485 to USB. Download data to computer via adapter | | | | |
| Cable material | PVC or polyurethane | | | | |
| Shell material | Titanium alloy/316L | | | | |
| Protection Grade | IP68 | | | | |
| Ambient vibration | Bear the vibration test specified in GB / T9359 | | | | |
| Free fall | Withstand the drop test specified in GB /T9359 | | | | |
| Electromagnetic environment | Comply with GB / T17626.8 Level 3 | | | | |
| Mean time between failures | Not less than 30000h | | | | |



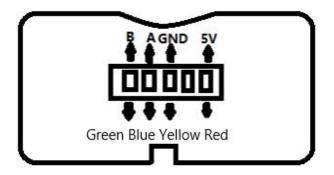
Dimension and Drawing

Unit, mm



Electronic Connections

| Color | Definition | | | | |
|--------|------------|--|--|--|--|
| Green | RS485- | | | | |
| Yellow | GND | | | | |
| Blue | RS485+ | | | | |
| Red | 5V+ | | | | |





Order Code Selection Table

| 675S | Self-powered submersible level logger | | | | | | | | | | |
|------|---------------------------------------|-----------------------------------|-------------|-------------|---|---|---------------------------------|-------|--|--|--|
| | Range code | Pressure range | Ref. | Rang | ge code | Press | ure range | Ref. | | | |
| | 01 | 00.1 Bar/0-1mH₂O | G | | | | | | | | |
| | 02 | 00.2 Bar/0-2 mH ₂ O | G | | 15 03.5 | | ır / 0-35 mH₂O | G/A | | | |
| | 03 | 00.3 Bar/0-3 mH ₂ O | G | | 16 | 04 Bar / 0-40 mH ₂ O | | G/A | | | |
| | 04 | 00.4 Bar/0-4 mH ₂ O | G 17 | | 17 | 04.5 Ba | ır / 0-45 mH₂O | G/A | | | |
| | 05 | 00.5 Bar/0-5 mH ₂ O | G 18 | | 05 Bar | r / 0-50 mH₂O G/A | | | | | |
| | 06 | 00.6 Bar/0-6 mH ₂ O | G | i 19 | | 05.5 Ba | ır / 0-55 mH₂O | G/A | | | |
| | 07 | 00.7 Bar/0-7 mH ₂ O | G | G 20 | | 06 Bar | · / 0-60 mH ₂ O | G/A | | | |
| | 08 | 00.8 Bar/0-8 mH ₂ O | G | G 21 | | 07 Bar | · / 0-70 mH ₂ O | G/A | | | |
| | 09 | 00.9 Bar/0-9 mH ₂ O | G | 22 | | 08 Bar | · / 0-80 mH ₂ O | G/A | | | |
| | 10 | 01 Bar/0-10 mH ₂ O | G/A | 23 | | 09 Bar | 09 Bar / 0-90 mH ₂ O | | | | |
| | 11 | 01.5 Bar / 0-15 mH ₂ O | G/A | 24 | | 010 Bar / 0-100 mH ₂ O | | G/A | | | |
| | 12 | 02 Bar / 0-20 mH ₂ O | G/A | 25 26 | | 020 Bar | · / 0-200 mH₂O | G/A | | | |
| | 13 | 02.5 Bar / 0-25 mH ₂ O | G/A | | | 030 Bar | · / 0-300 mH ₂ O | G/A | | | |
| | 14 | 03 Bar / 0-30 mH ₂ O | G/A | х | | Cus | tomized | | | | |
| | | Code | | | Pressure type Absolute pressure (standard type) Power Supply 3.6Vdc Internal battery 5-30Vdc (typical 24V) external voltage Other customized | | | | | | |
| | | А | | Ak | | | | | | | |
| | | | Code | | | | | | | | |
| | | | S24 | | | | | | | | |
| | | | S25 | | | | | | | | |
| | | | х | | | | | | | | |
| | | | | Code | | Signal Output | | | | | |
| | | | | E11 | RS485/MODBUS-RTU By Customized | | | | | | |
| | | | | Х | | | | | | | |
| | | | | | C | Code Accuracy 6 ±0.05%F.S | | у | | | |
| | | | | | | | | .S | | | |
| | | | | | 3 ±0.1%F.S X By Customized | | | | | | |
| | | | | | | | | | | | |
| 675S | 25 | Α | S25 | E11 | | 3 | Others rem | narks | | | |

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